

IFR MILITARY TRAINING ROUTES (IR)

I. General. STANDARD

II. Route Development. STANDARD

III. Scheduling and Coordination. STANDARD

IV. Flight Plans. STANDARD

V. In Flight.

A. Entry/Exit - Standard except:

1. Pilots shall:
 - a. Obtain a specific ATC clearance prior to entering the route.
 - b. Obtain an ATC exit clearance prior to exiting the route where ATC radio coverage is available. If ATC radio coverage is not available do not exceed the last assigned or expected IFR clearance until contact is available. An IFR exit clearance may be contained in a letter of agreement between the Route Originator and the associated ATC facility.

B. Route Adherence - Standard except:

1. Unless the route segment is annotated "For use in VMC conditions only," each route segment shall contain an altitude that is suitable for flight in IMC. This shall be referred to as the IFR altitude and may be contrary to FAR 91.177 (Minimum Altitude for IFR Operations). For example, when specifically authorized by appropriate military authority, altitudes below MEA or standard obstacle clearance may be used. In no case will flight operations, be conducted at altitudes less than those specified in FAR 91.119 (Minimum Safe Altitudes; General). In the absence of a specified IFR altitude, it is defined as the top of published block of altitudes.
2. Altitudes at which "Terrain Following" is authorized MAY NOT guarantee obstacle clearance (regardless of weather conditions) or permit compliance with applicable service guidance. Pilots intending to terrain follow in IMC should consult their command guidance and the route scheduler to determine the lowest permissible altitude at which the flight may be safely conducted.
3. LOWAT (Low Altitude Air-to Air Training). Do not conduct LOWAT on IR MTRs unless the route is clearly identified as a LOWAT route. LOWAT provisions must be on file in a letter of agreement between the ARTCC/CERAP and the military unit. LOWAT training maneuvers conducted on IRs shall be limited to:
 - a. No more than a 90-degree turn will be performed.

- b. LOWAT maneuvers will be terminated as soon as visual and/or radio contact is established.
- c. Weather minimums on IRs at maneuvering altitudes shall be 1500 feet from clouds and 3 miles flight visibility.
- d. Aircraft will only perform LOWAT training if equipped with sophisticated operating airborne radar systems.

C. Speed - Standard.

D. Weather. Routes may be flown in IMC conditions unless otherwise specified in the route description or as required for MARSAs/other mission requirements.

E. Communications.

1. Maintain the frequency assigned by the ATC facility during the IR MTR or as directed in the Remarks/Special Operating Procedures for the MTR.
2. In the event of communications failure (unless otherwise agreed to in a letter of agreement) the pilot shall:
 - a. If VMC and able to maintain VFR cloud clearances after the failure, continue the flight VFR and land as soon as practicable.
 - b. If IMC or if paragraph a. cannot be complied with, maintain route to the exit fix, the higher of the following:
 - (1) The IFR altitude for each of the remaining route segments.
 - (2) The highest altitude assigned in the last ATC clearance.
 - c. Depart the filed exit point at the altitude determined above, then climb/descend to the altitude filed in the flight plan for the remainder of the flight.
 - d. Squawk Mode 3 Code 7600 until communications are reestablished and comply with the Flight Information Handbook.

F. Transponder. Pilots will squawk the ATC assigned code for IR MTRs.

VI. Aircraft Separation - Standard except:

- A. To the maximum extent practicable, IRs should be established for standard ATC services and approved separation applied between individual aircraft. Expect standard IFR separation between two or more aircraft on the same or intersecting IRs within controlled airspace. ATC radio coverage may not always be provided. If flying

IR ROUTES

IRs below or outside radio coverage, aircrews should be aware that there is reduced opportunity to avoid other traffic (VFR/IFR, military or civilian) that may also be operating below ATC radio/radar coverage. Separation from VFR aircraft, VRs or SR users will always be provided on a controller workload-permitting basis. Pilots are always responsible to "see and avoid" when on an IR in VMC.

- B. If paragraph A. cannot be complied with, a route may be designated for MARSAs operations. These MARSAs procedures will be contained in a letter of agreement between the scheduling unit and the appropriate ATC facility and published in the narrative description of the route. ATC does not invoke or deny MARSAs and ATC's sole responsibility is to provide separation between participating MARSAs military aircraft and the non-participating (usually civilian) IFR aircraft. When MARSAs is provided through route scheduling and circumstances prevent the pilot from entering the route within established time limits, it shall be the responsibility of the pilot to inform the ATC facility and advise of his/her intentions.

IR-002

ORIGINATING ACTIVITY: COMSTRKFIGHTWINGLANT,
Oceana NAS, Virginia Beach, VA 23460 DSN 433-9141, C
757-433-9141.

SCHEDULING ACTIVITY: FACSFAC VACAPES, Oceana
NAS, Virginia Beach, VA 23460 DSN 433-1228, C757-433-1228.
Scheduling Hours 0600-1900L (EST)

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 60 MSL to	A	VXV 288/38	N36°04.00' W84°39.00'
05 AGL B 60 MSL to	B	VXV 332/42	N36°30.00' W84°20.00'
01 AGL B 60 MSL to	C	VXV 015/34	N36°28.00' W83°45.00'
01 AGL B 60 MSL to	D	VXV 065/34	N36°10.00' W83°17.00'
03 AGL B 60 MSL to	E	VXV 082/31	N36°00.00' W83°16.00'
03 AGL B 90 MSL to	F	VXV 102/33	N35°49.00' W83°14.00'
03 AGL B 90 MSL to	G	VXV 115/37	N35°40.00' W83°11.50'
03 AGL B 90 MSL to Exit at 90 MSL	H	VXV 124/41	N35°33.00' W83°10.00'

TERRAIN FOLLOWING OPERATIONS: Authorized
from A to H.

ROUTE WIDTH - 5 NM either side of centerline for the entire
route.

Special Operating Procedures:

- (1) Route reservation and brief required.
- (2) Monitor Atlanta ARTCC on 254.3 at B.
- (3) Contact Atlanta ARTCC on 379.95 passing F. If no contact, try Asheville APPCON on 351.8 124.65 for further IFR clearance.
- (4) CAUTION: Heavy civil IFR traffic crossing on V-16, V-185, V-136 immediately above route altitude block D to H. NOTE: Knoxville Approach Control has very good radar coverage in this area (frequency 360.8/353.6).
- (5) CAUTION: Hang Glider Activity: N36-26.7 W84-02.7, N36-15.0 W83-38.0, N36-22.0 W83-22.0, N35-54.5 W83-17.8.
- (6) CAUTION:
 - (a) Tower cluster 250' AGL (3779' MSL) N35-54.0 W83-18.2.
 - (b) Tower 300' AGL (1500' MSL) N36-08.8 W83-13.3.
- (7) CAUTION: Conflicting routes: IR-743/VR-1743 same direction E-H (Deconflict with Scheduling Activity).
- (8) Include route entry/exit times in the remarks section of flight plan.
- (9) Make entry times plus or minus 5 minutes or reschedule. Unpublished towers found by route surveys 200' AGL and above are listed in this SOP.
- (10) Caution: 10 towers at:
 - (a) 200'AGL N36-16.93 W84-28.28;

- (b) 250'AGL N36-24.11 W83-38.40;
- (c) 250'AGL N36-12.08 W83-22.12;
- (d) 250'AGL N36-26.95 W83-35.98;
- (e) 250'AGL N36-32.06 W83-42.79;
- (f) 250'AGL N35-50.20 W83-09.30;
- (g) 250'AGL N35-46.10 W83-16.70;
- (h) 250'AGL N35-46.90 W83-14.80;
- (i) 250'AGL N35-48.01 W83-14.70;
- (j) 250'AGL N35-59.85 W83-13.17;
- (k) 200'AGL N36-29.18 W84-12.53.

FSS Within 100 NM Radius:

AND, BNA, HUA, LOU

IR-012

ORIGINATING ACTIVITY: 4 OSS/OSOR, Seymour
Johnson AFB, NC 27531-5004 DSN 722-2672, C919-722-2672.

SCHEDULING ACTIVITY: 4 OSS/OSOS, Seymour Johnson
AFB, NC 27531-5004 DSN 722-2129/2124, C919-722-2129/2124.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	ILM 277/20	N34°21.00' W78°17.00'
05 AGL B 30 MSL to	B	ILM 335/32	N34°48.00' W78°13.00'
05 AGL B 30 MSL to	C	ILM 013/37	N34°58.00' W77°48.00'
05 AGL B 30 MSL to	D	NKT 315/30	N35°12.00' W77°22.00'
05 AGL B 30 MSL to	E	NKT 020/24	N35°18.00' W76°47.00'
20 MSL to	F	NKT 031/29	N35°21.00' W76°39.00'
20 MSL to	G	NKT 039/52	N35°39.00' W76°21.00'
20 MSL to Alternate Exit from E to R-5306A	H	NKT 041/55	N35°41.00' W76°16.50'
05 AGL B 30 MSL to	E1	NKT 020/24	N35°18.00' W76°47.00'
15 AGL B 30 MSL to	FA	NKT 030/24	N35°16.50' W76°42.00'

TERRAIN FOLLOWING OPERATIONS: Authorized
from A to E, and from A to FA.

ROUTE WIDTH - 5 NM either side of centerline from A to B;
4 NM either side of centerline from B to E; 3 NM left and 1 NM
right of centerline from E to F; 3 NM left of centerline from F to
abeam the NKT 035/34 (N35-25.0 W76-35.3), then 3 NM either
side of centerline to H.

Special Operating Procedures:

- (1) Users must contact 4 OSS/OSOS (DSN 722-2129/2124) for additional avoidance areas.
- (2) Alternate Entry: Point B.
- (3) Alternate Exit: E, E1, FA.

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- (4) Alternate Exit E will be filed and utilized unless prior clearance has been coordinated to enter R-5314 or R-5306A.
- (5) IFR clearance must be received before departing R-5314 (Washington 281.42) or R-5306A (Cherry Point 268.7).
- (6) Users must make their scheduled entry time plus or minus 5 min or reschedule.
- (7) Avoid towns and populated areas by 1 NM or overfly 1500' AGL. Over sparsely populated areas, aircraft may not operate closer than 500' to any person, vessel, vehicle, or structure.
- (8) CAUTION: Numerous large towers along route.
- (9) A-B:
 - (a) Monitor Wilmington Approach on 317.425 passing A.
 - (b) CAUTION: VR-1043 crosses right to left.
 - (c) CAUTION: IR-062 crosses left to right.
 - (d) TOWER: 200' AGL at N34-36.5 W078-19.0.
- (10) B-C:
 - (a) Contact Seymour Johnson Approach on 273.6 at B.
 - (b) CAUTION: IR-062 crosses right to left.
 - (c) CAUTION: Tower 800' AGL at N34-55.5 W078-04.4.
- (11) C-D:
 - (a) Contact Cherry Point Approach on 377.17 passing D.
 - (b) CAUTION: VR-084 same direction C to F.
 - (c) CAUTION: VR-1046 crosses left to right.
 - (d) CAUTION: Tower 500' AGL at N35-08.5 W077-30.5.
- (12) D-E:
 - (a) CAUTION: VR-084 same direction C to F.
 - (b) Avoid: Pamlico River by 2000' AGL for moderate bird hazard.
 - (c) Avoid: Horse breeding ranch at N35-19.836 W077-07.21 by 1500' AGL or 2 NM.
 - (d) Avoid: Noise sensitive area at N35-12.8 W077-11.3 by 1000' AGL or 2 NM.
 - (e) Avoid: Water treatment plant at N35-10.5 W077-13.7 by 2000' AGL or 1 NM for moderate bird hazard.
 - (f) Avoid: Fish Farms at N35-12.5 W077-20.0 by 2000' AGL or 1 NM for moderate bird hazard.
 - (g) CAUTION: VR-1046 crosses left to right.
- (13) E-F:
 - (a) VR-084 same direction C to F.
- (14) F-G:
 - (a) Avoid: Overfly coastal regions by 1000' AGL.
 - (b) Avoid: Pungo River by 2000' AGL for moderate bird hazard.
- (15) G-H, E1, FA:
 - (a) Minimum Exit Altitude for Alternate Exit Route is 1500' AGL.
- (16) Crossing Route Information:
 - (a) VR-1043: Cherry Point MCAS (DSN 582-4040).
 - (b) VR-1046: Cherry Point MCAS (DSN 582-4040).
 - (c) IR-062: Oceana NAS (DSN 433-1228).
 - (d) VR-084: Seymour Johnson AFB (DSN 722-2129).

FSS Within 100 NM Radius:

RDU

IR-016

ORIGINATING ACTIVITY: 23 OSS/OSO, Moody AFB, GA 31699-1899 DSN 460-7831, C229-257-7831.

SCHEDULING ACTIVITY: Same as Originating Activity. Mon-Fri 0830-1700L, except hol.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 20 MSL to	A	VAD 353/40	N31°37.52' W83°20.00'
03 AGL B 20 MSL to	B	VAD 023/21	N31°17.00' W83°03.50'
03 AGL B 20 MSL to	C	TAY 332/33	N30°59.00' W82°53.00'
03 AGL B 60 MSL to	D	TAY 309/17	N30°40.50' W82°49.50'
03 AGL B 20 MSL to	E	TAY 243/23	N30°19.00' W82°56.00'
03 AGL B 60 MSL to	F	GNV 302/39	N30°00.00' W82°56.00'
03 AGL B 60 MSL to	G	GNV 306/27	N29°56.00' W82°43.00'
40 MSL B 60 MSL to	H	GNV 334/17	N29°56.00' W82°26.00'
40 MSL B 50 MSL to	I	GNV 060/10	N29°47.00' W82°07.00'
40 MSL B 60 MSL to	J	GNV 096/24	N29°40.50' W81°49.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from A to G IAW Command directives.

ROUTE WIDTH - 8 NM either side of centerline from A to D; 3 NM right and 4 NM left from D to E; 7 NM right and 12 NM left from E to F; 4 NM either side of centerline from F to J.

Special Operating Procedures:

- (1) Tie-in FSS: Macon (MCN).
- (2) Cross A at 2000' MSL, maintain 2000' MSL until south of Ocilla, GA.
- (3) Alternate Entry: D.
- (4) Alternate Exit: D and F.
- (5) Route segment from F to J is authorized only for aircraft scheduled to enter R-2903, R-2906 or R-2907.
- (6) Contact Valdosta APP CON 285.6 prior to B for clearance into Moody 2 MOA.
- (7) Maneuvering between C and D is permitted when approved by Valdosta APP CON.
- (8) Climb to 1000' MSL approaching I-75 prior to E. Maintain 1000' AGL minimum until required to climb at G.
- (9) Altitudes up to 6000' MSL for maneuvers between E and F are available when approved by Jacksonville Center.
- (10) Contact Jacksonville Center 385.6 for clearance to maneuver between E and F.
- (11) Cross G at 4000' MSL or as assigned.
- (12) CAUTION: IR-023 crosses IR-016 from north to south at H. Call Cherry Point MCAS, DSN 582-4040/4041 to deconflict.
- (13) Route entry/exit times must be met plus/minus 5 minutes or route must be rescheduled.
- (14) USE EXTREME CAUTION: VR-1066 (23 OSS/OSO DSN 460-7831) and VR-1002/1003 (FACSFAC JAX DSN 942-2004/2005) run opposite direction between Points A and D.

FSS Within 100 NM Radius:

GNV, MCN, PIE

IR-017

ORIGINATING ACTIVITY: 14 FTW, Columbus AFB MS
39710 DSN 742-2692 C662-434-2692

SCHEDULING ACTIVITY: 48 FTS, Columbus AFB, MS
39710 DSN 742-7840/7842 C662-434-7840/7842.

HOURS OF OPERATION: 1200-0400Z++

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 30 MSL to	A	MGM 093/38	N32°09.00' W85°35.00'
05 AGL B 30 MSL to	B	EUF 168/4	N31°53.00' W85°07.00'
05 AGL B 30 MSL to	C	MAI 053/11	N30°54.00' W84°57.00'
05 AGL B 30 MSL to	D	MAI 128/15	N30°38.00' W84°54.00'
05 AGL B 20 MSL to	E	SZW 271/31	N30°35.00' W84°58.00'
05 AGL B 20 MSL to	F	MAI 230/17	N30°36.00' W85°23.00'
05 AGL B 20 MSL to	G	MAI 248/38	N30°33.00' W85°48.00'
05 AGL B 20 MSL to	H	DWG 058/18	N30°38.00' W86°14.00'
Alternate Exit:			
30 MSL to	D1	MAI 128/15	N30°38.00' W84°54.00'
30 MSL to	AA	MAI 141/26	N30°26.80' W84°48.50'
30 MSL to	AB	MAI 141/40	N30°15.80' W84°38.30'

TERRAIN FOLLOWING OPERATIONS: Authorized for entire route.

ROUTE WIDTH - 5 NM either side of centerline from A to C; 4 NM west and 5 NM east of centerline from C to D; 5 NM either side of centerline from D to E; 4 NM north and 3 NM south of centerline from E to G; 5 NM either side of centerline from G to H. (Alternate Exit) 4 NM either side of centerline from D1 to AB.

Special Operating Procedures:

- (1) Noise sensitive area A-B; maintain 1000' AGL minimum until 13 NM past A.
- (2) Avoid Schools/Eufaula N31-52.4 W85-08.0/N31-51.0 W85-09.5.
- (3) Hazard B-C; high density helio traffic this leg. Remain east of Chattahoochee River to the maximum extent possible. Noise sensitive area B-C; maintain 1000' AGL minimum from 10 NM north of C to C. Avoid (horse farm) N31-17.0 W85-03.0 by 1500' AGL or 4 NM. No overflight (Farley Nuclear Plant) N31-13.4 W85-06.7.
- (4) Hazard D-E; Avoid (Arpt/Altha FL) N30-53.3 W85-04.2 by 1500' AGL or 3 NM.
- (5) Hazard E-F; Avoid (crop dusting airstrips) N30-36.1 W85-05.5/N30-36.1 W85-08.4.
- (6) Hazard F-G; Tower 499' AGL N30-36.6 W85-27.1.

- (7) Alternate Exit AB shall be filed and utilized unless scheduled into R-2914. File A-AB as IR-017A. Alternate Exit lost communications procedure: Pass AB, climb to 10,000' MSL on MAI 139 left turn on course.
- (8) Contact Atlanta Large TRACON APP CON 278.5 for entry.
- (9) Contact Cairns APP CON 234.4 at B.
- (10) Contact Tallahassee APP CON on 254.3/317.4 at D for exit clearance if utilizing Alternate Exit AB.
- (11) Contact Tyndall APP CON on 373.0 at E.
- (12) Contact Eglin Mission Control on 262.3 prior to G for clearance into R-2914A.
- (13) Concentrated bird activity along the Chattahoochee River. Crop dusting activity is intense during summer and early fall.
- (14) CAUTION: This route crosses, overlaps or runs parallel with IR-015 and VR-1065.
- (15) Special Activity hours of operation: 0700-1730 central time Tue-Fri, occasional weekends. To schedule use on Sat, Sun, Mon or Tue AM, coordinate prior to 1600 central time on previous Fri.
- (16) Review route survey at <https://intelshare.intelink.gov/sites/angsafety1/187FW/lists/tools/attachments/35/IR-017%20combined.pdf>.

FSS Within 100 NM Radius:

ANB, GNV, MCN

IR-018

ORIGINATING ACTIVITY: FACSFAC JAX, NAS
Jacksonville, FL 32212 DSN 942-2004/2005,
C904-542-2004/2005.

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: 0700-2400 local daily

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	SAV 120/29	N31°57.00' W80°41.00'
50 MSL B 70 MSL to	B	CHS 013/20	N33°14.00' W79°59.00'
50 MSL B 70 MSL to	C	CHS 356/30	N33°23.00' W80°08.00'
50 MSL B 70 MSL to	D	IRQ 148/57	N32°56.00' W81°30.00'
50 MSL B 70 MSL to	E	AMG 028/16	N31°46.00' W82°22.00'
50 MSL B 70 MSL to	F	SSI 296/44	N31°19.00' W82°14.00'
50 MSL B 70 MSL to	G	SSI 003/17	N31°20.00' W81°27.00'
50 MSL B 70 MSL to	H	SSI 069/19	N31°11.00' W81°07.00'
50 MSL B 70 MSL to	I	CRG 118/24	N30°10.00' W81°05.00'

ROUTE WIDTH - 4 NM either side of centerline.

Special Operating Procedures:

- (1) Alternate Entry: F.
- (2) Alternate Exit: E.

IR ROUTES

- (3) Altitudes assigned by ATC.
- (4) Radar system navigation (SN).

FSS Within 100 NM Radius:

AND, GNV, MCN, PIE

IR-019

ORIGINATING ACTIVITY: FACSFAC JAX, NAS

Jacksonville, FL 32212 DSN 942-2004/2005,
C904-542-2004/2005.

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: 0700-2400 local daily

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	TAY 163/18	N30°13.00' W82°26.00'
40 MSL B 70 MSL to	B	GEF 116/14	N30°27.00' W83°33.00'
40 MSL B 70 MSL to	C	GEF 024/37	N31°07.00' W83°29.00'
40 MSL B 70 MSL to	D	PZD 061/23	N31°51.00' W83°55.00'
40 MSL B 70 MSL to	E	PZD 315/10	N31°46.00' W84°26.00'
40 MSL B 70 MSL to	F	RRS 041/27	N31°37.00' W85°04.00'
40 MSL B 70 MSL to	G	RRS VORTAC	N31°17.08' W85°25.87'
40 MSL B 70 MSL to	H	SZW 328/24	N30°54.00' W84°36.00'
40 MSL B 70 MSL to	I	SZW 158/31	N30°04.00' W84°10.00'
40 MSL B 70 MSL to	J	CTY 101/6	N29°35.00' W82°56.00'
40 MSL B 70 MSL to	K	GNV 020/14	N29°55.00' W82°12.00'

ROUTE WIDTH - 4 NM either side of centerline.

Special Operating Procedures:

- (1) Altitudes assigned by ATC.
- (2) Radar vector from K to destination or may continue to R-2903B.
- (3) Radar navigation (SN).

FSS Within 100 NM Radius:

ANB, GNV, MCN, PIE

IR-020

ORIGINATING ACTIVITY: FACSFAC JAX, NAS

Jacksonville, FL 32212 DSN 942-2004/2005,
C904-542-2004/2005, AUTO BRIEF-DSN 942-2275,
C904-542-2275.

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: 0700-2400 local daily

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	PIE 205/10	N27°45.00' W82°45.00'
60 MSL B 80 MSL to	B	PIE 194/28	N27°27.00' W82°46.00'
60 MSL B 80 MSL to	C	RSW 308/26	N26°47.00' W82°10.00'
60 MSL B 80 MSL to	D	PHK 229/3	N26°45.00' W80°44.00'
60 MSL B 80 MSL to	E	TRV 112/7	N27°39.00' W80°22.00'
60 MSL B 80 MSL to	F	ORL 110/33	N28°21.00' W80°45.00'
60 MSL B 80 MSL to	G	OMN 161/29	N28°50.90' W80°56.10'
60 MSL B 80 MSL to	H	OMN 141/8	N29°12.00' W81°01.00'
60 MSL B 80 MSL to Alternate Exit:	I	OMN 327/48	N29°59.00' W81°37.00'
60 MSL B 80 MSL to	H1	OMN 141/8	N29°12.00' W81°01.00'
60 MSL B 80 MSL to	AA	OMN 266/15	N29°17.00' W81°24.00'
60 MSL B 80 MSL to	AB	OMN 252/26	N29°10.00' W81°35.00'

ROUTE WIDTH - 4 NM either side of centerline.

Special Operating Procedures:

- (1) Radar system navigation (SN).

FSS Within 100 NM Radius:

GNV, MIA, PIE

IR-021

ORIGINATING ACTIVITY: Training Air Wing Six,
Pensacola, FL 32508-5509 DSN 459-2875, C850-452-2875.

SCHEDULING ACTIVITY: NAS Pensacola, Pensacola, FL
32508-5217 DSN 459-2735, C850-452-2735.

HOURS OF OPERATION: 1200-0400Z++ Mon-Fri,
occasionally on weekends

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	NSE TACAN	N30°43.44' W87°01.09'
90 MSL-100MSL	B	CEW 054/21	N31°01.00' W86°20.00'
as assigned to 50 MSL-110MSL	C	RRS 193/20	N30°58.00' W85°32.00'
as assigned to 50 MSL-110MSL	D	MAI 167/22	N30°26.00' W85°02.00'
as assigned to 50 MSL-110MSL	E	SZW 179/35	N29°58.00' W84°23.00'

as assigned to 70 MSL-100MSL	F	MAI 122/14	N30°40.00' W84°54.00'
as assigned to 70 MSL-100MSL	G	EUF 198/5	N31°52.00' W85°10.00'
as assigned to 70 MSL-100MSL	H	MXF 053/29	N32°41.00' W85°55.00'
as assigned to 70 MSL-100MSL	I	MXF 008/17	N32°40.00' W86°20.00'
as assigned to 70 MSL-100MSL	J	MGM 316/6	N32°18.00' W86°24.00'
as assigned to 70 MSL-100MSL	K	MGM 172/30	N31°43.00' W86°16.00'
as assigned to	L	CEW 013/36	N31°24.00' W86°29.00'

ROUTE WIDTH - 10 NM either side of centerline.

Special Operating Procedures:

- (1) Scheduling Activity operating hours: 1200-2200Z++ Mon-Fri. To schedule use on Sat, Sun or prior to 1430Z++ on Mon, call prior to 2200Z++ on previous Friday.
- (2) Request 10,000' MSL from A to B, 7,000' MSL from B to L.
- (3) Advise controller when making turns in excess of 20 degrees.
- (4) Radar system navigation (SN).
- (5) Alternate Entry/Exit: F.
- (6) Conflict: (Deconflict with the appropriate Scheduling Activity)
 - (a) Crosses IR-015 between Points C-D and E-F
 - (b) Crosses IR-019 between Points F-G.

FSS Within 100 NM Radius:

ANB, GNV, MCN, PIE

IR-022

ORIGINATING ACTIVITY: Training Air Wing Six, Pensacola, FL 32508-5509 DSN 459-2875, C850-452-2875.

SCHEDULING ACTIVITY: NAS Pensacola, Pensacola, FL 32508-5217 DSN 459-2735, C850-452-2735.

HOURS OF OPERATION: 1200-0400Z++ weekdays, occasional weekends

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to 90 MSL-100 MSL	A	SDZ VORTAC	N35°12.93' W79°35.28'
as assigned to	B	SDZ 276/26	N35°14.00' W80°07.00'
90 MSL B 100 MSL to	C	HMV 132/65	N35°46.00' W81°05.00'
as assigned to 90 MSL-100 MSL	D	HMV 116/48	N36°08.00' W81°13.00'
as assigned to 90 MSL-100 MSL	E	HMV 186/6	N36°20.00' W82°08.00'
as assigned to	F	SOT 037/22	N36°06.00' W82°48.00'
100 MSL to	G	SPA 291/41	N35°15.00' W82°43.00'

100 MSL to	H	ELW 346/24	N34°48.00' W82°54.00'
100 MSL to	I	ODF 247/2	N34°41.00' W83°20.00'
100 MSL to	J	ELW 201/4	N34°21.00' W82°49.00'

ROUTE WIDTH - 10 NM either side of centerline.

Special Operating Procedures:

- (1) Scheduling Activity operating hours: 1200-2200Z++ Mon-Fri. To schedule use on Sat, Sun or prior to 1430Z++ on Mon, call prior to 2200Z++ on previous Friday.
- (2) Request 10,000' MSL from A to F.
- (3) Advise ATC when making a turn in excess of 20 degrees within the route width.
- (4) Radar system navigation (SN).
- (5) Alternate Entry Point: C
- (6) Alternate Exit: G and H
- (7) Conflicts: (Deconflict with the appropriate Scheduling Activity)
 - (a) Opposite direction to IR-079 between Points E and F. Parallels opposite direction from Points F to G.
 - (b) Opposite direction to IR-080 between Points E and F. Parallels opposite direction from Points F to G.
 - (c) Crosses IR-081 between Points D and E.
 - (d) Crosses IR-082 between Points F and G.
 - (e) Opposite direction to IR-083 from Points C to D. Crosses between Points F and G and at Point I.
 - (f) Crosses IR-723 between Points D and E.
 - (g) Crosses IR-726 between Points D and E.

FSS Within 100 NM Radius:

ANB, AND, BNA, MCN, RDU

IR-023

ORIGINATING ACTIVITY: CO MCAS CHERRY POINT, ATTN DIROPS/RMD, Cherry Point, NC 28533 DSN 582-4040/4041, C252-466-4040/4041.

SCHEDULING ACTIVITY: Range Management Department, Mission Coordination/Future Operations, MCAS Cherry Point, NC 28533 DSN 582-4040/4041, C252-466-4040/4041.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	SAV 300/42	N32°26.00' W81°57.00'
01 AGL B 30 MSL to	B	SAV 271/44	N32°05.00' W82°03.00'
01 AGL B 30 MSL to	C	AMG 048/28	N31°51.00' W82°06.00'
01 AGL B 30 MSL to	D	AYS 098/29	N31°12.00' W82°00.00'
01 AGL B 40 MSL to	E	TAY 187/11	N30°19.00' W82°34.00'
40 MSL to	F	TAY 197/18	N30°13.00' W82°38.00'

IR ROUTES

40 MSL to	G	GNV 152/1	N29°41.00' W82°16.00'
40 MSL to	H	OCF 098/27	N29°07.00' W81°43.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from A to E.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) This route is scheduled through the Range Management Department, Mission coordination/future operations office (MC/FO) between the hours of 0700-1600 Mon-Fri. The route shall be scheduled a minimum of two hours prior to use for same day operations. If scheduling the route on an observed federal holiday (Mon-Fri), schedule with the MC/FO two working days prior.
- (2) Alternate Entry: D.
- (3) Alternate Exit: B, D and G.
- (4) When terrain following avoid Reedsville, GA Arpt N32-04 W82-09 by 5 NM; Jessup, GA Arpt N31-33 W81-53 by 7 NM. Maintain 2000' AGL over Okefenokee National Wildlife Refuge.
- (5) Avoid R-2907B.
- (6) If not scheduled into R-2910, exit at G.
- (7) Minimum alt 100' AGL for terrain following.
- (8) Radar systems navigation (SN).
- (9) Between C-D Antenna 1032' AGL N31-09.4 W81-58.3.
- (10) At B contact ZJX ARTCC 290.4.
- (11) Antenna 1 NM NE of A at 370' AGL (595' MSL) N32-26.7 W81-58.1.
- (12) Climb to and maintain 4000' MSL approaching TAYLOR (TAY) VORTAC prior to reaching Point E.
- (13) CAUTION: Numerous large towers along the route.
- (14) CAUTION: Ensure respective mission planning systems and aeronautical charts are updated with the most current vertical obstruction data, which can be downloaded from NGA WEBDVOF (Digital Vertical Obstruction File) predefined queries site at <https://DVOF.GEOINTEL.NGA.MIL/DVOFPRE-NUM.CFM>. For assistance with the NGA WEBDVOF website, contact C314-676-5439/DSN 846-5439 or C636-321-5207/DSN 369-5207.
- (15) CAUTION: IR-016 crosses IR-023 from west to east between Points F and G. Call 347 OSS/OKSA, Moody AFB, GA DSN 460-4131, C229-257-4131 to deconflict.
- (16) CAUTION: IR-019 crosses IR-023 from east to west between Points E and F and from southeast to northeast between Points F and G. Call FACS FAC JAX NAS JACKSONVILLE FL DSN942-2004/2005, C904-542-2004/2005 to deconflict.
- (17) CAUTION: IR-032 crosses IR-023 from west to east between Points F and G. Call FACS FAC JAX, NAS JACKSONVILLE FL DSN942-2004/2005, C904-542-2004/2005 to deconflict.
- (18) CAUTION: IR-033 crosses IR-023 from east to west between Points F and G. Call FACS FAC JAX, NAS JACKSONVILLE FL DSN 942-2004/2005, C904-542-2004/2005 to deconflict.

FSS Within 100 NM Radius:

AND, GNV, MCN, PIE

IR-030

ORIGINATING ACTIVITY: Commander Naval Air Warfare Center, Weapons Division, Code 52911GE, NAWS, Point Mugu NAWS, CA 93042-5008 DSN 351-7545, C805-989-7545.

SCHEDULING ACTIVITY: Commander Fleet Area Control and Surveillance Facility Jacksonville, NAS, Jacksonville FL 32212 DSN 942-2004/2005, C904-542-2004/2005. AUTO BRIEF-DSN 942-2275 C904-542-2275.

HOURS OF OPERATION: Daylight hours only, daily

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
40 MSL B 60 MSL to	A	CEW 143/38	N30°18.30' W86°16.60'
40 MSL B 60 MSL to	A1	CEW 135/29	N30°27.70' W86°17.80'
40 MSL B 60 MSL to	A2	CEW 121/23	N30°36.90' W86°19.10'
05 AGL B 60 MSL to	B	CEW 106/19	N30°43.50' W86°20.00'
05 AGL B 40 MSL to	C	CEW 073/15	N30°53.00' W86°24.20'
05 AGL B 40 MSL to	D	CEW 019/18	N31°06.00' W86°33.00'
05 AGL B 40 MSL to	E	CEW 009/21	N31°10.00' W86°35.70'
05 AGL B 40 MSL to	F	MVC 091/32	N31°25.00' W86°44.00'
05 AGL B 40 MSL to	G	MVC 022/31	N31°56.00' W87°05.00'
05 AGL B 40 MSL to	H	MVC 296/19	N31°37.00' W87°40.00'
05 AGL B 40 MSL to	I	MVC 248/27	N31°19.22' W87°51.50'
05 AGL B 40 MSL to	J	MVC 244/28	N31°16.80' W87°51.70'
05 AGL B 40 MSL to	K	MVC 212/20	N31°11.30' W87°34.80'
05 AGL B 40 MSL to	L	MVC 131/21	N31°13.00' W87°04.00'
05 AGL B 40 MSL to	M	CEW 010/18	N31°07.00' W86°36.00'
05 AGL B 40 MSL to	N	CEW 019/18	N31°06.00' W86°33.00'
05 AGL B 40 MSL to	O	CEW 073/15	N30°53.00' W86°24.20'
05 AGL B 40 MSL to	P	CEW 106/19	N30°43.50' W86°20.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from E to M.

ROUTE WIDTH - 5 NM either side of centerline A to B and C to O; 2 NM west side and 5 NM east side of centerline B to C and O to P.

Special Operating Procedures:

- (1) For use in VMC only.
- (2) Route continuation from M to E authorized.

- (3) Alternate Entry/Exit: A, B and P.
- (4) Altitude restrictions between D and E 500' AGL-4000' MSL Sat-Sun, or Mon-Fri 1100-1300L, with prior coordination. Otherwise altitude restriction 1500' AGL-4000' MSL.
- (5) Alternate Entry/Exit: D and N.

FSS Within 100 NM Radius:

ANB, DRI

IR-031

ORIGINATING ACTIVITY: Commander Naval Air Warfare Center, Weapons Division, Code 52911GE, NAWS, Point Mugu NAWS, CA 93042-5008 DSN 351-7545, C805-989-7545.

SCHEDULING ACTIVITY: Commander Fleet Area Control and Surveillance Facility Jacksonville, NAS, Jacksonville FL 32212 DSN 942-2004/2005, C904-542-2004/2005. AUTO BRIEF-DSN 942-2275 C904-542-2275.

HOURS OF OPERATION: Daylight hours only, daily

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
40 MSL B 60 MSL to	A	CEW 143/38	N30°18.30' W86°16.60'
40 MSL B 60 MSL to	A1	CEW 135/29	N30°27.70' W86°17.80'
40 MSL B 60 MSL to	A2	CEW 121/23	N30°36.90' W86°19.10'
05 AGL B 60 MSL to	B	CEW 106/19	N30°43.52' W86°20.00'
05 AGL B 40 MSL to	C	CEW 073/15	N30°53.02' W86°24.20'
05 AGL B 40 MSL to	D	CEW 019/18	N31°06.02' W86°33.00'
05 AGL B 40 MSL to	E	CEW 010/18	N31°07.02' W86°36.00'
05 AGL B 40 MSL to	F	MVC 131/21	N31°13.02' W87°04.00'
05 AGL B 40 MSL to	G	MVC 212/20	N31°11.32' W87°34.80'
05 AGL B 40 MSL to	H	MVC 244/28	N31°16.82' W87°51.70'
05 AGL B 40 MSL to	I	MVC 248/27	N31°19.22' W87°51.50'
05 AGL B 40 MSL to	J	MVC 296/19	N31°37.02' W87°40.00'
05 AGL B 40 MSL to	K	MVC 022/32	N31°56.02' W87°05.00'
05 AGL B 40 MSL to	L	MVC 091/32	N31°25.02' W86°44.00'
05 AGL B 40 MSL to	M	CEW 009/21	N31°10.02' W86°35.70'
05 AGL B 40 MSL to	N	CEW 019/18	N31°06.02' W86°33.00'
05 AGL B 40 MSL to	O	CEW 073/15	N30°53.02' W86°24.20'
05 AGL B 40 MSL to	P	CEW 106/19	N30°43.52' W86°20.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from E to M.

ROUTE WIDTH - 5 NM either side of centerline A to B and C to O; 2 NM west side and 5 NM east side of centerline B to C and O to P.

Special Operating Procedures:

- (1) For use in VMC only.
- (2) Route continuation from M to E authorized.
- (3) Alternate Entry/Exit: A, B and P.
- (4) Altitude restrictions between M and N 500' AGL-4000' MSL Sat-Sun, or Mon-Fri 1100-1300L, with prior coordination. Otherwise altitude restrictions 1500' AGL-4000' MSL.
- (5) Alternate Entry/Exit: D and N.

FSS Within 100 NM Radius:

ANB, DRI

IR-032

ORIGINATING ACTIVITY: Commander Naval Air Warfare Center, Weapons Division, Code 52911GE, NAWS, Point Mugu NAWS, CA 93042-5008 DSN 351-7545, C805-989-7545.

SCHEDULING ACTIVITY: Commander Fleet Area Control and Surveillance Facility Jacksonville, Naval Air Station, Jacksonville, FL 32212 DSN 942-2004/2005, C904-542-2004/2005, AUTO BRIEF-DSN 942-2275, C904-542-2275.

HOURS OF OPERATION: Daylight hours

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
05 AGL B 50 MSL to	A	CTY 265/50	N29°30.00' W84°00.00'
30 MSL B 50 MSL to	B	CTY 300/32	N29°51.00' W83°36.00'
30 MSL B 50 MSL to	C	CTY 318/28	N29°56.00' W83°25.00'
30 MSL B 50 MSL to	D	CTY 357/20	N29°56.00' W83°05.00'
30 MSL B 50 MSL to	E	GNV 049/20	N29°56.00' W82°00.00'
30 MSL B 60 MSL to	F	CRG 154/21	N30°02.00' W81°19.00'
05 AGL B 60 MSL to	G	CRG 123/31	N30°05.00' W81°00.00'

ROUTE WIDTH - 10 NM either side of centerline A to G.

Special Operating Procedures:

- (1) Route use restricted to unmanned aerospace vehicle operations and their support aircraft.
- (2) Daylight hours 0900-1500 Mon-Thu, 0900-1200 Fri. Daylight savings time 0900-1700 Mon-Thu, 0900-1200 Fri. Flight not authorized from 13 Dec-3 Jan, nor Thanksgiving Day and the following Fri, Sat, and Sun.
- (3) Unmanned aerospace vehicles shall avoid all airports by 1500'/3 NM.

IR ROUTES

- (4) Route is designated for MARSAs operations established by coordinated scheduling.
- (5) Maximum use of IR-032/033 shall not exceed total of six flights per year for both routes together.
- (6) For use in VMC in accordance with FAAH 7610.4 Section 8.

FSS Within 100 NM Radius:

GNV, PIE

IR-033

ORIGINATING ACTIVITY: Commander Naval Air Warfare Center, Weapons Division, Code 52911GE, NAWS, Point Mugu NAWS, CA 93042-5008 DSN 351-7545, C805-989-7545.

SCHEDULING ACTIVITY: Commander Fleet Area Control and Surveillance Facility Jacksonville, Naval Air Station, Jacksonville, FL 32212 DSN 942-2004/2005, C904-542-2004/2005, AUTO BRIEF-DSN 942-2275, C904-542-2275.

HOURS OF OPERATION: Daylight hours

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
05 AGL B 60 MSL to	A	CRG 123/31	N30°05.00' W81°00.00'
30 MSL B 60 MSL to	B	CRG 154/21	N30°02.00' W81°19.00'
30 MSL B 50 MSL to	C	GNV 049/20	N29°56.00' W82°00.00'
30 MSL B 50 MSL to	D	CTY 357/20	N29°56.00' W83°05.00'
30 MSL B 50 MSL to	E	CTY 318/28	N29°56.00' W83°25.00'
30 MSL B 50 MSL to	F1	CTY 300/32	N29°51.00' W83°36.00'
05 AGL B 50 MSL to Alternate Exit Track from Pt E:	G	CTY 265/50	N29°30.00' W84°00.00'
30 MSL B 50 MSL to	E	CTY 318/28	N29°56.00' W83°25.00'
30 MSL B 50 MSL to	F2	SZW 141/39	N30°02.00' W83°55.00'

ROUTE WIDTH - 10 NM either side of centerline A to G and A to F2.

Special Operating Procedures:

- (1) Route use restricted to unmanned aerospace vehicle operations and their support aircraft.
- (2) Daylight hours 0900-1500 Mon-Thu, 0900-1200 Fri. Daylight savings time 0900-1700 Mon-Thu, 0900-1200 Fri. Flight not authorized from 13 Dec-3 Jan, nor Thanksgiving Day and the following Fri, Sat and Sun.
- (3) Unmanned aerospace vehicles shall avoid all airports by 1500'/3 NM.
- (4) Route is designated for MARSAs operations established by coordinated scheduling.
- (5) Maximum use of IR-032/033 shall not exceed total of six flights per year for both routes together.
- (6) For use in VMC in accordance with FAAH 7610.4 Section 8.

- (7) Alternate Exit F2 to adjoining IR-015.

FSS Within 100 NM Radius:

GNV, PIE

IR-034

ORIGINATING ACTIVITY: 347 Rescue Wing, Detachment 1/RO, 8707 North Golf Course St., MacDill AFB, FL 33621-5205 DSN 968-2902/4642, C813-828-2902/4642.

SCHEDULING ACTIVITY: 347 Rescue Wing, Detachment 1/ROA, 8707 North Golf Course St., MacDill AFB, FL 33621-5205 DSN 968-4642, C813-828-4642.

HOURS OF OPERATION: 0600-2400 local

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	HST 244/46	N25°07.00' W81°07.00'
10 AGL B 30 MSL to	B	HST 266/46	N25°24.00' W81°13.00'
10 AGL B 30 MSL to	C	HST 291/56	N25°46.00' W81°21.50'
10 AGL B 30 MSL to	D	RSW 151/43	N25°54.50' W81°21.50'
01 AGL B 30 MSL to	E	RSW 129/28	N26°15.00' W81°21.50'
01 AGL B 30 MSL to	F	RSW 116/26	N26°21.00' W81°20.00'
01 AGL B 30 MSL to	G	PHK 232/15	N26°37.80' W80°54.50'
01 AGL B 30 MSL to	H	PHK 230/8	N26°42.00' W80°48.00'
01 AGL B 20 MSL to	I	PHK 314/16	N26°58.00' W80°54.20'
01 AGL B 20 MSL to	J	PHK 328/32	N27°14.10' W81°00.50'
01 AGL B 20 MSL to	K	PHK 328/36	N27°18.00' W81°03.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from D to K.

ROUTE WIDTH - 8 NM either side of centerline A to J; 6 NM either side of centerline J to K.

Special Operating Procedures:

- (1) Visual road reconnaissance (RC) or photo reconnaissance (PR) route.
- (2) This route terminates at Avon Park gunnery range (R-2901) and may only be scheduled in conjunction with reserve range time. Route entry times must be made so as not to arrive at range boundary earlier than reserved range times. Route exit time must allow for a minimum of 10 minutes reserved range time remaining for the last aircraft in a flight.
- (3) Avoid Immokalee and Clewiston Airports by 3 NM regardless of altitude.
- (4) Minimum altitude over Everglades National Park and Big Cypress Preserve is 1000' AGL. Big Cypress Preserve is between D and E, east of centerline entire leg.

- (5) Minimum altitude within 3 NM of H is 500' AGL.
- (6) Alternate Entry: D and H.
- (7) No Alternate Exit points.
- (8) All requests for use of this route must be approved by the 347WG, Det 1/ROA Scheduling Activity a minimum of one day in advance during normal duty hours. Same day changes or cancellations shall be coordinated through the Scheduling Activity.
- (9) Route clearance valid only plus 30 min from schedule time.
- (10) Route segment from F to H is designated a maneuver area.
- (11) Avoid overflight of Hendry Correctional Complex N26-19 W81-16 by 1500' AGL or 1 NM.
- (12) CAUTION: Uncharted grass airstrip located at N26-20.0 W81-19.2; N26-20.9 W81-26.5.
- (13) CAUTION: Uncharted tower 210' MSL N26-02.5 W81-20.5; tower 210' MSL N26-02.5 W81-21.5; tower 200' MSL N26-17.3 W81-20.2; Microwave tower 150' MSL N26-18.4 W81-16.8; tower 250' MSL N26-27.5 W81-04.5; Microwave tower 315' MSL N26-37.7 W80-55.2; tower 300' MSL N26-38.6 W80-55.2; water tower 250' MSL N27-04.8 W81-04.2; tower 300' MSL N27-07.0 W81-05.0.
- (14) Avoid fishing resort/trailer park at the intersection of Route 70 and Kissimmee River, 7 NM west of Okeechobee.
- (15) H is a mandatory reporting point.
- (16) When the instrument approach at Pahokee/Palm Beach County Glades Airport is active, aircraft will be directed to maintain 4000' MSL from G to I. In addition, when IR-051 is also active, aircraft will maintain 4000' MSL until J.

FSS Within 100 NM Radius:

MIA, PIE, WBR

IR-035

ORIGINATING ACTIVITY: 437 OSS/OSO Joint Base Charleston, SC 29404 DSN 673-5554, C843-963-5554.

SCHEDULING ACTIVITY: Same as Originating Activity.

HOURS OF OPERATION: 0700-2200 LOCAL, DAILY

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	CRE 077/22	N33°55.00' W78°18.00'
03 AGL B 40 MSL to	B	CRE 035/45	N34°27.00' W78°15.00'
03 AGL B 40 MSL to	C	FAY 192/32	N34°27.00' W78°58.00'
03 AGL B 30 MSL to	D	CRE 289/31	N33°57.00' W79°19.00'
03 AGL B 30 MSL to	E	SSC 100/21	N33°58.00' W80°03.00'
03 AGL B 30 MSL to	F	VAN 332/9	N33°36.00' W80°33.00'
03 AGL B 30 MSL to	G	CAE 184/15	N33°36.00' W81°04.00'

TERRAIN FOLLOWING OPERATIONS: After crossing the coast at 2000' MSL or higher, a descent to 300' AGL (fighter aircraft 500') can be initiated once north of ILM 260 degrees radial. From A to G, 300' AGL modified contour flying will be conducted in VMC. IFR/VFR terrain following (TF) to 300' AGL is

authorized IAW command directives within published altitude blocks from A to G. when command directives preclude TF (visual/contour operations), aircrews will maintain the IFR altitude for each route segment. The top of the block altitude provides for a minimum of 900' clearance above the highest obstacle on that leg (within 5 NM of course centerline).

ROUTE WIDTH - 5 NM either side of centerline from A to E; 5 NM left and 3 NM right of centerline from E to F; 5 NM either side of centerline from F to G.

Special Operating Procedures:

- (1) Route width excludes North AF, SC class E airspace, and restricted area R-6002 when active.
- (2) For route entry A cross CRE at or below 10,000' MSL and contact Myrtle Beach APP CON on 350.3 119.2 to facilitate route entry/clearance with Wilmington Approach 284.65 or 118.25.
- (3) Alternate Entry D: (Contact Myrtle Beach APP CON on 350.3 119.2). Alternate Exit: F.
- (4) Lost communications procedures: Maintain 3000' MSL while in the route.
- (5) Contact Florence APP CON 316.15 135.25 at C with E estimate.
- (6) Contact Myrtle Beach APP CON 350.3 119.2 at D.
- (7) Contact Shaw RAPCON 225.4 133.25 prior to E, with F estimate.
- (8) Contact Columbia APP CON 338.2 124.15 passing F.
- (9) CAUTION: VR-1040 and VR-1043 route deconfliction, DSN 582-4040/4041.
- (10) CAUTION: IR-062 opposite direction at C, deconflict DSN 433-1228.
- (11) CAUTION: Crossing/intersecting routes VR-097, VR-1059, and IR-036 deconflicted by scheduling activity when route is booked. VR-083, VR-087, and VR-088 deconflicted by 4FW at DSN 722-2129.
- (12) CAUTION: Prior to F - Look for flights of fighter aircraft holding (VFR) over the Rimini Bridge awaiting entry into R-6002 (hours of operation 1200-0300Z++).
- (13) Approaches to North Field contact North Field LZ/DZ Ops Facility 235.775 or 120.475. Prior scheduling and approval required through 437 OSS/OSO DSN 673-5554.
- (14) Avoid: Flying along the Lumber River into North Carolina. Plan turn near C, so as to cross the river only once while in North Carolina.
- (15) Avoid: Marion County Airport N34-10.8 W79-20.1 by 1500' AGL/3 NM. Note: 3 NM arc extends 1 NM into the route below 1593' MSL.
- (16) CAUTION: VFR student flying training in the vicinity of Aynor, SC, N34-00 W79-13 3000-4000' MSL.
- (17) Avoid: Santee National Wildlife Refuge (Lake Marion) just prior to F, 2200' AGL.
- (18) Avoid nine Noise Sensitive Areas:
 - (a) Olanta N33-56.2 W79-48.3 by 1000' AGL/1 NM;
 - (b) Residence N34-04.4 W79-42.6 by 1500' AGL/1 NM;
 - (c) Residence N33-50.0 W80-22.0 by 1500' AGL/1 NM;
 - (d) N33-39.1 W80-27.1 by 1000' AGL/1 NM;
 - (e) Town of North, SC N33-36.0 W81-06.5 by 1500' AGL/1 NM;
 - (f) Congressional noise sensitive area (town/residences at Galivants Ferry) N34-03.4 W79-14.3, avoid by 2000' AGL/2 NM;
 - (g) Hog farm N34-04.4 W79-12.2 by 1500' AGL/1 NM;
 - (h) Hog farm N34-07.1 W79-09.6 by 1500' AGL/1 NM;
 - (i) Hog farm N34-03.1 W79-09.0 by 1500' AGL/1 NM.

IR ROUTES

(19) Caution:Towers:

- (a) 250' AGL (600' MSL) N34-12.55 W79-11.41;
- (b) 250' AGL (750' MSL) N34-19.38 W79-00.24;
- (c) 300' AGL (750' MSL) N33-58.17 W79-54.98;
- (d) 280' AGL (272' MSL) N34-20.00 W79-20.00;
- (e) 200' AGL (300' MSL) N34-24.50 W78-45.50;
- (f) 300' AGL N33-12.7 W80-59.7
- (g) 300' AGL N33-09.01 W80-20.4.

(20) Avoid two eagle nest locations, endangered species:

- (a) N33-36.9 W80-31.8 by 1500' AGL/1 NM;
- (b) N34-00.7 W79-23.5 by 1500' AGL/1 NM.

(21) CAUTION: Vicinity of North Airfield; C-5, C-17, C-130 aircraft conducting tactical training operations into and out of the airfield.

(22) Contact Charleston AFB, Base Operations via 372.2 (DSN 673-3026) or relay through Command Post 349.4 to report any unusual active bird conditions along the route.

(23) Unpublished towers found by route surveys 200' AGL and above are listed in this SOP. Note: A quick reference to the latest Charlotte Sectional Chart (1-500 scale) will show charted towers on this route.

(24) IR-012 entry south of B (deconflict DSN 722-2129).

(25) Make entry times plus or minus 5 minutes or reschedule.

(26) Caution: due to ultralite activity, avoid Lake City N33-52.5 W79-45.5 by 1500' AGL/7 NM.

(27) CAUTION:

- (a) Uncharted airport, N34-17.7 W79-03.3, Rwy 8-24 and 15-33;
- (b) Uncharted grass strip, N33-59.4 W79-37.8, Rwy 12-30, approximately 2500';
- (c) Uncharted grass strip, N33-45 W80-20, Rwy 10-28;
- (d) Uncharted airstrip, (Matthew's Airstrip) N33-59.3 W79-45.4;
- (e) Uncharted airstrip, (Dannie Rodgers) N33-58.6 W79-39.4;
- (f) Uncharted airstrip, (Tommie and Rick) N33-48.2 W79-31.5;
- (g) Uncharted airstrip, (Bernie) N33-57.7 W79-56.2;
- (h) Uncharted airstrip, (Cockfield Aerodrome SC60) N33-54.1 W79-40.6;
- (i) Uncharted airstrip, (McGee Airstrip) N33-53.4 W79-52.5;
- (j) Uncharted landfill, N33-07.54 W80-20.7.

FSS Within 100 NM Radius:

AND, MCN, RDU

IR-036

ORIGINATING ACTIVITY: 437 OSS/OSO Joint Base Charleston, SC 29404 DSN 673-5554, C843-963-5554.

SCHEDULING ACTIVITY: Same as Originating Activity.

HOURS OF OPERATION: 0700-2200 LOCAL, DAILY

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	CAE 184/15	N33°36.00' W81°04.00'
03 AGL B 30 MSL to	B	CAE 212/17	N33°37.00' W81°13.00'
03 AGL B 30 MSL to	C	CAE 194/38	N33°14.00' W81°13.00'

03 AGL B 40 MSL to	D	VAN 192/26	N33°03.00' W80°30.00'
03 AGL B 40 MSL to	E	VAN 081/26	N33°35.00' W79°57.00'
03 AGL B 40 MSL to	F	VAN 036/25	N33°50.00' W80°12.00'
03 AGL B 30 MSL to	G	VAN 332/9	N33°36.00' W80°33.00'
03 AGL B 30 MSL to	H	CAE 184/15	N33°36.00' W81°04.00'

TERRAIN FOLLOWING OPERATIONS: 300' AGL

modified contour low level operations approved for the entire route VMC. IFR terrain following (TF) to 300' AGL is authorized IAW command directives within published altitude blocks from A to H (round robin). When command directives preclude TF/visual contour operations, aircrews will maintain the IFR altitude for each route segment. The top of the block altitude provides for a minimum of 1000' clearance above the highest obstacle on that leg (within 5 NM of course centerline).

ROUTE WIDTH - 5 NM either side of centerline from A to F; 3 NM right and 5 NM left of centerline from F to G; 5 NM either side of centerline from G to H.

Special Operating Procedures:

- (1) Route width excludes North AF, SC class E airspace, and restricted area R-6002 when active.
- (2) Contact Columbia APP CON on 338.2 or 124.15 for route entry at A with D estimate.
- (3) Alternate Entry authorized at Pt B (contact Columbia APP CON).
- (4) Alternate Exit authorized at D.
- (5) Monitor Jacksonville ARTCC on 363.2 /132.92 at B.
- (6) Monitor Charleston APP CON on 306.925/120.7 prior to D.
- (7) Contact Shaw RAPCON on 225.4 or 133.25 prior to F with G estimate.
- (8) Contact Columbia APP CON on 338.2 or 124.15 passing G.
- (9) Lost Communications Procedures: Maintain 3000' MSL while on the route.
- (10) CAUTION: VR-1040 and VR-1043 route deconfliction DSN 582-4040/4041.
- (11) CAUTION: Crossing/intersecting routes VR-097, VR-1059, and IR-035 deconflicted by scheduling activity when route is booked. VR-083, VR-087, and VR-088 deconflicted by 4FW at DSN 722-2129.
- (12) CAUTION: Prior to G - Look for flights of fighter aircraft holding (VFR) over the Rimini Bridge awaiting entry into R-6002, (hours of operation 1200-0300Z++).
- (13) Approaches to North Field contact North Field LZ/DZ Ops Facility 235.775 or 120.475. Prior scheduling and approval required through 437 OSS/OSO DSN 673-5554.
- (14) Avoid three airports:
 - (a) Bamberg Co Airport N33-18.5 W81-06.9 by 1500' AGL/3 NM;
 - (b) St. George Airport N33-11.7 W80-30.5 by 1500' AGL/3 NM;
 - (c) Orangeburg Airport N33-27.7 W80-51.5 by 1500' AGL/3 NM. NOTE: These airports are outside of the route structure but their 3 NM avoidance area extends into the route below 1500' AGL.
- (15) Avoid: Santee National Wildlife Refuge (Lake Marion) just prior to G, by 2200' AGL.
- (16) Avoid six Noise Sensitive Areas:

- (a) Residence N33-50.0 W80-22.0 by 1500' AGL/1 NM;
- (b) N33-39.1 W80-27.1 by 1000' AGL/1 NM;
- (c) N33-29.7 W81-16.8 by 1000' AGL/1 NM;
- (d) Givhans, SC N33-00.8 W80-20.2 by 1000' AGL/1.5 NM;
- (e) N33-15.5 W81-11.5 by 1000' AGL/1 NM;
- (f) N33-40.8 W80-03.5 by 1000' AGL/1 NM.
- (17) CAUTION: Bird activity: Landfill N33-07.9 W80-21.4.
- (18) Avoid ten Eagle Nest locations, endangered species:
 - (a) N33-10.8 W80-25.3 by 1500' AGL/1 NM;
 - (b) N33-36.9 W80-31.8 by 1500' AGL/1 NM;
 - (c) Santee NWR N33-23.5 W80-02.6 min alt: 2000' AGL;
 - (d) Santee NWR N33-26.0 W79-55.0 min alt: 2000' AGL;
 - (e) Santee NWR N33-18.4 W80-10.6 min alt: 2000' AGL;
 - (f) Santee NWR N33-26.1 W80-07.4 min alt: 2000' AGL;
 - (g) Santee NWR N33-28.8 W80-09.5 min alt: 2000' AGL;
 - (h) Santee NWR N33-24.4 W80-11.6 min alt: 2000' AGL;
 - (i) Santee NWR N33-25.4 W80-16.9 min alt: 2000' AGL;
 - (j) Santee NWR N33-29.6 W80-10.1 min alt: 2000' AGL.
- (19) CAUTION: Vicinity of North Airfield, C-5, C-17, C-130 aircraft conducting tactical training operations into and out of the airfield.
- (20) Contact Charleston AFB Base Operations 372.2 (DSN 673-3026) or relay through Command Post 349.4 to report any unusual active bird conditions along the route.
- (21) Unpublished towers found by route surveys 200' AGL and above are listed in this SOP. NOTE: A quick reference to the latest Charlotte Sectional Chart (1-500 scale) will show charted towers on this route.
- (22) Make entry times plus or minus 5 minutes or reschedule.
- (23) CAUTION: Uncharted grass strip N33-45 W80-20 (Rwy 10-28).
- (24) CAUTION Towers:
 - (a) 620' AGL (880' MSL) N33-30.00 W81-14.50;
 - (b) 250' AGL (400' MSL) N33-02.00 W80-30.50;
 - (c) 400' AGL (500' MSL) N33-13.50 W80-18.00;
 - (d) 200' AGL (350' MSL) N33-13.00 W80-59.00;
 - (e) 300' AGL N33-55.65 W78-20.07;
 - (f) 300' AGL N33-56.23 W78-18.17;
 - (g) 300' AGL N34-21.66 W79-05.68;
 - (h) 300' AGL N33-56.17 W79-54.36.
 - (i) 100' AGL N33-13.22 W80-58.72.

FSS Within 100 NM Radius:

AND, MCN, RDU

IR-037

ORIGINATING ACTIVITY: Training Air Wing Six, Pensacola, FL 32508-5509 DSN 459-2875, C850-452-2875.

SCHEDULING ACTIVITY: NAS Pensacola, Pensacola, FL 32508-5217 DSN 459-2735, C850-452-2735.

HOURS OF OPERATION: Mon-Fri 1200-0400Z++, occasional weekends

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 60 MSL to or as assigned	A	SJI 099/2	N30°43.00' W88°19.00'
60 MSL to or as assigned	B	GPT 027/33	N30°53.00' W88°46.00'

60 MSL to or as assigned	C	LBY 107/43	N31°09.00' W88°34.00'
60 MSL to or as assigned	D	LBY 026/17	N31°40.00' W89°10.00'
60 MSL to or as assigned	E	PCU 353/26	N31°00.00' W89°45.00'
60 MSL to or as assigned	F	PCU 055/9	N30°38.00' W89°35.00'
60 MSL to or as assigned	G	GPT VORTAC	N30°24.41' W89°04.61'
60 MSL to or as assigned	H	GPT 068/22	N30°32.00' W88°41.00'

ROUTE WIDTH - 5 NM either side of centerline from A to C; 4 NM left and 5 NM right of centerline from C to D; 5 NM either side of centerline from D to F; 5 NM left and 4 NM right of centerline from F to G; 5 NM either side of centerline from G to H.

Special Operating Procedures:

- (1) Scheduling Activity operating hours: 1200-2200Z++ Mon-Fri. To schedule use on Sat, Sun or prior to 1430Z++ on Mon, call prior to 2200Z++ on previous Friday.
- (2) Advise controller when making turns in excess of 20 degrees.
- (3) Radar system navigation (SN).
- (4) Conflicts: (deconflict with the appropriate Scheduling Activity)
 - (a) Crosses VR-060 at Point C.
 - (b) Crosses VR-179 at Points B and C.
- (5) Alternate Entry authorized at Point B.
- (6) Alternate Exit authorized at Point G.
- (7) Prior to Point BRAVO aircraft are required to transmit in the blind on 228.850 their intention to transit the DESOTO MOA and deconflict as necessary to remain MARSA with elements in the MOA.

FSS Within 100 NM Radius:

DRI, GNV, GWO

IR-038

ORIGINATING ACTIVITY: Training Air Wing Six, Pensacola, FL 32508-5509 DSN 459-2875, C850-452-2875.

SCHEDULING ACTIVITY: NAS Pensacola, Pensacola, FL 32508-5217 DSN 459-2735, C850-452-2735.

HOURS OF OPERATION: Sunrise-Sunset, Mon-Fri, occasional weekends

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to 80 MSL-100 MSL	A	BFM 214/16	N30°24.00' W88°15.00'
as assigned to 80 MSL-100 MSL	B	GPT VORTAC	N30°24.41' W89°04.61'
as assigned to 80 MSL-100 MSL	C	LEV 113/39	N28°54.00' W89°26.00'
as assigned to 80 MSL-100 MSL	D	LEV 257/28	N29°06.00' W90°38.00'

IR ROUTES

as assigned to 80 MSL-100 MSL	E	LEV 113/39	N28°54.00' W89°26.00'
as assigned to 80 MSL-100 MSL	F	GPT VORTAC	N30°24.41' W89°04.61'
as assigned to 80 MSL-100 MSL	G	BFM 214/16	N30°24.00' W88°15.00'

ROUTE WIDTH - 10 NM either side of centerline.

Special Operating Procedures:

- (1) Scheduling Activity operating hours: 1200-2200Z++ Mon-Fri. To schedule use on Sat, Sun or prior to 1430Z++ on Mon, call prior to 2200Z++ on previous Friday.
- (2) Advise controller when making turns in excess of 20 degrees.
- (3) Radar system navigation (SN).

FSS Within 100 NM Radius:

DRI, GNV

IR-040

ORIGINATING ACTIVITY: Training Air Wing Six, Pensacola, FL 32508-5509 DSN 459-2875, C850-452-2875.

SCHEDULING ACTIVITY: NAS Pensacola, Pensacola, FL 32508-5217 DSN 459-2735, C850-452-2735.

HOURS OF OPERATION: Mon-Fri 1200-0400Z++, occasional weekends

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 50 MSL to or as assigned	A	SJI 169/22	N30°22.00' W88°19.00'
50 MSL to or as assigned	B	SJI 099/2	N30°43.00' W88°19.00'
Alternate entry: B.			
50 MSL to or as assigned	C	SJI 011/23	N31°05.71' W88°14.17'
50 MSL to or as assigned	D	LBY 061/39	N31°41.00' W88°38.00'
50 MSL to or as assigned	E	LBY 026/17	N31°40.00' W89°10.00'
50 MSL to or as assigned	F	LBY 096/21	N31°21.00' W88°56.00'
50 MSL to or as assigned	G	LBY 107/43	N31°09.00' W88°34.00'
50 MSL to or as assigned	H	GPT 027/33	N30°53.00' W88°46.00'

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Scheduling Activity operating hours: 1200-2200Z++ Mon-Fri. To schedule use on Sat, Sun or prior to 1430Z++ on Mon, call prior to 2200Z++ on previous Friday.
- (2) Advise controller when making turns in excess of 20 degrees.
- (3) Radar system navigation (SN).

- (4) Aircraft are required to transmit in the blind on 228.850 their intentions to transit Desoto MOA prior to F.
- (5) Conflicts: (Deconflict with the appropriate Scheduling Activity)
 - (a) Crosses VR-060 between Points C and D and F and G.
 - (b) Crosses VR-179 between Points C and D, F and G, and at Point H.
- (6) Alternate entry: B. Point B is a compulsory reporting point for alternate entry.

FSS Within 100 NM Radius:

DRI, GNV, GWO

IR-044

ORIGINATING ACTIVITY: COMTRAWING ONE, NAS Meridian, MS 39309-0136 DSN 637-2321, C601-679-2321.

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: Sunrise-Sunset

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 30 MSL to or as assigned	A	NMM 273/31	N32°37.00' W89°09.00'
24 MSL B 60 MSL to or as assigned	B	NMM 288/32	N32°45.00' W89°09.00'
24 MSL B 70 MSL to	C	NMM 288/42	N32°48.00' W89°20.00'
24 MSL B 70 MSL to	D	MHZ 046/21	N32°41.00' W89°48.00'
22 MSL B 70 MSL to	E	MHZ 026/26	N32°50.00' W89°53.00'
22 MSL B 70 MSL to	F	MHZ 011/29	N32°55.00' W90°00.00'
22 MSL B 70 MSL to	G	SQS 102/26	N33°21.00' W89°47.00'
22 MSL B 70 MSL to	H	SQS 106/33	N33°17.00' W89°40.00'
22 MSL B 70 MSL to	I	SQS 122/42	N33°04.00' W89°36.00'
28 MSL B 70 MSL to	J	IGB 249/35	N33°19.00' W89°11.00'
28 MSL B 70 MSL to	K	NMM 322/43	N33°09.00' W89°04.00'
28 MSL B 50 MSL to	L	NMM 339/33	N33°06.00' W88°46.00'

ROUTE WIDTH - 4 NM either side of centerline.

Special Operating Procedures:

- (1) Visual road recon (RC).
- (2) Instructor/Flight Leader must not descend below 3000' MSL to maintain contact with ATC.
- (3) Alternate Exit: K.
- (4) Alternate Entry: G.

FSS Within 100 NM Radius:

ANB, DRI, GWO, MKL

IR-046

ORIGINATING ACTIVITY: 347 Rescue Wing, Detachment 1/RO, 8707 North Golf Course St., MacDill AFB, FL 33621-5205 DSN 968-2902/4642, C813-828-2902/4642.

SCHEDULING ACTIVITY: 347 Rescue Wing, Detachment 1/ROA, 8707 North Golf Course St., MacDill AFB, FL 33621-5205 DSN 968-4642, C813-828-4642.

HOURS OF OPERATION: 0700-2400 local, daily

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 30 MSL to or as assigned	A	PIE 297/39	N28°09.00' W83°22.30'
30 MSL to or as assigned	B	PIE 287/25	N27°59.40' W83°08.40'
30 MSL to or as assigned	C	PIE 338/20	N28°12.00' W82°51.00'
05 AGL B 30 MSL to	D	OCF 214/40	N28°37.50' W82°38.50'
10 AGL B 30 MSL to	E	OCF 162/26	N28°45.50' W82°04.50'
05 AGL B 30 MSL to	F	OCF 160/52	N28°21.50' W81°53.50'
10 AGL B 30 MSL to	G	OCF 160/60	N28°14.00' W81°50.50'
10 AGL B 30 MSL to	H	ORL 185/32	N28°01.00' W81°23.20'
10 AGL B 40 MSL to	I	ORL 182/33	N28°00.00' W81°21.50'
10 AGL B 50 MSL to	J	ORL 181/46	N27°46.00' W81°21.00'

TERRAIN FOLLOWING OPERATIONS: Authorized for entire route.

ROUTE WIDTH - 4 NM either side of centerline from A to C; 8 NM left and 5 NM right of centerline from C to D; 5 NM either side of centerline from D to I; 6 NM left and 4 NM right of centerline from I to J.

Special Operating Procedures:

- (1) When entering the route from the north enter at A. Refer to A as RILEE in all ATC communications and file to RILEE on the DD Form 175. If entering the route at B, refer to B as HILTI and file to HILTI on the DD Form 175.
- (2) All requests for use of this route must be approved by the 347WG, Det 1/ROA Scheduling Activity a minimum of one day in advance during normal duty hours. Same day changes or cancellations shall be coordinated through the Scheduling Activity.
- (3) Contact 347WG Det 1/RO Originating Activity during normal duty hours for hazard briefing prior to flying route.
- (4) Alternate Entry: B from west of W83-25 or south of N28-00; C limited to entry immediately after departure from MacDill AFB; E no restrictions.
- (5) This route is only used for aircraft scheduled for entry into R-2901 with a specific range period. There are no Alternate Exit points.

- (6) Entry/ exit time windows for deconfliction with IR-051, IR-056, VR-1098 and other IR-046 traffic. For A Entry, flights must enter 23 minutes prior to scheduled range start time (RST) and NLT 28 minutes prior to the range end time (RET). For C Entry, flights must enter NET 20 minutes prior to scheduled RST and NLT 25 minutes prior to RET. For E Entry, enter NET 10 minutes prior to RST and NLT 17 minutes prior to RET. Flights must exit IR-046 NET the RST and NLT 10 minutes prior to RET. Maintain between 360-540 knots ground speed. Entry outside time windows not authorized and requires rescheduling.
- (7) Radar navigation and contour flying authorized from C to J.
- (8) E to F is designated a maneuvering area for visual road reconnaissance.
- (9) Restrictions:
 - (a) Cross F at or above 1000' AGL;
 - (b) Avoid overflight of town Pine Island N28-34 W82-39, Mabel N28-35 W81-59;
 - (c) To avoid 1134' tower on route centerline at N28-07 W81-33, climb to 1500' MSL when passing Highway 27, west of Hanes City.
- (10) Minimum IMC altitude: 3000' MSL A to C, 2500' MSL C to D, 1700' MSL D to G, 2200' MSL G to H, 1700' MSL H to J.
- (11) 15 Oct-15 Mar, Migratory birds. From 1 hour before sunset to 1 hour after sunrise, minimum altitudes are IMC minimums.
- (12) CAUTION: Be alert for light aircraft flying above major highways between D to E, and between E and H. Civil aircraft often fly parallel to Highway 60 just north of R-2901D at 500'. Extensive glider activity near F, surface to 5000'.
- (13) CAUTION: VR-1006 crosses beneath route between D and E and F and G and runs beneath route (opposite direction) between G to H from 500' to 700'. See and Avoid.
- (14) This route deconflicted with IR-051, IR-056 and VR-1098 by 6 OSS/OSOS scheduling. IR-046 is MARSA with these MTR's.
- (15) Pilots shall file R-2901 as the end point of the route and include any delay times necessary. Miami ARTCC requires enroute delay type flight plans vice a new flight plan departing the range. Flights departing from locations north of 28 degrees must file A.
- (16) AFGSC bombers that require dry or multiple passes, file IR-046Z as route in DD Form 175. Include delay time for orbits and range at R-2901. Orbit route for re-attack is left turn through Marian MOA to join IR-051 between G and I, maintain at or below 2000' MSL while on IR-051.

FSS Within 100 NM Radius:

GNV, MIA, PIE

IR-047

ORIGINATING ACTIVITY: 347 Rescue Wing, Detachment 1/RO, 8707 North Golf Course St., MacDill AFB, FL 33621-5205 DSN 968-2902/4642, C813-828-2902/4642.

SCHEDULING ACTIVITY: 347 Rescue Wing, Detachment 1/ROA, 8707 North Golf Course St., MacDill AFB, FL 33621-5205 DSN 968-4642, C813-828-4642.

HOURS OF OPERATION: 0700-2400 local, daily

IR ROUTES

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to 50 MSL - 90 MSL	A	LAL 261/14	N27°57.20' W82°16.50'
as assigned to 50 MSL - 90 MSL	B	LAL VORTAC	N27°59.17' W82°00.83'
as assigned to 50 MSL - 90 MSL	C	LAL 082/36	N28°03.50' W81°21.00'
as assigned to 50 MSL - 90 MSL	D	ORL 181/32	N28°00.00' W81°21.00'
as assigned to	E	ORL 181/46	N27°46.00' W81°21.00'

ROUTE WIDTH - 3.5 NM either side of centerline from A to D; 6 NM left and 4 NM right of centerline from D to E.

Special Operating Procedures:

- (1) All requests for use of this route must be approved by the 347WG, Det 1/ROA Scheduling Activity a minimum of one day in advance during normal duty hours. Same day changes or cancellations shall be coordinated through the Scheduling Activity.
- (2) Alternate Entry: B.
- (3) This route will only be scheduled for aircraft entering R-2901. There are no Alternate Exit points.
- (4) CAUTION: Heavy commercial and general aviation aircraft traffic in the vicinity of Lakeland.

FSS Within 100 NM Radius:

GNV, MIA, PIE

IR-048

ORIGINATING ACTIVITY: 347 Rescue Wing, Detachment 1/RO, 8707 North Golf Course St., MacDill AFB, FL 33621-5205 DSN 968-2902/4642, C813-828-2902/4642.

SCHEDULING ACTIVITY: 347 Rescue Wing, Detachment 1/ROA, 8707 North Golf Course St., MacDill AFB, FL 33621-5205 DSN 968-4642, C813-828-4642.

HOURS OF OPERATION: 0700-2400 local, daily

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
40 MSL B 60 MSL to	A	MCF 106/61	N27°38.50' W81°24.00'
40 MSL B 60 MSL to	B	MCF 109/49	N27°38.50' W81°38.00'
50 MSL to or as assigned	C	MCF 115/30	N27°40.80' W81°59.30'

ROUTE WIDTH - 6 NM either side of centerline from A to B; 5 NM either side of centerline from B to C.

Special Operating Procedures:

- (1) All requests for use of this route must be approved by the 347WG, Det 1/ROA Scheduling Activity a minimum of one day in advance during normal duty hours. Same day changes or cancellations shall be coordinated through the Scheduling Activity.

- (2) Alternate Entry/Exit: B.

- (3) This route is only for aircraft returning to MacDill AFB from R-2901 or Lake Placid MOA. It terminates with a hand-off to Tampa Approach Control.

- (4) CAUTION: Numerous light aircraft flying north and south between A and B.

FSS Within 100 NM Radius:

GNV, MIA, PIE

IR-049

ORIGINATING ACTIVITY: 347 Rescue Wing, Detachment 1/RO, 8707 North Golf Course St., MacDill AFB, FL 33621-5205 DSN 968-2902/4642, C813-828-2902/4642.

SCHEDULING ACTIVITY: 347 Rescue Wing, Detachment 1/ROA, 8707 North Golf Course St., MacDill AFB, FL 33621-5205 DSN 968-4642, C813-828-4642.

HOURS OF OPERATION: 0700-2400 local, daily

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	MCF 164/23	N27°30.00' W82°22.00'
05 AGL B 30 MSL to	B	LBV 314/46	N27°21.72' W81°59.98'
05 AGL B 30 MSL to	C	LBV 319/37	N27°18.02' W81°49.98'
05 AGL B 30 MSL to	D	LBV 327/26	N27°11.52' W81°38.98'
05 AGL B 60 MSL to Cross 81 deg W at or below 50 MSL	E	PHK 325/28	N27°10.02' W80°59.28'
05 AGL B 50 MSL to Enter R-2901 (Point F) 15 AGL to 40 MSL. If clearance into R-2901 has not been received, enter Avon South MOA at 50 MSL with Miami ARTCC.	F	PHK 329/37	N27°18.82' W81°02.98'

TERRAIN FOLLOWING OPERATIONS: Authorized for entire route.

ROUTE WIDTH - 8 NM left and 3 NM right of centerline from A to B; 5 NM either side of centerline for entire route from B to D; 6 NM either side of centerline for entire route from D to E; 3.5 NM left and 7 NM right of centerline from E to F.

Special Operating Procedures:

- (1) All requests for use of this route must be approved by the 347 Rescue Wing, Det 1/ROA Scheduling Activity a minimum of one day in advance during normal duty hours. Same day changes or cancellations shall be coordinated through the Scheduling Activity.
- (2) Contact 347 Rescue Wing, Det 1/ROA during normal duty hours for hazard briefing prior to flight planning.
- (3) Alternate Entry: B (A is only authorized on departure from MacDill AFB, FL)

- (4) This route is only used for aircraft scheduled for entry into R-2901 with specified range period. There are no Alternate Exit points.
- (5) Entry/exit time windows for deconfliction with IR-034, IR-050, and other IR-049 traffic. For A Entry, flight must enter NET 15 minutes prior to scheduled range start time (RST) and NLT 20 minutes prior to the range end time (RET). For B Entry, enter NET 10 minutes prior to RST and NLT 18 minutes prior to RET. Flight must exit IR-049 NET the RST and NLT 10 minutes prior to RET. Maintain between 360-540 knots ground speed. Route entry outside the time windows is not authorized and requires rescheduling.
- (6) Radar navigation, contour flying and terrain following radar flying authorized A to F.
- (7) Visual road reconnaissance authorized D to E.
- (8) Restrictions: Avoid overflight of Brownsville at N27-18 W81-49, hospital at N27-12 W81-41 (by 1 NM), Brighton at N27-14 W81-06.
- (9) This route is deconflicted with IR-034, IR-050, IR-051 and IR-055 by 347th Wing, Det 1/ROA.
- (10) CAUTION: IR-049 airspace coincides with: VR-1098 from A to E, VR-1006 at E, VR-1087/1088 from E to F. In VMC, See and Avoid.
- (11) CAUTION: Be alert for light aircraft north of Arcadia and in the vicinity of Lake Placid. Avoid flight within 1500' AGL or 3 NM of private airports enroute.
- (12) Minimum IMC altitude is 1700' MSL for entire route.
- (13) 15 Oct-15 Mar/Migratory birds. From 1 hour before sunset to 1 hour after sunrise, minimum altitude is IMC altitude for entire route.
- (14) Use Caution: Entry Point A is within 2 NM of Class B and C airspace.
- (15) Use Caution: Alternate Entry Point B is within 20 NM of Class B and C airspace.

FSS Within 100 NM Radius:

MIA, PIE, WBR

IR-050

ORIGINATING ACTIVITY: 347 Rescue Wing, Detachment 1/RO, 8707 North Golf Course St., MacDill AFB, FL 33621-5205 DSN 968-2902/4642, C813-828-2902/4642.

SCHEDULING ACTIVITY: 347 Rescue Wing, Detachment 1/ROA, 8707 North Golf Course St., MacDill AFB, FL 33621-5205 DSN 968-4642, C813-828-4642.

HOURS OF OPERATION: 0700-2400 local, daily

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	MCF 164/23	N27°30.00' W82°22.00'
05 AGL B 30 MSL to	B	LBV 314/46	N27°21.72' W81°59.98'
05 AGL B 30 MSL to	C	LBV 319/37	N27°18.02' W81°49.98'
05 AGL B 30 MSL to	D	LBV 016/5	N26°54.02' W81°21.98'
05 AGL B 30 MSL to	E	PHK 318/19	N27°01.32' W80°55.68'

05 AGL B 30 MSL to	F	PHK 325/28	N27°10.02' W80°59.28'
05 AGL B 50 MSL to	G	PHK 329/37	N27°18.82' W81°02.98'
Enter R-2901 (Point G) 15 AGL to 40 MSL. If clearance into R-2901 has not been received, enter Avon South MOA at 50 MSL with Miami ARTCC.			

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 8 NM left and 3 NM right of centerline from A to B; 5 NM either side of centerline from B to E; 3.5 NM left and 7 NM right of centerline from E to G.

Special Operating Procedures:

- (1) All requests for use of this route must be approved by the 347 Rescue Wing, Det 1/ROA Scheduling Activity a minimum of one day in advance during normal duty hours. Same day changes or cancellations shall be coordinated through the Scheduling Activity.
- (2) Contact 347 Rescue Wing, Det 1/ROA during normal duty hours for hazard briefing prior to flying route.
- (3) Alternate Entry: B (A is only authorized on departure from MacDill AFB, FL)
- (4) This route is only used for aircraft scheduled for entry into R-2901 with a specified range period. There are no Alternate Exit points.
- (5) Entry/exit time windows for deconfliction with IR-034, IR-049 and other IR-050 traffic. For A Entry, flight must enter NET 17 minutes prior to the scheduled range start time (RST) and NLT 22 minutes prior to the range end time (RET). For B Entry, enter NET 15 minutes prior to RST and NLT 20 minutes prior to RET. Flight must exit IR-050 NET the RST and NLT 10 minutes prior to RET. Maintain between 360-540 knots ground speed. Entry outside time windows is not authorized and requires rescheduling.
- (6) Radar navigation and contour flying authorized A to G.
- (7) Restrictions: Avoid overflight of Brownsville N27-18 W81-49; hospital at N27-12 W81-41 by 1 NM; Arcadia at N27-12.5 W81-50.0; Brighton N27-13.8 W81-05.7.
- (8) This route is deconflicted with IR-034, IR-051 and IR-055 by 347 Rescue Wing, Det 1/ROA Scheduling. IR-050 is MARSA with these MTRs.
- (9) CAUTION: IR-050 airspace coincides with: VR-1006 from D to F, VR-1098 from D to G, VR-1087 from E to G, and cross VR-1098 at F. In VMC, See and Avoid.
- (10) CAUTION: Be alert for light aircraft in vicinity of C and D. Avoid flight within 1500' or 3 NM of private airports enroute.
- (11) Minimum IMC altitude 1700' MSL for entire route.
- (12) 15 Oct-15 Mar/Mirgatory birds: From 1 hour before sunset to 1 hour after sunrise, minimum altitude is IMC altitude for entire route.
- (13) Use Caution: Entry Point A is within 2 NM of Class B and C airspace.
- (14) Use Caution: Alternate Entry Point B is within 20 NM of Class B and C airspace.

FSS Within 100 NM Radius:

MIA, PIE, WBR

IR ROUTES

IR-051

ORIGINATING ACTIVITY: 347 Rescue Wing, Detachment 1/RO, 8707 North Golf Course St., MacDill AFB, FL 33621-5205 DSN 968-2902/4642, C813-828-2902/4642.

SCHEDULING ACTIVITY: 347 Rescue Wing, Detachment 1/ROA, 8707 North Golf Course St., MacDill AFB, FL 33621-5205 DSN 968-4642, C813-828-4642.

HOURS OF OPERATION: 0700-2400 local, daily

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	MCF 164/23	N27°30.00' W82°22.00'
05 AGL B 30 MSL to	B	LBV 314/46	N27°21.72' W81°59.98'
05 AGL B 30 MSL to	C	LBV 319/37	N27°18.00' W81°49.98'
05 AGL B 30 MSL to	D	LBV 016/5	N26°54.02' W81°21.98'
30 MSL to	E	PHK 295/26	N26°58.02' W81°07.98'
30 MSL to	F	PHK 013/24	N27°10.72' W80°35.48'
05 AGL B 30 MSL to	G	TRV 209/24	N27°18.50' W80°39.50'
05 AGL B 30 MSL to	H	TRV 239/18	N27°30.00' W80°45.00'
05 AGL B 30 MSL to	I	TRV 284/20	N27°43.00' W80°51.40'
05 AGL B 20 MSL to	J	TRV 300/25	N27°50.50' W80°55.00'
05 AGL B 20 MSL to	K	ORL 169/29	N28°04.00' W81°14.00'
05 AGL B 50 MSL to	L	ORL 181/32	N28°00.00' W81°21.00'
05 AGL B 50 MSL to (Excluding R-2901) Enter Avon North MOA if clearance into R-2901 is not received prior to L.	M	ORL 181/46	N27°46.00' W81°21.00'

TERRAIN FOLLOWING OPERATIONS: Contour flying and terrain following radar flying authorized from A to D and F to M. Minimum IMC altitude 1700' MSL from A to D and from F to M. Minimum IMC altitude 3000' MSL from D to F.

ROUTE WIDTH - 8 NM left and 3 NM right of centerline from A to B; 5 NM either side of centerline from B to F; 4 NM either side of centerline from F to H; 3 NM either side of centerline from H to L; 6 NM left and 4 NM right of centerline from L to M.

Special Operating Procedures:

- (1) All requests for use of this route must be approved by the 347 Rescue Wing, Det 1/ROA Scheduling Activity a minimum of one day in advance during normal duty hours. Same day changes or cancellations shall be coordinated through the Scheduling Activity.

- (2) Contact 347 Rescue Wing, Det1/RO Originating Activity during normal duty hours for hazard briefing prior to flying route.
- (3) Alternate Entry: B and F when flight planned, and between H and I when entering from Marina MOA. (A is only authorized on departure from MacDill AFB, FL)
- (4) This route is used for aircraft scheduled for entry into R-2901 with a specified range period. There are no Alternate Exit points.
- (5) Entry/exit time windows for deconfliction with IR-046, IR-049, IR-050, IR-056, VR-1089, VR-1098 and other IR-051 traffic. For A/B Entry, enter NET 27 minutes prior to scheduled range start time (RST) and NLT 32 minutes prior to range end time (RET). For F Entry, enter NET 14 minutes prior to RST and NLT 19 minutes prior to RET. Flight must exit IR-051 NET the RST and NLT 10 minutes prior to RET. Maintain between 420-540 kts ground speed. Round entry outside time windows not authorized and requires rescheduling.
- (6) Radar navigation authorized A to K.
- (7) This route is deconflicted with IR-034, IR-046, IR-049, IR-050, IR-055, and IR-056. IR-051 is MARSAs with them.
- (8) Restrictions: Avoid overflight of hospital N27-12 W81-41 by 1 NM.
- (9) IR-051 airspace coincides with VR-1006 from F to L. In VMC, See and Avoid.
- (10) CAUTION: Be alert for light aircraft in vicinity of C, D, and along the Florida Turnpike.
- (11) Minimum IMC altitude is 1700' MSL except from D to F where 3000' MSL is mandatory altitude. Numerous MTRs under IR-051 between D to F.
- (12) 15 Oct-15 Mar/Migratory birds: From 1 hour before sunset to 1 hour after sunrise, minimum altitude is IMC altitude for entire route.
- (13) Possible bird hazard area located approximately N27-20.6 W80-41.4. Avoid this area by 3 NM or above 2000' AGL.
- (14) Use Caution: Entry Point A is within 2 NM of Class B and C airspace.
- (15) Use Caution: Alternate Entry Point B is within 20 NM of Class B and C airspace.

FSS Within 100 NM Radius:

GNV, MIA, PIE

IR-053

ORIGINATING ACTIVITY: 347 Rescue Wing, Detachment 1/RO, 8707 North Golf Course St., MacDill AFB, FL 33621-5205 DSN 968-2902/4642, C813-828-2902/4642.

SCHEDULING ACTIVITY: 347 Rescue Wing, Detachment 1/ROA, 8707 North Golf Course St., MacDill AFB, FL 33621-5205 DSN 968-4642, C813-828-4642.

HOURS OF OPERATION: 0600-2400 local, daily

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	HST 153/18	N25°14.00' W80°13.00'
05 AGL B 30 MSL to	B	HST 202/40	N24°51.00' W80°37.00'

05 AGL B 30 MSL to	C	HST 209/50	N24°44.00' W80°47.00'
05 AGL B 30 MSL to	D	EYW 085/37	N24°38.00' W81°07.00'
05 AGL B 30 MSL to Descend to	E	EYW 218/27	N24°14.00' W82°07.00'
25 MSL to	F	EYW 249/23	N24°27.00' W82°12.00'

ROUTE WIDTH - 5 NM either side of centerline from A to C;
2 NM either side of centerline from C to E; 5 NM either side of
centerline E to F.

Special Operating Procedures:

- (1) All requests for use of this route must be approved by the 347WG, Det 1/ROA Scheduling Activity a minimum of one day in advance during normal duty hours. Same day changes or cancellations shall be coordinated through the Scheduling Activity.
- (2) Alternate Entry: B (A is only authorized on departure from Homestead ARB).
- (3) Contact Navy Key West APP CON not later than 5 minutes prior to exit.
- (4) Clearance to fly this route does not include clearance into W-174E, Marquesas/Patricia target area.
- (5) Obstruction/hazard/noise sensitive briefing shall be obtained at time of scheduling.
- (6) CAUTION: Uncharted airstrips N25-00.0 W80-33.0.
- (7) CAUTION: Uncharted 250' MSL concrete tower N25-07.7 W80-24.8; tower with strobe light 300' MSL N27-07.5 W80-24.3; two microwave towers 250' MSL N25-06.7 W80-25.0; tower 350' MSL N25-01.8 W80-30.5; tower 300' MSL N24-55.3 W80-38.0; twin towers 250' MSL N24-54.6 W80-38.8.

FSS Within 100 NM Radius:

MIA

IR-055

ORIGINATING ACTIVITY: 347 WG, Detachment 1/RO, 8707 North Golf Course St., MacDill AFB, FL 33621-5205 DSN 968-2902/4642, C813-828-2902/4642.

SCHEDULING ACTIVITY: 347 WG, Detachment 1/ROA, 8707 North Golf Course St., MacDill AFB, FL 33621-5205 DSN 968-4642, C813-828-4642.

HOURS OF OPERATION: 0600-2400 local, daily

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
15 AGL B 20 MSL to	A	PHK 329/40	N27°21.30' W81°04.50'
01 AGL B 40 MSL to	B	PHK 318/34	N27°12.30' W81°06.70'
01 AGL B 40 MSL to	C	PHK 271/28	N26°47.20' W81°13.00'
01 AGL B 40 MSL to	D	RSW 116/26	N26°21.00' W81°20.00'
01 AGL B 40 MSL to	E	RSW 129/28	N26°15.00' W81°21.50'

01 AGL B 40 MSL to	F	HST 298/59	N25°54.50' W81°21.50'
10 AGL B 40 MSL to	G	HST 291/56	N25°46.00' W81°21.50'
10 AGL B 40 MSL to	H	HST 266/46	N25°24.00' W81°13.00'
10 AGL B 40 MSL to	I	HST 244/46	N25°07.00' W81°07.00'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 4 NM either side of centerline A to B; 8 NM either side of centerline B to I.

Special Operating Procedures:

- (1) All requests for use of this route must be approved by the 347WG, Det 1/ROA Scheduling Activity a minimum of one day in advance during normal duty hours. Same day changes or cancellations shall be coordinated through the Scheduling Activity.
- (2) Route entry from R-2901 required during scheduled range period only. No Alternate Entry points. To maintain separation with preceding flights, start route NET 10 minutes into scheduled range time.
- (3) National Park Service operates fixed and rotary wing aircraft over Everglades National Park and Big Cypress Preserve. Exercise caution between D and I.
- (4) Minimum altitude over Everglades National Park and Big Cypress Preserve is 1000' AGL. Big Cypress Preserve is between E and F, left of centerline entire leg.
- (5) Avoid Immikalee Airport by 3 NM regardless of altitude.
- (6) Contact Miami ARTCC 133.55/291.6 prior to entering route.
- (7) Alternate Exit: D and H.
- (8) Visual road recon (RC) route.
- (9) This route is deconflicted with IR-034, IR-049, IR-050, IR-051, and IR-056 by scheduling.
- (10) Avoid overflight of Hendry Correctional Complex N26-19 W81-16 by 1 NM or 1500' AGL.
- (11) Avoid overflight of horse ranch at N26-52 W81-14 by 2 NM or 1500' AGL.
- (12) CAUTION: Uncharted grass airstrips N26-20.9 W81-26.5; N26-20.0 W81-19.2.
- (13) CAUTION: Uncharted tower 300' MSL N27-07.0 W81-05.0; water tower 250' MSL N27-04.8 W81-04.2; tower 250' MSL N26-59.0 W81-07.8; tower 200' MSL N26-25.9 W81-26.9; microwave tower 150' MSL N26-18.4 W81-16.8; tower 200' MSL N26-17.3 W81-20.2; tower 210' MSL N26-02.5 W81-20.5; tower 210' MSL N26-02.5 W81-21.5.
- (14) CAUTION: Uncharted water tower 250' MSL N27-04.8 W81-04.2; tower 250' MSL N26-59.0 W81-07.8; microwave tower 150' MSL N26-18.4 W81-16.8; tower 200' MSL N26-17.3 W81-20.2; tower 200' MSL N26-02.5 W81-21.5.
- (15) Possible bird hazard area located approximately N27-20.6 W80-41.4. Avoid this area by 3 NM or above 2000' AGL.

FSS Within 100 NM Radius:

MIA, PIE

IR-056

ORIGINATING ACTIVITY: 347 WG, Detachment 1/RO, 8707 North Golf Course St., MacDill AFB, FL 33621-5205 DSN 968-2902/4642, C813-828-2902/4642.

IR ROUTES

SCHEDULING ACTIVITY: 347 WG, Detachment 1/ROA, 8707 North Golf Course St., MacDill AFB, FL 33621-5205 DSN 968-4642, C813-828-4642.

HOURS OF OPERATION: 0600-2400 local

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	HST 244/46	N25°07.00' W81°07.00'
10 AGL B 30 MSL to	B	HST 266/46	N25°24.00' W81°13.00'
10 AGL B 30 MSL to	C	HST 291/56	N25°46.00' W81°21.50'
10 AGL B 30 MSL to	D	RSW 151/43	N25°54.50' W81°21.50'
01 AGL B 30 MSL to	E	RSW 129/28	N26°15.00' W81°21.50'
01 AGL B 30 MSL to	F	RSW 116/26	N26°21.00' W81°20.00'
01 AGL B 30 MSL to	G	PHK 232/15	N26°37.80' W80°54.50'
01 AGL B 30 MSL to	H	PHK 230/8	N26°42.00' W80°48.00'
01 AGL B 30 MSL to	I	PHK 344/15	N27°01.50' W80°46.00'
01 AGL B 30 MSL to	J	PHK 352/23	N27°10.00' W80°45.00'
01 AGL B 20 MSL to	K	TRV 231/16	N27°29.00' W80°42.00'
01 AGL B 20 MSL to	L	TRV 278/18	N27°41.00' W80°50.00'
01 AGL B 20 MSL to	M	TRV 299/25	N27°50.00' W80°56.00'
01 AGL B 30 MSL to	N	LAL 085/43	N28°02.00' W81°12.00'
01 AGL B 30 MSL to	O	LAL 086/39	N28°01.00' W81°17.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from D to O.

ROUTE WIDTH - 8 NM either side of centerline from A to H; 4 NM either side of centerline from H to K; 3 NM either side of centerline from K to O.

Special Operating Procedures:

- (1) Visual road reconnaissance (RC) or photo reconnaissance (PR) route.
- (2) This route terminates at Avon Park Gunnery Range (R-2901) and may only be scheduled in conjunction with reserved range time. Route entry times must be made so as not to arrive at range boundary earlier than reserved range time. Route exit time must allow for a minimum of 10 minutes reserved range time remaining for the last aircraft in a flight.
- (3) Avoid Immokalee and Clewiston Airports by 3 NM regardless of altitude.
- (4) Minimum altitude over Everglades National Park and Big Cypress Preserve is 1000'AGL. Big Cypress Preserve is between D and E, east of centerline entire leg.
- (5) Minimum altitude within 3 NM of H is 500'AGL.
- (6) Alternate Entry: D and H.

- (7) Alternate Exit L is to be used only for entry into R-2901 via Marian MOA.
- (8) Florida's turnpike - minimum crossing altitude or paralleling within 1/2 NM altitude is 500' AGL.
- (9) All requests for use of this route must be approved by the 347WG, Det 1/ROA Scheduling Activity a minimum of one day in advance during normal duty hours. Same day changes or cancellations shall be coordinated through the Scheduling Activity.
- (10) Route clearance valid only plus 30 minutes from scheduling time.
- (11) Route segment from F to H is designated a maneuver area.
- (12) Avoid overflight of Hendry Correctional Complex N26-19.0 W81-16.0 by 1 NM or 1500' AGL.
- (13) CAUTION: Uncharted grass airstrips N26-20.0 W81-19.2; N26-20.9 W81-26.5; N27-41.0 W80-48.5.
- (14) CAUTION: Uncharted tower 210' MSL N26-02.5 W81- 20.5; tower 210' MSL N26-02.5 W81-21.5; tower 200' MSL N26-17.3 W81-20.2; microwave tower 150' MSL N26-18.4 W81-16.8; tower 250' MSL N26-27.5 W81-04.5; microwave tower 315' MSL N26-37.7 W80-55.2; tower 300' MSL N26-38.6 W80-55.2; tower 300' MSL N27-52.0 W80-52.8; grain elevator 200' MSL N27-45.3 W80-47.8; grain elevator 300' MSL N27-48.1 W80-47.8; tower 250' MSL N27-42.6 W80- 54.3.
- (15) Tower 516' MSL N27-14.3 W80-45.2 is N27-14.0 W80-40.5. Drive-in movie theater N27-14.5 W80-40.5 is at N27-14.3 W80-45.2.
- (16) H is a mandatory reporting point. In addition to reporting H, non Homestead AFB based aircraft are required to give ETA in Zulu time for M.
- (17) When the instrument approach to Pahokee/Palm Beach County Glades Airport is active, aircraft will be directed to maintain 4000' MSL from G to I.
- (18) Possible bird hazard area located approximately N27-20.6 W80-41.4. Avoid this area by 3 NM or above 2000' AGL.

FSS Within 100 NM Radius:

GNV, MIA, PIE

IR-057

ORIGINATING ACTIVITY: 1 SOAOS/DOGR, Hurlburt Field, FL 32544 DSN 579-3366, C850-884-3366.

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 10 MSL to	A	CEW VORTAC	N30°49.57' W86°40.75'
02 AGL B 10 MSL to	B	CEW 010/11	N31°00.00' W86°38.00'
02 AGL B 30 MSL to	C	CEW 002/44	N31°33.40' W86°36.60'
02 AGL B 20 MSL to	D	MGM 202/10	N32°03.90' W86°24.40'
02 AGL B 13 MSL to	E	MGM 102/33	N32°04.60' W85°41.20'
02 AGL B 15 MSL to	F	CSG 183/29	N32°07.90' W85°03.60'

02 AGL B 15 MSL to	G	CSG 158/44	N31°55.30' W84°42.30'
02 AGL B 30 MSL to	H	PZD 273/20	N31°39.80' W84°41.20'
02 AGL B 30 MSL to	I	PZD 199/30	N31°10.20' W84°28.00'
02 AGL B 30 MSL to	J	SZW 332/13	N30°44.90' W84°29.00'
02 AGL B 30 MSL to	K	MAI 146/15	N30°34.80' W84°57.70'
02 AGL B 10 MSL to	L	MAI 253/25	N30°39.80' W85°34.60'
02 AGL B 10 MSL to	M	CEW 087/33	N30°49.30' W86°01.90'
02 AGL B 10 MSL to	N	CEW 061/15	N30°56.20' W86°24.80'
02 AGL B 10 MSL to	O	CEW 282/8	N30°51.70' W86°49.80'
02 AGL B 10 MSL to (Sontay DZ) (Alternate routing from N)	P	CEW 197/12	N30°37.90' W86°45.70'
02 AGL B 10 MSL to	N	CEW 061/15	N30°56.20' W86°24.80'
02 AGL B 10 MSL to (Pino DZ)	NA	CEW 116/17	N30°41.20' W86°23.60'

TERRAIN FOLLOWING OPERATIONS: Entire route designated for terrain following operations by MC-130 and CV-22 aircraft. Special equipment and procedures enable MC-130's and CV-22's to operate at lower than standard IFR terrain clearance altitudes.

ROUTE WIDTH - 2 NM either side of centerline.

Special Operating Procedures:

- (1) Tie-in FSS: GNV (Gainesville).
- (2) Limited to 1 SOW use only.
- (3) Primary Entry: A.
- (4) Alternate Entry: D, I.
- (5) Primary Exit: P or NA.
- (6) Alternate Exit: D, F, I.
- (7) To file alternate routing from N to NA (Pino DZ), file (entry point). IR-057. CEW061015. IR057A. CEW116017.
- (8) Communication requirements: The aircraft shall:
 - (a) Contact Jacksonville ARTCC 120.2 346.6 at B;
 - (b) Contact Atlanta ARTCC 120.55 270.25 at C;
 - (c) Contact Montgomery APP CON 124.0 319.9 at D;
 - (d) Contact Atlanta Large TRACON APP CON 126.55 278.5 339.8 at E;
 - (e) Contact Jacksonville ARTCC on 125.75 226.8 at G;
 - (f) Contact Tallahassee APP CON on 128.7 254.3 at I;
 - (g) Contact Eglin APP CON on 124.05 393.0 at M.
- (9) Route Floor: CV-22 - 200' AGL; MC-130 - 250' AGL.
- (10) Mission number required for entry into R-2914 or R-2915.
- (11) Contact Eglin Range Control at N for entry into R-2914 or O for entry into R-2915.
- (12) Use caution near Crestview VORTAC due to intensive military and civilian traffic.
- (13) Avoid noise sensitive areas:
 - (a) N31-01.2 W86-37.0 (Near B);
 - (b) N30-56.4 W86-30.0 (Near N) by 1000' AGL or 1 NM;
 - (c) N31-01.8 W86-36.5 (Near B) by 1500' AGL or 2 NM;

(d) Cody Hill Aviary at N32-08.2 W85-18.4 by 1000' AGL or 1/4 NM.

(14) MTR deconfliction. IR-059 runs opposite direction to IR-015 between point E and H. IR-057 parallels IR-015 between point E and H. Call 1 SOSS Current Operations @ DSN 579-7812/2629 and 23 OSS/OSOS @ DSN 460-7831/7839 to deconflict.

FSS Within 100 NM Radius:

ANB, MCN, OZR

IR-059

ORIGINATING ACTIVITY: 1 SOAOS/DOGR, Hurlburt Field, FL 32544 DSN 579-3366, C850-884-3366.

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 10 MSL to	A	CEW VORTAC	N30°49.57' W86°40.75'
02 AGL B 10 MSL to	B	CEW 061/15	N30°56.20' W86°24.80'
02 AGL B 10 MSL to	C	CEW 087/33	N30°49.30' W86°01.90'
02 AGL B 10 MSL to	D	MAI 253/25	N30°39.80' W85°34.60'
02 AGL B 10 MSL to	E	MAI 146/15	N30°34.80' W84°57.70'
02 AGL B 30 MSL to	F	SZW 332/13	N30°44.90' W84°29.00'
02 AGL B 30 MSL to	G	PZD 199/30	N31°10.20' W84°28.00'
02 AGL B 30 MSL to	H	PZD 273/20	N31°39.80' W84°41.20'
02 AGL B 30 MSL to	I	CSG 158/44	N31°55.30' W84°42.30'
02 AGL B 15 MSL to	J	CSG 183/29	N32°07.90' W85°03.60'
02 AGL B 15 MSL to	K	MGM 102/33	N32°04.60' W85°41.20'
02 AGL B 13 MSL to	L	MGM 202/10	N32°03.90' W86°24.40'
02 AGL B 20 MSL to	M	CEW 002/44	N31°33.40' W86°36.60'
02 AGL B 30 MSL to	N	CEW 010/11	N31°00.00' W86°38.00'
02 AGL B 10 MSL to	O	CEW 282/8	N30°51.70' W86°49.80'
02 AGL B 10 MSL to (Sontay DZ) (Alternate routing from N)	P	CEW 197/12	N30°37.90' W86°45.70'
02 AGL B 30 MSL to	N	CEW 010/11	N31°00.00' W86°38.00'

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02 AGL B 10 MSL to B1 CEW 061/15 N30°56.20'
W86°24.80'

02 AGL B 10 MSL to BA CEW 116/17 N30°41.20'
(Pino DZ) W86°23.60'

TERRAIN FOLLOWING OPERATIONS: Entire route designated for terrain following operations by MC-130 and CV-22 aircraft. Special equipment and procedures enable MC-130's and CV-22's to operate at lower than standard IFR terrain clearance altitudes.

ROUTE WIDTH - All segments, 2 NM either side of centerline.

Special Operating Procedures:

- (1) Tie-in FSS: GNV (Gainesville).
- (2) Limited to: 1 SOW use only.
- (3) Primary Entry: A.
- (4) Alternate Entry: G, L.
- (5) Primary Exit: P or BA.
- (6) Alternate Exit: G, J, L.
- (7) To file alternate routing from N to BA (Pino DZ), file (entry point). IR-059. CEW010011. IR059A. CEW116017.
- (8) Communication requirements: The aircraft shall:
 - (a) Contact Tallahassee APP CON on 128.7 254.3 at E;
 - (b) Contact Jacksonville ARTCC on 120.2 346.6 at G;
 - (c) Contact Atlanta Large TRACON APP CON 126.55 278.5 339.8 at H;
 - (d) Contact Montgomery APP CON on 124.0 319.9 at K;
 - (e) Contact Atlanta ARTCC on 120.55 270.25 at L;
 - (f) Contact Jacksonville ARTCC on 125.75 226.8 at M;
 - (g) Contact Eglin APP CON on 124.05 393.0 at N.
- (9) Route Floor: CV-22 - 200' AGL; MC-130 - 250' AGL.
- (10) Mission number required for entry into R-2914 or R-2915.
- (11) Contact Eglin Range Control at N for entry into R-2914 or O for entry into R-2915.
- (12) Use caution near Crestview VORTAC due to intensive military and civilian traffic.
- (13) Avoid noise sensitive areas:
 - (a) N31-01.2 W86-37.0 (Near B);
 - (b) N30-56.4 W86-30.0 (Near N) by 1000' AGL or 1 NM;
 - (c) N31-01.8 W86-36.5 (Near B) by 1500' AGL or 2 NM;
 - (d) Cody Hill Aviary at N32-08.2 W85-18.4 by 1000' AGL or 1/4 NM.
- (14) MTR deconfliction. IR-059 runs opposite direction to IR-015 between point E and H. IR-057 parallels IR-015 between point E and H. Call 1 SOSS Current Operations @ DSN 579-7812/2629 and 23 OSS/OSOS @ DSN 460-7831/7839 to deconflict.

FSS Within 100 NM Radius:

ANB, MCN, OZR

IR-062

ORIGINATING ACTIVITY: COMSTRKFIGHTWINGLANT, Oceana NAS, Virginia Beach, VA 23460 DSN 433-9141, C757-433-9141.

SCHEDULING ACTIVITY: FACSFAC VACAPES, Oceana , NAS Virginia Beach, VA 23460 DSN 433-1228, C757-433-1228. Scheduling hours 0600-1900 local (EST).

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
40 MSL-50 MSL			
As assigned to 40 MSL-50 MSL	A	ISO 093/49	N35°24.00' W76°33.00'
as assigned to 30 MSL-40 MSL	B	CVI 241/15	N36°13.00' W77°07.00'
as assigned to 30 MSL-40 MSL	C	TYI 008/30	N36°29.00' W77°40.00'
as assigned to 30 MSL-40 MSL	D	RDU 024/47	N36°38.00' W78°32.00'
as assigned to 30 MSL-40 MSL	E	SBV 228/23	N36°24.00' W79°20.00'
as assigned to 30 MSL-40 MSL	F	LIB 204/5	N35°44.00' W79°39.00'
as assigned to 30 MSL-40 MSL	G	SDZ 199/21	N34°53.00' W79°42.00'
as assigned to 30 MSL-40 MSL	H	FAY 222/34	N34°32.00' W79°18.00'
as assigned to 30 MSL-40 MSL	I	FAY 174/27	N34°32.00' W78°47.00'
as assigned to 30 MSL-40 MSL	J	ILM 354/23	N34°44.00' W77°59.00'
as assigned to 30 MSL-40 MSL	K	ISO 122/5	N35°20.00' W77°28.00'
as assigned to 30 MSL-40 MSL	L	ISO 074/27	N35°32.00' W77°03.00'
as assigned to	M	CVI 161/33	N35°53.00' W76°33.00'
Alternate Exit: L and LA			
	L	ISO 074/27	N35°32.00' W77°03.00'
	LA	ISO 105/41	N35°15.00' W76°44.00'

ROUTE WIDTH - 4 NM either side of centerline from A to C; 3 NM left and 4 NM right of centerline from C to E; 4 NM either side of centerline from E to M; 4 NM either side of centerline from L to LA on alternate exit track.

Special Operating Procedures:

- (1) Route reservations and brief required.
- (2) Alternate Entry: B.
- (3) Alternate Exit: L and LA.
- (4) To fly this route all aircraft must have an operable inertial navigation system (INS) or global positioning system (GPS). Aircraft operating from Oceana NAS must use a stereo flight plan.
- (5) Where two altitudes are indicated, the lower published altitude is the primary route altitude. The higher altitude will be assigned by ATC when required to provide separation from other IFR operations.
- (6) Mandatory reporting points. UHF radio reports are required when passing:
 - (a) A to Cherry Point 377.175;
 - (b) B to Washington ARTCC 323.0;
 - (c) D to Washington ARTCC 269.4;
 - (d) E to Greensboro APP CON 247.2;
 - (e) 30 NM North of G to Fayetteville APP CON 340.7;

- (f) 5 NM East of I to Wilmington APP CON 346.35;
- (g) J to Seymour Johnson APP CON 273.6;
- (h) 16 NM Southeast of L to Washington ARTCC 272.75;
- (i) Exit fix on assigned frequency.
- (7) Return altitude 15,000' MSL. Lost communications altitude 3000' MSL.
- (8) Hazards: At Point M, transit R-5314 below 1000' AGL unless cleared by Range Control 358.8. Numerous MTR's terminate in this area. Military aircraft may be holding VFR over Phelps Lake or at the Alligator River bridge awaiting clearance into the Dare Bombing Range.
- (9) Caution: IR-012 crosses left to right at Point A, crosses twice at Points I-K, and crosses left to right at Point L. (Deconflict with Seymour Johnson AFB DSN 488-6565).
- (10) Caution: IR-035 (Points A-C) runs opposite direction at Points H-J. (Deconflict with Shaw AFB DSN 965-1118).
- (11) Caution: VR-087 coincides same direction at Point H. (Deconflict with Shaw AFB DSN 965-1118).

FSS Within 100 NM Radius:

EKN, RDU

IR-066

ORIGINATING ACTIVITY: 14 OSS/OSOP, Columbus AFB, MS 39710 DSN 742-2764, C662-434-2764.

SCHEDULING ACTIVITY: 50 FTS, Columbus AFB, MS 39710 DSN 742-7734/7735, C662-434-7734/7735.

HOURS OF OPERATION: Sunrise-Sunset Mon-Fri

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	VUZ 001/16	N33°56.00' W86°53.00'
15 AGL B 50 MSL to	B	CBM 052/47	N34°07.00' W87°42.00'
01 AGL B 40 MSL to	C	MKL 136/53	N34°59.00' W88°09.00'
01 AGL B 40 MSL to	D	BNA 221/65	N35°17.00' W87°31.00'
01 AGL B 40 MSL to	E	MKL 138/24	N35°19.00' W88°35.00'
01 AGL B 40 MSL to	F	MKL 170/29	N35°08.00' W88°48.00'
01 AGL B 40 MSL to	G	MEM 099/44	N34°53.00' W89°06.00'
01 AGL B 40 MSL to	H	OTB 052/17	N34°23.00' W88°31.00'
01 AGL B 30 MSL to	I	OTB 111/22	N34°04.00' W88°24.00'

TERRAIN FOLLOWING OPERATIONS: Minimum altitude 1500' AGL A to B. Authorized IAW Command Directives with enroute structure from B to I.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Minimum separation between scheduled entry times is 10 minutes. ARTCC provides users with separation from IFR traffic only. MARSA applies after aircraft have passed the entry/alternate entry point until ATC establishes standard separation after exiting the route.
- (2) Alternate Entry: B, C and G.
- (3) Alternate Exit: F, G and H.
- (4) Aircrews should watch for glider operations out of M40: Monroe County Airport, MS (N33-52-25.49 W88-29-22.84). Glider operations usually take place north of M40 from SFC to 8000'.
- (5) Compulsory Reporting Points:
 - (a) D, Memphis ARTCC 125.85/379.25;
 - (b) F, Memphis ARTCC 135.9/273.55 (compulsory only when F is filed exit);
 - (c) G, Memphis ARTCC 135.9/273.55;
 - (d) H, Memphis ARTCC 135.9/273.55;
 - (e) I, Columbus RAPCON 120.4/239.25 (when Columbus RAPCON closed, contact Memphis Center 128.5/279.55).
- (6) Army National Guard units conduct tactical helicopter operations from SFC to 3000' AGL from N33-45.0 W88-56.5 to N34-20.0 W88-30.0.
- (7) Tie-in FSS: Anniston (ANB).
- (8) When exiting at Point I, aircraft will climb to 3000' MSL at the exit point and proceed to the destination at this altitude until radio contact is made.
- (9) For route briefing, email IR66@columbus.af.mil.
- (10) Numerous power lines/antennae below 200' AGL may be uncharted.
- (11) Aircrews calling to schedule IR-066 will ensure they have checked all applicable Bird Hazard products (examples: <http://www.usahas.com/> and <http://www.usahas.com/bam/>) and are applying appropriate ORM (Operational Risk Management) guidance in accordance with their respective instructions/regulations to reduce the risk of Bird Strikes.
- (12) Crossing Routes:
 - (a) IR-067 common route from Point A to D, and E to G (48 FTS, DSN 742-7840 C662-434-7840).
 - (b) VR-1014 between Points A and B, between Points B and C, and between Points H and I (37/41 FTS, DSN 742-7666 C662-434-7666).
 - (c) VR-1050 common route from Point A to F and from Point H to I, crosses between Points G and H (48 FTS, DSN 742-7840 C662-434-7840).
 - (d) VR-1051 common route from Point A to D and from Point E to G (48 FTS, DSN 742-7840 C662-434-7840).
- (13) Route Deconfliction:
 - (a) IR-067, VR-1050, VR-1051: Deconflicted by scheduler using time (if unable to enter within + or - 4 minutes, re-coordinate a new entry time).
 - (b) VR-1014: Aircraft flying IR-066 between Points A to B, until half way between the Points B to C and between Points H and I will fly at or above 1500' AGL unless the crew has verified that VR-1014 is not being utilized.
- (14) To schedule for weekend use, contact Scheduling Activity prior to 2200Z on Friday.
- (15) Uncharted towers: N35 03.73 W088 47.44 200' AGL.
- (16) 14 FTW aircraft will fly IR-066 in day VMC only. Prior to encountering IMC, aircraft will accomplish the following (in order of precedence):
 - (a) Cancel their IFR clearance, exit the MTR, maintain VMC, and return to base VFR or via a separate IFR clearance.

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- (b) If unable to maintain VMC, climb to the top of the block, continue the route of flight and coordinate a new IFR clearance.
- (c) If the pilot is unable to establish two-way radio communication, squawk code 7700 for one minute, then code 7600, and depart the IR route at the exit/alternate exit fix at the highest altitude for that segment of the route. At the exit point, climb to the coordinated lost communication altitude and proceed IAW FLIP guidance.

FSS Within 100 NM Radius:

ANB, BNA, GWO, JBR, MKL

IR-067

ORIGINATING ACTIVITY: 14 OSS/OSOP, Columbus AFB, MS 39710 DSN 742-2764, C662-434-2764.

SCHEDULING ACTIVITY: 48 FTS, Columbus AFB, MS 39710 DSN 742-7840/7847, C662-434-7840/7847.

HOURS OF OPERATION: Sunrise-Sunset Mon-Fri

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to 15 AGL B 50 MSL	A	VUZ 001/16	N33°56.00' W86°53.00'
as assigned to 15 AGL B 50 MSL	B	CBM 052/47	N34°07.00' W87°42.00'
01 AGL B 40 MSL to	C	MKL 136/53	N34°59.00' W88°09.00'
01 AGL B 40 MSL to	D	BNA 221/65	N35°17.00' W87°31.00'
01 AGL B 40 MSL to	E	BNA 277/61	N36°13.00' W87°56.00'
01 AGL B 40 MSL to	F	MKL 024/30	N36°04.00' W88°40.00'
01 AGL B 40 MSL to	G	MKL 138/24	N35°19.00' W88°35.00'
01 AGL B 40 MSL to	H	MKL 170/29	N35°08.00' W88°48.00'
01 AGL B 40 MSL to	I	MEM 099/44	N34°53.00' W89°06.00'

TERRAIN FOLLOWING OPERATIONS: Minimum altitude 1500' AGL A to B. Authorized IAW Command Directives with enroute structure from B to I.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Minimum separation between scheduled entry times is 10 minutes. ARTCC provides users with separation from IFR traffic only. MARSAs apply after aircraft have passed the entry/alternate entry point until ATC establishes standard separation after exiting the route.
- (2) Alternate Entry: B, C and E.
- (3) Alternate Exit: E.
- (4) Compulsory Reporting Points:
 - (a) D, Memphis ARTCC 125.85/379.25;
 - (b) E, Memphis ARTCC 125.85/379.25 (compulsory only when filed as an alternate exit);

- (c) F, Memphis ARTCC 134.65/316.15;
- (d) I, Memphis ARTCC 135.9/273.55.
- (5) Tie-in FSS: Anniston (ANB).
- (6) Numerous power lines/antennae below 200' AGL may be uncharted.
- (7) To schedule for weekend use, contact Scheduling Activity prior to 2200Z on Friday.
- (8) For route briefing, email IR67@columbus.af.mil.
- (9) Aircrews calling to schedule IR-067 will ensure they have checked all applicable Bird Hazard products (examples: <http://www.usahas.com/> <http://usahas.com/bam/>) and are applying appropriate guidance in accordance with their respective instructions/regulations to reduce the risk of bird strikes.
- (10) Crossing Routes:
 - (a) IR-066 common route from Point A to D and from Point G to I (48 FTS, DSN 742-7840 C662-434-7840);
 - (b) IR-077/078 crosses between Point D and E, and between Point F and G, and already has altitude separation;
 - (c) VR-1014 between A and B, between B and C (37/41 FTS, DSN 742-7666 C662-434-7666);
 - (d) VR-1050 common route from Point A to D and from Point H to I crosses between Point G and H (48 FTS, DSN 742-7840 C662-434-7840);
 - (e) VR-1051 common route from Point A to D, and from Point E to G (48 FTS, DSN 742-7840 C662-434-7840);
 - (f) SR-221 Common route reciprocal heading near Point E (314 OSS/OSTX, DSN 726-7504 C901-291-7504).
- (11) Route Deconfliction:
 - (a) IR-066, VR-1050, VR-1051: deconflicted by scheduler using time (if unable to enter within +/- 4 minutes re-coordinate a new entry time).
 - (b) VR-1014: Aircraft flying IR-067 between points A to B and until halfway between points B to C will fly at or above 1500' AGL unless the crew has verified that VR-1014 is not being utilized.
 - (c) Contact the scheduling activity for SR-221 to verify if the route is being utilized.
- (12) Uncharted Airfield: N35 26.72 W087 30.44 2500' runway.
- (13) 14 FTW aircraft will fly IR-067 in day VMC only. Prior to encountering IMC, aircraft will accomplish the following (in order of precedence):
 - (a) Cancel their IFR clearance, exit the MTR, maintain VMC, and return to base VFR or via a separate IFR clearance.
 - (b) If unable to maintain VMC, climb to the top of the block, continue the route of flight and coordinate a new IFR clearance.
 - (c) If the pilot is unable to establish two-way radio communication, squawk code 7700 for one minute, then code 7600, and depart the IR route at the exit/alternate exit fix at the highest altitude for that segment of the route. At the exit point, climb to the coordinated lost communication altitude and proceed IAW FLIP guidance.

FSS Within 100 NM Radius:

ANB, BNA, GWO, JBR, MKL

IR-068

ORIGINATING ACTIVITY: 14 OSS/OSOP, Columbus AFB, MS 39710 DSN 742-2764, C662-434-2764.

SCHEDULING ACTIVITY: 48 FTS, Columbus AFB, MS 39710 DSN 742-7840/7847, C662-434-7840/7847.

HOURS OF OPERATION: Sunrise-Sunset Mon-Fri

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 30 MSL to	A	SQS 348/12	N33°40.00' W90°19.00'
01 AGL B 30 MSL to	B	SQS 330/54	N34°16.00' W90°46.00'
01 AGL B 30 MSL to	C	MEM 227/34	N34°38.00' W90°30.00'
01 AGL B 30 MSL to	D	SQS 025/44	N34°07.00' W89°52.00'
01 AGL B 40 MSL to	E	SQS 079/36	N33°33.00' W89°34.00'

TERRAIN FOLLOWING OPERATIONS: Authorized IAW Command Directives within route structure from A to E.

ROUTE WIDTH - 5 NM either side of centerline from A to D;
8 NM either side of centerline from D to E.

Special Operating Procedures:

- (1) Photo reconnaissance (PR) route.
- (2) Compulsory reporting points:
 - (a) Point C, Memphis ARTCC 135.3 335.8;
 - (b) Point E, Memphis ARTCC 128.5 279.55.
- (3) Numerous power lines and antenna below 200' AGL may be uncharted.
- (4) To schedule for weekend use, contact Scheduling Activity prior to 2200Z on Friday.
- (5) For route briefing, email IR68@columbus.af.mil. Or consult MASMS.
- (6) Aircraft avoid overflight of Camp McCain, MS, Maintain 1500' within 2 NM of N33-42 W89-43. (Contains laser weaponry range, helicopter operations and controlled firing range).
- (7) Minimum separation between scheduled entry times is 10 minutes. ARTCC provides users with separation from known IFR traffic only. MARSA applies after aircraft have passed the entry and alternate entry point until ATC establishes standard separation after exiting the route. MARSA also applies between aircraft flying IR-068 and other aircraft flying IR-091 by using see and avoid and/or route scheduling.
- (8) Aircrews calling to schedule IR-068 will ensure they have checked all applicable Bird Hazard products (examples: <http://www.usahas.com/> <http://usahas.com/bam/>) and are applying appropriate ORM (Operational Risk Management) guidance in accordance with their respective instructions/regulations to reduce the risk of Bird Strikes.
- (9) Crossing routes:
 - (a) IR-070 Common route (reciprocal heading) from Point A to B (48 FTS, DSN 742-7840, C662-434-7840);
 - (b) IR-091 between Points C and D, and near Point E (50 FTS, DSN 742-7734, C662-434-7734);
 - (c) VR-1051 between Points D and E (48 FTS, DSN 742-7840, C662-434-7840);
 - (d) SR-137/138 at Exit Point E (37/41 FTS, DSN 742-7666, C662-434-7666);
 - (e) SR-238 Entry Point near Point C (314 OSS/OSK, DSN 731-3719, C501-987-3719).
- (10) Route deconfliction:
 - (a) IR-070 and VR-1051 have the same scheduler and will be able to advise if these routes are scheduled to be flown.

Aircraft flying IR-070 will exit at IR-070 Alternate Exit Point H unless the crew has verified that IR-068 is not being utilized. IR-068 and VR-1051 both are nearing their Exit Points when they become a conflict.

- (b) When SR-137 and/or SR-138 are active aircraft must remain above 2000' at exit point (E) to deconflict.
- (c) Contact the different scheduling activities for SR-137, SR-138, SR-238 and IR-091 to verify if they are being utilized. When SR-137 and/or SR-138 are active aircraft must climb above 2000' at exit point (E) to deconflict. IR-091 is normally flown on Mondays, Wednesdays and Fridays while IR-068 is flown on Tuesdays and Thursdays.
- (11) Uncharted Airfields: N34 25.83 W090 16.83 grass strip approximately 2000' long. N34 30.83 W090 22.72 concrete surface approximately 1700' long.
- (12) 14 FTW aircraft will fly IR-068 in day VMC only. Prior to encountering IMC, aircraft will accomplish the following (in order of precedence):
 - (a) Cancel their IFR clearance, exit the MTR, maintain VMC, and return to base VFR or via a separate IFR clearance.
 - (b) If unable to maintain VMC, climb to the top of the block, continue the route of flight and coordinate a new IFR clearance.
 - (c) If the pilot is unable to establish two-way radio communication, squawk code 7700 for one minute, then code 7600, and depart the IR route at the exit/alternate exit fix at the highest altitude for that segment of the route. At the exit point, climb to the coordinated lost communication altitude and proceed IAW FLIP guidance.
- (13) CAUTION: BASH Phase II High bird activity during migratory season Sep-Apr. Potential for large formations of waterfowl SFC-2000' AGL. Closed to 14 FTW use during BASH Phase II.

FSS Within 100 NM Radius:

DRI, GWO, JBR, MKL

IR-070

ORIGINATING ACTIVITY: 14 OSS/OSOP, Columbus AFB, MS 39710-5000 DSN 742-2764, C662-434-2764.

SCHEDULING ACTIVITY: 48 FTS, Columbus AFB, MS 39710 DSN 742-7840/7847, C662-434-7840/7847.

HOURS OF OPERATION: Sunrise-Sunset daily

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	MHZ 311/34	N32°48.00' W90°37.00'
05 AGL B 30 MSL to	B	SQS 245/49	N33°09.00' W91°11.00'
05 AGL B 30 MSL to	C	MLU 323/27	N32°53.00' W92°20.00'
05 AGL B 30 MSL to	D	ELD 054/24	N33°27.00' W92°20.00'
05 AGL B 50 MSL to 05 AGL B 50 MSL to cross F	E	ELD 029/35	N33°44.00' W92°20.00'
at or below 30 MSL	F	PBF 205/34	N33°45.20' W92°15.00'

IR ROUTES

05 AGL B 30 MSL to	G	GLH 349/29	N34°00.00' W91°03.00'
05 AGL B 50 MSL to	H	SQS 316/45	N34°02.00' W90°52.00'
05 AGL B 40 MSL to	I	SQS 333/34	N33°59.00' W90°33.00'
05 AGL B 40 MSL to Cross at 40 MSL or as assigned	J	SQS 348/12	N33°40.00' W90°19.00'

TERRAIN FOLLOWING OPERATIONS: Authorized
IAW Command Directives within entire route structure.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Photo reconnaissance (PR) route.
- (2) Alternate Entry: Point C, Alternate Exit: Points E and H.
 - (a) When utilizing Point E as an alternate exit point: File to MON, then as required; cross Point E at 5,000' MSL and contact Memphis ARTCC 135.875 269.35 for altitude assignment.
 - (b) When utilizing Point H as an alternate exit point: File to GLH, then as required; cross Point H at 5,000' MSL and contact Memphis ARTCC 135.875 269.35 for altitude assignment.
- (3) Compulsory Reporting Points:
 - (a) Point B, Memphis ARTCC 135.875 269.35;
 - (b) Point C, Monroe APP CON 126.9 307.9;
 - (c) Point E, Memphis ARTCC 135.875 269.35;
 - (d) Point H, Memphis ARTCC 135.875 269.35 (compulsory only when Point H is filed as Exit);
 - (e) Point I, Memphis ARTCC 132.5 259.1;
 - (f) Point J, Memphis ARTCC 132.5 259.1.
- (4) Tie-in FSS - JAN (A-D) and GWO (E-I).
- (5) To schedule for weekend use, contact Scheduling Activity prior to 2200Z on Friday.
- (6) For route briefing, email 14OSS.OSOP.IR70@US.AF.MIL.
- (7) Aircrews calling to schedule IR-070 will ensure they have checked all applicable Bird Hazard products (examples: <http://www.usahas.com/> <http://usahas.com/bam/>) and are applying appropriate ORM (Operational Risk Management) guidance in accordance with their respective instructions/regulations to reduce the risk of Bird Strikes.
- (8) Crossing Routes:
 - (a) IR-068 Common route (reciprocal heading) from Point H to I (48 FTS, DSN 742-7840, C662-434-7840);
 - (b) VR-1032 starts/ends at Point A, crosses twice between Points B and C, common route between Points C and D (COMTRAWING ONE, NAS Meridian, DSN 637-2487, C601-679-2487).
- (9) If aircraft need to delay entry at Point A, aircraft should hold on the MHZ 311 radial between 34 and 42 DME. Altitude will be assigned by ATC (usually 030 MSL or above).
- (10) Minimum separation between scheduled entry times is 10 minutes. ARTCC provides users with separation from known IFR traffic only. MARSAs apply after aircraft have passed the entry/alternate entry point until ATC establishes standard separation after exiting the route.
- (11) Route Deconfliction:
 - (a) IR-068 has the same scheduler and will be able to advise if this route is scheduled to be flown. Aircraft flying IR-070 will exit at IR-070 Alternate Exit Point H unless the crew has verified that IR-068 is not being utilized.

IR-068 is normally only flown on Tuesdays and Thursdays.

- (b) Contact the VR-1032 Scheduling Activity to verify if the route is being utilized.
- (12) 14 FTW aircraft will fly IR-070 in day VMC only. Prior to encountering IMC, aircraft will accomplish the following (in order of precedence):
 - (a) Cancel their IFR clearance, exit the MTR, maintain VMC, and return to base VFR or via a separate IFR clearance.
 - (b) If unable to maintain VMC, climb to the top of the block, continue the route of flight and coordinate a new IFR clearance.
 - (c) If the pilot is unable to establish two-way radio communications, squawk code 7700 for one minute, then code 7600, and depart the IR route at the exit/alternate exit fix at the highest altitude for that segment of the route. At the exit point, climb to the coordinated lost communication altitude and proceed IAW FLIP guidance.
- (13) CAUTION: BASH Phase II High bird activity during migratory season Sep-Apr. Potential for large formations of waterfowl SFC-2000' AGL. Closed to 14 FTW use during BASH Phase II.

FSS Within 100 NM Radius:

DRI, GWO, JBR, MKL

IR-077

ORIGINATING ACTIVITY: Training Air Wing Six,
Pensacola, FL 32508-5509 DSN 459-2875, C850-452-2875.

SCHEDULING ACTIVITY: NAS Pensacola, Pensacola, FL
32508-5217 DSN 459-2735, C850-452-2735.

HOURS OF OPERATION: 1200-0400Z++ weekdays

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 50 MSL to	A	VUZ 073/22	N33°46.00' W86°28.00'
50 MSL to	B	GAD 341/14	N34°12.00' W86°10.00'
50 MSL to	C	GAD 031/34	N34°27.00' W85°43.00'
50 MSL to	D		N34°57.00' W85°43.00'
50 MSL to (Alternate Entry/Exit)	E	RQZ 041/41	N35°18.00' W86°04.00'
50 MSL to	F	BNA 189/41	N35°27.00' W86°47.00'
50 MSL to	G	BNA 218/45	N35°32.00' W87°13.00'
50 MSL to	H	BNA 243/44	N35°47.00' W87°28.00'
50 MSL to	I	DYR 087/64	N36°01.00' W88°00.00'
50 MSL to	J	MKL 088/43	N35°38.00' W88°02.00'
50 MSL to	K	MKL 127/16	N35°27.00' W88°39.00'

ROUTE WIDTH - 4 NM either side of centerline A to E; 10
NM either side of centerline E to K.

Special Operating Procedures:

- (1) Scheduling Activity operating hours: 1200-2200Z++ Mon-Fri. To schedule use on Sat, Sun or prior to 1430Z++ on Mon, call prior to 2200Z++ on previous Friday.
- (2) Advise controller when making turns in excess of 20 degrees.
- (3) Radar systems navigation (SN) route.
- (4) Mandatory reporting points: C contact Chattanooga ATC on 321.2. D contact Memphis ARTCC 353.5.
- (5) Caution: VR-092 same direction C and E (de-conflict with Shaw AFB, DSN 965-1118 C803-895-1118).
- (6) Primary Entry - A; Alternate Entry - E; Primary Exit - K; Alternate Exit - E. (Alternate Entry and Exit required due to T-45C fuel limitations.)

FSS Within 100 NM Radius:

ANB, AND, BNA, GWO, JBR, MCN, MKL

IR-078

ORIGINATING ACTIVITY: Training Air Wing Six, Pensacola, FL 32508-5509 DSN 459-2875, C850-452-2875.

SCHEDULING ACTIVITY: NAS Pensacola, Pensacola, FL 32508-5217 DSN 459-2735, C850-452-2735.

HOURS OF OPERATION: 1200-0400Z++ weekdays

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 60 MSL to	A	MKL 127/16	N35°27.00' W88°39.00'
60 MSL to	B	MKL 088/43	N35°38.00' W88°02.00'
60 MSL to	C	DYR 087/64	N36°01.00' W88°00.00'
60 MSL to	D	BNA 243/44	N35°47.00' W87°28.00'
60 MSL to	E	BNA 218/45	N35°32.00' W87°13.00'
60 MSL to	F	BNA 189/41	N35°27.00' W86°47.00'
60 MSL to (Alternate Entry/Exit)	G	RQZ 041/41	N35°18.00' W86°04.00'
60 MSL to	H		N34°57.00' W85°43.00'
60 MSL to	I	GAD 031/34	N34°27.00' W85°43.00'
60 MSL to	J	GAD 341/14	N34°12.00' W86°10.00'
60 MSL to	K	VUZ 073/22	N33°46.00' W86°28.00'

ROUTE WIDTH - 10 NM either side of centerline A to G; 4 NM either side of centerline G to K.

Special Operating Procedures:

- (1) Scheduling Activity operating hours: 1200-2200Z++ Mon-Fri. To schedule use on Sat, Sun or prior to 1430Z++ on Mon, call prior to 2200Z++ on previous Friday.
- (2) Advise controller when making turns in excess of 20 degrees.

- (3) Radar system navigation (SN) route.
- (4) Mandatory reporting points:
 - (a) H, contact Chattanooga ATC 321.2;
 - (b) I, contact Atlanta ARTCC 353.7;
 - (c) J, contact Birmingham ATC 231.1 338.2.
- (5) Primary Entry - A; Alternate Entry - G; Primary Exit - K; Alternate Exit - G. (Alternate Entry and Exit required due to T-45C fuel limitations.)

FSS Within 100 NM Radius:

ANB, AND, BNA, GWO, JBR, MCN, MKL

IR-079

ORIGINATING ACTIVITY: Training Air Wing Six, Pensacola, FL 32508-5509 DSN 459-2875, C850-452-2875.

SCHEDULING ACTIVITY: NAS Pensacola, Pensacola, FL 32508-5217 DSN 459-2735, C850-452-2735.

HOURS OF OPERATION: 1200-0400Z++ Mon-Fri; occasional weekends

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 100 MSL to	A	SOT 149/19	N35°32.00' W82°50.00'
100 MSL to 90 MSL-100 MSL	B	SOT 035/19	N36°04.00' W82°51.00'
as assigned to 90 MSL-100 MSL	C	HMV 186/6	N36°20.00' W82°08.00'
as assigned to 70 MSL-90 MSL	D	HMV 302/25	N36°38.00' W82°35.00'
as assigned to 70 MSL-90 MSL	E	GZG 336/27	N37°14.00' W82°20.00'
as assigned to 70 MSL-90 MSL	F	HVQ 234/59	N37°44.00' W82°44.00'
as assigned to 70 MSL-90 MSL	G	HVQ 281/39	N38°26.00' W82°35.00'
as assigned to	H		N38°50.00' W82°09.00'

ROUTE WIDTH - 10 NM either side of centerline.

Special Operating Procedures:

- (1) Scheduling Activity operating hours: 1200-2200Z++ Mon-Fri. To schedule use on Sat, Sun or prior to 1430Z++ on Mon, call prior to 2200Z++ on previous Friday.
- (2) Advise controller when making turns in excess of 20 degrees.
- (3) Request 9000' from B to H.
- (4) Radar system navigation (SN) route.
- (5) Alternate Exit: G.
- (6) Conflicts: (De-conflict with appropriate Scheduling Activity)
 - (a) Same direction as IR-080 from Points A to C.
 - (b) Opposite direction to IR-022 from Points A to C.

FSS Within 100 NM Radius:

AND, BNA, CLE, DAY, EKN, LOU

IR ROUTES

IR-080

ORIGINATING ACTIVITY: Training Air Wing Six,
Pensacola, FL 32508-5509 DSN 459-2875, C850-452-2875.

SCHEDULING ACTIVITY: NAS Pensacola, Pensacola, FL
32508-5217 DSN 459-2735, C850-452-2735.

HOURS OF OPERATION: 1200-0400Z++ Mon-Fri;
occasional weekends

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 100 MSL to	A	SOT 149/19	N35°32.00' W82°50.00'
90 MSL B 100 MSL to 90 MSL-100 MSL	B	SOT 035/19	N36°04.00' W82°51.00'
as assigned to 90 MSL-100 MSL	C	HMV 186/6	N36°20.00' W82°08.00'
as assigned to 80 MSL-100 MSL	D	HMV 069/30	N36°39.00' W81°34.00'
as assigned to 80 MSL-100 MSL	E	PSK 251/20	N36°57.00' W81°05.00'
as assigned to 80 MSL-100 MSL	F	PSK 350/15	N37°20.00' W80°48.00'
as assigned to 80 MSL-100 MSL	G	BKW 134/14	N37°38.00' W80°53.00'
as assigned to 80 MSL-100 MSL	H	BKW 357/23	N38°10.00' W81°12.00'
as assigned to	I		N38°55.00' W81°49.00'

ROUTE WIDTH - 10 NM either side of centerline.

Special Operating Procedures:

- (1) Scheduling Activity operating hours: 1200-2200Z++ Mon-Fri. To schedule use on Sat, Sun or prior to 1430Z++ on Mon, call prior to 2200Z++ on previous Friday.
- (2) Advise controller when making turns in excess of 20 degrees.
- (3) Request 9000' from B to I.
- (4) Radar system navigation (SN) route.
- (5) Alternate Exit: H.
- (6) Conflicts: (De-conflict with appropriate Scheduling Activity)
 - (a) Crosses VR-903 between Points D and E.
 - (b) Opposite direction to IR-022 from Points A to C.
 - (c) Same direction as IR-079 from Points A to C.
 - (d) Same direction as IR-081 from Points D to E.
 - (e) Opposite direction to IR-608 from Points D to F.
 - (f) Opposite direction to IR-723 from Points E to I.

FSS Within 100 NM Radius:

AND, BNA, CLE, DAY, EKN, RDU

IR-081

ORIGINATING ACTIVITY: Training Air Wing Six,
Pensacola, FL 32508-5509 DSN 459-2875, C850-452-2875.

SCHEDULING ACTIVITY: NAS Pensacola, Pensacola, FL
32508-5217 DSN 459-2735, C850-452-2735.

HOURS OF OPERATION: 1200-0400Z++ Mon-Fri;
occasional weekends

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 100 MSL to	A	SUG 048/30	N35°45.00' W81°50.00'
100 MSL to 90 MSL-100 MSL	B	HMV 118/47	N36°07.00' W81°15.00'
as assigned to 90 MSL-100 MSL	C	HMV 069/30	N36°39.00' W81°34.00'
as assigned to 90 MSL-100 MSL	D	PSK 251/20	N36°57.00' W81°05.00'
as assigned to 90 MSL-100 MSL	E	PSK 063/16	N37°14.00' W80°26.00'
as assigned to 90 MSL-100 MSL	F	PSK 125/37	N36°47.00' W80°02.00'
as assigned to	G	SBV 214/15	N36°27.00' W79°10.00'

ROUTE WIDTH - 10 NM either side of centerline.

Special Operating Procedures:

- (1) Scheduling Activity operating hours: 1200-2200Z++ Mon-Fri. To schedule use on Sat, Sun or prior to 1430Z++ on Mon, call prior to 2200Z++ on previous Friday.
- (2) Advise controller when making turns in excess of 20 degrees.
- (3) Request 9000' from B to G.
- (4) Radar system navigation (SN) route.
- (5) Conflicts: (De-conflict with appropriate Scheduling Activity)
 - (a) Same direction as IR-080 from Points C to D.
 - (b) Crosses IR-082 at Point A.
 - (c) Same direction as IR-083 from Points A to B.
 - (d) Opposite direction to IR-608 from Points C to D.
 - (e) Opposite direction to IR-723 from Points A to D.

FSS Within 100 NM Radius:

AND, BNA, EKN, RDU

IR-082

ORIGINATING ACTIVITY: Training Air Wing Six,
Pensacola, FL 32508-5509 DSN 459-2875, C850-452-2875.

SCHEDULING ACTIVITY: NAS Pensacola, Pensacola, FL
32508-5217 DSN 459-2735, C850-452-2735.

HOURS OF OPERATION: 1200-0400Z++ Mon-Fri;
occasional weekends

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to 90 MSL-100 MSL	A	SDZ 264/30	N35°08.00' W80°11.00'
90 MSL B 100 MSL to	B	SPA 094/48	N35°00.00' W80°57.00'
90 MSL B 100 MSL to	C	HMV 173/67	N35°20.00' W81°52.00'
as assigned to 90 MSL-100 MSL	D	SUG 048/30	N35°45.00' W81°50.00'

as assigned to	E	SUG 002/22	N35°46.00'
90 MSL-100 MSL			W82°16.00'
as assigned to	F	SOT 149/19	N35°32.00'
90 MSL-100 MSL			W82°50.00'
as assigned to	G	SOT 202/26	N35°23.00'
90 MSL-100 MSL			W83°13.00'
as assigned to	H	VXV 173/28	N35°27.00'
90 MSL-100 MSL			W83°48.00'
as assigned to	I	HRS 050/8	N35°02.00'
90 MSL-100 MSL			W83°47.00'
as assigned to	J	ODF 247/2	N34°41.00'
			W83°20.00'

ROUTE WIDTH - 10 NM either side of centerline.

Special Operating Procedures:

- (1) Scheduling Activity operating hours: 1200-2200Z++ Mon-Fri. To schedule use on Sat, Sun or prior to 1430Z++ on Mon, call prior to 2200Z++ on previous Friday.
- (2) Advise controller when making turns in excess of 20 degrees.
- (3) Request 9000' MSL.
- (4) Radar system navigation (SN) route.
- (5) Alternate Entry: Point C.
- (6) Alternate Exit: Point H.
- (7) Conflicts: (De-conflict with appropriate Scheduling Activity)
 - (a) Crosses IR-022 between Points E and F and at J.
 - (b) Crosses RI-081 at Point D.
 - (c) Opposite direction to IR-83 from Points D to J.
 - (d) Crosses IR-723 at Point D.

FSS Within 100 NM Radius:

ANB, AND, BNA, MCN, RDU

IR-083

ORIGINATING ACTIVITY: Training Air Wing Six, Pensacola, FL 32508-5509 DSN 459-2875, C850-452-2875.

SCHEDULING ACTIVITY: NAS Pensacola, Pensacola, FL 32508-5217 DSN 459-2735, C850-452-2735.

HOURS OF OPERATION: 1200-0400Z++ Mon-Fri; occasional weekends

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
90 MSL-100 MSL			
As assigned to	A	ODF 247/2	N34°41.00'
90 MSL-100 MSL			W83°20.00'
as assigned to	B	HRS 050/8	N35°02.00'
90 MSL-100 MSL			W83°47.00'
as assigned to	C	VXV 173/28	N35°27.00'
90 MSL-100 MSL			W83°48.00'
as assigned to	D	SOT 202/26	N35°23.00'
90 MSL-100 MSL			W83°13.00'
as assigned to	E	SOT 149/19	N35°32.00'
90 MSL-100 MSL			W82°50.00'
as assigned to	F	SUG 002/22	N35°46.00'
90 MSL-100 MSL			W82°16.00'

as assigned to	G	SUG 048/30	N35°45.00'
90 MSL-100 MSL			W81°50.00'
as assigned to	H	HMV 116/48	N36°08.00'
90 MSL-100 MSL			W81°13.00'
90 MSL B 100 MSL to	I	HMV 132/65	N35°46.00'
			W81°05.00'
as assigned to	J	SDZ VORTAC	N35°12.93'
			W79°35.28'

ROUTE WIDTH - 10 NM either side of centerline.

Special Operating Procedures:

- (1) Scheduling Activity operating hours: 1200-2200Z++ Mon-Fri. To schedule use on Sat, Sun or prior to 1430Z++ on Mon, call prior to 2200Z++ on previous Friday.
- (2) Advise controller when making turns in excess of 20 degrees.
- (3) Request 9000' MSL.
- (4) Radar system navigation (SN) route.
- (5) Alternate Exit: G.
- (6) Conflicts: (De-conflict with the appropriate Scheduling Activity)
 - (a) Crosses IR-022 at Point A between Points E and F and at J. Opposite direction from Point H to I.
 - (b) Same direction as IR-081 from Points H to I.
 - (c) Opposite direction to IR-082 from Points A to G.
 - (d) Opposite direction to IR-723 from Points G to H.
 - (e) Parallels IR-726 opposite direction from Points F to G.

FSS Within 100 NM Radius:

ANB, AND, BNA, MCN, RDU

IR-091

ORIGINATING ACTIVITY: 14 OSS/OSOP Columbus AFB, MS 39710-5000 DSN 742-3011/1221 C662-434-3011/1221.

SCHEDULING ACTIVITY: 50 FTS Columbus AFB, MS 39710 DSN 742-7734/7735, C662-434-7734/7735.

HOURS OF OPERATION: Sunrise-Sunset Mon-Fri

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	CBM 269/26	N33°38.00'
			W88°57.00'
SFC B 40 MSL to	B	SQS 046/22	N33°42.00'
			W89°57.00'
SFC B 40 MSL to	C	SQS 007/32	N33°59.00'
			W90°10.00'
SFC B 40 MSL to	D	MEM 182/45	N34°16.00'
			W90°02.00'
SFC B 30 MSL to	E	MEM 173/30	N34°31.00'
			W89°55.00'
SFC B 30 MSL to	F	MEM 121/39	N34°40.00'
			W89°19.00'
SFC B 40 MSL to	G	OTB 226/25	N33°57.00'
			W89°11.00'

TERRAIN FOLLOWING OPERATIONS: Authorized IAW Command Directives within entire route structure.

IR ROUTES

ROUTE WIDTH - 3 NM either side of centerline.

Special Operating Procedures:

- (1) Minimum separation between scheduled entry times is 10 minutes. ARTCC provides users with separation from known IFR traffic only. MARSA applies after aircraft have passed the entry/alternate entry point until ATC establishes standard separation after exiting the route. MARSA also applies between aircraft flying IR-068 and other aircraft flying IR-091 by using see and avoid and/or route scheduling.
- (2) Alternate Entry: C and D.
- (3) Compulsory Reporting Points:
 - (a) Point D, Memphis ARTCC 128.5 279.55;.
 - (b) Point G, Columbus RAPCON 120.4 239.25 (when Columbus RAPCON closed, contact Memphis ARTCC 128.5 279.55).
- (4) CAUTION: VFR tactical helicopter operations are conducted from the surface to 3000' AGL along IR-091 from F to G.
- (5) Numerous power lines/antenna below 200' AGL may be uncharted.
- (6) For route briefing, email 14OSS.OSOP.IR91@US.AF.MIL.
- (7) Aircraft avoid overflight of Camp McCain, MS Maintain 1500' within 2 NM of N33-42 W89-43. (Contains laser weaponry range, helicopter operations, and a controlled firing range).
- (8) Aircrews calling to schedule IR-091 will ensure they have checked all applicable Bird Hazard products (examples: <http://www.usahas.com/> <http://usahas.com/bam/>) and are applying appropriate ORM (Operational Risk Management) guidance in accordance with their respective instructions/regulations to reduce the risk of Bird Strikes.
- (9) To schedule for weekend use, contact scheduling activity prior to 2200Z on Friday.
- (10) Crossing routes:
 - (a) IR-068 Between Point A and B, near Point D (48 FTS, DSN 742-7840, C662-434-7840);
 - (b) VR-1051 Between Point A and B, between Point F and G (48 FTS, DSN 742-7840, C662-434-7840);
 - (c) SR-074 crosses near Point D, crosses between Points F and G, opposite direction corridor near Point F (48 FTS, DSN 742-7840, C662-434-7840);
 - (d) SR-073 crosses near Point E, between Points F and G, opposite direction corridor near Point F (48 FTS, DSN 742-7840, C662-434-7840).
- (11) Route Deconfliction: Contact the Scheduling Activity for SR-073, SR-074, VR-1051 and IR-068 (these routes have the same scheduler) to verify if these routes are being utilized: IR-091 is normally only flown on Mondays, Wednesdays and Fridays while IR-068 is flown on Tuesdays and Thursdays.
- (12) Route restricted to 14 FTW aircraft, unless otherwise coordinated.
- (13) 14 FTW aircraft utilizing IR-091 unable to comply with FAR 91.185 shall maintain the highest altitude for each route segment to the exit fix, depart the exit fix at 4000', proceed direct to CBM, intercept the 13 DME arc, and execute the published approach procedure.
- (14) 14 FTW aircraft will fly IR-091 in day VMC only. Prior to encountering IMC, aircraft will accomplish the following (in order of precedence):
 - (a) Cancel their IFR clearance, exit the MTR, maintain VMC, and return to base VFR or via a separate IFR clearance.
 - (b) If unable to maintain VMC, climb to the top of the block, continue the route of flight and coordinate a new IFR clearance.

- (c) If the pilot is unable to establish two-way radio communication, squawk code 7700 for one minute, then code 7600, and depart the IR route at the exit/alternate exit fix at the highest altitude for that segment of the route. At the exit point, climb to the coordinated lost communication altitude and proceed IAW FLIP guidance.

FSS Within 100 NM Radius:

DRI, GWO, JBR, MKL

IR-103

ORIGINATING ACTIVITY: 301 OG/SUA, NAS JRB Fort Worth, TX 76127 DSN 739-6903/6904/6905, C817-782-6903/6904/6905.

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: 0700-2200 local; OT by NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	SPS 138/48	N33°18.00' W98°05.00'
05 AGL B 50 MSL to	B	SPS 176/26	N33°33.00' W98°38.80'
01 AGL B 50 MSL to	C	SPS 235/31	N33°46.00' W99°09.00'
01 AGL B 50 MSL to	D	SPS 278/28	N34°08.00' W99°08.00'
03 AGL B 24 MSL to	E	SPS 303/37	N34°24.00' W99°08.00'
03 AGL B 24 MSL to	F	HBR 135/17	N34°38.00' W98°52.00'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route in VMC.

ROUTE WIDTH - 10 NM either side of course from A to D; 2 NM either side of course from D to F.

Special Operating Procedures:

- (1) Route is designated MARSA and MARSA shall also apply between aircraft flying VR-158, VR-159, VR-162, VR-1141, VR-1142, VR-1143 and VR-1144. Call 90 FTS at Sheppard AFB, TX, DSN 736-2675/4995 to deconflict with these routes prior to flying IR-103.
- (2) Route will be flown between 300 and 600 KIAS.
- (3) Alternate Entry/Exit: C and D.
- (4) Aircraft scheduled into R-5601 must contact Falcon Range on 363.7, 342.3.
- (5) 1000' AGL minimum from Point F to Falcon Range.
- (6) Avoid by 1 NM or 1000' AGL noise sensitive areas; N33-26.3 W98-22.0; N33-33.4 W98-42.7; N34-22.5 W99-08.0.
- (7) Avoid by 1500' or 3 NM all charted airfields.
- (8) Numerous power lines throughout low level route.
- (9) Aircraft will contact and monitor Sheppard APP CON 316.075/308.6 while operating above 3000' MSL.
- (10) IR-103 is an approved LOWAT route authorized between A and D.

- (11) Units requesting IR-103 shall furnish 301 OG/SUA with planned entry/exit points, times and planned speeds. Accurate times are critical in the deconfliction process. This altitude will not comply with the minimum safe altitude for that portion.
- (12) Route Conflicts:
- IR-103 conflicts with the following VR's at points along the route: VR-148, VR-159, VR-162, VR-1138, VR-1141, VR-1142, VR-1143 and VR-1144. Call the schedulers, 90 FTS, at Sheppard AFB, TX DSN 736-2675/4995, C940-676-2675/4995 to deconflict with these routes before flying IR-103;
 - From Point D to F on IR-103, the route ceiling, 2400' MSL, will not comply with the minimum safe altitude (2800' MSL) for that portion of the route. If higher altitude is needed (night or IMC) at Point D, pilot should contact Altus Approach 257.725.
- (13) Aircraft unable to meet their assigned entry time within the window two minutes early to five minutes late must not enter the route.

FSS Within 100 NM Radius:

FTW

IR-105

ORIGINATING ACTIVITY: 301 OG/SUA, NAS JRB, Ft. Worth, TX 76127 DSN 739-6903/6904/6905, C817-782-6903/6904/6905.

SCHEDULING ACTIVITY: Same as Originating Activity.

HOURS OF OPERATION: 0700-2200 local; OT by NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	SPS 138/48	N33°18.00' W98°05.00'
05 AGL B 50 MSL to	B	SPS 176/26	N33°33.00' W98°38.80'
01 AGL B 50 MSL to	C	SPS 235/31	N33°46.00' W99°09.00'
01 AGL B 50 MSL to	D	SPS 267/51	N34°05.00' W99°37.00'
01 AGL B 30 MSL to	E	HBR 264/31	N34°54.00' W99°42.00'
03 AGL B 35 MSL to	F	HBR 349/18	N35°10.00' W99°04.00'
03 AGL B 35 MSL to	G	HBR 029/15	N35°04.00' W98°52.00'
03 AGL B 35 MSL to	H	HBR 086/10	N34°51.00' W98°52.00'
24 AGL B 70 MSL to	I	HBR 135/17	N34°38.00' W98°52.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from A to H in VMC.

ROUTE WIDTH - 10 NM either side of centerline from A to D; 3 NM either side of centerline from D to I.

Special Operating Procedures:

- Aircraft will contact Altus APP CON at D 257.725.
- Aircraft will report F to Fort Worth ARTCC 339.8.
- Minimum separation between scheduled entry times is 10 minutes. ARTCC provides users with separation from known IFR traffic only. MARSAs apply after aircraft have passed entry/alternate entry point until ATC established standard separation after exiting the route.
- Route will be flown between 300 and 600 KIAS.
- Alternate Entry: C and E.
- Alternate Exit: C, E and H.
- Aircraft scheduled into R-5601 must contact Falcon Range for clearance on 363.7, 342.3.
- 1000' AGL minimum from I to Falcon Range.
- Avoid by 1 NM or 1000' AGL noise sensitive areas: N33-26.3 W98-22.0; N33-33.4 W98-42.7; N34-52.5 W98-52.0.
- Avoid by 1500' AGL or 3 NM all charted airfields.
- Numerous power lines throughout low level route.
- Route segment H to I closed except to aircraft scheduled into R-5601. Aircraft not scheduled into R-5601 must exit by Point H and remain clear of R-5601F.
- IR-105 is an approved LOWAT route authorized between Points A and D.
- CAUTION: Frequent heavy aircraft using Sooner Drop Zone (N34-34-2 W99-41-3) for airdrops. See and avoid principle applies. Contact Altus AFB Command Post DSN 866-6313/6314 or C580-481-6313/6314 for times. Aircraft will report point D to Altus Approach Control 257.725. Aircraft will ask if the drop zone is hot. If the drop zone is reported hot, aircraft will climb to 1500' AGL until they have visual/radar contact with the heavy aircraft. Once visual/radar contact is established, aircraft may return to minimum altitudes.
- Units requesting IR-105 shall furnish 301 OG/SUA with planned entry/exit points, times and planned speeds. Accurate times are critical in the deconfliction process.
- Route conflicts:
 - IR-105 conflicts with the following VR's at points along the route: VR-158, VR-159, VR-162, VR-1138, VR-1141, VR-1142, VR-1143 and VR-1144. Call the schedulers, 90 FTS, at Sheppard AFB, TX DSN 736-2675/4995, C940-676-2675/4995 to deconflict with these routes before flying IR-105;
 - IR-105 conflicts with the following IR's, VR's and SR's at points along the route: IR-193, VR-106, VR-144, VR-184, VR-190, VR-191, VR-198, VR-199, SR-217, SR-205, SR-206, SR-208, SR-216 and Tornado Route. Contact schedulers, 97 OSS at Altus AFB, OK DSN 866-7110/6617, C580-481-7110/6617 to deconflict with these routes;
 - Aircraft will contact and monitor Sheppard Approach Control 316.075/308.6 while operating above 3000' MSL.
- Aircraft unable to meet their assigned entry time within the window two minutes early to five minutes late must not enter the route.

FSS Within 100 NM Radius:

FTW, MLC

IR ROUTES

IR-107

ORIGINATING ACTIVITY: 27 SOSS/OSA, 201 S. Chindit Ave. Bldg 728 Rm 112 Cannon AFB, NM 88103
27SOSS.ATC.ORG@us.af.mil DSN 640-6497, C575-904-6497

SCHEDULING ACTIVITY: 27 SOAOS/RMO, 205 S. Chindit Ave. Bldg 780 Rm 119 Cannon AFB, NM 88103
27SOAOS.RMO.GROUND@us.af.mil DSN 640-7634, C575-784-7634

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to descend to and maintain	A	TCC 041/19	N35°22.50' W103°17.00'
100 MSL to start descent to be at or below 80 MSL	A1	TCC 023/25	N35°31.50' W103°18.50'
	B	TCC 015/28	N35°36.00' W103°20.00'
01 AGL B 80 MSL to	C	DHT 237/43	N35°50.00' W103°21.50'
01 AGL B 80 MSL to	D	DHT 243/56	N35°51.00' W103°39.00'
01 AGL B 80 MSL to	E	DHT 261/65	N36°08.00' W103°52.50'
01 AGL B 80 MSL to	F	DHT 274/66	N36°23.00' W103°51.00'
01 AGL B 80 MSL to	G	DHT 286/57	N36°32.50' W103°35.50'
01 AGL B 80 MSL to	H	DHT 319/45	N36°45.00' W103°00.00'
01 AGL B 80 MSL to	I	DHT 323/52	N36°53.00' W103°00.00'
01 AGL B 80 MSL to (Alternate Entry)	J	TBE 168/20	N36°55.00' W103°36.00'
01 AGL B 100 MSL to (Alternate Exit)	K	TBE 188/26	N36°51.50' W103°47.00'
01 AGL B 100 MSL to	L	CIM 101/28	N36°18.00' W104°21.00'
01 AGL B 90 MSL to (Alternate Entry)	M	CIM 130/43	N35°55.00' W104°21.00'
01 AGL B 85 MSL to	N	TCC 291/27	N35°26.00' W104°04.00'
01 AGL B 80 MSL to	O	TCC 278/24	N35°19.00' W104°03.00'
01 AGL B 70 MSL to (Alternate Exit)	P	TCC 225/24	N34°58.00' W104°00.00'
01 AGL B 70 MSL to	Q	TCC 196/23	N34°50.50' W103°49.00'
as assigned to Start descent to be 80 MSL to	EJ	TBE 086/25	N37°12.00' W103°04.50'
	J1	TBE 107/19	N37°06.00' W103°15.00'
01 AGL B 80 MSL to Then via IR-107 Alternate Entry: M	J2	TBE 168/20	N36°55.00' W103°36.00'
as assigned to Start descent to be	EM	CIM 098/32	N36°18.00' W104°15.00'

01 AGL B 90 MSL to Thence via IR-107 Alternate Exit: K	M8	CIM 130/43	N35°55.00' W104°21.00'
100 MSL to Climb so as to be	K1	TBE 188/26	N36°51.50' W103°47.00'
110 MSL to Contact Albuquerque ARTCC 285.6 Alternate Exit: P	XK	TBE 208/35	N36°49.00' W104°04.00'
70 MSL to	P1	TCC 225/24	N34°58.00' W104°00.00'
70 MSL to Contact Albuquerque ARTCC 285.6 Alternate Transition Route to IR-409	XP	TCC 186/14	N34°58.00' W103°41.00'
01 AGL B 80 MSL to	I1	DHT 323/52	N36°53.00' W103°00.00'
01 AGL B 80 MSL to Thence via IR-409.	T1	TBE 125/24	N36°58.00' W103°16.00'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route IAW Major Commands/MDS guidance.

ROUTE WIDTH - 7.5 NM either side of centerline for entire route to include exits and alternate entries.

Special Operating Procedures:

- (1) Tie-in FSS: Albuquerque (ABQ).
- (2) Non-27 SOW aircraft entry times are booked no closer than 15 mins apart. Users must meet booked Entry and Exit times plus or minus 5 minutes. If unable to meet planned entry time enter at an Alternate Entry to meet booked exit time or do not enter the route.
- (3) Alternate Entry: J and M.
- (4) Alternate Exit: K and P.
- (5) Aircraft must call in-the-blind route entry and exit 255.4. Monitor 255.4 on this route unless operational requirements dictate otherwise.
- (6) Albuquerque ARTCC does not provide IFR separation between scheduled MTR users on this route.
- (7) Avoid by 2 NM:
 - (a) Capulin National Monument N36-47-00 W103-58-05;
 - (b) Black Mesa State Park N35-50.31 W102-53.73 avoid by 1000' AGL;
 - (c) House, NM N34-38-42 W103-54-12;
 - (d) Ranch N35-53-30 W103-48-48.
- (8) Avoid by 1 NM:
 - (a) Lake Conchas Resorts N35-22.06 W104-12.30;
 - (b) Ranch N36-32-30 W103-23-06;
 - (c) Ranch N34-34-42 W103-13-48;
 - (d) Montoya, NM N35-05-48 W104-03-56;
 - (e) Bell Ranch HQ N35-31-42 W104-05-42;
 - (f) Randall N35-02-48 W104-04.42.

CAUTION: The following obstructions are not found in CHUM and are not printed on current cartographic materials: Towers are less than 200' at the following locations: N34-50.31 W103-42.97; N34-50.52 W103-42.73; N34-59.11 W104-07.98; N34-57.00 W104-11.20; N35-06.50 W103-42.00; N37-14.73 W103-20.19; N37-10.65 W103-19.80; N34-51.15 W104-07.72; N35-03.71 W104-02.52; N35-04.15 W104-01.60; N35-49.19 W104-32.89; N35-59.97 W103-27.36; N35-22.04 W103-24.72; N35-51.30

W103-18.05; N35-28.00 W103-11.00; N35-51.00
W103-26.00; N35-53.77 W104-11.24; N36-31.36
W103-29.30; N36-32.44 W103-27.54; N36-48.88
W103-51.70; N36-00.61 W104-13.76; N35-14.00
W104-10.50; N34-56.00 W104-10.50; N35-58.60
W104-14.00; N36-21.50 W104-00.00; N36-41.50
W103-48.00; N35-16.50 W104-13.60; N35-27.00
W104-22.00.

- (9) Aircraft not scheduled into R-5104/5 will not enter R-5104/5, exit at or prior to P.
- (10) Deconfliction between IR-107, IR-109, IR-111, IR-113, VR-100/125, VR-108 and VR-114 accomplished by scheduling activity. Consult FLIP AP/1B and associated chart for deconfliction details with non-27 SOW conflicting routes (e.g., VR-1107/1195, IR-409)
- (11) Due to evolving avoidance areas, obstacles and land beneath the route, all users must have/utilize the current local route brief, 27 SOG Masterchum and Masterdrawfile before flying the route. This information can be obtained by request to the scheduling activity.
- (12) CAUTION: Increased bird activity, Nov-Feb during dusk and night in areas from I to J, EJ to J, L to N, and EM to M. Recommend flight at 1000' AGL or above during these periods to reduce bird strike hazard. Information on migratory bird activity along this route may be obtained from the bird avoidance web page on AHAS at: [HTTP://www.usahas.com](http://www.usahas.com).
- (13) Avoid by 1 NM and 1000' AGL uncharted active airport at Canyon, CO./Canadian River N36-04-56 W104-25-00.
- (14) CAUTION: Camco Ranch misplotted on TPC's and Sectional. Avoid Camco Ranch Airstrip N35-34.52 W103-16.88 1000' AGL and 1 NM.
- (15) Avoid all charted public use airfields by 1500' AGL or 3 NM.
- (16) CAUTION: Wind farm south of MAFR, heights approximately 350' AGL, approximate coordinates:
(a) NW corner: N33-58.43 W103-52.59
(b) NE corner: N33-57.33 W103-46.16
(c) SE corner: N33-55.47 W103-48.14
(d) SW corner: N33-56.60 W103-51.97
- (17) CAUTION: Wind farm west of MAFR (line north to south), heights 350' AGL, approximate coordinates: N34-43.55 W104-05.89 to N34-31.67 W104-05.33.
- (18) PECOS MOAs may be filed only if scheduled for requested airspace by the scheduling activity. Aircraft must receive clearance from Albuquerque ARTCC prior to entry into PECOS MOAs. Flight plans must specify the required delay in appropriate airspace. Monitor assigned frequency while operating in SUA.

FSS Within 100 NM Radius:

ABQ

IR-109

ORIGINATING ACTIVITY: 27 SOSS/OSA, 201 S. Chindit Ave. Bldg 728 Rm 112 Cannon AFB, NM 88103
27SOSS.ATC.ORG@us.af.mil DSN 640-6497, C575-904-6497.

SCHEDULING ACTIVITY: 27 SOAOS/RMO, 205 S. Chindit Ave. Bldg 780 Rm 119 Cannon AFB, NM 88103
27SOAOS.RMO.GROUND@us.af.mil DSN 640-7634, C575-784-7634.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 160 MSL to or as assigned	A	ABQ 332/65	N36°05.00' W107°10.00'
01 AGL B 120 MSL to	B	ABQ 344/71	N36°14.00' W106°53.00'
01 AGL B 120 MSL to	C	ABQ 346/76	N36°19.00' W106°50.00'
160 MSL to or as assigned Alternate Entry	D1	ALS 196/50	N36°37.00' W106°19.00'
01 AGL B 120 MSL to	D	ALS 190/41	N36°43.00' W106°09.00'
01 AGL B 120 MSL to	E	ALS 150/22	N37°00.00' W105°41.00'
01 AGL B 140 MSL to	F	ALS 134/21	N37°03.50' W105°35.00'
01 AGL B 140 MSL to	AO	ALS 119/26	N37°03.50' W105°24.50'
01 AGL B 150 MSL to	AP	ALS 119/37	N36°56.00' W105°15.00'
01 AGL B 150 MSL to	G	CIM 295/17	N36°40.00' W105°09.00'
01 AGL B 150 MSL to	H	CIM 277/13	N36°34.00' W105°08.00'
01 AGL B 150 MSL to	I	CIM 221/18	N36°19.00' W105°10.00'
01 AGL B 150 MSL to	J	CIM 204/25	N36°09.00' W105°11.00'
01 AGL B 150 MSL to	K	FTI 352/27	N36°06.00' W105°05.00'
01 AGL B 120 MSL to	L	FTI 043/28	N35°55.00' W104°40.00'
01 AGL B 120 MSL to	M	FTI 056/29	N35°50.00' W104°35.00'
01 AGL B 90 MSL to	N	FTI 069/26	N35°43.00' W104°36.00'
01 AGL B 80 MSL to	O	TCC 263/45	N35°15.00' W104°31.00'
01 AGL B 80 MSL to	P	TCC 245/44	N35°01.00' W104°28.00'
01 AGL B 70 MSL to Alternate Transition Routing to R-5104 IR-109 South as assigned to	Q	CVS 286/32	N34°35.00' W103°55.00'
	P1	TCC 245/44	N35°01.00' W104°28.00'
01 AGL B 70 MSL to	AA	CME 341/53	N34°13.00' W104°45.00'
01 AGL B 70 MSL to	AB	CME 343/47	N34°07.00' W104°42.00'
01 AGL B 70 MSL to	AC	CME 008/44	N34°02.00' W104°19.00'
01 AGL B 70 MSL to	AD	CVS 224/42	N33°56.00' W103°59.00'
01 AGL B 70 MSL to	AE	CVS 221/34	N34°00.00' W103°50.00'
01 AGL B 70 MSL to to R-5104/R-5105 Al- ternate Entry I	AF	CVS 235/27	N34°10.00' W103°48.00'
160 MSL to or as assigned	AJ	CIM 273/21	N36°35.00' W105°17.00'

IR ROUTES

01 AGL B 150 MSL to I1 CIM 221/18 N36°19.00'
Then via IR-109 W105°10.00'
Alternate Entry: M
170 MSL to AN FTI 035/40 N36°06.00'
or as assigned W104°32.00'
Descent to cross
01 AGL B 90 MSL to M1 FTI 056/29 N35°50.00'
then via IR-109 or W104°35.00'
IR-109 South
Alternate Exit: J
150 MSL to J1 CIM 204/25 N36°09.00'
Alternate exit J. W105°11.00'
150 MSL to AK FTI 341/16 N35°55.00'
(Contact Albuquerque W105°10.00'
ARTCC 246.35)
Proceed direct to
01 AGL B 120 MSL to AO1 ALS 119/26 N37°03.50'
(Contact Denver ART- W105°24.50'
CC 379.95)
Climb to cross
160 MSL to AR ALS 083/24 N37°18.40'
Alternate Exit: P W105°19.40'
at or below 70 MSL P2 TCC 245/44 N35°01.00'
W104°28.00'
70 MSL to AL TCC 247/29 N35°05.00'
Flight plan route W104°11.00'
(Contact Albuquerque
ARTCC 285.6)
Alternate Exit: AE
01 AGL B 70 MSL to AE3 CVS 221/34 N34°00.00'
W103°50.00'
70 MSL to AM CVS 198/21 N34°04.00'
Contact Cannon RAP- W103°30.00'
CON 352.1 leaving 61
MSL. Alternate Exit:
AQ
at or below 70 MSL P1 TCC 245/44 N35°01.00'
Climb to cross W104°28.00'
80 MSL to AQ CME 348/76 N34°36.00'
or as assigned W104°37.00'
(Contact ZAB ARTCC
285.6 for transition to
VR-1195 or Pecos
MOAS).

TERRAIN FOLLOWING OPERATIONS: Authorized
entire route IAW Major Commands/MDS guidance.

ROUTE WIDTH - 5 NM either side of centerline from A to E;
3 NM left and 1 NM right of centerline from E to AO; 5 NM left
and 3 NM right of centerline from AO to AP; 5 NM either side of
centerline from AP to end of route; 5 NM either side of centerline
for Alternate Entry I and Exits J, P, and AE; 4 NM either side of
centerline for Alternate Entry M. Alternate Exit AO; 3 NM left
and 1 NM right of centerline from F to AO; 4 NM either side of
centerline from AO to AR. 5 NM either side of centerline for
alternate entry D1.

Special Operating Procedures:

- (1) Non-27 SOW aircraft entry times are booked no closer than
15 mins apart. Users must meet booked Entry and Exit
times plus or minus 5 minutes. If unable to meet planned
entry time enter at an Alternate Entry to meet booked exit
time or do not enter the route.

- (2) Aircraft must call in-the-blind route entry, when crossing
Point D and AP and when exiting route on 255.4. Monitor
255.4 while on the route.
- (3) ZAB ARTCC does not provide IFR separation between
scheduled MTR users while on this route.
- (4) Avoid all charted public use airfields by 1500' AGL or 3 NM.
- (5) Avoid by 2 NM:
 - (a) Guadalupita, NM and Coyote Creek SP N36-08.0
W105-14.0;
 - (b) Monastery of Christ N36-22.4 W106-41.3. (Fighter/heavy
A/C avoid by 3NM)
- (6) Avoid by 1NM/1,000' AGL: Ranch (Mr Plante) N36-32.93
W106-29.77.
- (7) Aircraft transitioning to south routing to R-5104 will file
'TCC 245/44 IR109S' after main routing.
- (8) Aircraft may exit at AQ for transition to VR-1195/1107 or
Pecos MOAs. If scheduled with Scheduling Agency. Contact
ABQ ARTCC at AQ.
- (9) Aircraft not scheduled into R-5104/R-5105 must exit at or
prior to P or AE south transition.
- (10) Deconfliction between this and other crossing 27 SOW
routes will be by 27 SOW Scheduling. See and Avoid applies
to non-27 SOW conflicting VR and SR routes.
- (11) Route conflicts with:
 - (a) Pecos and Taiban MOAs, IR-107, IR-111, IR-113,
VR-100/125, VR-108, scheduled/deconflicted by
scheduling activity.
 - (b) VR-1107/1195 and VR-1175 consult FLIP AP/1B for
particulars
 - (c) IR-137/308 have high utilization by the 58 SOW
Schoolhouse. Aircrew scheduling IR-109 must deconflict
with 58 OSS, Kirtland AFB, DSN 263-5979/5888/5701.
- (12) Due to evolving avoidance areas, obstacles and land
beneath the route, all users must have/utilize the current
local route brief, 27 SOG Masterchum and Masterdrawfile
before flying the route. This information can be obtained by
request to the scheduling activity.
- (13) CAUTION: Wind farm south of MAFR, heights
approximately 350' AGL, approximate coordinates:
 - (a) NW corner: N33-58.43 W103-52.59
 - (b) NE corner: N33-57.33 W103-46.16
 - (c) SE corner: N33-55.47 W103-48.14
 - (d) SW corner: N33-56.60 W103-51.97
- (14) CAUTION: Wind farm west of MAFR (line north to south),
heights 350' AGL, approximate coordinates: N34-43.55
W104-05.89 to N34-31.67 W104-05.33.
- (15) Information on migratory bird activity along this route may
be obtained from the bird avoidance web page on AHAS at:
[HTTP://www.usahas.com](http://www.usahas.com).
- (16) PECOS MOAs may be filed only if scheduled for requested
airspace by the scheduling activity. Aircraft must receive
clearance from Albuquerque ARTCC prior to entry into
PECOS MOAs. Flight plans must specify the required delay
in appropriate airspace. Monitor assigned frequency while
operating in SUA.
- (17) Avoid by 3 NM/1500' AGL: San Miguel Private Runway
N35-30.1 W104-35.0

FSS Within 100 NM Radius:

ABQ, DEN

IR-111

ORIGINATING ACTIVITY: 27 SOSS/OSA, 201 S. Chindit Ave. Bldg 728 Rm 112 Cannon AFB, NM 88103
27SOSS.ATC.ORG@us.af.mil DSN 640-6497, C575-904-6497

SCHEDULING ACTIVITY: 27 SOAOS/RMO, 205 S. Chindit Ave. Bldg 780 Rm 119 Cannon AFB, NM 88103
27SOAOS.RMO.GROUND@us.af.mil DSN 640-7634, C575-784-7634

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	ACH 222/31	N34°48.50' W105°33.00'
01 AGL B 90 MSL to	B	FTI 226/24	N35°27.00' W105°33.00'
01 AGL B 120 MSL to	C	FTI 261/20	N35°41.00' W105°33.00'
01 AGL B 160 MSL to	D	FTI 275/21	N35°46.00' W105°33.00'
01 AGL B 160 MSL to	E	FTI 314/37	N36°11.00' W105°33.00'
01 AGL B 160 MSL to	F	FTI 326/38	N36°15.00' W105°25.00'
01 AGL B 160 MSL to	G	FTI 332/35	N36°13.00' W105°19.00'
01 AGL B 160 MSL to	H	FTI 352/27	N36°06.00' W105°05.00'
01 AGL B 120 MSL to	I	FTI 043/28	N35°55.00' W104°40.00'
01 AGL B 120 MSL to	J	FTI 056/29	N35°50.00' W104°35.00'
01 AGL B 90 MSL to	K	FTI 094/26	N35°32.00' W104°38.00'
01 AGL B 90 MSL to	L	FTI 110/25	N35°26.00' W104°43.00'
01 AGL B 90 MSL to	M	ACH 291/13	N35°14.00' W105°16.00'
01 AGL B 90 MSL to	N	ACH 264/13	N35°08.00' W105°18.00'
01 AGL B 90 MSL to	O	ACH 163/22	N34°45.00' W105°00.00'
01 AGL B 80 MSL to	P	ACH 151/26	N34°42.00' W104°53.00'
01 AGL B 70 MSL to	Q	TCC 211/24	N34°53.00' W103°56.00'
01 AGL B 70 MSL to Pecos East and West MOA	Q2	TCC 211/24	N34°53.00' W103°56.00'
01 AGL B 70 MSL to	R	TCC 190/25	N34°48.00' W103°47.00'
01 AGL B 70 MSL to	S	TCC 184/33	N34°39.00' W103°47.00'
Alternate Exit: O Climb to cross 90 AGL to Turn right to a head- ing of 270 to AB	O1	ACH 163/22	N34°45.00' W105°00.00'

90 MSL to or as assigned (Ctc ZAB ARTCC 284.6 for transition to turn right to a heading of 270 to) Alternate Entry: J as assigned to Descend to cross 01 AGL B 90 MSL to	AB	ACH 175/32	N34°35.00' W105°07.00'
	Y	FTI 035/40	N36°06.00' W104°32.00'
	J1	FTI 056/29	N35°50.00' W104°35.00'
01 AGL B 70 MSL to Climb to 120 MSL to or as assigned Contact ZAB ARTCC 285.6 Alternate Transition to Pecos East and West Low MOA	Q1	TCC 211/24	N34°53.00' W103°56.00'
	AA	TCC 147/14	N34°58.00' W103°30.00'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route IAW Major Commands/MDS guidance.

ROUTE WIDTH - 4 NM either side of centerline from A to K; 6 NM either side centerline from K to S; 4 NM either side of centerline on all Alternate Entry/Exits.

Special Operating Procedures:

- (1) Non-27 SOW aircraft entry times are booked no closer than 15 mins apart. Users must meet booked Entry and Exit times plus or minus 5 minutes. If unable to meet planned entry time enter at an Alternate Entry to meet booked exit time or do not enter the route.
- (2) Aircraft must call in-the-blind route entry and exit 255.4. Monitor 255.4 on this route unless operational constraints dictate otherwise.
- (3) ZAB ARTCC does not provide IFR separation between scheduled MTR users while on this route.
- (4) Avoid by 2 NM:
 - (a) Guadalupita, NM and Coyote Creek SP N36-08.0 W105-14.0;
 - (b) Pecos National Monument N35-33.85 W105-40.10
 - (c) Ft Sumner Rec Area N34-37.0 W104-24.0
- (5) Avoid by 1000' and 1 NM:
 - (a) House, NM N34-39.0 W103-54.0
 - (b) Ranch N34-53.0 W104-23.0;
 - (c) Ranch N35-18.0 W105-07.0;
 - (d) Ranch N35-05.0 W105-09.5;
 - (e) Ranch N34-54.0 W103-50.0;
 - (f) Ranch N34-50.5 W103-59.3;
 - (g) Truck stop N34-59.0 W105-13.5.
- (6) Avoid by 1000' AGL or 2 NM:
 - (a) South San Ysidro N35-27.0 W105-35.0.
 - (b) Soham, NM N35-26.59 W105-33.5
 - (c) San Jose, NM N35-23.8 W105-28.49
- (7) Avoid by 2000' AGL or 3.5 NM: Penasco, NM; Picuris Pueblo; Vadito, NM; and Native American Lands N36-10.74 W105-40.9
- (8) Avoid by 1500' AGL or 3 NM: San Miguel Private Runway N35-30.1 W104-35.0
- (9) Aircraft not scheduled into R-5104/R-5105 will not enter R-5104/R-5105, exit at or prior to Q.

IR ROUTES

- (10) Deconfliction between this and other crossing 27 SOW routes will be by 27 SOW Scheduling. See and Avoid applies to conflicting non-27 SOW VR and SR routes.
- (11) Route conflicts with IR-109, IR-113, IR-107, VR-108, VR-1195/1107, VR-1574/1174 and VR-1181. Consult FLIP AP-1B Chart for particulars.
- (12) Pecos MOAs may be filed only if scheduled for requested airspace by the scheduling activity. Aircraft must receive clearance from Albuquerque ARTCC prior to entry into Pecos MOAs. Flight plans must specify the required delay in appropriate airspace. Monitor assigned frequency while operating in the SUA.
- (13) Due to evolving avoidance areas, obstacles and land beneath the route, allusers must have/utilize the current local route brief, 27 SOG Master chum and Master draw file before flying the route. This information can be obtained by request to the scheduling activity.
- (14) CAUTION: Wind farm south of MAFR, heights approximately 350' AGL, approximate coordinates:
 - (a) NW corner: N33-58.43 W103-52.59
 - (b) NE corner: N33-57.33 W103-46.16
 - (c) SE corner: N33-55.47 W103-48.14
 - (d) SW corner: N33-56.60 W103-51.97
- (15) CAUTION: Wind farm west of MAFR (line north to south), heights 350' AGL, approximate coordinates: N34-43.55 W104-05.89 to N34-31.67 W104-05.33.
- (16) Information on migratory bird activity along this route may be obtained from the bird avoidance web page on AHAS at: [HTTP://www.usahas.com](http://www.usahas.com).
- (17) Avoid by 1500' AGL and 3 NM: Cutler Ranch N35-15.18 W105-27.47.

FSS Within 100 NM Radius:

ABQ

IR-112

ORIGINATING ACTIVITY: 27 SOSS/OSA, 201 S. Chindit Ave. Bldg 728 Rm 112 Cannon AFB, NM 88103
27SOSS.ATC.ORG@us.af.mil DSN 640-6497, C575-904-6497

SCHEDULING ACTIVITY: 27 SOAOS/RMO, 205 S. Chindit Ave. Bldg 780 Rm 119 Cannon AFB, NM 88103
27SOAOS.RMO.GROUND@us.af.mil DSN 640-7634, C575-784-7634

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	ABQ 293/50	N35°32.00'
Start descent to be			W107°39.03'
01 AGL B 100 MSL to	B	GUP 071/43	N35°32.00'
			W108°00.03'
01 AGL B 100 MSL to	C	GUP 069/41	N35°32.00'
			W108°03.03'
01 AGL B 100 MSL to	D	GUP 316/26	N35°51.00'
			W109°08.03'
01 AGL B 100 MSL to	E	GUP 278/46	N35°46.00'
			W109°45.03'
01 AGL B 100 MSL to	F	GUP 279/55	N35°50.00'
			W109°54.03'

01 AGL B 100 MSL to	G	TBC 070/58	N36°12.00'
			W110°05.03'
01 AGL B 90 MSL to (Alternate Entry)	EH	TBC 065/49	N36°16.00'
			W110°16.03'
01 AGL B 90 MSL to (Alternate Exit)	I	TBC 073/20	N36°07.94'
			W110°51.50'
01 AGL B 90 MSL to	J	TBC 087/16	N36°04.00'
			W110°56.50'
01 AGL B 90 MSL to (Alternate Entry)	EK	INW 288/23	N35°16.00'
			W111°12.00'
01 AGL B 90 MSL to (Alternate Exit)	L	INW 215/21	N34°50.00'
			W111°07.00'
01 AGL B 80 MSL to	XM	INW 190/19	N34°46.00'
			W110°57.03'
01 AGL B 80 MSL to	TN	SJN 293/47	N34°52.30'
After TN climb to			W109°55.40'
01 AGL B 110 MSL to (Contact Albuquerque ARTCC 288.25 for higher alt prior to reaching SJN)	O	SJN 300/34	N34°48.00'
			W109°39.03'
01 AGL B 80 MSL to	TN	SJN 293/47	N34°52.30'
turn right at			W109°55.40'
01 AGL B 80 MSL to	AA	SJN 292/39	N34°47.00'
continue right turn at			W109°48.03'
SFC B 80 MSL to	AB	SJN 281/41	N34°41.00'
climb to cross			W109°54.03'
at or below 100 MSL	AC	INW 179/30	N34°34.00'
turn right			W110°56.03'
at or below 100 MSL	AD	INW 194/27	N34°39.80'
descend to cross			W111°03.07'

Alternate Entry - EH

as assigned to	EH1	TBC 065/49	N36°16.00'
			W110°16.03'
01 AGL B 90 MSL to	I1	TBC 073/20	N36°08.00'
Alternate Entry: EK			W110°52.00'
as assigned to	EK1	INW 288/23	N35°16.00'
Start descent to be			W111°12.00'
01 AGL B 80 MSL to	L1	INW 215/21	N34°50.00'
Alternate Exit: I			W111°07.00'
01 AGL B 90 MSL to	I	TBC 073/20	N36°07.94'
climb to cross			W110°51.50'
110 MSL to	XI	TBC 041/14	N36°15.10'
or as assigned			W111°01.83'

(Contact Denver ART-CC 256.875 for further clearance.

Alternate Exit: L

01 AGL B 80 MSL to	L2	INW 215/21	N34°49.87'
climb to cross			W111°06.95'
110 MSL to	XM1	INW 189/19	N34°46.17'
or as assigned			W110°56.71'
(Contact Albuquerque ARTCC 306.2 for higher altitude)			

TERRAIN FOLLOWING OPERATIONS: Authorized entire route IAW Major Commands/MDS guidance.

ROUTE WIDTH - 5 NM either side of centerline from A to D; 5 NM left and 4 NM right of centerline from D to E; 5 NM either side of centerline from E to TN; 5 NM either side of centerline for

Alternate Exit I; 5 NM either side of centerline between TN and XM.

Special Operating Procedures:

- (1) Tie-in FSS: Albuquerque (ABQ).
- (2) Non-27 SOW aircraft entry times are booked no closer than 15 mins apart. Users must meet booked Entry and Exit times plus or minus 5 minutes. If unable to meet planned entry time enter at an Alternate Entry to meet booked exit time or do not enter the route.
- (3) Aircraft must call in-the-blind route entry and exit 255.4. Monitor 255.4 on this route unless operational requirements dictate otherwise.
- (4) Albuquerque ARTCC does not provide IFR separation between scheduled MTR users while on this route.
- (5) Alternate Entry: EH and EK.
- (6) Alternate Exit: I and L.
- (7) Avoid buildings in Petrified Forest National Park N34-48.9 W109-51.9 by 1000' and 2 NM.
- (8) Avoid the following schools by 1/2 NM:
 - (a) Ganado N35-45.2 W109-37.7
 - (b) Mariano Lake N35-34.6 W108-19.17
 - (c) Cross Canyon N35-43.98 W109-25.1
- (9) This route conflicts with IR-320. To deconflict, contact IR-320 Scheduling Authority at DSN 461-3665.
- (10) CAUTION: Numerous powerlines cross route.
- (11) Due to evolving avoidance areas, obstacles and land beneath the route, all users must have/utilize the current local route brief, 27 SOG Masterchum and Masterdrawfile before flying the route. This information can be obtained by request to the scheduling activity.
- (12) Information on migratory bird activity along this route may be obtained from the bird avoidance web page on AHAS at: [HTTP://www.usahas.com](http://www.usahas.com).
- (13) CAUTION: Wind turbine farm between points AB and AC, heights approximately 350' AGL, coordinates of farm:
 - (a) NW corner: N34-40.68 W110-17.30
 - (b) SW corner: N34-38.26 W110-18.72
 - (c) SE corner: N34-37.97 W110-16.70
 - (d) NE corner: N34-20.20 W110-14.87
- (14) CAUTION: Wind turbine farm between points AB and AC, Heights approximately 450' AGL, approximate coordinates of farm:
 - (a) NW corner: N34-38.81 W110-11.99
 - (b) SW corner: N34-35.94 W110-13.44
 - (c) SE corner: N34-35.13 W110-10.48
 - (d) NE corner: N34-36.60 W110-07.00

IR-113

ORIGINATING ACTIVITY: 27 SOSS/OSA, 201 S. Chindit Ave. Bldg 728 Rm 112 Cannon AFB, NM 88103
27SOSS.ATC.ORG@us.af.mil DSN 640-6497, C575-904-6497

SCHEDULING ACTIVITY: 27 SOAOS/RMO, 205 S. Chindit Ave. Bldg 780 Rm 119 Cannon AFB, NM 88103
27SOAOS.RMO.GROUND@us.af.mil DSN 640-7634, C575-784-7634

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	TCC 226/24	N34°58.00'
Start descent to be			W104°00.90'
01 AGL B 80 MSL to	B	TCC 217/38	N34°46.00'
			W104°11.00'
01 AGL B 80 MSL to	C	CNX 074/57	N34°25.00'
			W104°32.00'
01 AGL B 90 MSL to	D	CNX 076/51	N34°23.00'
			W104°39.00'
01 AGL B 90 MSL to (Alternate Entry)	E	CNX 059/20	N34°28.00'
			W105°18.00'
01 AGL B 90 MSL to (Alternate Exit)	TF	CNX 354/12	N34°34.00'
			W105°39.00'
01 AGL B 90 MSL to	G	CNX 307/21	N34°38.00'
			W105°57.00'
01 AGL B 100 MSL to	H	CNX 280/23	N34°31.00'
			W106°06.00'
01 AGL B 100 MSL to	I	CNX 241/16	N34°17.50'
			W105°59.50'
01 AGL B 115 MSL to	J	CNX 176/35	N33°47.50'
			W105°47.50'
01 AGL B 115 MSL to (Alternate Entry)	K	CNX 167/38	N33°43.50'
			W105°40.50'
01 AGL B 115 AGL to Start descent to be	L	CNX 143/44	N33°41.50'
			W105°19.50'
01 AGL B 80 MSL to	M	CME 302/39	N33°47.50'
			W105°11.50'
01 AGL B 80 MSL to	N	CME 319/46	N34°00.50'
			W105°04.50'
01 AGL B 80 MSL to	TO	CME 329/46	N34°03.50'
			W104°55.50'
01 AGL B 80 MSL to (Alternate Exit) ALT EXIT P. 70 MSL OR ASSIGNED TO XQ. CTC ALBUQUER- QUE ARTCC 285.6 OR CANNON APCH 352.1.	P	CVS 234/50	N33°58.00'
			W104°12.00'
01 AGL B 70 MSL to	XQ	CVS 225/42	N33°56.50'
			W103°59.50'
as assigned to	EE	CNX 052/40	N34°39.20'
Start descent to be			W104°56.70'
01 AGL B 90 MSL to then via IR-113 Alternate Entry: M3	E	CNX 059/20	N34°28.00'
			W105°18.00'
01 AGL B 80 MSL to	P	CVS 234/50	N33°58.00'
			W104°12.00'
70 MSL to or as assigned (Contact Albuquerque ARTCC 285.6 or Can- non APP CON 352.1) Alternate Transition to RED RIO RANGE on IR-133.	XQ1	CVS 225/42	N33°56.50'
			W103°59.50'
01 AGL B 90 MSL to	TF	CNX 354/12	N34°34.00'
			W105°39.00'
01 AGL B 90 MSL to	F1	ONM 080/22	N34°19.00'
			W106°23.00'

IR ROUTES

01 AGL B 90 MSL to Alternate Transition to OSCURA RANGE on IR-133.	F2	ONM 125/42	N33°49.00' W106°16.00'
01 AGL B 90 MSL to	TF	CNX 354/12	N34°34.00' W105°39.00'
01 AGL B 90 MSL to	F3	CNX 304/23	N34°39.00' W106°00.00'
01 AGL B 90 MSL to	I	CNX 241/16	N34°17.50' W105°59.50'
01 AGL B 110 MSL to thence via IR-113 Alternate Entry: K Exit R-5107 at 110 MSL to	TI	CNX 189/42	N33°43.00' W106°00.00'
	EK	CNX 194/43	N33°44.00' W106°04.20'
01 AGL B 115 MSL to then via IR-113.	K1	CNX 167/38	N33°43.50' W105°40.50'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route IAW Major Commands/MDS guidance.

ROUTE WIDTH - 5 NM either side of centerline from A to C; 4 NM either side of centerline from C to D; 5 NM either side of centerline from D to M2; 5 NM either side of centerline for all Alternate Entries and Exits.

Special Operating Procedures:

- (1) Tie-in FSS: Albuquerque (ABQ).
- (2) Non-27 SOW aircraft entry times are booked no closer than 15 mins apart. Users must meet booked Entry and Exit times plus or minus 5 minutes. If unable to meet planned entry time enter at an Alternate Entry to meet booked exit time or do not enter the route.
- (3) Alternate Entry: E, K, M3.
- (4) Alternate Exit: P, TF.
- (5) Aircraft must call in-the-blind route Entry and Exit on 255.4. Monitor 255.4 on this route unless operational requirements dictate otherwise.
- (6) Albuquerque ARTCC does not provide IFR separation between scheduled MTR users while on this route.
- (7) Due to evolving avoidance areas, obstacles and land beneath the route, all users must have/utilize the current local route brief, 27 SOG Master chum and Master draw file before flying the route. This information can be obtained by request to the scheduling activity.
- (8) Avoid Gran Quivira National Monument N34-15.6 W106-05.5 by 2 NM.
- (9) Avoid all charted public use airfields by 1500'/3 NM.
- (10) Avoid Double V Ranch Airstrip N34-07.0 W104-25.6 by 1500'/2 NM.
- (11) Avoid Canning Ranch Airstrip N33-42.0 W105-23.4 by 1000'/1 NM.
- (12) Avoid by 1000'/0.5 NM: Quarry Blasting N34-39.54 W105-36.31 and N34-38.71 and W105-40.06.
- (13) Avoid by 1000'/1 NM:
 - (a) Uncharted Airstrip N33-41.69 W105-23.12;
 - (b) Horrey Ranch/Airstrip N34-20.8 W104-32.5;
 - (c) Bojax Airstrip N34-01.0 W104-07.0;
 - (d) White Oaks, NM N33-45.0 W105-44.2;
 - (e) Ranch N34-20.8 W104-32.5;
 - (f) Ranch N34-16.9 W105-05.2;
 - (g) Ranch N34-16.2 W104-42.5;
 - (h) Ranch N33-54.0 W104-17.1;

- (i) Lake Sumner Settlement N34-37.2 W104-23.9;
 - (j) Ranch N33-42.4 W105-38.4.
- (14) CAUTION: Increased bird activity Nov-Feb during dusk and night in areas from B to C, TF to I, and N to P. Recommend flight at 1000' AGL or above during these periods to reduce birdstrike hazard. Information on migratory bird activity along this route may be obtained from the bird avoidance web page on AHAS at: [HTTP://www.usahas.com](http://www.usahas.com).
 - (15) IR-113 users requiring entry into R-5107, contact 49 OSS scheduling at C575-572-3536. Additionally, users will contact Cherokee Control to receive clearance prior to entering R-5107. If unable to contact Cherokee, obtain clearance from Oscura Range Control Officer.
 - (16) Pecos MOAs may be filed only if scheduled for requested airspace by scheduling agency. Aircraft must receive clearance from Albuquerque ARTCC into requested Pecos MOA airspace prior to route entry. Flight plans must specify the required delay with the appropriate airspace. Monitor assigned ARTCC frequency in SUA.
 - (17) Aircraft not scheduled into R-5104/R-5105 Melrose Range Complex must exit prior to XQ.
 - (18) Deconfliction between IR-113 and Pecos MOAs, IR-109, IR-111, VR-100/125, VR-108, and VR-114 is accomplished by 27 SOW scheduling. Contact applicable scheduling authority for deconfliction with non-27 SOW conflicting routes. (e.g. IR-128, IR-133/142, IR-180, VR-1107/1195, VR-176).
 - (19) Route is designed for MARSA operations established by coordinated scheduling between 27 SOW and Holloman AFB scheduling.
 - (20) CAUTION: Wind turbine farm, heights approximately 350' AGL, located linearly between N34-30.0 W105-58.85 and N34-26.03 W105-57.10.

FSS Within 100 NM Radius:

ABQ

IR-117

ORIGINATING ACTIVITY: 188th Wing-AR ANG, 4850 Leigh Ave., Fort Smith, AR 72903 DSN 778-5502, C479-573-5502.

SCHEDULING ACTIVITY: Same as Originating Activity.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	TIK 142/15	N35°13.00' W97°13.00'
05 AGL B 30 MSL to	B	PGO 276/90	N34°55.00' W96°25.00'
SFC B 40 MSL to	C	PGO 244/56	N34°20.00' W95°39.00'
SFC B 40 MSL to	D	PGO 288/3	N34°42.00' W94°40.00'
SFC B 40 MSL to	E	PGO 022/10	N34°50.00' W94°31.00'
SFC B 40 MSL to	F	FSM 167/19	N35°04.00' W94°14.00'
SFC B 40 MSL to	G	FSM 141/14	N35°11.00' W94°07.00'

TERRAIN FOLLOWING OPERATIONS: Authorized for entire route. Only obstacles 200' AGL and higher were surveyed for this MTR, and the minimum schedulable altitude for training is 500' AGL.

ROUTE WIDTH - 3 NM either side of centerline from A to D; 2 NM either side of centerline from D to E; 2 NM left and 10 NM right of centerline from E to F; 2 NM either side of centerline from F to G (until entering R-2402).

Special Operating Procedures:

- (1) Alternate Entry: B, C, D.
- (2) Alternate Exit: D, F.
- (3) Participating aircraft separation on IR-117, 120, 121, 164, VR-189, 1102, 1103, 1104, 1113, 1130 as well as in the Hog MOA and is MARSAs through see and avoid as well as restrictive scheduling. All legs of the route that enter the Hog MOA (F-H) are prohibited while the Hog MOA (also scheduled by the 188 WG) is activated - If the Hog MOA is active, exit at point E or adjust route times.
- (4) Report Hog MOA entry/exit and applicable MTR points in the blind on the Hog MOA tactical frequency 307.375.
- (5) Caution Points E-G, multiple converging MTRs and IP to DZ routes even when the Hog MOA is not active.
- (6) Point A route entrance restricted to aircraft departing Tinker AFB.
- (7) Point D is a compulsory reporting point, contact Razorback Approach on 343.75 or 120.9 (this may require climbing to the top of the route block). Clearance to enter R-2402 must be received on 339.7. Flights exiting the MTR requesting activation of the Hog MOA complex must report the MTR exit point to Memphis Center on 269.0 or 126.1 and receive clearance out of the route and into the MOA prior to exiting the route. Otherwise contact Razorback Approach on 343.75 or 120.9 prior to exiting the route.
- (8) Avoid flight within 1500' AGL/3 NM all charted airports when practicable.
- (9) Uncharted obstructions: None

FSS Within 100 NM Radius:

FTW, ICT, MLC

IR-120

ORIGINATING ACTIVITY: 188th Wing-AR ANG, 4850 Leigh Ave., Fort Smith, AR 72903 DSN 778-5502, C479-573-5502.

SCHEDULING ACTIVITY: Same as Originating Activity.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	FSM 072/63	N35°35.00' W93°01.00'
01 AGL B 50 MSL to	B	FSM 086/46	N35°21.00' W93°20.00'
01 AGL B 50 MSL to	C	FSM 102/44	N35°09.00' W93°25.50'
01 AGL B 50 MSL to	D	PGO 063/35	N34°54.50' W93°58.00'
10 AGL B 40 MSL to	E	FSM 134/16	N35°11.00' W94°04.00'

TERRAIN FOLLOWING OPERATIONS: Authorized for entire route. Only obstacles 200' AGL and higher were surveyed for this MTR, and the minimum schedulable altitude for training is 500' AGL for points A-D.

ROUTE WIDTH - 5 NM either side of centerline from A to N35-28 W93-10; 3 NM left and 5 NM right of centerline to B; 5 NM left and 8 NM right of centerline from B to C; 5 NM either side of centerline from C to D; 5 NM left and 3 NM right of centerline from D to E.

Special Operating Procedures:

- (1) Route designated for SN, RR, and PR.
- (2) Route will be flown 240 to 540 knots.
- (3) Participating aircraft separation on IR-117, 120, 121, 164, VR-189, 1102, 1103, 1104, 1113, and 1130 as well as in the Hog MOA and is MARSAs through see and avoid as well as restrictive scheduling. All legs of the route that enter the Hog MOA (F-H) are prohibited while the Hog MOA (also scheduled by the 188 WG) is activated - If the Hog MOA is active, exit at point E or adjust route times.
- (4) Report Hog MOA entry/exit and applicable MTR points in the blind on the Hog MOA tactical frequency 307.375.
- (5) Caution, Numerous SR routes frequented by flights of multiple C-130s between (Points A-C) and multiple converging MTRs and IP to DZ routes (Points C-E) even when the Hog MOA is not active.
- (6) Units requesting use of IR-120 will furnish scheduler with entry time, time at D, and exit time.
- (7) Point D is a compulsory reporting point; contact Razorback Approach on 343.75 or 120.9 (This may require climbing to the top of the block). Clearance to enter R-2402 must be received on 339.7. Flights exiting the MTR requesting activation of the Hog MOA complex must report the MTR exit point to Memphis Center on 269.0 or 126.1 and receive clearance out of the route and into the MOA prior to exiting the route. Otherwise, contact Razorback Approach on 343.75 or 120.9 prior to exiting the route.
- (8) Avoid flight within 1500' AGL/3 NM all charted airports when practicable.
- (9) Uncharted Obstructions: None
- (10) Caution: Be alert for soaring birds and hang gliders in the vicinity of Magazine Mountain (N35 10 W093 39) and Mt Nebo (N35 13 W093 15).
- (11) Make entry times plus or minus ten minutes or reschedule.
- (12) Avoid direct overflight of nuclear facility N35-19 W93-14.

IR-121

ORIGINATING ACTIVITY: 188th Wing-AR ANG, 4850 Leigh Ave., Fort Smith, AR 72903 DSN 778-5502, C479-573-5502.

SCHEDULING ACTIVITY: Same as Originating Activity.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	TXK 072/50	N33°40.00' W93°05.00'
01 AGL B 20 MSL to	B	TXK 037/43	N34°02.00' W93°28.00'

IR ROUTES

01 AGL B 30 MSL to	C	TXK 006/49	N34°19.00' W93°51.00'
01 AGL B 40 MSL to	D	PGO 082/48	N34°44.00' W93°38.00'
01 AGL B 40 MSL to	E	PGO 063/34	N34°54.00' W93°58.00'
01 AGL B 40 MSL to	F	FSM 134/16	N35°11.00' W94°04.00'

TERRAIN FOLLOWING OPERATIONS: Authorized for the entire route. Only obstacles 200' AGL and higher were surveyed for this MTR, and the minimum schedulable altitude for training is 500' AGL.

ROUTE WIDTH - 2 NM either side of centerline from A to B; 2 NM widening to 6 NM left and 3 NM right of centerline from B to C; 8 NM either side of centerline from C to E; 5 NM left and 3 NM right of centerline from E to F.

Special Operating Procedures:

- (1) Alternate Entry: C.
- (2) Alternate Exit: E.
- (3) Participating aircraft separation on IR-117, 120, 121, 164, VR-189, 1102, 1103, 1104, 1113, and 1130 as well as in the Hog MOA and is MARSA through see and avoid as well as restrictive scheduling. All legs of the route that enter the Hog MOA (F-H) are prohibited while the Hog MOA (also scheduled by the 188 WG) is activated-If Hog MOA is active, exit at point E or adjust route times.
- (4) Report Hog MOA entry/exit and applicable MTR points in the blind on the Hog MOA tactical frequency 307.375.
- (5) CAUTION, Multiple converging MTRs (Points B-F) and IP to DZ routes (Points D-F) even when the Hog MOA is not active.
- (6) Clearance to enter R-2402 must be received on 339.7. Flights exiting the MTR requesting activation of the Hog MOA complex must report the MTR exit point to Memphis Center on 269.0 or 126.1 and receive clearance out of the route and into the MOA prior to exiting the route. Otherwise, contact Razorback Approach on 343.75 or 120.9 prior to exiting the route.
- (7) Avoid flight within 1500' AGL/3 NM all charted airports when practicable.
- (8) CAUTION, Mining activity at N34 14.15 W093 38.10 and N34 13.15 W093 38.10.
- (9) Uncharted Obstructions:
 - (a) Tower (N34 02.71 W093 42.85) estimated altitude 300' AGL.
 - (b) Tower (N34 03.47 W093 43.22) estimated altitude 325' AGL.
 - (c) Tower (N34 05.56 W093 44.38) estimated altitude 250' AGL.
- (10) Make entry time plus or minus 10 min or reschedule.

IR-123

ORIGINATING ACTIVITY: 12 OSS/OSAS, Bldg 28 5th Street East, Randolph AFB, TX 78150 DSN 487-5580.

SCHEDULING ACTIVITY: 560 FTS, 1450 5th Street East, Randolph AFB, TX 78150-4333 DSN 487-3518, C210-652-3518.

HOURS OF OPERATION: 0700-2200 local; OT by NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	LLO 135/22	N30°30.00' W98°32.00'
05 AGL B 50 MSL to	B	JCT 191/16	N30°21.00' W99°55.00'
05 AGL B 50 MSL to	C	RSG 290/42	N30°22.00' W101°00.00'
01 AGL B 50 MSL to	D	DLF 305/71	N30°09.00' W101°47.00'
01 AGL B 60 MSL to	E	FST 090/72	N30°43.00' W101°37.00'
01 AGL B 50 MSL to	F	SJT 248/54	N31°11.00' W101°29.00'
05 AGL B 50 MSL to	G	SJT 209/35	N30°55.00' W100°53.00'
05 AGL B 60 MSL to	H	JCT 041/22	N30°50.00' W99°30.00'
05 AGL B 40 MSL to	I	LLO 295/23	N31°00.00' W99°09.52'
05 AGL B 60 MSL to Alternate Exit: H	J	LLO 307/22	N31°03.00' W99°05.00'
05 AGL B 60 MSL to Climb to	H1	JCT 041/22	N30°50.00' W99°30.00'
110 MSL to (Contact Houston ARTCC)	HA	LLO 265/17	N30°48.60' W99°06.90'
110 MSL to	HB	LLO VORTAC	N30°47.78' W98°47.24'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 5 NM either side of centerline from A to C; 13 NM either side of centerline from C to F; 13 NM tapering to 5 NM either side of centerline from F to G; 5 NM either side of centerline from G to J. Alternate Exit H: 5 NM either side of centerline from H1 to HB.

Special Operating Procedures:

- (1) Minimum speeds: 300 kt.
- (2) Minimum separation between scheduled entry times is 10 minutes. ARTCC provides users with separation from known IFR traffic only. MARSA applies after aircraft have passed the Entry/Alternate Entry Point until ATC establishes standard separation after exiting the route.
- (3) Route conflicts:
 - (a) IR-123 just past Point B to Point G shares the route centerline with IR-169. You must call the schedulers, 87 FTS at Laughlin AFB, TX DSN 732-5824/5484, C830-298-5824 to deconflict and ensure 10 minutes separation between aircraft;
 - (b) SR-281 and SR-282 conflicts with IR-123 from Point A to Point E in numerous places, and SR-283 and SR-284 conflicts with IR-123 between Point C to Point H. Call the schedulers, 85 FTS at Laughlin AFB, TX DSN 732-5121/5337, C830-298-5429 to deconflict with these routes;
 - (c) The left corridor of IR-123 between Point A to just past Point B conflicts with the route corridor of VR-140 at Point G. Call the 560 FTS at Randolph AFB, TX DSN 487-3518/3942, C210-652-3518 to deconflict;

- (d) IR-123 from Point A to Point B conflicts with SR-130 Point D. To deconflict, call the schedulers, 559th FTS DSN 487-5661, C210-652-5661 Mon-Fri.
- (4) Units requesting IR-123 shall furnish 560 FTS with planned entry/exit points, times, and planned speeds. Accurate times are critical in the deconfliction process.
- (5) Aircraft unable to meet their assigned entry time within the window two minutes early to five minutes late must not enter the route.
- (6) All aircraft will monitor FSS (255.4) unless assigned a frequency by ARTCC. The entry and exit and all Alternate Entry/Exit Points are compulsory reporting points. Ft. Worth ARTCC request all aircraft monitor 290.3 from E to G.
- (7) Exit procedures:
 - (a) Aircraft exiting at B will climb to 5000' MSL and turn right direct JCT. Contact ZHU ARTCC on 346.4.
 - (b) Aircraft exiting at G will climb to 7000' MSL, contact ZHU ARTCC on 343.9. Cross the JCT 302 radial at 7000' MSL and maintain 7000' MSL until H. After H, proceed direct LLO, and cross the LLO 265/017 at 11,000' MSL, then direct to LLO 088/029;
 - (c) Aircraft exiting at H will proceed via the LLO 265 radial direct LLO, climb, maintain 11,000' MSL. Contact ZHU ARTCC 307.3. Cross the LLO 265/017, 11,000' MSL.
- (8) Sensitive Areas: Avoid the following areas by 1300' AGL or 1 NM radius: N30-18-00 W100-38-45; N30-32-36 W100-54-24; N30-40-00 W101-42-00; N31-11-00 W101-32-00; N31-12-00 W101-28-30; N31-09-15 W101-20-40; N30-49-30 W100-42-15; N30-53-00 W99-33-00; N30-19-40 W99-54-20. AVOID THE FOLLOWING AREAS by 1.5 NM radius: N30-24-30 W98-43-00; N30-24-30 W100-37-00. AVOID Pave Paws Radar Site N30-58-41 W100-33-08 by 5000' AGL or 1 NM.
- (9) Alternate Entry: B and C.
- (10) Alternate Exit: B,G and H.
- (11) Route Segment I to J closed except for aircraft scheduled into the BRADY MOA. Aircraft not scheduled into the BRADY MOA must exit by Point I and remain clear of the BRADY MOA.
- (12) Obstruction: Unlit 500' AGL tower at (N30-43-50 W098-57-12).

FSS Within 100 NM Radius:
FTW, SJT

IR-124

ORIGINATING ACTIVITY: 301 OG/SUA, NAS Fort Worth, 1425 Carswell Ave., TX 76127 DSN 739-6903/6904/6905, C817-782-6903/6904/6905.

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: 0700-2200 local; OT by NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	SJT 106/36	N31°07.00' W99°50.00'
05 AGL B 40 MSL to	B	SJT 211/23	N31°05.00' W100°45.00'
01 AGL B 40 MSL to	C	SJT 273/33	N31°30.00' W101°05.00'

01 AGL B 40 MSL to	D	SJT 318/54	N32°08.00' W101°01.00'
05 AGL B 50 MSL to	E	SJT 016/32	N31°51.00' W100°11.00'
05 AGL B 50 MSL to	F	LLO 309/45	N31°21.00' W99°23.00'
05 AGL B 60 MSL to	G	LLO 312/40	N31°18.00' W99°17.00'
05 AGL B 60 MSL to	H	LLO 347/17	N31°05.00' W98°49.00'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route (See SOP number 5).

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Minimum speed: 300 kt.
- (2) Minimum separation between scheduled entry times is 10 minutes. ARTCC provides users with separation from known IFR traffic only. MARSA applies after aircraft have passed the Entry/Alternate Entry point until ATC established standard separation after exiting the route.
- (3) Route Conflicts:
 - (a) IR-124 from Points B to C conflicts with SR-283 Point H and SR-284 Point A. Both are on or near the route centerline. Call the 85 FTS at Laughlin AFB DSN 732-5121, C830-298-5121/5529 to ensure altitude and time separation;
 - (b) IR-124 conflicts with SR-243 Points C to E with SR-244 Points B to C, and SR-242 at Point F. Call Dyess AFB DSN 461-2792 to deconflict.
- (4) Units requesting IR-124 shall furnish 301 OG/SUA with planned entry/exit points, times and planned speeds. Accurate times are critical in the deconfliction process.
- (5) Aircraft unable to meet their assigned entry time within the window two minutes early to five minutes late must not enter the route.
- (6) Monitor FSS 255.4 unless assigned a frequency by ARTCC. The entry and exit and all Alternate Entry/Exit points are compulsory reporting points. Ft Worth ARTCC requests all aircraft monitor 290.3 from Point E to G.
- (7) Exit procedures:
 - (a) Aircraft exiting E will climb to be at 5000' by E and contact Fort Worth 295.0;
 - (b) Aircraft exiting at H will proceed to LLO via LLO 347 radial, then via flight plan route: climb and maintain 9000' to cross LLO 347/9 at 9000' and contact Houston ARTCC 307.3. (Aircraft requesting Brady MOA will be cleared by Houston Center as soon as possible after radio communication has been established).
- (8) Alternate Entry: D.
- (9) Alternate Exit: E.
- (10) Sensitive Areas: Avoid the following areas by 1300' AGL or 1 NM radius: N31-07.5 W99-49.5; N31-09.5 W99-53.0; N31-15.5 W100-49.0; N31-11.0 W100-54.5; N32-03.0 W100-40.5; N31-19.0 W99-14.5; N31-13.5 W99-13.5.

FSS Within 100 NM Radius:
FTW, SJT

IR ROUTES

IR-126

ORIGINATING ACTIVITY: 57 OSS/OSOP, 4450 Tyndall Ave. D-4, Nellis AFB, NV 89191 DSN 682-7891, C702-652-7891.

SCHEDULING ACTIVITY: 57 OSS/OSOS, 4450 Tyndall Ave., Nellis AFB, NV 89191 DSN 682-2040, C702-652-2040.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at FL200 to or as assigned descend direct to cross	A	RSK 085/50	N36°37.00' W107°04.00'
at or below FL180 descend direct to cross	B	RSK 090/46	N36°34.00' W107°11.00'
100 MSL to direct to	C	RSK 104/37	N36°27.50' W107°26.00'
06 AGL B 100 MSL to direct to	D	RSK 142/31	N36°16.50' W107°50.00'
06 AGL B 100 MSL to turn right and climb to	E	RSK 177/34	N36°11.00' W108°14.00'
06 AGL B 110 MSL to direct to	F	RSK 184/35	N36°11.50' W108°19.50'
02 AGL B 110 MSL to direct to	G	RSK 211/37	N36°18.50' W108°39.00'
04 AGL B 110 MSL to direct to	GA	TBC 047/100	N36°53.00' W109°26.00'
10 AGL B 110 MSL to direct to	GB	DVC 209/57	N37°06.50' W109°45.00'
02 AGL B 110 MSL to descend and turn left to	H	HVE 139/75	N37°17.50' W110°00.00'
02 AGL B 90 MSL to left turn to	I	HVE 142/71	N37°19.50' W110°06.50'
02 AGL B 90 MSL to turn right to	J	HVE 167/65	N37°20.00' W110°45.00'
02 AGL B 90 MSL to direct to	K	HVE 170/64	N37°21.00' W110°49.50'
02 AGL B 90 MSL to direct to	L	BCE 082/45	N37°36.00' W111°22.00'
02 AGL B 90 MSL to turn left to	M	BCE 086/36	N37°34.00' W111°33.50'
05 AGL B 90 MSL to (Start Maneuver Area) direct to	N	BCE 126/29	N37°19.00' W111°55.50'
02 AGL B 90 MSL to direct to	O	BCE 172/45	N36°57.00' W112°25.00'
02 AGL B 90 MSL to (End Maneuver Area) direct to	P	UTI 106/32	N36°45.50' W112°55.50'
02 AGL B 90 MSL to descend and turn right to	Q	UTI 145/29	N36°34.50' W113°17.00'
02 AGL B 80 MSL to direct to	R	UTI 150/28	N36°34.00' W113°20.00'
02 AGL B 90 MSL to climb and turn right to	S	MMM 108/28	N36°30.50' W113°48.50'

02 AGL B 90 MSL to direct to	T	MMM 112/19	N36°34.50' W113°58.50'
02 AGL B 90 MSL to descend direct to	U	MMM 091/11	N36°43.00' W114°03.50'
06 AGL B 80 MSL to direct to	V	MMM 075/9	N36°46.00' W114°05.00'
02 AGL B 90 MSL to turn right and climb to	W	MMM 009/11	N36°56.00' W114°11.00'
02 AGL B 90 MSL to turn right and climb to	X	MMM 001/19	N37°04.00' W114°10.00'
02 AGL B 90 MSL to direct to	Y	UTI 317/29	N37°25.50' W113°49.50'
02 AGL B 90 MSL to	Z	UTI 321/39	N37°36.00' W113°53.00'
90 MSL to Re-Entry: cross (End Maneuver Area)	P1	UTI 106/32	N36°45.50' W112°55.50'
100 MSL to direct to	AA	UTI 112/47	N36°35.00' W112°43.00'
SFC B 50 MSL to (Start Maneuver Area) turn right and descend to cross	AC	BCE 128/14	N37°30.00' W112°07.50'
90 MSL to Then via published route	N1	BCE 126/29	N37°19.00' W111°55.50'
Alternate Exit: AB			
90 MSL to (End Maneuver Area) (Contact Los Angeles ARTCC 343.6 prior to AA)	P2	UTI 106/32	N36°45.50' W112°55.50'
Climb and turn left to cross			
at or below 120 MSL	AA1	UTI 112/47	N36°35.00' W112°43.00'
Climb direct to cross			
140 MSL to or as assigned	AB	BCE 175/42	N37°00.00' W112°27.00'
Alternate Entry: AD			
170 MSL to or as assigned	AD	TBC 041/52	N36°36.00' W110°22.00'
30 AGL B 130 MSL to direct to	AE	DVC 225/93	N37°00.00' W110°36.00'
30 AGL B 130 MSL to direct to	AF	DVC 237/93	N37°17.50' W110°45.50'
02 AGL B 90 MSL to Descend direct to Thence via published route.	K1	HVE 170/64	N37°21.00' W110°49.50'

PMSV CONTACTS: Primary home station.

TERRAIN FOLLOWING OPERATIONS: IMC/VMC terrain following (TF), Terrain Avoidance (TA), visual contour (VC) operations are authorized IAW command directives C to Z and AE to K. When command directives preclude TA/TF/VC operations, aircrews will maintain the IFR altitude for each TA/TF route segment. Minimum altitudes, other than surface, provide at least 100' vertical clearance of known man-made obstructions. Obstructions under 200' AGL were not considered in route design. Command directives may require additional obstruction clearance for TA/TF/VC operations. The entire route is mountainous. Regulations governing aircraft operations below 500' AGL must be complied with. Auto TF descent is authorized

at C and 11 NM prior to AE on the Alternate Entry for B-1B aircraft.

ROUTE WIDTH - 5 NM either side of centerline from A to H; 4 NM either side of centerline from H to M; 3 NM either side of centerline from M to N; 4 NM left and 2 NM right of centerline from N to O; 3 NM left and 2.5 NM right of centerline from O to Q; 3 NM left and 2.5 NM right of centerline from Q to S; 4 NM either side of centerline from S to X; Boundaries of Desert MOA left and 4 NM right from X to Z; Alternate Exit: 4 NM either side of centerline from P to AB; Alternate Entry: 4 NM either side of centerline from AD to K; Re-Entry: 4 NM either side of centerline from P to AC; Re-Entry: 2.5 left and 4 NM right of centerline from AC to N.

Special Operating Procedures:

- (1) Participating Aircraft Separation: Route designated for MARSAs operations established by coordinated scheduling. All aircraft must enter route at prescribed scheduled time plus or minus 2 1/2 minutes. Otherwise new entry time must be scheduled with 57 OSS/OSOS.
- (2) Lost communications altitude after exit at AB is 14,000' MSL. Lost communications altitude after exit at Z is as required for aircraft participating in operations in the Desert MOA and Nellis Ranges.
- (3) Routing from P-Z will only be used by aircraft scheduled into Desert MOA. Contact MOA scheduling operations at DSN 348-4710 or Blackjack at DSN 348-4707.
- (4) Aircrews are authorized to turn left and enter the Desert MOA anywhere between X and Z based on their preplanned mission scenario. Must file Z exit (OZN321034).
- (5) Method of MARSAs between IR-126 and IR-266 will be coordinated scheduling.
- (6) Centerline between the following points are depicted as a 7.5 NM arc: E to F; H to I; J to K; L to M; Q to R; S to T; W to X; Y to Z; and P to AA. Centerline between AC to N is 7.0 NM radius arc.
- (7) Contact Nellis Control 317.52 prior to entering Desert MOA. If Nellis Control cannot be reached, contact Blackjack 377.8.
- (8) Aircraft using Alternate Exit will contact Los Angeles ARTCC 343.6 prior to AA. If unable, Squawk Mode 3 Code 7600. If no contact is made by AB, follow two-way communications failure.
- (9) Aircrews entering IR-126 on Alternate Entry AD must file IR-126A.
- (10) IR-126 ends at Z, routing within Nellis Ranges is not part of IR-126. Therefore, Z must be filed as IR-126 exit, followed by western most point in Nellis Ranges and Exit Point for Nellis Ranges.
- (11) When aircraft are operating in IMC or marginal VMC conditions, report passing Point R (OZN 143/34) to Los Angeles ARTCC 343.6.
- (12) Aircrews should be especially vigilant for VFR helicopter traffic from SFC to 500' AGL between O and S.
- (13) Aircrews are restricted to IFR altitude between X and Y due to blasting in the area of N37-22 W113-52 between the following time frames: 1730-1830Z and 2130-2330Z during daylight savings time. 1830-1930Z and 2230-0030Z during daylight standard time.
- (14) Noise Sensitive Areas:
 - (a) Residence N37-11.5 W109-52.0;
 - (b) Residence N37-16.1 W109-55.6 avoid by 1/2 NM, (NO OVERFLIGHT);

- (c) Fly centerline or south of centerline between points O and P to avoid the Pipe Springs National Monument N36-51.7 W112-44.2.

(15) Alternate Entry: AD.

(16) Alternate Exit: AB.

FSS Within 100 NM Radius:

ABQ, CDC, PRC

IR-127

ORIGINATING ACTIVITY: 307 OSS/OSOR, 1333 Twining Dr, Barksdale AFB, LA 71110 DSN 331-3171, C318-529-3171.

SCHEDULING ACTIVITY: Same as Originating Activity. Scheduling hours 0700-1530 CST.

HOURS OF OPERATION: Sunrise-Sunset Mon-Fri

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	LOA 075/23	N31°10.00' W95°32.00'
09 AGL B 40 MSL to	B	DAS 357/22	N30°33.00' W94°38.00'
07 AGL B 40 MSL to	C	LFK 063/25	N31°19.00' W94°16.00'
07 AGL B 40 MSL to	D	GGG 125/40	N31°58.00' W94°10.00'
07 AGL B 40 MSL to	E	GGG 198/30	N31°58.00' W95°00.00'
07 AGL B 40 MSL to	F	GGG 197/38	N31°50.50' W95°03.20'
07 AGL B 40 MSL to	G	LOA 054/44	N31°28.00' W95°12.30'
06 AGL B 40 MSL to Alternate Entry: D	H	LOA 041/25	N31°24.00' W95°36.00'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Minimum separation between scheduled entry times is 10 minutes. ARTCC provides users with separation from known IFR traffic only. MARSAs applies after aircraft have passed the Entry/Alternate Entry Point until ATC established standard separation after exiting the route.
- (2) Route Conflicts: IR-127 and VR-187 share common segments and traffic flow from point D to point H. Deconfliction is assured through coordinated scheduling. (VICTOR) airways and VFR flyways cross all route segments.
- (3) All Entry/Alternate Entry points and Exit/Alternate Exit points are compulsory reporting points.
- (4) Exit Procedures: Aircraft exit from over H via the LOA 041 radial to LOA, then flight plan route. Climb and maintain 8000', cross LOA 041/11 at 8000'. Contact Houston 269.6.
- (5) NORDO Procedures:
 - (a) In the event of lost communications prior to the entry point and two-way communications are not re-established prior to the entry point, the pilot shall

IR ROUTES

- maintain the last assigned altitude until the entry point, then descend and cross the next fix after the entry point at the highest IR route altitude and fly the IR route at the highest published altitude and execute the lost communications procedure at the end of the route. Squawk Code 7600;
- (b) In the event of lost communications, and unable to proceed VFR, proceed from H via LOA041 radial to LOA, then flight plan route. Climb and maintain 8000', cross LOA041011 at 8000'.
- (6) Sensitive Areas: Avoid Livingston Airfield by 1500/3; Avoid the following areas by 1300' AGL or 1 NM radius: N30-50-00 W95-07-00; N31-09-00 W95-33-00; N30-46-30 W94-27-40; N31-10-00 W94-28-30; N30-49-00 W94-25-45; N31-31-00 W94-09-00; N31-56-30 W94-41-20. Avoid area by 1300' AGL or 2 NM radius: N30-42-30 W94-56-00. Avoid by 1500' AGL or 1 NM radius: N31-56-45 W94-14-35; N31-39-00 W95-04-30; N31-51-00 W94-51-30. Avoid area by 2000' AGL or 1 NM radius: N31-02-00 W94-26-00. Avoid Flight wing areas by 1500' AGL or 1.5 NM radius: N31-47-30 W94-11-00; N31-54-30 W94-23-45; N31-48-10 W95-09-00. Avoid Lake Murvaul area by 1000' AGL or 1NM of the shoreline.
- (7) Obstructions: Tower 300' AGL N30-50-00 W95-19-00; tower 200' AGL N32-01-00 W94-24-00; tower 200' AGL N31-43-00 W95-13-00; tower 300' AGL N30-58-00 W95-19-00; Electric Power Plant N32-01-00 W94-37.-06.
- (8) Alternate Entry: D.
- (9) Noise sensitive areas: Avoid all noise sensitive areas by 1000' or 1/4 NM unless otherwise noted:
- (a) Residence: N30-54.07 W94-28.4 Avoid by 1/2 NM.
- (10) The following Public Use Airports, as depicted on Houston Sectional Chart are within 5 NM of IR-127 route corridor:
- (a) Point A-B: Livingston Arpt, Houston Co. Arpt, and Trinity Co. Arpt; and Groveton Arpt;
- (b) Point B-C: Tyler Co. Arpt; Woodville Arpt; Jasper Arpt and Angelina Arpt;
- (c) Point C-D: San Augustine Co. Arpt, and Center Arpt; and Rusk Arpt;
- (d) Point D-E: Panola Co. Arpt;
- (e) Point E-F: Cherokee Co. Arpt;
- (f) Point G-H: Houston Co. Arpt.

FSS Within 100 NM Radius:

CXO, DRI, FTW, SJT

IR-128

ORIGINATING ACTIVITY: 7 OSS/OSOS, 965 Ave. D-4, Bldg 5202, Dyess AFB, TX 79607 DSN 461-3666/2877, C325-696-3666/2877, 325-280-8325.

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 100 MSL to or as assigned (TFR Initiation Point)	A	BGS 033/12	N32°31.50' W101°19.50'
descend direct to cross			

06 AGL B 100 MSL to (TA Initiation Point)	B	LBB 142/48	N32°59.50' W101°29.00'
turn left to			
02 AGL B 70 MSL to direct to	C	LBB 153/40	N33°04.00' W101°41.50'
06 AGL B 70 MSL to turn right to	D	LBB 167/44	N32°58.50' W101°53.00'
02 AGL B 70 MSL to direct to	DE	LBB 171/45	N32°57.50' W101°56.50'
05 AGL B 70 MSL to turn right to	E	LBB 187/49	N32°56.00' W102°13.00'
02 AGL B 70 MSL to direct to	F	LBB 195/50	N32°57.50' W102°21.00'
02 AGL B 70 MSL to direct to	G	LBB 224/50	N33°13.50' W102°44.00'
06 AGL B 70 MSL to direct to	H	LBB 231/52	N33°18.00' W102°49.50'
02 AGL B 70 MSL to turn right to	I	LBB 240/56	N33°23.50' W102°57.50'
02 AGL B 70 MSL to direct to	J	LBB 250/55	N33°33.50' W103°00.00'
02 AGL B 70 MSL to (Alternate Exit)	K	LBB 256/49	N33°39.50' W102°53.50'
turn left to			
02 AGL B 70 MSL to continue left turn to	L	LBB 268/51	N33°50.00' W102°55.00'
05 AGL B 70 MSL to direct to	M	LBB 264/62	N33°47.50' W103°09.00'
02 AGL B 70 MSL to direct to	N	LBB 258/65	N33°40.50' W103°13.00'
05 AGL B 70 MSL to direct to	O	HOB 328/40	N33°16.00' W103°33.00'
02 AGL B 70 MSL to turn left to	P	HOB 320/36	N33°10.00' W103°37.50'
02 AGL B 70 MSL to direct to	Q	HOB 314/34	N33°06.00' W103°39.00'
12 AGL B 70 MSL to direct to	R	HOB 291/24	N32°51.00' W103°40.50'
SFC B 70 MSL to (Contact Fort Worth ARTCC 298.95)	S	HOB 264/21	N32°40.00' W103°41.00'
direct to			
02 AGL B 70 MSL to direct to	T	HOB 250/21	N32°35.00' W103°41.00'
02 AGL B 70 MSL to direct to	U	HOB 230/25	N32°26.00' W103°42.00'
02 AGL B 70 MSL to turn left to	V	HOB 218/30	N32°18.50' W103°42.50'
09 AGL B 70 MSL to direct to	W	HOB 193/30	N32°11.00' W103°30.50'
07 AGL B 70 MSL to turn right to	X	HOB 164/23	N32°15.50' W103°14.00'
04 AGL B 70 MSL to direct to	Y	HOB 146/29	N32°12.00' W103°03.00'
02 AGL B 70 MSL to turn left and descend to	Z	MAF 240/37	N31°48.50' W102°52.00'
02 AGL B 70 MSL to (Contact Midland APP CON 290.4)	AA	MAF 232/34	N31°45.00' W102°47.50'
direct to			

08 AGL B 60 MSL to turn left to	AB	MAF 180/28	N31°33.00' W102°17.50'
02 AGL B 60 MSL to direct to	AC	MAF 173/28	N31°32.50' W102°14.00'
06 AGL B 60 MSL to (Contact Midland APP CON on 290.4) direct to	AD	MAF 160/28	N31°32.50' W102°06.00'
02 AGL B 60 MSL to (TA/TFR Termination Point) (Contact FT. Worth ARTCC 322.55 or 298.95) 60 MSL B 130 MSL climb direct to cross 130 MSL to or as assigned Re-Entry: BA direct to	AE	MAF 126/39	N31°31.50' W101°40.00'
04 AGL B 70 MSL to turn left to	AF	MAF 109/60	N31°30.50' W101°11.00'
04 AGL B 70 MSL to direct to	O1	HOB 328/40	N33°16.00' W103°33.00'
SFC B 70 MSL to Thence via published route. Alternate Exit: RG direct to	BA	HOB 347/29	N33°07.50' W103°17.50'
04 AGL B 60 MSL to direct to	J1	LBB 250/55	N33°33.50' W103°00.00'
02 AGL B 60 MSL to turn right to	RA	TXO 193/65	N33°30.50' W103°22.00'
02 AGL B 60 MSL to direct to	RB	TXO 203/64	N33°36.50' W103°33.00'
02 AGL B 60 MSL to turn right to	RC	TXO 213/65	N33°43.00' W103°45.00'
02 AGL B 60 MSL to continue turn and climb to	RD	TXO 218/64	N33°47.00' W103°48.50'
02 AGL B 70 MSL to continue climb to	RE	TXO 220/63	N33°49.50' W103°49.00'
02 AGL B 70 MSL to direct to	RF	TXO 223/60	N33°54.50' W103°49.00'
05 AGL B 70 MSL to Re-Entry: RG then R-5104/R-5105. Re-Entry: R-5104/R-5105 Exit R-5104/R-5105 at or below 70 MSL	RG	TXO 237/52	N34°10.00' W103°48.00'
02 AGL B 70 MSL On Re-Entry RG: turn left to	RH	TCC 184/33	N34°39.00' W103°47.00'
02 AGL B 70 MSL to direct to	RI	CVS 288/39	N34°39.00' W104°02.00'
06 AGL B 70 MSL to turn left to	RJ	CVS 232/43	N34°00.00' W104°04.00'
05 AGL B 70 MSL to direct to	RK	CVS 221/34	N34°00.00' W103°50.00'
02.5 AGL B 70 MSL to to R-5104/5105 (Contact Albuquerque ARTCC 319.2 for exit instructions)	RG1	CVS 235/27	N34°10.00' W103°48.00'

PMSV CONTACTS: Primary Home Station. Alternate Dyess (DYS 344.6).

TERRAIN FOLLOWING OPERATIONS: IMC/VMC

terrain following (TF) visual contour (VC) operations are authorized IAW command directive within the published altitude blocks from A to AE and 01 to J1 on re-entry BA, and RA to RG1 on re-entry R-5104/5105. VMC terrain avoidance (TA/VC) operations are authorized within the published altitude blocks from B to AE and 01 to J1 on re-entry BA, and RA to RG1 on re-entry R-5104/5105. When command directives preclude TF/TA/VMC operations aircrews will maintain the IFR altitude for each route segment. Minimum altitudes, other than surface, are established to provide 100' vertical clearance of known man-made obstructions within the route width. Command directives may require additional obstruction clearance for TF/TA/VMC operations. The entire route is designated non-mountainous. Regulations governing operations below 500' AGL must be complied with. The route corridor provides airspace for 500' lateral separation from man-made obstacles. Obstructions under 200' AGL were not considered in route design. Aircrews must be aware of charted airports within or near route corridor limits.

ROUTE WIDTH - 4 NM either side of centerline from A to C; 3 NM left and 2.5 NM right of centerline from C to DE; 3 NM either side of centerline from DE to E; 4 NM either side of centerline from E to K; 5 NM left and 4 NM right of centerline from K to M; 4 NM either side of centerline from M to Q; 4 NM left and 3 NM right of centerline from Q to R; 3 NM left and 4 NM right of centerline from R to U; 4 NM either side of centerline from U to W; 4 NM left and 3 NM right of centerline from W to Y; 3 NM either side of centerline from Y to Z; 4 NM either side of centerline from Z to AF. Re-Entry; 4 NM either side of centerline from O1 to J1. Alternate Exit RG: 4 NM left and 5 NM right of centerline from RA to RC; 5 NM either side of centerline from RC to RE; 5 NM left and 3 NM right of centerline from RE to RG. Re-Entry R-5104/R-5105 boundaries from RG to RH; 4 NM either side of centerline from RH to RG1.

Special Operating Procedures:

- (1) Airspace scheduling is available 24/7 to personnel with center scheduling enterprise (CSE) accounts. To schedule by phone, call: DSN: 461-3666/3612 or C325 -696-3666/3612, Monday - Friday, 0730-1630L. After-hours scheduling not available.
- (2) Lost communications (LC) procedures: Route LC altitude will be published IFR altitude for the route. On exit aircrews will climb at AE to cross exit AF at 110 MSL and use 110 MSL as LC altitude from this point. NOTE: Aircraft going to Dyess AFB, TX will proceed at 110 MSL, to the ABI 161/30 DME, IAF (Jessa) and execute the HI-ILS or LOC/DME RWY 34 (circle as required).
- (3) Participating aircraft separation: Route is designated for MARSAs operations established by coordinated scheduling.
- (4) Centerline between turn points is depicted as a 7.5 NM arc except between RH and RI and RJ and RK, which are 6 NM radius arcs.
- (5) Aircraft at TF/TA/VMC altitude may be required to fly at a higher minimum tracking altitude as listed in 99 ECRGR 50-3, for scored activity. In no case will aircraft fly below command directed TF/TA/VMC altitudes.
- (6) Aircrews must be aware of airports within or near route corridor limits. Particular vigilance must be given to the following airports: N33-02.0 W101-55.7; N34-00.8 W102-59.6; N32-08.5 W103-09.5; N33-16.1 W103-11.4.

IR ROUTES

- (7) TF capable aircraft can make an Auto-TF descent beginning at A from 170 MSL.
- (8) Additional tactical descent procedures. TF capable aircraft, when specifically cleared by ARTCC, will cross A at FL 220 or as assigned and begin descent to cross B at or below 50 MSL, then via published route.
- (9) The method of MARSA between IR-180 and IR-128 will be scheduling.
- (10) Unit schedulers using Alternate Exit RG must deconflict IR-113 and R-5104/5105 and must comply with range orders.
- (11) Aircrews aborting on Alternate Exit RG will if conditions permit, abort to the southwest to avoid turning into Cannon Approach Airspace.
- (12) Minimum separation between scheduled entry times is 10 minutes. ARTCC provides users with separation from known IFR traffic only. MARSA applies after aircraft have passed the Entry/Alternate Entry Point until ATC established standard separation after exiting the route.
- (13) Aircrews should be aware of the 5549' tower at N33-33.2 W103-39.1 which is 451' below the IFR altitude on Alternate Exit RG, but outside the corridor.
- (14) Aircrews should be alerted to the increase of migratory waterfowl throughout the entire route (especially between J and N) during the spring and fall migration season.
- (15) Aircrews are advised of a new 923' tower N32-54.40 W103-41.13.
- (16) Aircrews should monitor 255.4 approaching G. T-37 and T-1 aircraft flying SR-275/277 cross at G at 1000' AGL.
- (17) Noise Sensitive Areas: Avoid all Noise Sensitive Areas by 1000' or 1/4 mile:
 - (a) Residence at N32-14.4 W103-03.9;
 - (b) Residence at N32-10.0 W103-33.9;
 - (c) School at N32-47.9 W101-26.8.

FSS Within 100 NM Radius:

ABQ, SJT

IR-129

ORIGINATING ACTIVITY: 307 OSS/OSOR, 1333 Twining Dr., Barksdale AFB, LA 71110 DSN 331-3171, C318-529-3171.

SCHEDULING ACTIVITY: Same as Originating Activity. Scheduling hours 0700-1530 CST.

HOURS OF OPERATION: Sunrise-Sunset Mon-Fri

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	BYP 042/18	N33°44.50' W95°58.00'
08 AGL B 60 MSL to	B		N33°49.00' W95°39.00'
08 AGL B 40 MSL to	C		N33°56.00' W95°17.50'
06 AGL B 30 MSL to	D	TXK 274/27	N33°36.00' W94°36.00'
06 AGL B 30 MSL to (Alternate Entry)	E	GGG 024/23	N32°45.00' W94°31.00'
05 AGL B 20 MSL to	F	GGG 060/29	N32°36.50' W94°13.50'

07 AGL B 20 MSL to	G	GGG 089/34	N32°21.50' W94°05.00'
07 AGL B 20 MSL to	H	GGG 125/40	N31°58.00' W94°10.00'
07 AGL B 40 MSL to	I	GGG 198/30	N31°58.00' W95°00.00'
07 AGL B 40 MSL to	J	LOA 054/44	N31°28.00' W95°12.30'
06 AGL B 40 MSL to Alternate Entry: E	K	LOA 041/25	N31°24.00' W95°36.00'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 5 NM either side of centerline from A to E; 2.5 NM either side of centerline from E to G; 5 NM either side of centerline from G to K.

Special Operating Procedures:

- (1) Minimum separation between scheduled entry times is 10 minutes. ARTCC provides users with separation from known IFR traffic only. MARSA applies after aircraft have passed the Entry/Alternate Entry point until ATC establishes standard separation after exiting the route.
- (2) Route conflicts: IR-129 and IR-127 share common route segments and traffic flow from point H to point K. Deconfliction is assured through coordinated scheduling. (VICTOR) airways and VFR flyways cross all route segments.
- (3) All Entry/Alternate Entry points and Exit points are compulsory reporting points.
- (4) Aircraft exiting at K will proceed to LOA via the LOA 041 radial, then via flight plan route. Cross the LOA 041/11 at 8000'. Maintain 8000' until cleared higher. Contact Houston Center on 269.6.
- (5) NORDO procedures: In the event of lost communications, and unable to proceed VFR, proceed from over K via the LOA 041 radial to LOA, then via flight plan route. Climb and maintain 8000'. Cross the LOA 041/11 at 8000'.
- (6) Sensitive Area: Avoid by 1300' AGL or 1 NM radius: N33-49-30 W95-55-30; N33-47-30 W95-31-30; N33-00-00 W94-36-00; N31-56-30 W94-41-20. Avoid areas by 1500' AGL or 1 NM radius: N31-54-30 W94-23-30; N31-57-00 W94-14-30; N31-48-00 W95-09-00; N31-39-00 W95-04-00. Avoid the bounded area by 1300' AGL: N32-54-30 W94-45-00 to N32-55-00 W94-37-30 to N32-45-00 W94-24-00 to N32-45-00 W94-36-30. Avoid Lake Murvaul (Pt H-I) by 1000' or 1 NM of shoreline. Avoid by 1500' or 1 NM of N31-51-0 W094-51-3.
- (7) Obstructions: Tower 464' AGL N33-54-56 W95-28-08; tower 420' AGL N31-45-08 W95-06-13.
- (8) Alternate Entry: E.
- (9) The following Class C and Public Use Airports, as depicted on Houston, Memphis and Dallas-Ft Worth Sectional Charts are within 5 NM of IR-129 route corridors:
 - (a) Point B-C: Stamper Arpt;
 - (b) Point C-D: McCurtain Co. Arpt;
 - (c) Point D-E: Lonestar Arpt;
 - (d) Point F-G: Harrison Co Arpt and Shreveport Class C Airspace;
 - (e) Point G-H: Panola Co. Arpt;
 - (f) Point H: Center Arpt;
 - (g) Point I-J: Cherokee Co Arpt.

FSS Within 100 NM Radius:

CXO, DRI, FTW, MLC, SJT

IR-133

ORIGINATING ACTIVITY: 54 OSS/OSP, 744 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-2638, C575-572-2638.

SCHEDULING ACTIVITY: 54 OSS/OSOS, 744 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-3536, C575-572-3536.

HOURS OF OPERATION: 0700-2300 local

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 120 MSL to or as assigned	A	CME 256/39	N33°18.50' W105°24.00'
01 AGL B 120 MSL to	B	CME 282/31	N33°33.00' W105°11.00'
01 AGL B 80 MSL to	C	CME 301/38	N33°46.00' W105°11.00'
01 AGL B 80 MSL to	D	CNX 111/27	N34°07.00' W105°14.00'
01 AGL B 90 MSL to	E	CNX 059/20	N34°28.00' W105°18.00'
01 AGL B 90 MSL to	F	CNX 354/12	N34°34.00' W105°39.00'
01 AGL B 90 MSL to	G	CNX 304/23	N34°39.00' W106°00.00'
01 AGL B 90 MSL to	H	CNX 234/17	N34°15.50' W105°59.50'
01 AGL B 110 MSL to	I	CNX 189/42	N33°43.00' W106°00.00'
Alternate Exit: Red Rio			
01 AGL B 90 MSL to	F	CNX 354/12	N34°34.00' W105°39.00'
01 AGL B 90 MSL to	F1	ONM 080/22	N34°19.00' W106°23.00'
01 AGL B 90 MSL to	F2	ONM 125/42	N33°49.00' W106°16.00'
Alternate Entry: From Pecos MOA			
01 AGL B 90 MSL to	E1	CNX 064/30	N34°28.50' W105°05.00'
01 AGL B 80 MSL to	D	CNX 111/27	N34°07.00' W105°14.00'
01 AGL B 90 MSL to	D1	CNX 090/30	N34°15.00' W105°05.00'
Alternate Entry: ELK			
120 MSL to	A2	PIO 344/24	N32°56.00' W105°20.10'
120 MSL to	A1	CME 230/43	N33°00.20' W105°22.10'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route. Do not descend below minimum specified altitude for each leg.

ROUTE WIDTH - Starting at N33-17.2 W105-21.3 to N33-32 W105-08 to N34-06 W104-58 to N34-13 W105-05 to N34-31 W105-05 to N34-32 W104-58 to N34-42 W105-13 to N34-42 W106-14 to N34-16 W106-30 to N33-50 W106-30 via the southern boundary of R-5107C to N33-45 W106-04 to N33-39 W105-49 to N34-27 W105-49 to N34-22 W105-30 to N33-35 W105-14 to N33-20 W105-26.2 to beginning. Alternate Entry ELK: 2 NM either side of centerline from A2 to A.

Special Operating Procedures:

- (1) Request use through 54 OSS/OSOS 24 hours in advance and between 0730-1630 local Mon-Fri.
- (2) Route segments C through I designated as maneuver areas.
- (3) Route conflicts with Pecos MOA from Point C to E. Remain clear of Pecos MOA unless deconfliction has been accomplished through 54 OSS/OSOS.
- (4) Deconfliction with VR-176 is accomplished by 54 OSS/OSOS. Contact applicable scheduling authority for deconfliction with non-49 WG conflicting routes (e.g. IR-133, VR-100, VR-125, VR-176, VR-1107, VR-1195).
- (5) The route conflicts with Sierra Bianca Regional Airport traffic. ATC might request that the pilot delay entrance into the route or maintain a specific altitude until Point C. The pilot may request an alternate at Point C. This will constitute cancellation of IFR flight and initiation of VFR flight until the pilot is established within the vertical and lateral confines of IR-133 at Point C, when the IFR portion of the flight will take effect.
- (6) Do not enter R-5107H or R-5107J on segment H-I unless scheduled into this airspace through 54 OSS/OSOS and then only after having received clearance from White Sands RADAR Facility on 269.225 or 336.2..
- (7) When exiting Point I contact White Sands RADAR Facility (WSRF) on 269.225 or 336.2 for entry into R-5107 or Beak MOA. If unable to contact WSRF, contact Albuquerque ARTCC as appropriate.
- (8) Use of segment F-F2 not authorized if R-5107H is active unless alternate exit Red Rio is scheduled through 54 OSS/OSOS and then only after having received clearance from White Sands RADAR Facility on 269.225 or 336.2.
- (9) MARSAs apply at entry, along the route and at exit. IR-133 and IR-142 will not be used concurrently.
- (10) Alternate Entry Points: A2-A, C, E-E1 (from Pecos Low MOA only), F-F2,(for entrance to Red Rio only).
- (11) Alternate Exit Points: D-D1 (to Pecos Low MOA only), F-F2 (to Red Rio Range only), G and H.
- (12) Numerous towers, avoidance, and noise sensitive areas exist within the MTR. You must receive the MTR brief and associated products from 54 OSS/OSOA prior to flying the route.
- (13) Route is surveyed for operations down to 200' AGL.

FSS Within 100 NM Radius:

ABQ

IR-134

ORIGINATING ACTIVITY: 54 OSS/OSP, 744 Delaware Ave., Holloman AFB, NM 88440-8014 DSN 572-3244, C575-572-3244.

SCHEDULING ACTIVITY: 54 OSS/OSOS, 744 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-3536, C575-572-3536.

HOURS OF OPERATION: Sunrise-0600Z++

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 120 MSL to or as assigned	A	PIO 317/11	N32°41.00' W105°25.00'

IR ROUTES

10 AGL B 120 MSL to	B	PIO 329/6	N32°37.00' W105°20.50'
10 AGL B 80 MSL to	C	PIO 261/4	N32°32.00' W105°23.30'
01 AGL B 80 MSL to	D	PIO 202/24	N32°11.50' W105°34.50'
01 AGL B 98 MSL to	E	PIO 183/23	N32°09.30' W105°25.60'
01 AGL B 98 MSL to	F	PIO 126/36	N32°05.00' W104°50.00'
01 AGL B 98 MSL to	G	PIO 122/29	N32°11.10' W104°53.50'
01 AGL B 90 MSL to	H	PIO 061/10	N32°34.50' W105°07.50'
01 AGL B 80 MSL to	I	PIO 004/14	N32°45.10' W105°13.90'
10 AGL B 110 MSL to	J	PIO 344/24	N32°56.00' W105°20.10'
10 AGL B 110 MSL to	K	PIO 274/14	N32°35.50' W105°34.20'
01 AGL B 125 MSL to	L	PIO 246/19	N32°27.90' W105°39.80'
01 AGL B 125 MSL to	M	PIO 256/32	N32°30.40' W105°56.00'
Alternate Entry: Talon Low			
03 AGL B 90 MSL to	H1	PIO 061/10	N32°34.50' W105°07.50'
Alternate Entry: El Paso Gap			
01 AGL B 70 MSL to	F1	SFL 048/27	N31°58.50' W104°38.00'
10 AGL B 98 MSL to	F	PIO 126/36	N32°05.00' W104°50.00'
Alternate Exit: Zipper			
01 AGL B 80 MSL to	I	PIO 004/14	N32°45.10' W105°13.90'
10 AGL B 80 MSL to	I1	PIO 342/15	N32°46.50' W105°20.00'
10 AGL B 130 MSL to	I2	PIO 314/15	N32°44.10' W105°28.00'
Alternate Exit: El Paso Gap			
01 AGL B 98 MSL to	F	PIO 126/36	N32°05.00' W104°50.00'
10 AGL B 98 MSL to	F1	SFL 048/27	N31°58.50' W104°38.00'
01 AGL B 70 MSL to	F2	SFL 058/32	N31°55.80' W104°30.00'
Alternate Exit: Talon Low			
01 AGL B 98 MSL to	G	PIO 122/29	N32°11.10' W104°53.50'

TERRAIN FOLLOWING OPERATIONS: Authorized from Point C to Point I and from Point K to Point M; Not authorized on any alternate entry or from Point A to Point C and from Point I to Point K.

ROUTE WIDTH - Starting at N32-35 W105-10 to N32-13 W105-15 to N32-10.5 W105-00 to N32-35 W105-10 to N32-44

W105-23 to N32-34 W105-30 to N32-26 W105-30 to N32-15 W105-42 to N32-06 W105-41 to N32-02 W104-41 to N32-12 W104-41 to N33-00 W105-09 to N33-00 W105-21.5 to N32-36 W105-38.5 to N32-44 W105-59 to N32-27.8 W106-00 to N32-23 W105-42.5 to N32-15 W105-42 to N32-26 W105-30 to N32-34 W105-30 to N32-44 W105-23 to point of beginning.

Special Operating Procedures:

- (1) Request use through 54 OSS/OSOS 24 hours in advance and between 0730-1630 local Mon-Fri.
- (2) From Point C to Point H and Point K to Point M route is designated maneuvering airspace and cleared for LOWAT.
- (3) IR-134 is the reverse of IR-195 and is only available on even days. On odd days IR-195 is available. Deconfliction with IR-192 and IR-194 is accomplished by 54 OSS/OSOS.
- (4) Do not enter R-5103C or the Centennial Fly Area on Segment K-M unless scheduled into this airspace through 54 OSS/OSOS and then only after having received clearance from White Sands RADAR Facility 336.2. Use alternate exit ZIPER to avoid R-5103C.
- (5) If using alternate exit ZIPER contact White Sands RADAR Facility 336.2. All other exits not entering restricted airspace contact Albuquerque ARTCC 292.15.
- (6) To scheduled Centennial Range, contact 54 OSS/OSOS. Comply with all procedures listed in current HAFB range supplement which can be obtained from Holloman Range offices (C575-572-5074).
- (7) To transition from IR-134 to/from Talon Low MOA, both the MOA and the IR must be scheduled. Request 20 minute block time in MOA starting 15 minutes after IR entry time. Contact Albuquerque ARTCC 292.15 for clearance into MOA, prior to exceeding top of the altitude block on segment G-H, and do not exceed 12,500' MSL until cleared by Albuquerque ARTCC to do so.
- (8) Alternate Entries: Point F (El Paso Gap, from IR-194 only); Point H (from Talon Low MOA only).
- (9) Alternate Exits: Point F (to El Paso Gap, into IR-194 only); Point G (to Talon Low MOA only); Point I (to ZIPER only); Point J.
- (10) MARSAs apply at entry, exit and along the route.
- (11) Numerous towers, avoidance and noise sensitive areas exist within the MTR. You must receive the MTR brief and associated products from 54 OSS/OSOA prior to flying the route.
- (12) Route is surveyed for operations down to 200' AGL.

FSS Within 100 NM Radius:

ABQ

IR-135

ORIGINATING ACTIVITY: TRAINING AIR WING TWO (TW-2), NAS Kingsville, TX 78363 DSN 876-6518/4075, C361-516-6518/4075. 0800-1530 CST Mon-Fri (excluding holidays or field closed by NOTAM)

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: Sunrise-Sunset, daily

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
30 MSL B 90 MSL to	A	NQI 242/19	N27°22.00' W98°08.00'

30 MSL B 90 MSL to	B	NQI 202/40	N26°54.00' W98°08.00'
30 MSL B 90 MSL to	C	NQI 216/61	N26°43.00' W98°32.00'
30 MSL B 90 MSL to	D	NQI 253/46	N27°19.00' W98°39.00'
30 MSL B 90 MSL to	E	NQI 262/55	N27°26.00' W98°50.00'
30 MSL B 90 MSL to	F	NQI 283/57	N27°47.00' W98°50.00'
30 MSL B 90 MSL to	G	NQI 298/51	N27°57.00' W98°37.00'

ROUTE WIDTH - 8 NM either side of centerline from A to D;
5 NM either side of centerline from D to F; 8 NM either side of
centerline from F to G.

Special Operating Procedures:

- (1) A to C altitude may be assigned by ATC.
- (2) Route will be flown at 240-420 kt.
- (3) Maneuvering from A to G for road reconnaissance and simulated attacks.
- (4) Contact Houston ARTCC 307.2 at D coordination of crossing of airway corridor. If no contact with Houston ARTCC 307.2 cross corridor which is located between E and F between 3000' to 5000' MSL.
- (5) Aircraft shall be scheduled with a minimum of 10 minutes longitudinal separation.
- (6) The primary method of invoking MARSA shall be by scheduling.
- (7) All proposed users of IR-135 or any other approved IR route that is common with IR-135 or any part thereof, shall coordinate that route with COMTRAWING TWO, Kingsville NAS, TX.
- (8) MARSA applies after aircraft have passed the entry point and until standard ATC separation is established after exiting the route.
- (9) Lost communications route and altitude for TRAWING TWO aircraft shall be: G direct NQI 270/026, maintain 15,000', then a HI-TACAN RWY 13 penetration to the 15 NM arc, then via either a north or south arc, complete remainder of HI-TACAN RWY 13L or 35R approach.
- (10) Lost communications route and altitude for all other users shall be as above except maintain 7000'.
- (11) All entry and exit points shall be compulsory reporting points.
- (12) Aircraft other than Kingsville NAS based shall fly IR-135 from A to B a 5000' to 7000', and from B to G at 3000' to 7000' MSL.
- (13) Houston ARTCC frequency from A to B is 291.6 or as assigned; from B to G, 307.2 or as assigned; and after G, 307.2 or SAT FSS.
- (14) Scheduling of, or amendments to shall be coordinated with the scheduling activity 2 hours prior to use in accordance with Letter of Agreement between COMTRAWING TWO, Houston ARTCC and Kingsville NAS ATCF.

FSS Within 100 NM Radius:

SJT

IR-136

ORIGINATING ACTIVITY: TRAINING AIR WING TWO (TW-2), NAS Kingsville, TX 78363 DSN 876-6518/4075, C361-516-6518/4075. 0800-1530 CST Mon-Fri (excluding holidays or field closed by NOTAM).

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: Sunrise-Sunset, daily

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	NGP 043/20	N27°54.00' W97°01.00'
10 AGL B 20 AGL to	B	NGP 004/23	N28°04.00' W97°13.00'
10 AGL B 20 AGL to	C	THX 140/20	N28°13.00' W97°57.00'
SFC B 20 AGL to	D	THX 255/33	N28°26.00' W98°46.00'
SFC B 20 AGL to	E	NQI 290/84	N28°04.00' W99°15.00'
SFC B 20 AGL to	F	NQI 303/60	N28°06.00' W98°43.00'

TERRAIN FOLLOWING OPERATIONS: Authorized for entire route.

ROUTE WIDTH - 5 NM either side of centerline from A to D;
4 NM either side of centerline from D to E; 5 NM either side of
centerline from E to F.

Special Operating Procedures:

- (1) Route altitude may be assigned by ATC.
- (2) Route will be flown from 300-420 kt.
- (3) Minimum IMC altitude is 2000' MSL.
- (4) Radar advisories are available from Corpus Christi APP CON from A to B.
- (5) Aircraft shall be scheduled with a minimum of 10 minutes longitudinal separation.
- (6) The primary method of invoking MARSA shall be by scheduling.
- (7) All proposed users of IR-136, or any other IR route that is common with IR-136, or any part thereof, shall coordinate that route with COMTRAWING TWO, Kingsville NAS, TX.
- (8) MARSA applies after aircraft have passed the entry point and until standard ATC separation is established after exiting the route.
- (9) The lost communications route and altitude for TRAWING TWO aircraft shall be: F climb to 5000'. Proceed direct BALTS (NQI 318/12) or BRAMA (NQI 180/12). Complete the TACAN IAP for the runway in use.
- (10) NOTE: If radio failure occurs prior to receiving clearance into IR-6312, exit the route after passing the LRD 025 radial between E and F.
- (11) The lost communications route and altitude for all other users shall be as above, except maintain 7000'.
- (12) All Entry and Exit points shall be compulsory reporting points.
- (13) Alternate Entry: C.

IR ROUTES

- (14) ATC frequencies are: A to C, CPR approach 354.8 or as assigned; C to F, TAC frequency or as assigned; after F, Houston ARTCC 307.2 or SAT FSS.
- (15) Scheduling of, or amendments to shall be coordinated with the scheduling activity 2 hours prior to use in accordance with Letter of Agreement between COMTRAWING TWO, Houston ARTCC and Kingsville NAS ATCF.
- (16) CAUTION: Extensive windfarm located east of interstate Highway 37 and NE of Lake Corpus Christi. Approaching point C, multiple windmills to 499' AGL on both sides of route centerline within the lateral boundaries of IR-136.

FSS Within 100 NM Radius:

SJT

IR-137

ORIGINATING ACTIVITY: 58 OSS/OSO, 4301 Randolph Ave., Kirtland AFB, NM 87117-5835 DSN 263-5979/5888, C505-853-5979/5888.

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	ABQ 347/36	N35°39.00' W106°49.00'
02 AGL B 100 MSL to	B	ABQ 349/53	N35°56.00' W106°47.00'
02 AGL B 130 MSL to	C	ABQ 005/62	N36°02.00' W106°25.00'
02 AGL B 120 MSL to	D	TAS 228/26	N36°24.00' W106°22.00'
02 AGL B 130 MSL to	E	TAS 269/28	N36°42.00' W106°28.00'
02 AGL B 140 MSL to	F	ALS 202/28	N36°58.00' W106°09.00'
SFC B 160 MSL to	G	ALS 112/26	N37°06.00' W105°22.00'
02 AGL B 130 MSL to	H	ALS 069/22	N37°24.00' W105°22.00'
02 AGL B 160 MSL to	I	ALS 072/46	N37°25.00' W104°52.00'
02 AGL B 100 MSL to	J	PUB 178/18	N38°00.00' W104°28.00'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route. IMC Terrain Following (TF) authorized within major command guidance.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) This route restricted to turboprop, tiltrotor, and rotary wing aircraft only.
- (2) This route conflicts with IR-109, IR-409, IR-415-424 and VR-1175. To deconflict with IR-409 or IR-415-424, contact 140th OG, Buckley ANGB, DSN 847-9470/71/72. To deconflict with IR-109, contact 27 OSS, Cannon AFB, DSN 681-2276/7634.

- (3) Alternate Exit: Points F, G and I.
- (4) Avoid Abiquiu Dam at N36-15.0 W106-26.0 by 1 NM or 1000' AGL.
- (5) Avoid Canon de San Diego, N35-46.0 W106-41.0 by 3 NM.
- (6) Avoid the following airfields by 2 NM or 2000' AGL:
(a) Ghost Airfield at N36-18.0 W106-29.0;
(b) Cuchara Valley at N37-31.0 W105-01.0;
(c) Johnson at N37-42.0 W104-47.0.
- (7) CAUTION: Tower, 275' AGL at N37-23.82 W105-24.35.
- (8) CAUTION: Numerous towers and obstructions exist on this route which are hazards to flight at flight altitudes less than 300' AGL. Contact 58 OSS/OSO DSN 263-5701/5979 to obtain a current and complete fax list of unchummed/uncharted obstructions.
- (9) Contact 58 OSS/OSOA, DSN 263-5701/5979/5888, C505-853-5979/5888/5701 for a fax or email of the most current Avoid Areas.
- (10) When contacting the Scheduling Activity, be prepared to provide arrival time at Checkpoint F in addition to entry/exit points and times.
- (11) If aircrews are going to miss their scheduled entry time by more than 10 minutes, they must call the 58 SOW Wing Operations Center (DSN 246-9482) for a new entry time.
- (12) CAUTION: Aircraft utilizing IR-137 routing cross IR-109 at multiple locations. All aircraft utilizing this routing (VFR and IFR) will report position updates upon reaching IR-137 Point (D) and IR-137 Point (F) on UHF 255.4 to avoid potential IR-109 traffic conflicts.
- (13) CAUTION: Frequent tilt-rotor VFR low level traffic transits east to west on the San Pedro cutoff (identified as IR-137 at N36-10.08 W106-23.91 to IR-308 at N36-14.02 W106-53.84) as well as between IR-137 Point (E) to IR-308 Point (G), and IR-137 Point (D) to IR-308 Point (H). VFR traffic will monitor and transmit position updates on UHF 255.4 when using these cutoffs to avoid potential conflicts with other IR-308 and IR-109 traffic.
- (14) IAW FAA Advisory Circular 91-36D, aircraft should avoid overflight of the Valles Caldera National Preserve below 2000' AGL during IR-137 operations unless required for safe operations.

FSS Within 100 NM Radius:

ABQ, DEN

IR-139

ORIGINATING ACTIVITY: 301 OG/SUA, NAS JRB Fort Worth, TX 76127 DSN 739-6903/6904/6905, C817-782-6903/6904/6905.

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: 0700-2200 local; OT by NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	MQP 260/22	N32°43.00' W98°26.30'
05 AGL B 30 MSL to	B	MQP 220/2	N32°42.00' W98°02.00'
01 AGL B 30 MSL to	C	MQP 175/11	N32°32.50' W98°00.80'

01 AGL B 60 MSL to	D	AGJ 007/49	N31°58.80' W97°56.50'
01 AGL B 60 MSL to	E	AGJ 017/24	N31°33.80' W97°58.00'
10 AGL B 60 MSL to	F	AGJ 050/21	N31°23.00' W97°48.90'

TERRAIN FOLLOWING OPERATIONS: Authorized A to E.

ROUTE WIDTH - 5 NM either side of centerline A to D; 10 NM either side of centerline D to E; 5 NM either side of centerline E to F.

Special Operating Procedures:

- (1) Route is designed MARSAs and MARSAs shall also apply between aircraft flying VR-158 by utilizing (See and Avoid) and/or route scheduling.
- (2) Route will be flown between 300 and 600 KIAS.
- (3) Alternate Entry Points: C, D, and E.
- (4) Alternate Exit Points: D and E.
- (5) Aircraft will report Point D to Fort Worth ARTCC 381.65.
- (6) Aircraft will report Point E to Gray RAPCON 244.0. Clearance must be received prior to entering the Hood MOA airspace.
- (7) Aircraft will not enter R-6302 without clearance from Hood Radio, Shoal Creek Range Officer, or FAC.
- (8) Aircraft will remain at or above 1000' AGL from Point E until entering scheduled/assigned R-6302 airspace.
- (9) Route is approved LOWAT authorized between Points D and E.
- (10) Units requesting IR-139 shall furnish 301 OG/SUA with planned entry/exit points, times and planned speeds. Accurate times are critical in the deconfliction process.
- (11) Route Conflicts:
 - (a) IR-139 from Points A to B and C to D conflict with VR-158 between Points B, C, D, and E. You must call the schedulers at 90 FTS, Sheppard AFB, DSN 736-2675/4995 to deconflict;
 - (b) IR-139 conflicts with SR-261 from Points F to G. Call Dyess AFB, DSN 461-2792 to deconflict.
- (12) Aircraft unable to meet their assigned entry time within the window two minutes early to five minutes late must not enter the route.

FSS Within 100 NM Radius:

CXO, FTW, SJT

IR-142

ORIGINATING ACTIVITY: 54 OSS/OSP, 744 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-2638, C575-572-2638.

SCHEDULING ACTIVITY: 54 OSS/OSOS, 744 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-3536, C575-572-3536.

HOURS OF OPERATION: 0700-2300L

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 120 MSL to or as assigned	A	CNX 189/42	N33°43.00' W106°00.00'
01 AGL B 120 MSL to	B	CNX 235/17	N34°15.50' W106°00.00'
01 AGL B 90 MSL to	C	CNX 304/23	N34°39.00' W106°00.00'
01 AGL B 90 MSL to	D	CNX 354/12	N34°34.00' W105°39.00'
01 AGL B 90 MSL to	E	CNX 059/20	N34°28.00' W105°18.00'
01 AGL B 90 MSL to	F	CNX 111/27	N34°07.00' W105°14.00'
01 AGL B 80 MSL to	G	CME 301/38	N33°46.00' W105°11.00'
01 AGL B 80 MSL to	H	CME 282/31	N33°33.00' W105°11.00'
10 AGL B 120 MSL to Alternate Exit: ELK (to IR-192)	I	CME 256/39	N33°18.50' W105°24.00'
10 AGL B 120 MSL to	I	CME 256/39	N33°18.50' W105°24.00'
120 MSL to	I1	CME 230/43	N33°00.20' W105°22.10'
120 MSL to	I2	CME 224/43	N32°56.00' W105°20.10'

TERRAIN FOLLOWING OPERATIONS: Authorized from Point A to Point H.

ROUTE WIDTH - Starting at N33-17.2 W105-21.3 to N33-32 W105-08 to N34-06 W104-58 to N34-13 W105-05 to N34-31 W105-05 to N34-32 W104-58 to N34-42 W105-13 to N34-42 W106-14 to N34-16 W106-30 to N33-50 W106-30 via the southern boundary of R-5107C to N33-45 W106-04 to N33-39 W105-49 to N34-27 W105-49 to N34-22 W105-30 to N33-35 W105-14 to N33-20 W105-26.2 to point of beginning. Alternate Exit: ELK, 2 NM either side of centerline from I to I2.

Special Operating Procedures:

- (1) Request use through 54 OSS/OSOS 24 hours in advance and between 0730-1630 local, Mon-Fri.
- (2) Route segments A through H designated as maneuvering area and cleared for LOWAT.
- (3) Route width excludes the airspace within R-5107C, R-5107H, and R-5107J when those areas are active..
- (4) MARSAs applies at entry, along the route and at exit. MARSAs is accomplished by scheduling and see and avoid. IR-133 and IR-142 will not be used concurrently.
- (5) Route conflicts with Pecos MOA from Point E to G. Ensure deconfliction has been accomplished through 54 OSS/OSOS.
- (6) Deconfliction with VR-176 is accomplished by 54 OSS/OSOS. Contact applicable scheduling authority for deconfliction with non-49 WG conflicting routes.
- (7) Alternate entry points: None.
- (8) Alternate exit points: I - I2 (to IR-192 only).
- (9) Delays to clearance might occur due to Sierra Blanca Regional Airport traffic.

IR ROUTES

- (10) Aircraft transitioning from IR-142 into IR-192 must contact Albuquerque ARTCC (292.15) prior to the exit point I level at 12,000' MSL. Communications must be maintained with ARTCC and a clearance must be received, prior to entering the second IR route.
- (11) In the event of lost communications in the transition corridor between the IR routes, the aircraft is expected to maintain VFR conditions and return to Holloman AFB by the most direct routing; or if in IFR conditions, squawk 7600 for one minute then return to assigned code, climb and maintain 12,000' MSL, and return to Holloman AFB by the most direct routing.
- (12) Numerous towers, avoidance and noise sensitive areas exist within the MTR. You must receive the MTR brief and associated products from 54 OSS/OSP prior to flying the route.

FSS Within 100 NM Radius:

ABQ

IR-145

ORIGINATING ACTIVITY: 71 OSS, 301 Gritz St., Vance AFB, OK 73705-5202 DSN 448-6276, C580-213-6276, VANCEAIRSPACE@US.AF.MIL.

SCHEDULING ACTIVITY: Same as Originating Activity.

HOURS OF OPERATION: 30 min after Sunrise-30 min before Sunset and active days per local directives

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	END 219/17	N36°08.00' W98°10.00'
05 AGL B 50 MSL to	B	END 224/26	N36°03.50' W98°19.00'
05 AGL B 30 MSL to	C	END 228/49	N35°51.00' W98°44.00'
05 AGL B 37 MSL to	D	MMB 158/37	N35°44.00' W99°43.00'
05 AGL B 40 MSL to	E	MMB 171/17	N36°04.00' W99°53.00'
05 AGL B 40 MSL to	F	MMB 114/44	N35°56.00' W99°08.00'
05 AGL B 36 MSL to	G	MMB 063/48	N36°34.00' W98°56.00'
05 AGL B 60 MSL to	H	END 290/51	N36°42.00' W98°53.00'

ROUTE WIDTH - 3 NM either side of centerline from A to D; 3 NM east and 6 NM west of centerline D to E; 3 NM south and 6 NM north of centerline from E to F; 5 NM east and 3 NM west of centerline from F to G; 3 NM either side of centerline from G to H.

Special Operating Procedures:

- (1) Aircrews may use 265.25 for interplane frequency.
- (2) Report Point E to Kansas City Center 126.95/379.2.
- (3) Cross 3 NM northeast of G at or above 40 MSL, to cross above SR253/235.

- (4) Cross Point H at 60 MSL. Contact Vance Approach 346.325 no later than crossing the Exit Point. Replying with (negative ATIS) is acceptable.
- (5) 71 FTW aircraft only: On route departure, proceed direct to Vance, or as directed.
- (6) 71 FTW aircraft only: MARSAs applies between all flights that have passed the entry/alternate entry fixes and remains in effect until standard ATC separation is achieved. Minimum exit intervals shall be: 5 minutes between like-type aircraft or between different type aircraft when faster aircraft precedes the slower aircraft, 20 min between different type aircraft when the faster aircraft follows the slower aircraft.
- (7) 71 FTW aircraft only : Alternate Entry: C.
- (8) 71 FTW aircraft only: Alternate Exit: E and F. If exiting Point E, remain within published route altitudes and contact Kansas City Center 126.95/379.2. If exiting point F, request at Point E report. When exiting Point F, climb and maintain 60 MSL and contact Vance Approach 126.75/346.32.

FSS Within 100 NM Radius:

ICT

IR-146

ORIGINATING ACTIVITY: 71 OSS, 301 Gritz St., Vance AFB, OK 73705-5202 DSN 448-6276/7820, C580-213-6276/7820.

SCHEDULING ACTIVITY: Same as Originating Activity.

HOURS OF OPERATION: 30 min after Sunrise-30 min before Sunset and active days per local directives

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	END 219/17	N36°08.00' W98°10.00'
05 AGL B 50 MSL to	B	END 224/26	N36°04.00' W98°19.00'
05 AGL B 33 MSL to	C	END 232/45	N35°56.00' W98°41.00'
05 AGL B 32 MSL to	D	END 270/48	N36°25.00' W98°54.00'
05 AGL B 30 MSL to	E	MMB 033/41	N36°51.00' W99°18.00'
05 AGL B 37 MSL to	F	MMB 015/46	N37°02.00' W99°29.00'
05 AGL B 36 MSL to	G	END 292/48	N36°42.00' W98°48.00'
05 AGL B 36 MSL to	H	END 252/35	N36°13.00' W98°37.00'
05 AGL B 60 MSL to	I	END 239/26	N36°09.00' W98°24.00'

ROUTE WIDTH - 3 NM either side of centerline from A to C; 3 NM east and 5 NM west of centerline from C to 12 NM beyond C; 3 NM either side of centerline from 12 NM beyond C to F; 2 NM south and 6 NM north of centerline from F to 12 NM beyond F; 2 NM either side of centerline from 12 NM beyond F to I.

Special Operating Procedures:

- (1) Aircrews may use 265.25 for interplane frequency.
- (2) Cross 2 NM southeast of Point H at or above 40 MSL.

- (3) Cross Point I at 60 MSL. Contact Vance Approach 346.325 no later than crossing the Exit Point. Replying with (negative ATIS) is acceptable.
- (4) On route departure, all 71 FTW aircraft proceed direct to Vance, or as directed.

FSS Within 100 NM Radius:

ICT, MLC

IR-147

ORIGINATING ACTIVITY: TRAINING AIR WING TWO (TW-2), NAS Kingsville, TX 78363 DSN 876-6518/4075, C361-516-6518/4075. 0800-1530 CST Mon-Fri (excluding holidays or field closed by NOTAM).

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: Sunrise to 30 minutes after Sunset, daily

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	THX 182/15	N28°15.50' W98°12.00'
30 MSL B 90 MSL to	B	THX 193/25	N28°06.50' W98°19.50'
30 MSL B 90 MSL to	C	COT 132/44	N27°53.00' W98°36.00'
30 MSL B 90 MSL to	D	LRD 095/41	N27°18.50' W98°41.00'
30 MSL B 90 MSL to	E	LRD 081/24	N27°28.50' W98°58.50'
30 MSL B 90 MSL to	F	LRD 049/28	N27°43.50' W98°58.00'
30 MSL B 90 MSL to	G	LRD 047/51	N27°57.00' W98°37.00'
Entire route designated a maneuver area.			

ROUTE WIDTH - 3 NM either side of centerline from A to C;
4 NM either side of centerline from C to G.

Special Operating Procedures:

- (1) MARSA applies after aircraft have passed the Entry point and until standard ATC separation is provided after exiting the route.
- (2) MARSA is provided by scheduling and See and Avoid. All users of IR-147, or any part thereof, shall coordinate route usage with the scheduling activity. A minimum of 10 minutes longitudinal separation between flights is required.
- (3) The lost communications route and altitude for TRAWING TWO aircraft shall be from G direct to Waade or Rvera (as appropriate), climbing to FL 190. All other users shall file a DD Form 175 and indicate in the remarks the desired lost communications altitude.
- (4) All Entry/Exit points are compulsory reporting points.
- (5) Scheduling of, or amendments to shall be coordinated with the scheduling activity 2 hours prior to use in accordance with Letter of Agreement between COMTRAWING TWO, Houston ARTCC and Kingsville NAS ATCF.
- (6) The route is designed for simulated road reconnaissance training missions and is primarily utilized by multi-plane jet formation.

- (7) No practice attacks on simulated targets shall descend below 3000' MSL. Uncontrolled airports and inhabited areas shall be avoided by 3000' vertically and 1 NM horizontally.
- (8) All aircraft shall report C to Houston ARTCC 307.2 for restriction to cross the corridor between NQ1 MOA and the NIR 3 MOA. If aircraft are unable to contact Houston ARTCC at C, the corridor shall be crossed at an altitude block of 3000' through 5000' between C-D and Pts. E-F.

FSS Within 100 NM Radius:

SJT

IR-148

ORIGINATING ACTIVITY: COMTRA WING TWO, NAS Kingsville, TX 78363 DSN 876-6518/6283.

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: Daily 0600-2230 local

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	THX 324/19	N28°47.00' W98°19.00'
05 AGL B 20 MSL to	B	THX 008/37	N29°06.00' W97°57.00'
Alternate Entry at B			
05 AGL B 20 MSL to	C	THX 015/54	N29°20.00' W97°45.00'
05 AGL B 20 MSL to	D	SAT 080/56	N29°40.00' W97°23.00'
05 AGL B 20 MSL to	E	CWK 136/40	N29°51.00' W97°03.00'
Alternate Exit at E			
05 AGL B 20 MSL to	F	CWK 141/59	N29°33.00' W96°55.00'
05 AGL B 20 MSL to	G	SAT 091/61	N29°29.00' W97°19.00'
05 AGL B 20 MSL to	H	THX 053/42	N28°51.00' W97°27.00'

ROUTE WIDTH - 3 NM either side of centerline from A to H.

Special Operating Procedures:

- (1) Maximum airspeed is 480 KIAS.
- (2) MARSA applies after aircraft have passed the Entry point and until standard ATC separation is provided after exiting the route.
- (3) MARSA is provided by scheduling and 'See and avoid'. All users of IR-148 or any part thereof, shall coordinate route usage with the scheduling activity. A minimum of 10 minutes longitudinal separation between flights is required.
- (4) Maintain 1000' AGL until 5 NM beyond A.
- (5) Exit instructions: (A) Point E: Depart Point E heading 360° climb and maintain 3000' MSL. Contact AUSTIN TRACON 270.25. If unable, climb and maintain 5000' MSL and execute the lost communications procedure. (B) Point H: Contact HOUSTON CENTER 350.3 prior to exit at Point H for further clearance. If unable, climb and maintain 5000' MSL and execute the lost communications procedure.
- (6) Lost communications instructions: If lost communications are experienced on the IR-148 route: (A) Exiting Point E: Climb and maintain 5000' MSL and turn left direct to the DHK 102/40 TACAN fix. Complete the HI-ILS or LOC Z RWY

IR ROUTES

- 15L or 33R or the HI-TACAN A or B approach as appropriate for landing at Randolph AFB. (B) Exiting Point H: Climb and maintain 5000' MSL and proceed direct to the DHK 102/40 TACAN fix. Complete the HI-ILS or LOC Z RWY 15L or 33R or the HI-TACAN A or B approach as appropriate for landing at Randolph AFB.
- (7) TRAWING TWO aircraft only. If lost communications are experienced on the IR-148 route, exit at H, climb and maintain 5000' MSL and proceed direct THX VORTAC, direct BALTS (NQI 318/12). Complete the remainder of the HI-TACAN RWY 13R approach, or arc south on the 12 NM arc to BRAMA (NQI 180/12) and complete the remainder of the HI-TACAN RWY 35R approach.
- (8) All Entry/Exit points are compulsory reporting points.
- (9) Scheduling of, or amendments to shall be coordinated with the scheduling activity 2 hours prior to use in accordance with Letters of Agreement between COMTRAWING TWO, Houston ARTCC and Kingsville NAS ATCF.

FSS Within 100 NM Radius:

CXO, SJT

IR-149

ORIGINATING ACTIVITY: TRAINING AIR WING TWO (TW-2), NAS Kingsville, TX 78363 DSN 876-6518/4075, C361-516-6518/4075 0800-1530 CST Mon-Fri (excluding holidays or field closed by NOTAM).

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: Daily 0600-2230 local

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	SAT 263/43	N29°39.50' W99°16.50'
05 AGL B 30 MSL to	B	RSG 084/37	N29°58.00' W99°35.00'
05 AGL B 30 MSL to	C	RSG 074/31	N30°04.00' W99°42.00'
05 AGL B 50 MSL to	D	RSG 141/16	N29°47.00' W100°09.00'
05 AGL B 30 MSL to	E	DLF 082/30	N29°22.00' W100°12.00'
10 AGL B 30 MSL to	F	DLF 132/39	N28°52.00' W100°17.00'
05 AGL B 50 MSL to	G	COT 269/54	N28°35.00' W100°08.00'
05 AGL B 50 MSL to	H	COT 213/34	N28°02.00' W99°33.00'
05 AGL B 30 MSL to	I	LRD 040/28	N27°47.00' W99°01.00'

ROUTE WIDTH - 5 NM either side of centerline from A to B; 3 NM either side of centerline from B to D; 4 NM either side of centerline from D to F; 5 NM either side of centerline from F to H; 4 NM either side of centerline from H to I.

Special Operating Procedures:

- (1) Alternate Entry: D.
- (2) Alternate Exit: G and H.

- (3) MARSA applies after aircraft have passed the Entry point and until standard ATC separation is established after exiting the route.
- (4) Maximum airspeed is 520 KIAS. All entry and exit points are compulsory reporting points.
- (5) Contact Houston ARTCC 307.2 at H for flight following to I.
- (6) The lost communications route and altitude for TRAWING TWO aircraft shall be: I direct to WAADE or RVERA (as appropriate) climbing to FL 190 and execute the TACAN approach for landing at Kingsville NAS.
- (7) When exiting the route at I, avoid R-6312 (SFC B 12,000 AGL) 20 NM northeast.
- (8) B-52 aircraft periodically operate VFR from surface to 1000' AGL from C to F. Call sign will be SOPHY 21/22/23, monitor 361.4/259.1.
- (9) Scheduling of, or amendments to shall be coordinated with the scheduling activity 2 hours prior to use in accordance with Letter of Agreement between COMTRAWING TWO, Houston ARTCC and Kingsville NAS ATCF.
- (10) IR-149 conflicts with RE-170 between Points D and F. Aircrews will deconflict with IR-170 by scheduling a block time with 87FTS/DOS Laughlin AFB at DSN 732-5484, C830-298-5484.
- (11) Make the following call on 255.4 approaching IR-149 Point D: Attention all IR-170 aircraft: (Callsign, number, type) approaching IR-170 Point C at (altitude, speed). Example: Attention all IR-170 aircraft: Tiger 01, 2 T-1s approaching IR-170 Point C, 500' AGL, 300 knots.
- (12) Climb to cross F at/above 1000' AGL.
- (13) CAUTION multiple wind turbines 430' AGL, N29-12.93 W100-08.33, Located east of centerline points E to F.

FSS Within 100 NM Radius:

SJT

IR-154

ORIGINATING ACTIVITY: 97 OSS/DOA, 101 South Sixth Street, Bldg 225, Altus AFB, OK 73521 DSN 866-6098, C580-481-6098.

SCHEDULING ACTIVITY: 97 OSS/OSK, 101 South Sixth Street, Bldg 225, Altus AFB, OK 73521 DSN 866-7422/1375/7490, C580-481-7422/1375/7490.

HOURS OF OPERATION: 0830-0230 local Mon-Fri

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	LBB 106/39	N33°24.50' W101°13.70'
SFC B 100 MSL to	B	LBB 109/54	N33°15.00' W100°58.70'
SFC B 50 MSL to	C	DYS 309/44	N32°56.00' W100°29.30'
SFC B 50 MSL to	D	DYS 312/42	N32°56.00' W100°25.50'
SFC B 50 MSL to	E	DYS 316/44	N32°59.00' W100°24.50'
SFC B 50 MSL to	F	DYS 326/82	N33°37.00' W100°38.50'
SFC B 50 MSL to	G	CDS 192/46	N33°39.00' W100°38.30'

SFC B 50 MSL to	H	CDS 197/24	N34°00.30' W100°30.50'
SFC B 50 MSL to	I	CDS 199/23	N34°01.70' W100°30.70'
SFC B 50 MSL to	J	PNH 123/51	N34°40.70' W100°55.30'
SFC B 50 MSL to	K	PNH 123/48	N34°42.50' W100°58.00'
SFC B 50 MSL to	L	PNH 127/48	N34°40.30' W101°01.00'
SFC B 50 MSL to	M	PNH 137/55	N34°29.00' W101°03.30'
SFC B 50 MSL to Begin climb	N	LBB 039/51	N34°14.50' W101°07.70'
SFC B 70 MSL to	O	LBB 042/48	N34°11.00' W101°09.00'
70 MSL to	P	LBB 042/38	N34°05.00' W101°18.00'
70 MSL to	Q	LBB 043/27	N33°58.00' W101°29.00'

TERRAIN FOLLOWING OPERATIONS: VFR Terrain

Following authorized for the entire route. When IMC, maintain at least MAJCOM directed minimum IFR altitudes for each segment to assure terrain/obstacle clearance.

ROUTE WIDTH - 2 NM either side of centerline A to Q.

Special Operating Procedures:

- (1) Route will be flown at or below 400 KIAS.
- (2) Route designated MARSA. MARSA between IR-154 and IR-155 is accomplished through restrictive scheduling.
- (3) Aircraft desiring to use route, contact scheduling unit 24 hours in advance or contact Altus Command Post for same day scheduling at DSN 866-6313.
- (4) Alternate Exits: F and J.
 - (a) Pilots utilizing F to exit shall contact Fort Worth ARTCC 316.10/126.45 prior to the exit point.
 - (b) Pilots utilizing J to exit shall contact ZAB ARTCC 285.475/127.85 prior to the exit point. If unable to contact ZAB 285.475/127.85 prior to the exit point, maintain 5000' MSL and contact Amarillo APP CON 307.0/119.5 at PNH118029 (DOGIN).
- (5) Deconflict with: VR-1141, VR-1142 (Sheppard AFB); SR-274, SR-275 (Vance AFB), and VR-1116 (Tinker AFB OC-ALC/10 FLTS) with appropriate route schedulers.
- (6) Aircraft unable to meet their assigned entry time within the window of two minutes early to two minutes late must not enter the route. Aircraft must also exit the route within the window of two minutes early to two minutes late.
- (7) Entire route susceptible to wild fires. Aircrews should check NOTAMs before scheduling.
- (8) To report fires, uncharted obstructions or any other operational issues requiring attention on this route, please send an email to: Altus.airspace@altus.af.mil.

FSS Within 100 NM Radius:

FTW, SJT

IR-155

ORIGINATING ACTIVITY: 97 OSS/DOA, 101 South Sixth Street, Bldg 225, Altus AFB, OK 73521 DSN 866-6098, C580-481-6098.

SCHEDULING ACTIVITY: 97 OSS/OSK, 101 S. Sixth Street, Bldg 225, Altus AFB, OK 73521 DSN 866-7422/1375/7490, C580-481-7422/1375/7490.

HOURS OF OPERATION: 0830-0230 local Mon-Fri

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	LBB 098/38	N33°29.70' W101°12.20'
SFC B 90 MSL to	B	LBB 080/43	N33°41.30' W101°03.80'
SFC B 50 MSL to	C	CDS 197/24	N34°00.30' W100°30.50'
SFC B 50 MSL to	D	CDS 197/22	N34°02.50' W100°29.50'
SFC B 50 MSL to	E	PNH 099/48	N34°59.50' W100°46.00'
SFC B 50 MSL to	F	PNH 097/46	N35°01.50' W100°47.50'
SFC B 50 MSL to Mandatory reporting Point G contact Ama- rillo APP CON 319.15.	G	PNH 094/26	N35°08.50' W101°11.30'
SFC B 50 MSL to	H	PNH 098/23	N35°07.60' W101°14.50'
SFC B 50 MSL to	I	PNH 105/24	N35°04.50' W101°15.00'
SFC B 50 MSL to	J	PNH 137/55	N34°29.00' W101°03.30'
SFC B 50 MSL to Begin climb	K	LBB 040/51	N34°14.50' W101°07.00'
SFC B 70 MSL to	L	LBB 042/48	N34°11.00' W101°09.00'
70 MSL to	M	LBB 042/38	N34°05.00' W101°18.00'
70 MSL to	N	LBB 043/27	N33°58.00' W101°29.00'

TERRAIN FOLLOWING OPERATIONS: VFR terrain following authorized for the entire route. When IMC, maintain at least MAJCOM directed minimum IFR altitudes for each segment to assure terrain/obstacle clearance.

ROUTE WIDTH - 1.5 NM either side of centerline from A to B; 5 NM either side of centerline from B to K; 2 NM either side of centerline K to N.

Special Operating Procedures:

- (1) Route will be flown at or below 400 KIAS.
- (2) Route designated MARSA. MARSA between IR-154 and IR-155 is accomplished through restrictive scheduling.
- (3) Aircraft desiring to use route, contact scheduling unit 24 hours in advance or contact Altus Command Post for same day scheduling at DSN 866-6313.

IR ROUTES

- (4) Alternate Exit: E. Pilots utilizing E to exit shall contact ZAB ARTCC on 285.475/127.85 prior to the exit point. If unable to contact ZAB ARTCC 285.475/127.85 prior to the exit point, maintain 5000' MSL and contact Amarillo APP CON 307.0/119.5 at PNH078029 (GOONI).
- (5) Deconflict with: VR-1141, VR-1142 (Sheppard AFB); and SR-274, SR-275 (Vance AFB) with appropriate route schedulers.
- (6) Noise Sensitive Area: Avoid overflight of the town of Goodnight near I below 1000' AGL.
- (7) Aircraft unable to meet their assigned entry time within the window of two minutes early to two minutes late must not enter the route. Aircraft must also exit the route within the window of two minutes early to two minutes late.
- (8) Entire route susceptible to wild fires. Aircrews should check NOTAMs before scheduling.
- (9) To report fires, uncharted obstructions or any other operational issues requiring attention on this route, please send an email to: Altus.airspace@altus.af.mil.
- (10) Avoid proposed wind farm in the vicinity of Claude, TX. Remain east of route centerline from Point I to a distance of 12 NM south.

FSS Within 100 NM Radius:

FTW, SJT

IR-164

ORIGINATING ACTIVITY: 188th Wing-AR ANG, 4850 Leigh Ave., Fort Smith, AR 72903 DSN 778-5502, C479-573-5502.

SCHEDULING ACTIVITY: Same as Originating Activity.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	PGO 188/29	N34°12.00' W94°44.00'
01 AGL B 40 MSL to	B	PGO 116/43	N34°19.00' W93°51.00'
01 AGL B 40 MSL to	C	PGO 082/48	N34°44.00' W93°38.00'
01 AGL B 40 MSL to	D	PGO 063/34	N34°54.00' W93°58.00'
01 AGL B 40 MSL to	E	FSM 134/16	N35°11.00' W94°04.00'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route. Only obstacles 200' AGL and higher were surveyed for this MTR, and the minimum schedulable altitude for training is 500' AGL.

ROUTE WIDTH - 5 NM either side of centerline from A to B; 8 NM either side of centerline from B to D; 5 NM left and 3 NM right of centerline D to E.

Special Operating Procedures:

- (1) Alternate Entry: B.
- (2) Alternate Exit: D.
- (3) Participating aircraft separation on IR-117, 120, 121, 164, VR-189, 1102, 1103, 1104, 1113, and 1130 as well as in the Hog MOA and is MARSA through see and avoid as well as

restrictive scheduling. All legs of the route that enter the Hog MOA (F-H) are prohibited while the Hog MOA (also activated by the 188 WG) is activated-If the Hog MOA is active, exit at point E or adjust route times.

- (4) Report Hog MOA entry/exit and applicable MTR points in the blind on the Hog MOA tactical frequency 307.375.
- (5) CAUTION; Multiple converging MTRs (Points B-E) and IP to DZ routes (Points D-E) even when the Hog MOA is not active.
- (6) Clearance to enter R-2402 must be received on 339.7. Flights exiting the MTR requesting activation of the Hog MOA complex must report the MTR exit point to Memphis Center on 269.0 or 126.1 and receive clearance out of the route and into the MOA prior to exiting the route. Otherwise, contact Razorback Approach on 343.75 or 120.9 prior to exiting the route.
- (7) Avoid flight within 1500' AGL/3 NM all charted airports when practicable.
- (8) CAUTION; Point B crossing MTR (IR-121/VR-1103).
- (9) Uncharted Obstructions:
 - (a) Tower (N35 08.83 W094 03.59) estimated altitude 200' AGL.
- (10) Make entry time plus or minus 10 minutes or reschedule.

FSS Within 100 NM Radius:

DRI, MLC

IR-166

ORIGINATING ACTIVITY: TRAINING AIR WING TWO (TW-2), NAS Kingsville, TX 78363 DSN 876-6518/4075, C361-516-6518/4075 0800-1530 CST Mon-Fri (excluding holidays or field closed by NOTAM).

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: 0600-2400 local, daily

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
15 MSL B 30 MSL to	A	NQI 121/24	N27°16.00' W97°26.00'
15 MSL B 30 MSL to	B	NQI 139/31	N27°05.00' W97°27.00'
15 MSL B 30 MSL to	C	BRO 339/56	N26°50.00' W97°35.00'
SFC B 30 MSL to	D	NQI 202/41	N26°53.00' W98°08.00'
SFC B 30 MSL to	E	NQI 259/41	N27°25.00' W98°34.00'
SFC B 30 MSL to	F	LRD 079/34	N27°30.00' W98°47.00'
SFC B 30 MSL to	G	LRD 051/36	N27°47.00' W98°50.00'
SFC B 30 MSL to	H	LRD 047/51	N27°57.00' W98°37.00'
SFC B 30 MSL to	I	NQI 279/32	N27°37.00' W98°23.00'
SFC B 30 MSL to	J	NQI 249/16	N27°25.00' W98°06.00'

TERRAIN FOLLOWING OPERATIONS: Authorized the entire route.

ROUTE WIDTH - 5 NM either side of centerline from A to I; 3 NM either side of centerline from I to J.

Special Operating Procedures:

- (1) Route will be flown 250-420 kt, low level navigation.
- (2) Alternate Exit: H.
- (3) Aircraft shall be scheduled with a minimum of 10 minutes longitudinal separation.
- (4) The primary method invoking MARSA shall be by scheduling. All proposed users of IR-166 or any other approved IR route that is common with IR-166 or any part thereof, shall coordinate that route with TRAWING TWO, Kingsville NAS, TX.
- (5) MARSA applies after aircraft have passed the entry point and until standard ATC separation is established after exiting the route.
- (6) The lost communication route and altitude for all TRAWING TWO aircraft shall be: J, climb to 5,000', proceed direct BALTS or BRAMA, complete the TACAN IAP at NQI for the runway in use.
- (7) If Kingsville NAS is not the filed destination, all other proposed users shall exit at H, turn left, climb and maintain 7000' MSL and proceed as per the filed flight plan, while climbing, attempt to contact Houston ARTCC 307.2 for further routing. If unable to contact the center, proceed to filed destination via route filed in flight plan or coded recovery route. CAUTION: Do not enter R-6312 without Yankee Target Control approval.
- (8) All Entry and Exit points shall be compulsory reporting points.
- (9) ATC frequencies: A to H, 307.2 or as assigned; H to J NQI ATCF or as assigned.
- (10) Maintain 1500' AGL within 3 NM of Wyatt Ranch Airport located at N27-25.2 W98-36.5 2 NM W of E.
- (11) Scheduling of, or amendments to, shall be coordinated with the scheduling activity 2 hours prior to use in accordance with Letter of Agreement between COMTRAWING TWO, Houston ARTCC and Kingsville NAS ATCF.
- (12) Use caution between A-C and H-I for extensive windmill farm activity and construction with obstructions up to 716' AGL.
- (13) Use caution between F and G for extensive wind farm on route center-line in vicinity of N27-36.33 W98-48.11 with obstructions to 497' AGL.
- (14) Use caution approaching point D. Moored balloons/aerostat up to 2,400' AGL, located approximately 3 NM right of centerline at MFE 002/45.9 or N26-55-30.97 W098-04-18.23.

FSS Within 100 NM Radius:

SJT

IR-167

ORIGINATING ACTIVITY: TRAINING AIR WING TWO (TW-2), NAS Kingsville, TX 78363 DSN 876-6518/4075 C361-516-6518/4075 0800-1530 CST Mon-Fri (excluding holidays or field closed by NOTAM).

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: 0600-2400 local, daily

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	BRO 359/39	N26°33.70' W97°16.50'
SFC B 20 MSL to	B	BRO 332/53	N26°46.00' W97°42.00'
SFC B 20 MSL to	C	NQI 202/41	N26°53.00' W98°08.00'
SFC B 20 MSL to	D	LRD 103/47	N27°11.00' W98°36.00'
SFC B 20 MSL to	E	LRD 156/34	N26°56.00' W99°15.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from A to E.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Route will be flown a 240-420 kt, low level navigation.
- (2) Aircraft shall be scheduled with a minimum of 10 minutes longitudinal separation.
- (3) The primary method of invoking MARSA shall be by scheduling. All proposed users of IR-167 on any other approved IR route that is common with IR-167 or any part thereof, shall coordinate that route with TRAWING TWO, Kingsville NAS, TX.
- (4) MARSA applies after aircraft have passed the entry point and until standard ATC separation is established after exiting the route.
- (5) Remain outside of 3 NM of the Johnson Airport located N26-34-00 W97-26-00 between A and B.
- (6) The lost communication route and altitude for TRAWING TWO aircraft shall be: E, turn right, climb to 5,000', proceed direct BALTS or BRAMA, complete the TACAN IAP at NQI for the runway in use.
- (7) All other proposed users shall file a DD-175 and indicate in remarks the lost communication altitude.
- (8) All entry and exit points shall be compulsory reporting points.
- (9) ATC frequencies: A to D is 291.6 or as assigned; D to E 307.2.
- (10) Scheduling of, or amendments to shall be coordinated with the scheduling activity 2 hours prior to use in accordance with Letter of Agreement between COMTRAWING TWO, Houston ARTCC and Kingsville NAS ATCF.
- (11) Use caution between D-E in vicinity of N27-07.31 W98-51.95 for extensive windmill farm right of center-line with obstructions to 497' AGL.
- (12) Use caution approaching Point C. Moored balloon/aerostat up to 2,400' AGL, located approximately 3 NM right of centerline at MFE 002/45.9 or N26-55-30.97 W098-04-18.23.
- (13) Use caution exiting at Point E. Moored balloon/Aerostat up to 3,000' AGL, located approximately 3 NM southwest of Point E at N26-53-50.20 W099-17-27.10.

FSS Within 100 NM Radius:

SJT

IR-169

ORIGINATING ACTIVITY: 47 OSS/OSOR, 570 2nd Street, Ste. 6, Laughlin AFB, TX 78843 DSN 732-5864, C830-298-5864.

IR ROUTES

SCHEDULING ACTIVITY: 87 FTS/DOS, 570 2nd Street, Laughlin AFB, TX 78843 DSN 732-4690/5484, C830-298-4690/5484. Scheduling hours 0730-1630 local Mon-Fri (excluding holidays)

HOURS OF OPERATION: Sunrise-Sunset daily

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	DLF 305/21	N29°35.70' W101°04.30'
SFC B 50 MSL to	B	DLF 314/30	N29°45.00' W101°08.20'
SFC B 50 MSL to	C	DLF 324/41	N29°58.00' W101°09.00'
SFC B 50 MSL to	D	RSG 281/48	N30°17.62' W101°09.90'
SFC B 50 MSL to	E	RSG 283/49	N30°19.50' W101°10.00'
SFC B 50 MSL to	F	DLF 305/71	N30°09.00' W101°47.00'
SFC B 60 MSL to	G	FST 090/72	N30°43.00' W101°37.00'
SFC B 50 MSL to	H	SJT 248/54	N31°11.00' W101°29.00'
SFC B 50 MSL to	I	SJT 236/44	N31°04.50' W101°14.50'
SFC B 70 MSL to	J	SJT 209/35	N30°55.00' W100°53.00'

TERRAIN FOLLOWING OPERATIONS: Authorized for entire route and route is VMC only.

ROUTE WIDTH - 4 NM left and 3 NM right side of centerline from A to E; 13 NM either side of centerline from E to H; 13 NM either side of centerline tapering to 10 NM either side of centerline from H to I; 10 NM either side of centerline tapering to 5 NM either side of centerline from I to J.

Special Operating Procedures:

- (1) Route:
 - (a) Consult Laughlin NOTAMs (KDLF) for most current notices.
 - (b) This route is covered by the following maps and charts: San Antonio Sectional, IFR Enroute Low Altitude - U.S. L-19, TPC H-23B.
 - (c) Alternate Entry: B and D.
- (2) Scheduling:
 - (a) Request for use shall be with the Scheduling Activity during the above scheduling hours.
 - (b) Aircraft shall be scheduled with a minimum of 10 minutes separation, 35 minutes if a T-38 follows a T-1 on the route.
- (3) Restrictions:
 - (a) For environmental reasons, this route may only be flown by T-1 and T-38 aircraft and T-6 aircraft for Annual Flight Evaluations.
 - (b) The primary means of invoking MARSAs shall be by scheduling and applies after aircraft have passed the entry point until standard ATC separation is established after exiting the route.
 - (c) Aircraft unable to meet their assigned entry time +/- 3 minutes must not enter the route.

- (d) Aircraft shall normally enter the route at point B.
 - (e) Aircrews planning for a northerly route of flight after exit from IR-169 will file from the exit point to JCT 281/39..SJT 165/29..SJT, and thence desired routing to destination.
 - (f) Avoid flight within 1,500 feet or 3 NM of airports when practical.
 - (g) The See and Avoid concept applies at route crossing points. Route use is VMC only. Prior to encountering IMC, aircraft will cancel IFR, discontinue the route, maintain VMC and recover VFR, or obtain a separate IFR clearance. Report the exit time and position to the first ATC facility contacted upon route exit.
- (4) Conflicts:
- (a) Crosses IR-170 between Points A and D. All aircraft will maintain 4500' MSL from Point A to N30°05.0', W101°10.0'.
 - (b) Is identical to SR-283/284 from A-B, crosses between E-F, overlaps near G (right side of route), crosses between I-J. Call 85 FTS/DOS Laughlin AFB at DSN 732-5121, C830-298-5121 to deconflict.
 - (c) Crosses IR-170 at C. Call 87 FTS/DOS Laughlin AFB to deconflict IR-170 and VR-1109/1117 at DSN 732-5484 C830-298-5484.
 - (d) Overlaps and parallels VR-143 from E-J. Call 560 FTS, Randolph AFB, TX to deconflict VR-143 and IR-123 at DSN 487-3518/3942, C210-652-3518.
 - (e) Is identical to IR-123 from E-J.
 - (f) Overlaps VR-1109/1117 at F.
- (5) Communications:
- (a) Del Rio Approach Control shall issue clearance for IR-169. Prior to route entry, pilots shall provide an entry and exit time in Zulu.
 - (b) Entry and Exit points are compulsory reporting points. Report the exit time to the first ATC facility contacted upon route exit.
 - (c) At point C, make the following radio call on 270.1 (Ch 9) 'Ranch (call sign)(number)(type) point Charlie on IR-169.'
 - (d) Call entry/exit on, and monitor 255.4 while on the route. When approaching point D, make the following radio call on 255.4, Attention all aircraft: (call sign)(number)(type) approaching IR-123 Point Charlie and SR-283 Point Delta at (altitude)(speed).
 - (e) Aircraft shall contact Houston ARTCC and report exit on 346.4 or 125.75.
 - (f) Aircraft flying a northerly route of flight after exit shall contact San Angelo Approach on 354.1 or 125.35 upon exit.
 - (g) Lost Communications: Laughlin AFB assigned aircraft inside DLF 54 DME will proceed via 54 DME arc to the DLF 040 radial, direct WEBBOX and execute the HI-ILS Approach or WEBBOX arrival to Laughlin AFB. Climb to 8,000 feet MSL or as assigned, whichever is higher, until established on the approach inbound. If able to maintain VFR, recover VFR to Laughlin AFB VFR hemispheric below Laughlin MOAs. All other aircraft outside DLF 54 DME, comply with FIH.
- (6) Uncharted Airfields:
- (a) N30-27.97 W101-48.58 paved and old.
 - (b) N 30-26.20 W101-55.30. 2 dirt runways that cross approx 4000' each.
 - (c) N30-04.30 W101-56.40, dirt runway approx 6000'.
 - (d) N30-02.60 W101-54.90, dirt runway approx 5000'.
 - (e) N29-55.35 W101-05.27, dirt runway approx 3000'.
- (7) Noise Sensitive Areas:
- (a) Avoid the town of Pandale by 2,000 feet AGL or 3 NM.

- (b) Avoid house at (N30-08.78 W101-34.32) by 2,000 feet or 3 NM.
- (8) Laughlin Specific Instructions:
- For departures from Laughlin, file the TAE LR transition to 7000' MSL. Request clearance off the TAE LR transition prior to 25 DME.
 - If flying the route twice, exit the route and proceed direct to the DLF 346/054 at 7000' MSL, then inbound on the DLF 346 radial. When handed off to Del Rio Approach, coordinate for vectors to point B for the second entry.
- (9) Uncharted Obstructions:
- N31°19.64' W101°37.44',
 - N31°11.29' W101°42.25',
 - Tower N31-07.10 W101-09.80, approx 300'.
- (10) Construction has begun on numerous windmills west of Point F. Windmills may be as high as 433' MSL.

FSS Within 100 NM Radius:

SJT

IR-170

ORIGINATING ACTIVITY: 47 OSS/OSOR, 570 2nd Street, Ste. 6, Laughlin AFB, TX 78843-5222 DSN 732-5864, C830-298-5864.

SCHEDULING ACTIVITY: 87 FTS/DOS, 570 2nd Street, Laughlin AFB, TX 78843 DSN 732-4690/5484, C830-298-4690/5484. Scheduling hours 0730-1630 local Mon-Fri (excluding holidays)

HOURS OF OPERATION: Sunrise-Sunset daily

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	DLF 302/39	N29°46.00' W101°21.00'
SFC B 50 MSL to	B	DLF 324/44	N30°00.00' W101°10.50'
SFC B 35 MSL to	C	DLF 353/33	N29°54.90' W100°46.00'
SFC B 50 MSL to	D	RSG 141/16	N29°47.00' W100°09.00'
SFC B 30 MSL to	E	RSG 153/24	N29°38.00' W100°10.00'
SFC B 30 MSL to	F	DLF 082/30	N29°22.00' W100°12.00'
SFC B 50 MSL to	G	DLF 132/39	N28°52.00' W100°17.00'
SFC B 50 MSL to	H	DLF 137/57	N28°35.00' W100°08.00'
SFC B 50 MSL to	I	LRD 339/34	N28°02.00' W99°33.00'

TERRAIN FOLLOWING OPERATIONS: Authorized for entire route in VMC only.

ROUTE WIDTH - 5 NM either side of centerline from A to B; 5 NM tapering to 3 NM either side of centerline from B to D; 3 NM tapering to 4 NM either side of centerline from D to G; 4 NM expanding to 5 NM either side of centerline from G to I.

Special Operating Procedures:

- Route:
 - Consult Laughlin NOTAMs (KD LF) for most current notices for this route.
 - This route is covered by the following maps and charts: San Antonio Sectional, Low IFR Enroute L-19, L-20, TPC H-23B.
 - Alternate Entry: D.
 - Alternate Exit: G and H.
- Scheduling:
 - Request for use shall be with the Scheduling Activity. Request for weekend use shall be coordinated between 0730-1630 local Mon - Fri.
 - Aircraft shall be scheduled with a minimum of 10 minutes separation, 35 minutes if a T-38 follows a T-1 on the route.
- Restrictions:
 - For environmental reasons, this route may only be flown by T-38, T-1A aircraft, and T-6 for Annual Flight Evaluations.
 - Aircraft unable to meet their assigned entry time within the window three minutes early to three minutes late must not enter the route.
 - The primary means of invoking MARS A shall be by scheduling.
 - MARS A applies after aircraft have passed the entry point and until standard ATC separation is established after exiting the route.
 - The See and Avoid concept applies at route crossing points. Route use is VMC only. Prior to encountering IMC, aircrews will cancel IFR, discontinue the route, maintain VMC and recover VFR, or obtain a separate IFR clearance.
 - IR-170 will be flown no higher than 3,000 MSL from Point F to H without 24 hour prior coordination with 47 OSS/OSA DSN 732-5052, C830-298-5052.
 - Remain at or below 3500' MSL between Points B and C.
- Conflicts:
 - For low-level deconfliction purposes, aircrew should fly this low-level at 500' AGL, unless complying with specific deconfliction procedures outlined in this section.
 - To deconflict IR-149, aircrews will schedule entry times for IR-149 Point D for 10 minutes prior to 10 minutes after planned time to IR-170 Point D.
 - Crosses SR-283 / 284 between Points A and B.
 - Crosses SR-281 / 282 at Point B.
 - Overlaps VR-143 in the vicinity of Point B.
 - Crosses IR-169 between Points B and C.
 - Crosses SR-281 / 282 twice between Points B and D.
 - Overlaps IR-149 from Points D to H.
 - Closely parallels SR-281 / 282 between Points E and G.
 - Overlaps VR-168 between Points D and F.
 - Crosses and closely parallels SR-281 / 282 from Point G through I. Call 85 FTS / DOS Laughlin AFB to deconflict SR-281 / 282 / 283 / 284 at DSN 732-5121, C830-298-5121. Call 560 FTS, Randolph AFB, TX, to deconflict VR-143 at DSN 487-3518/3942, C210-652-3518. Call 87 FTS / DOS Laughlin AFB to deconflict IR-169 at DSN 732-5484, C830-298-5484. Call 301 COMTRAWING TWO, NAS Kingsville to deconflict IR-149 and/or VR-168 at DSN 876-6518/6108, C361-516-6518/6108;
 - Aerobatic aircraft occasionally operate in close proximity to Comanche Airport (pvt) from SFC-6000' MSL near Point H.

IR ROUTES

- (m) Use caution for wind turbines approximately 10 NM south of point F up to 430' AGL.
- (5) Communications:
- (a) Del Rio Approach Control shall issue clearance for IR-170 route and altitude. Prior to route entry, pilots shall provide an ETA (Zulu) for the planned exit point.
- (b) All Entry/Alternate Entry Points are compulsory reporting points.
- (c) Approaching Point D make the following radio call of 255.4: 'Attention all aircraft: (callsign)(number)(type) approaching IR-170 Point D at (altitude)(speed).' Ex. 'Attention all aircraft: Cool 01, 2 T-38's approaching IR-170 Point D, 500 AGL, 300 knots'.
- (d) Monitor (UHF) 255.4 while on the route.
- (e) Contact Houston Center (UHF) 307.2, (VHF) 127.8 prior to (I) for exit clearance unless previously coordinated.
- (f) When local flying is in progress at Laughlin, this airspace is under control of Del Rio APP CON; at all other times this is Houston Center airspace. Contact Del Rio Approach 326.2 for exit clearance prior to Point G or H when Del Rio APP CON controls this airspace.
- (g) Lost Communications:
- 1 In the event of lost communications by aircraft filed to Laughlin, use Laughlin local procedures after established on filed DLF radials.
- 2 Aircraft filed to destinations other than Laughlin shall comply with FLIP AP/1B communications failure procedures. The filing of lost communication altitude in the remarks section of the flight plan does not constitute ATC clearance to climb to that altitude. It is the altitude ATC will expect the pilot to climb to at the exit point if the pilot exercises emergency authority after a radio failure has been confirmed.
- 3 In the event of lost communication by any aircraft filed to Laughlin after exiting IR-170, maintain 5000' or last assigned altitude. Use Laughlin local procedures after established on DLF radials.
- 4 If filed for the TALON 170G, 170H, or 170I stereo route, fly the route as applicable and land at Laughlin.
- (6) Uncharted Airfield:
- (a) N29-55.82 W101-05.50, paved runway;
- (b) N28-12.90 W099-43.20, paved runway approx 6000' x 100'.
- (7) Laughlin Specific Instructions:
- (a) When filed on a TALON 170G, 170H, and 170I request to be cleared off the LAEKE TRANSITION prior to 25 DME.
- (b) Laughlin aircraft on TALON 170G, 170H, or TALON 170I stereo flight plans will recover from the Exit Point / Alternate Exit Point as filed or as assigned. This exit clearance is automatically coordinated when cleared for IR-170 on a TALON 170G, 170H, and 170I.

FSS Within 100 NM Radius:

SJT

IR-171

ORIGINATING ACTIVITY: 71 OSS, 301 Gritz St., Vance AFB, OK 73705-5202 DSN 448-6276, C580-213-6276, VANCEAIRSPACE@US.AF.MIL.

SCHEDULING ACTIVITY: Same as Originating Activity.

HOURS OF OPERATION: 30 min after Sunrise-30 min before Sunset and active days per local directives

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	END 237/23	N36°10.00' W98°20.00'
05 AGL B 50 MSL to	B	END 230/38	N35°59.00' W98°33.00'
05 AGL B 40 MSL to	C	IFI 266/36	N35°51.00' W98°44.00'
05 AGL B 40 MSL to	D	IFI 260/58	N35°47.00' W99°12.00'
05 AGL B 40 MSL to	E	BFV 322/34	N35°43.00' W99°35.00'
05 AGL B 40 MSL to	F	MMB 177/27	N35°54.00' W99°57.00'
05 AGL B 40 MSL to	G	MMB 164/21	N36°00.00' W99°50.00'
05 AGL B 40 MSL to	H	MMB 124/26	N36°03.00' W99°30.00'
05 AGL B 40 MSL to	I	MMB 094/27	N36°14.00' W99°20.00'
05 AGL B 40 MSL to	J	END 269/38	N36°23.00' W98°42.00'
05 AGL B 60 MSL to	K	END 286/27	N36°30.00' W98°26.00'

ROUTE WIDTH - 3 NM either side of centerline from A to C; 4 NM either side of centerline from C to J; 2 NM either side of centerline from J to K.

Special Operating Procedures:

- (1) Aircrews may use 265.25 for interplane frequency.
- (2) Report Point F to Kansas City Center 126.95/379.2.
- (3) Cross Point K at 60 MSL. Contact Vance Approach 346.325 no later than crossing the Exit Point. Replying with (negative ATIS) is acceptable.
- (4) 71 FTW Aircraft Only: On route departure, proceed direct to Vance, or as directed.
- (5) 71 FTW Aircraft Only: MARSAs applies between all flights that have passed the entry/alternate entry fixes and remains in effect until standard ATC separation is achieved. Minimum exit intervals shall be: 5 minutes between like-type aircraft or between different type aircraft when the faster aircraft precedes the slower aircraft, 20 minutes between different-type aircraft when the faster aircraft follows the slower aircraft.
- (6) 71 FTW Aircraft Only: Alternate Entry Point C.
- (7) 71 FTW Aircraft Only: Alternate Exit Point I. Request At Point F report. When exiting, climb and maintain 60 MSL and contact Vance Approach 126.75/346.32.

FSS Within 100 NM Radius:

ICT

IR-172

ORIGINATING ACTIVITY: 71 OSS, 301 Gritz St., Vance AFB, OK 73705-5202 DSN 448-6276/7820, C580-213-6276/7820.

SCHEDULING ACTIVITY: Same as Originating Activity.

HOURS OF OPERATION: 30 min after Sunrise-30 min before Sunset and active days per local directives

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 60 MSL to	A	PNH 069/27	N35°20.00' W101°10.00'
60 MSL to	B	PNH 073/51	N35°22.00' W100°40.00'
60 MSL to	C	PNH 069/68	N35°29.00' W100°21.00'
40 MSL B 60 MSL to	D	PNH 061/79	N35°42.00' W100°12.00'
40 AGL B 60 MSL to	E	PNH 056/87	N35°51.50' W100°05.00'
05 AGL B 40 MSL to	F	MMB 177/27	N35°54.00' W99°57.00'
05 AGL B 40 MSL to	G	BFV 322/34	N35°43.00' W99°35.00'
05 AGL B 40 MSL to	H	IFI 260/58	N35°47.00' W99°12.00'
05 AGL B 40 MSL to	I	IFI 266/36	N35°51.00' W98°44.00'
05 AGL B 40 MSL to	J	END 230/38	N35°59.00' W98°33.00'
05 AGL B 60 MSL to	K	END 237/23	N36°10.00' W98°20.00'

ROUTE WIDTH - 4 NM either side of centerline A to E; 3 NM either side of centerline E to F; 4 NM either side of centerline F to I; 2 NM either side of centerline J to K.

Special Operating Procedures:

- (1) Aircrews may use 265.25 for interplane frequency.
- (2) Do not descent out of 60 MSL until 4 NM past Point D.
- (3) Report Point F to Kansas City Center 379.2.
- (4) Cross Point K at 60 MSL. Contact Vance Approach 346.325 no later than crossing the Exit Point. Replying with (negative ATIS) is acceptable.
- (5) On route departure, all 71 FTW aircraft proceed direct to Vance, or as directed.

FSS Within 100 NM Radius:

ICT

IR-173

ORIGINATING ACTIVITY: 71 OSS, 301 Gritz St., Vance AFB, OK 73705-5202 DSN 448-6276/7820, C580-213-6276/7820.

SCHEDULING ACTIVITY: Same as Originating Activity.

HOURS OF OPERATION: 30 min after Sunrise-30 min before Sunset and active days per local directives

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 60 MSL to	A	PNH 069/27	N35°20.00' W101°10.00'
60 MSL to	B	PNH 073/51	N35°22.00' W100°40.00'

60 MSL to	C	PNH 069/68	N35°29.00' W100°21.00'
60 MSL to	D	PNH 061/79	N35°42.00' W100°12.00'
40 MSL B 60 MSL to	E	MMB 189/31	N35°51.50' W100°05.00'
05 AGL B 40 MSL to	F	MMB 177/27	N35°54.00' W99°57.00'
05 AGL B 40 MSL to	G	MMB 164/21	N36°00.00' W99°50.00'
05 AGL B 40 MSL to	H	MMB 124/26	N36°03.00' W99°30.00'
05 AGL B 40 MSL to	I	MMB 094/27	N36°14.00' W99°20.00'
05 AGL B 40 MSL to	J	END 269/38	N36°23.00' W98°42.00'
05 AGL B 60 MSL to	K	END 286/27	N36°30.00' W98°26.00'

ROUTE WIDTH - 4 NM either side of centerline A to E; 3 NM either side of centerline E to F; 4 NM either side of centerline F to J; 2 NM either side of centerline J to K.

Special Operating Procedures:

- (1) Aircrews may use 265.25 for interplane frequency.
- (2) Do not descent out of 60 MSL until 4 NM past Point D.
- (3) Report Point F to Kansas City Center 379.2.
- (4) Cross Point K at 60 MSL. Contact Vance Approach 346.325 no later than crossing the Exit Point. Replying with (negative ATIS) is acceptable.
- (5) On route departure, all 71 FTW aircraft proceed direct to Vance, or as directed.
- (6) IR-172 and IR-173 have same geographical Points A-F.

FSS Within 100 NM Radius:

ICT

IR-174

ORIGINATING ACTIVITY: 188th Wing-AR ANG, 4850 Leigh Ave., Fort Smith, AR 72903 DSN 778-5502, C479-573-5502.

SCHEDULING ACTIVITY: Same as Originating Activity.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at FL230 to descend direct to	A	ARG 060/100	N36°49.50' W89°05.00'
60 MSL B FL230 to 30 MSL B 60 MSL descend direct to cross	B	ARG 061/71	N36°36.50' W89°37.00'
30 MSL to direct to	BA	ARG 061/55	N36°30.00' W89°55.00'
30 MSL to Contact Memphis ARTCC 289.4 passing C turn right to	C	ARG 061/40	N36°23.50' W90°12.50'

IR ROUTES

30 MSL to (TA/TFR initiation point)	D	ARG 054/35	N36°25.00' W90°21.00'	06 AGL B 30 MSL to Direct to Thence via published route.	G1	ARG 316/41	N36°38.00' W91°30.00'
05 AGL B 30 MSL to direct to	E	ARG 008/35	N36°41.00' W90°48.50'	05 AGL B 40 MSL to terminate TFR	O1	LIT 325/69	N35°40.50' W92°53.50'
05 AGL B 30 MSL to direct to	F	ARG 358/36	N36°42.50' W90°55.50'	climb to direct to			
06 AGL B 30 MSL to direct to	G	ARG 316/41	N36°38.00' W91°30.00'	40 AGL B 50 MSL to climb to cross	P1	LIT 335/59	N35°36.50' W92°35.50'
06 AGL B 30 MSL to right to	H	ARG 297/55	N36°34.50' W91°56.00'	50 MSL to or as assigned	Q1	RZC 093/92	N36°02.50' W92°15.00'
06 AGL B 30 MSL to direct to	I	ARG 295/63	N36°37.00' W92°05.00'				
06 AGL B 30 MSL to turn left to	J	ARG 297/70	N36°43.00' W92°12.00'				
06 AGL B 30 MSL to direct to	K	ARG 297/78	N36°46.00' W92°20.00'				
06 AGL B 30 MSL to turn left to	L	ARG 290/90	N36°42.50' W92°39.50'				
06 AGL B 30 MSL to (Start Maneuver Area) continue to	M	RZC 068/68	N36°35.50' W92°47.50'				
05.5 AGL B 30 MSL to (Report passing N to MEMPHIS ARTCC on 281.55) then	N	RZC 091/62	N36°09.00' W92°50.50'				
05 AGL B 40 MSL to (End Maneuver Area) turn left to	O	LIT 325/69	N35°40.50' W92°53.50'				
05 AGL B 40 MSL to direct to	P	LIT 335/59	N35°36.50' W92°35.50'				
06 AGL B 40 MSL to turn right and descend to	Q	RZC 093/92	N36°02.50' W92°15.00'				
07 AGL B 30 MSL to direct to	R	RZC 090/99	N36°06.00' W92°05.00'				
06 AGL B 25 MSL to turn left and descend to	S	ARG 257/31	N36°01.50' W91°35.50'				
06 AGL B 25 MSL to direct to	T	ARG 261/23	N36°04.50' W91°25.50'				
06 AGL B 20 MSL to direct to	U	ARG 324/19	N36°22.50' W91°09.50'				
30 MSL B 40 MSL to right and climb to (Contact MEMPHIS ARTCC on 289.4) 30 MSL B 40 MSL climb direct to cross	V	ARG 344/19	N36°25.50' W91°02.00'				
40 MSL to direct to	W	ARG 019/20	N36°25.50' W90°47.50'				
40 MSL to Re-Entry: Cross	X	ARG 029/23	N36°25.50' W90°42.00'				
06 AGL B 20 MSL to Contact ZME ARTCC on 287.95 turn left and climb to	U1	ARG 324/19	N36°22.50' W91°09.50'				
06 AGL B 30 MSL to direct to	Y	ARG 330/30	N36°34.00' W91°13.50'				
06 AGL B 30 MSL to direct to	Z	ARG 319/39	N36°37.50' W91°26.50'				

TERRAIN FOLLOWING OPERATIONS: Published minimum altitudes may not guarantee terrain following obstruction clearances.

ROUTE WIDTH - 4 NM either side of centerline from A to D; 3 NM either side of centerline from D to F; 3 NM right and 4 NM left of centerline from F to G; 2 NM right and 4 NM left of centerline from G to K; 3 NM either side of centerline from K to L; 4 NM right and 3 NM left of centerline from L to N; 4 NM either side of centerline from N to P; 4 NM right and 3 NM left of centerline from P to R; 4 NM either side of centerline from R to X; Re-Entry; 4 NM either side of centerline from U1 to Y; 3 NM either side of centerline from Y to G1.

Special Operating Procedures:

- (1) Participating Aircraft Separation: Route is designated for MARSAs operations established by coordinated scheduling.
- (2) MARSAs applies after aircraft enter route until standard separation is provided after exiting route.
- (3) MARSAs applies between IR-174, IR-592, and IR-120.
- (4) Centerline between turn points is depicted as a 7.5 NM radius arc.
- (5) Lost communications (LC) procedures: Route LC altitude is 4000' MSL at exit point X and 5000' MSL at alternate exit point Q1. Desired deviations from this procedure must be filed IAW FLIP AP-1B, Chapter 1, and verified with Memphis ARTCC prior to route entry.
- (6) Aircrew should be alert for C-130's on numerous SR routes. SR routes cross cross IR-174 between points A-B, BA-E, N-Q, R-W and U-Y. Aircrew may contact Little Rock Air Force Base DSN 731-7013 C501-987-7013 for active/scheduled SR routes.
- (7) Aircrews must be aware of airports within or near route corridor limits. Avoid flight within 1500' vertical or 3 NM horizontal of these airports when practical. Particular vigilance must be given to the following airports: N36-25.5 W89-54.0; N36-29.0 W90-00.5; N36-22.2 W90-09.5; N36-34.5 W90-37.0; N36-39.0 W92-13.5; N35-44.0 W92-29.0.
- (8) Noise Sensitive Areas: (Avoid by 1/4 NM):
 - (a) School at N36-10.9 W92-51.0.
 - (b) School at N34 14.15 W093 38.10.
 - (c) Residence at N36-38.5 W92-06.3.
 - (d) Dairy/Emu farm at N36-38.47 W92-06.30.
 - (e) Residence at N36-36.8 W92-46.2.
 - (f) Residence at N36-45.1 W92-25.3.
 - (g) Farm house at N36-45.1 W92-25.3.
 - (h) Residence at N36-36.9 W92-45.4.
 - (i) Residence at N36-26.8 W92-47.6.
- (9) Uncharted Obstructions:
 - (a) Tower (N36 32.40 W89 38.20) height unknown.
 - (b) Tower (N36 27.25 W89 57.25) height unknown.

FSS Within 100 NM Radius:

BNA, COU, JBR, MKL, MLC, STL

IR-175

ORIGINATING ACTIVITY: 71 OSS, 301 Gritz St., Vance
AFB, OK 73705-5202 DSN 448-6276, C580-213-6276,
VANCEAIRSPACE@US.AF.MIL.

SCHEDULING ACTIVITY: Same as Originating Activity.

HOURS OF OPERATION: 30 min after Sunrise-30 min before Sunset and active days per local directives

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	END 291/32	N36°35.00' W98°31.00'
05 AGL B 40 MSL to	AA	END 280/42	N36°31.50' W98°45.00'
05 AGL B 40 MSL to	B	END 273/52	N36°28.00' W98°59.00'
05 AGL B 40 MSL to	C	END 297/63	N36°54.00' W99°02.02'
05 AGL B 40 MSL to	D	MMB 349/13	N36°34.00' W99°53.00'
05 AGL B 40 MSL to	E	MMB 323/25	N36°43.00' W100°07.00'
05 AGL B 40 MSL to	F	MMB 006/43	N37°02.00' W99°38.00'
05 AGL B 40 MSL to	G	ANY 263/51	N37°09.00' W99°14.00'
05 AGL B 40 MSL to	G1	ANY 246/31	N37°00.50' W98°46.67'
05 AGL B 40 MSL to	H	ANY 219/21	N36°55.00' W98°29.00'
05 AGL B 60 MSL to	I	ANY 205/21	N36°52.00' W98°24.00'

ROUTE WIDTH - 4 NM left and 2 NM right from A to B; 4 NM left and 3 NM right from B to C; 4 NM either side from C to D; 3 NM either side from D to F; 4 NM left and 3 NM right from F to G1; 2 NM left and 3 NM right from G1 to I.

Special Operating Procedures:

- (1) Aircrews may use 265.25 for interplane frequency.
- (2) Use caution for ACC aircraft operating at low level in the airspace immediately Northwest of Points E to F.
- (3) Report Point E to Kansas City Center 126.95/379.2.
- (4) Cross Point I at 60 MSL. Contact Vance Approach 346.325 no later than crossing the Exit Point. Replying with (negative ATIS) is acceptable.
- (5) 71 FTW Aircraft Only: On route departure, proceed direct to Vance, or as directed.
- (6) 71 FTW Aircraft Only: MARSA applies between all flights that have passed the entry/alternate entry fixes and remain in effect until standard ATC separation is achieved. Minimum exit intervals shall be: 5 minutes between like-type aircraft or between different type aircraft when the faster aircraft precedes the slower aircraft, 20 minutes between different-type aircraft when the faster aircraft follows the slower aircraft.

- (7) 71 FTW Aircraft Only: Alternate entry points C or E. If entering via Point E, request with Kansas City Center 126.95/379.2 at least 5 minutes prior.
- (8) 71 FTW Aircraft Only: Alternate exit points E or G. If exiting Point E, remain within published route altitudes and contact Kansas City Center 126.95/379.2. If exiting Point G, climb and maintain 60 MSL and contact Vance Approach 126.75/346.32.

FSS Within 100 NM Radius:

ICT, MLC

IR-177

ORIGINATING ACTIVITY: 97 OSS/DOA, 101 S Sixth St,
Bldg 225, Altus AFB, OK 73521, DSN 866-6098, C580-481-6098.

SCHEDULING ACTIVITY: 97 OSS/OSK, 101 S Sixth St, Bldg 225, Altus AFB, OK 73521, DSN 866-7422/1375/7490, C580-481-7110/1375/7490.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at FL230 to or as assigned 170 MSL B FL230 descend direct to cross	A	CIM 071/57	N36°35.50' W103°42.50'
at or above 170 MSL 150 MSL B FL230 descend to cross	B	DHT 285/52	N36°29.00' W103°30.00'
at or above 150 MSL 70 MSL B FL230 continue descent di- rect to cross	C	DHT 284/43	N36°24.00' W103°20.00'
70 MSL to 59MSL B 70 MSL turn left and descend to cross	D	DHT 281/27	N36°16.00' W103°04.00'
59 MSL to (TA/TFR Initiation Point) direct to	E	DHT 308/22	N36°22.00' W102°50.00'
02 AGL B 59 MSL to turn right to	F	TBE 100/40	N37°00.00' W102°49.50'
02 AGL B 59 MSL to direct to	G	TBE 090/43	N37°06.50' W102°43.50'
02 AGL B 57 MSL to turn left to	H	LBL 274/57	N37°17.50' W102°07.50'
02 AGL B 57 MSL to direct to	I	LBL 286/55	N37°27.00' W102°00.00'
02 AGL B 57 MSL to climb direct to	J	LAA 100/23	N38°03.00' W102°14.00'
05 AGL B 70 MSL to turn left and continue climb to	K	LAA 345/34	N38°46.00' W102°43.50'
04 AGL B 70 MSL to direct to	L	LAA 322/36	N38°44.00' W103°01.50'
02 AGL B 70 MSL to descend direct to	M	LAA 313/30	N38°36.50' W103°03.00'

IR ROUTES

04.5 AGL B 70 MSL to turn right to	N	LAA 296/21	N38°24.50' W103°02.00'
04.5 AGL B 60 MSL to (Start Maneuver Area) direct to	O	LAA 284/19	N38°20.00' W103°03.00'
02 AGL B 60 MSL to turn left to	P	LAA 243/33	N38°03.00' W103°21.00'
02 AGL B 60 MSL to direct to	Q	LAA 227/37	N37°53.00' W103°21.00'
02 AGL B 60 MSL to (End Maneuver Area) (TA/TFR Termination Point) direct to	R	LAA 188/42	N37°32.00' W102°59.00'
60 MSL to	S	TBE 071/40	N37°20.00' W102°46.00'
60 MSL B 110 MSL climb direct to cross at or above 70 MSL	SS	TBE 078/43	N37°15.50' W102°42.00'
70 MSL B 110 MSL continue climb to cross			
110 MSL to or as assigned (Contact Albuquerque ARTCC 351.7 passing 100 MSL) Re-Entry: Alpha	T	TBE 093/58	N37°00.00' W102°26.00'
60 MSL to (End Maneuver Area) (TA/TFR Termination Point) turn left to	R1	LAA 188/42	N37°32.00' W102°59.00'
60 MSL to direct to	U	LAA 170/31	N37°40.50' W102°42.50'
60 MSL to	V	LAA 178/26	N37°46.50' W102°47.00'
60 MSL B 70 MSL climb direct to cross			
70 MSL to direct to	W	LAA 189/21	N37°52.00' W102°51.00'
60 MSL B 70 MSL to	X	LAA 291/37	N38°32.00' W103°21.00'
60 MSL B 70 MSL descend to cross			
60 MSL to (TA/TFR Initiation Point) continue right turn to	Y	LAA 306/41	N38°42.50' W103°16.00'
02 AGL B 60 MSL to Thence via published route.	M1	LAA 313/30	N38°36.50' W103°03.00'
Alternate Entry: Z			
FL190 to or as assigned	Z	LBL 264/43	N37°06.00' W101°52.00'
57 MSL B FL190 descend direct to cross			
57 MSL to direct to	ZA	LAA 128/46	N37°37.00' W102°04.03'
57 MSL to Thence via published route.	J1	LAA 100/23	N38°03.00' W102°14.03'

PMSV CONTACTS: Primary Home Station. Alternates Whiteman (SZL 344.6), Barksdale (Bad 373.1).

TERRAIN FOLLOWING OPERATIONS: IFR/VFR

terrain following (TF)/visual contour (VC) operations are authorized IAW command directives within published altitude blocks from E to R, and ZA to J1 (Alternate Entry Z). When command directives preclude TF/VC operations aircrews will maintain the IFR altitude for each TF route segment. Minimum altitudes are established to provide 200' vertical clearance of known man-made obstructions within the route corridor. Command directives may require additional obstruction clearance for TF/VC operations. Aircrews flying command directed TF/VC altitudes may be required to fly at a higher minimum tracking altitude (MTA), as listed in 99 ECRG 50-3, for STR scored activity. In no case will aircraft fly below command directed TF/VC altitudes. The entire route is designated non-mountainous. Regulations governing aircraft operations below 500' AGL must be complied with.

ROUTE WIDTH - 4 NM either side of centerline from A to E; 3 NM either side of centerline from E to F; 4 NM either side of centerline from F to N; 3 NM left and 4 NM right of centerline N to O; 3 NM either side of centerline from O to P; 6 NM left and 3 NM right of centerline from P to Q; 6 NM left and 5 NM right of centerline from Q to R; 4 NM either side of centerline from R to T. Re-Entry; 4 NM left and 3 NM right of centerline from R1 to U; 4 NM either side of centerline from U to W; 4 NM left and 2 NM right of centerline from W to X; 4 NM either side of centerline from X to M1. ALTERNATE ENTRY Z: 4 NM either side of centerline from Z to J1.

Special Operating Procedures:

- (1) This route is closed until further notice. Route has not been surveyed or reviewed are is considered inactive. Contact the originating activity for more information.
- (2) Aircraft exiting the route or using the Alpha Re-Entry will cross the End Maneuver Area point at the specified minimum IFR altitude.
- (3) Participating aircraft separation: Route is designated for MARSAs operations established by coordinated scheduling.
- (4) Lost communications (LC) procedures: Route LC altitude is 11,000' MSL. Desired deviation from this procedure must be filed IAW FLIP AP/1B, Chapter 1 and verified with Albuquerque ARTCC prior to route entry.
- (5) This route effects Cheyenne MOA and Two Buttes MOA operations which is controlled by Buckley ANG/120FS down to 300' AGL. Advise 120FS; DSN 847-9470 or FAX 847-9612, C720-847-9470, FAX C720-847-9612, on estimated entry and exit times of the MOA's. In addition, provide estimated times to 120FS at Points J and M.
- (6) All aircraft will make an (in-the-blind) call on 370.925 prior to entering the lateral limits of Two Buttes and Cheyenne MOA's. This call is to alert aircraft operating in the MOA of your presence. This in not intended to be used as a separation tool, only a (heads up call).
- (7) Route is separated from conflicting routes by coordinated scheduling.
- (8) Aircrews entering IR-177 on Alternate Entry Z must file IR-177A.
- (9) Aircrews entering IR-177 using Alternate Entry Z should use the Garden City altimeter for descent into the route.
- (10) Aircrews should be especially vigilant when flying between N36-34-00 W102-50-00 and N36-42-00 W102-49-00 due to possible VFR traffic to include B-1's amd B-52's on VR-1175 and VR-1176.
- (11) Ducks and geese will pose a significant hazard 1 Oct-15 Jan between points E and F and N and R during the evening and dark/dusk (plus/minus one hour). Sandhill cranes, pelicans

- and gulls will pose a significant hazard 15 Sep-15 Nov and a hazard from 1 Mar-30 Apr between points N and R. They will fly from several refuges found around the entire maneuver area to local feeding areas.
- (12) Centerline between turn points will be depicted as a 7.5 NM arc unless otherwise specified.
- (13) Route is open all year long.
- (14) Aircraft aborting the route shall contact the appropriate ARTCC as follows: Points A-G, Albuquerque ARTCC 351.7, Points H-I, Kansas city ARTCC 290.8, Points J-O, Denver ARTCC 377.175, Points P-S, Denver ARTCC 379.95.
- (15) Noise Sensitive Areas: Avoid by 1000' or 1/4 NM unless otherwise noted.
- Residence at N38-03.8 W103-19.1;
 - Residence at N37-49.2 W103-14.4;
 - Residence at N37-05.2 W102-44.6;
 - Residence at N37-06.4 W102-51.1;
 - Residence at N37-12.5 W102-37.0;
 - Residence at N37-49.3 W102-07.3;
 - Residence at N38-49.6 W103-00.7;
 - Residence at N38-03.3 W103-20.8;
 - Residence at N38-04.3 W103-21.8;
 - Farm at N37-57.0 W103-21.6;
 - Residence at N38-49.8 W102-49.5.
- (16) Uncharted obstructions and bird attractants:
- Silos at N37°22.14' W102°51.43';
 - Uncharted antenna approx. 250' AGL, N38°11.0' W103°09.0';
 - Cattle yards: N36°33.98' W102°46.82'; N36°36.19' W102°46.85'; N37°25.05' W101°58.06'; N36°17.65' W102°58.19'.

FSS Within 100 NM Radius:

DEN

IR-178

ORIGINATING ACTIVITY: 7 OSS/OSOS, 965 Ave D, BLDG 5202, Dyess AFB, TX 79607 DSN 461-3666/2877, C325-696-3666/2877, 325-280-8325.

SCHEDULING ACTIVITY: Same as Originating Activity.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 150 MSL to or as assigned (TA/TFR Initiation Point)	A	HUP 194/20	N31°16.00' W105°33.00'
descend direct to			
04 AGL B 150 MSL to	B	HUP 149/39	N30°57.50' W105°08.00'
descend direct to			
04 AGL B 150 MSL to	C	HUP 138/59	N30°43.00' W104°49.00'
turn right to			
04 AGL B 90 MSL to	D	HUP 138/63	N30°39.00' W104°46.00'
direct to			

04 AGL B 90 MSL to	E	HUP 140/97	N30°08.00' W104°30.00'
turn left to			
04 AGL B 90 MSL to	F	MRF 235/30	N30°05.50' W104°28.50'
direct to			
03 AGL B 90 MSL to	G	MRF 210/26	N29°58.00' W104°17.00'
descend direct to			
03 AGL B 90 MSL to	H	MRF 174/26	N29°51.50' W104°00.00'
direct to			
03 AGL B 80 MSL to	I	MRF 137/45	N29°40.00' W103°30.00'
turn left and descend to			
03 AGL B 80 MSL to	J	MRF 126/48	N29°42.50' W103°19.50'
descend direct to			
03 AGL B 76 MSL to	K	FST 167/37	N30°20.00' W102°57.00'
direct to			
03 AGL B 72 MSL to	L	FST 131/29	N30°34.50' W102°38.00'
descend direct to			
06 AGL B 72 MSL to	M	FST 110/30	N30°42.00' W102°29.00'
turn left to			
06 AGL B 60 MSL to	N	FST 101/30	N30°46.00' W102°26.50'
direct to			
04 AGL B 60 MSL to	O	FST 067/28	N31°03.00' W102°26.50'
turn left and descend to			
06 AGL B 50 MSL to	P	FST 048/25	N31°10.00' W102°34.00'
direct to			
06 AGL B 50 MSL to	Q	FST 347/22	N31°19.00' W102°59.50'
turn left to			
07 AGL B 50 MSL to	R	PEQ 100/25	N31°19.00' W103°07.50'
direct to			
07 AGL B 50 MSL to	S	PEQ 178/24	N31°04.00' W103°39.00'
turn right direct to			
04 AGL B 70 MSL to	T	PEQ 203/25	N31°07.00' W103°51.00'
direct to			
05 AGL B 70 MSL to	U	PEQ 281/34	N31°41.00' W104°11.50'
turn right to			
09 AGL B 70 MSL to	V	PEQ 297/37	N31°51.00' W104°09.00'
direct to			
09 AGL B 70 MSL to	W	PEQ 306/36	N31°54.00' W104°03.20'
climb direct to			

IR ROUTES

05 AGL B 90 MSL to if not exiting at Point Z	X	INK 273/32	N32°00.00' W103°51.00'	turn right to, climb to cross VA at 50 MSL				
turn right and climb to 90 MSL B 110 MSL to if not exiting at Point Z	Y	INK 292/25	N32°06.00' W103°39.00'	direct to 60 MSL to	VA	PEQ 308/32		N31°52.00' W103°59.00'
descend direct to 110 MSL to if not exiting at Point Z	Z	INK 348/17	N32°10.00' W103°15.00'	direct to 60 MSL to	VB	PEQ 071/24		N31°31.50' W103°07.00'
direct to 05 AGL B 70 MSL to	AA	INK 001/19	N32°10.80' W103°10.00'	turn right to 60 MSL to thence via published route.	R1	PEQ 100/25		N31°19.00' W103°07.50'
direct to 12 AGL B 70 MSL to	AB	INK 030/18	N32°06.30' W103°00.30'	Alternate Route O1: direct to 06 AGL B 60 MSL to	O1	FST 067/28		N31°03.00' W102°26.50'
direct to 12 AGL B 70 MSL to	AC	MAF 240/37	N31°48.50' W102°52.00'	direct to 06 AGL B 60 MSL to	OA	MAF 194/42		N31°22.50' W102°32.00'
direct to 08 AGL B 70 MSL to	AD	MAF 232/34	N31°45.00' W102°47.50'	turn right to 06 AGL B 60 MSL to thence via published route.	AE1	MAF 180/28		N31°33.00' W102°17.50'
descend direct to 08 AGL B 60 MSL to	AE	MAF 180/28	N31°33.00' W102°17.50'	Alternate Exit M: direct to 03 AGL B 76 MSL to	K1	FST 167/37		N30°20.00' W102°57.00'
turn left to 08 AGL B 60 MSL to	AF	MAF 174/28	N31°32.50' W102°14.00'	climb direct to 03 AGL B 170 MSL to	L1	FST 131/29		N30°34.50' W102°38.00'
direct to 08 AGL B 60 MSL to	AG	MAF 160/28	N31°32.50' W102°06.00'	(Contact Albuquerque ARTCC 292.15 for exit instructions) 06 AGL B 170 MSL direct to cross 170 MSL to	M1	FST 110/30		N30°42.00' W102°29.00'
direct to start climb to cross AH at or above 20 AGL 08 AGL B 60 MSL to Alternate exit AI: Climb to cross AH at or above 20 AGL climb to cross AI at or above 70 MSL climb and maintain 90 MSL	AH	MAF 126/39	N31°31.50' W101°40.00'	Alternate Exit Z: climb direct to cross 05 AGL B 90 MSL to (Contact Fort Worth ARTCC 298.95 for in- structions)	X1	INK 273/32		N32°00.00' W103°51.00'
20 AGL B 90 MSL to (Contact Fort Worth ARTCC 298.95 for clearance)	AI	MAF 113/47	N31°34.00' W101°25.50'	continue climb to cross 90 MSL B 110 MSL to	Y1	INK 292/25		N32°06.00' W103°39.00'
turn left to 70 MSL B 90 MSL to	AJ	BGS 154/44	N31°40.50' W101°16.00'	110 MSL to or as assigned direct to	Z1	INK 348/17		N32°10.00' W103°15.00'
turn left to 70 MSL B 90 MSL to	AK	BGS 148/39	N31°46.50' W101°12.50'	Alternate Entry F: 150 MSL to or as assigned by ART- CC	F1	MRF 235/30		N30°05.50' W104°28.50'
direct to 70 MSL B 90 MSL to	AL	BGS 039/19	N32°35.00' W101°12.00'	descend direct to 04 AGL B 90 MSL to thence via published route.	G1	MRF 210/26		N29°58.00' W104°17.00'
RE-ENTRY V1: turn right to 09 AGL B 50 MSL to	V1	PEQ 297/37	N31°51.00' W104°09.00'	PMSV CONTACTS: Primary Home Station. Alternates				

2-66

TERRAIN FOLLOWING OPERATIONS: IMC/VMC Terrain Following (TF)/Terrain Avoidance (TA)/Visual Contour (VC) operations are authorized IAW command directives within published altitude blocks from Point A to AH and Point O1 to AF1 on alternate route O1. When command directives preclude TF/TA/VC operations, aircrews will maintain the IFR altitude for each route segment. Minimum altitudes other than surface are established to provide 200' vertical clearance from known manmade obstructions within route corridor. Command directives may require additional obstruction clearance for TF/TA/VC operations. The route is designated mountainous from Point A to M and Point R to X. The remainder of route is non-mountainous. Regulations governing operations below 500' AGL must be complied with. ACC Aircrews should reference their appropriate AFI series Vol.3 for low altitude minimum altitude, and 7 BW Clearance Plane Letter for current clearance plane setting information.

ROUTE WIDTH - 6 NM either side of centerline from A to F; 5 NM left and 9 NM right of centerline from F to I; 8 NM left and 6 NM right of centerline from I to P; 10 NM left and 4 NM right of centerline from P to S; 4 NM left and 10 NM right of centerline from S to V; 4 NM either side of centerline from V to Z; 4 NM left and 2 NM right of centerline from Z to AB; 3 NM left and 4 NM right of centerline from AB to AC; 4 NM either side of centerline from AC to AL; Re-entry V1: 4 NM either side of centerline from V1 to VA; 4 NM left and 2 NM right of centerline from VA to VB; 4 NM either side of centerline from VB to R1; Alternate Route O1: 4 NM left and 6 NM right of centerline from O1 to OA; 4 NM either side of centerline from OA to AF.

Special Operating Procedures:

- (1) Airspace scheduling is available 24/7 to personnel with center scheduling enterprise (CSE) accounts. For scheduling by phone, call DSN 461-3666/2200 or C325-696-3666/2200, Monday-Friday, 0730-1630L.
- (2) Scheduling Dyess owned airspace is done via the Centralized Scheduling Enterprise (CSE). Log on to CES via their website ([HTTP://CSEAF.Eglin.AF.MIL/CSE/Home.aspx](http://CSEAF.Eglin.AF.MIL/CSE/Home.aspx)) and request permission to become a member at Dyess AFB. Once membership is approved you will be able to log-in and submit schedules via the internet. Phone calls are still accepted if you are having difficulty via the web.
- (3) All aircraft must enter the route at their scheduled time +/- 2.5 minutes. If unable to make that time, aircrews must reschedule with Dyess scheduling office, DSN 461-3665 or Comm.: 325-696-3665 or via the CSE.
- (4) All B-1B aircraft are restricted to 500' AGL or higher throughout the route even if the route is assessed for a lower altitude. All aircraft must conform to route segment altitudes in the route description annotated in this publication.
- (5) Lost communications (LC) procedures: LC altitude will be published IFR altitude on the route. NOTE: aircraft going to Dyess AFB, proceed to the ABI 161/20 FIX/DME, IAF (PAGGY) and execute the HI-ILS or LOC/DME RWY 34 (circle as required).
- (6) NORDO procedures in the event of lost communications between the entry and exit point and unable to proceed VFR, maintain to the exit/alternate exit point the higher of the following:
 - (a) The minimum IFR altitude for each of the remaining route segments;
 - (b) The highest altitude assigned in the last ATC clearance. Depart the Exit/Alternate Exit Point at the altitude determined above, then climb/descend to the altitude filed in the flight plan for the remainder of the flight.

- (7) Participating aircraft separation: Route is designated for MARSA operations established by coordinated scheduling. Minimum separation between scheduled entry times, using CSE is 15 minutes. ARTCC provides users with separation from known IFR traffic only. MARSA applies after aircraft have passed the Entry/Alternate Entry point until standard ATC separation is established after exiting the route.
- (8) Centerline between turn points is depicted as a 7.5 NM arc.
- (9) Aircrews must be aware of airports within or near route corridor limits. Avoid flight within 1500' vertical or 3 NM horizontal of these airports when practical. Particular vigilance must be given to the following airports: N32-08.5 W103-09.5, N29-36.2 W103-40.0, and N29-42.1 W103-08.5.
- (10) Aircrews should be alerted to the increase of migratory waterfowl throughout the entire route during the spring and fall migration season.
- (11) PMSV contact for IR-178 is DYS (344.6).
- (12) Aircrews will indicate the altitude required after exiting IR-178 in the remarks section immediately after the route exit time.
- (13) Aircrews are responsible for verifying both the exit time and the exit fix prior to entry.
- (14) Noise Sensitive Areas: Avoid all noise sensitive areas by 1000' or 1/4 NM unless otherwise stated:
 - (a) Residence at N32-14.4 W103-03.9;
 - (b) Residence at N30-07.3 W103-07.1: Avoid by 1/2 mile or 1000'; Clair Holland;
 - (c) Residence at N29-34.0 W103-27.6; Karen Reimers;
 - (d) Residence at N29-59.1 W103-07.8;
 - (e) Residence at N31-05.9 W103-35.6; Charlotte Evans;
 - (f) Residence at N29-52.1 W104-07.2; Jack Brown;
 - (g) Residence at N29-59.7 W103-15.7: Avoid by 1/4 mile and NO OVERFLIGHT; Tim Leary.
- (15) Clearance to fly this route does not include clearance to enter Lancer MOA. Entry into Lancer MOA requires prior coordination with the Dyess AFB Scheduling Office. Aircraft not scheduled into Lancer MOA must exit route at Alternate Exit M or Alternate Exit Z.
- (16) 15 NM prior to Point C transmit in the blind on 122.8 (CALL SIGN, EAGLE PEAK). At Point E transmit in the blind on 122.8 (CALL SIGN, CHINATI). At Point I transmit in the blind on 122.8 (CALL SIGN, NINEPOINT).
- (17) All VHF equipped aircraft use the following procedures: Transmit in the blind on 122.8 at Imperial Reservoir (8 NAP Point Q), (CALLSIGN, PASSING IMPERIAL RESERVOIR ON IR-178). At Red Bluff Reservoir (18 NAP Point V), CALLSIGN, PASSING RED BLUFF RESERVOIR ON IR-178). Monitor VHF 122.8 from Point P to Point W. Single engine Cessna aircraft operating between Point S to Point W within corridor 1000' AGL and below, callsign N6486T. Color of aircraft is Silver and Blue.
- (18) Alternate Exits:
 - (a) Point Z (must follow Alternate Exit Z procedures);
 - (b) Point M;
- (19) To file IR-178, please use the following formats exactly:
 - (a) IR-178 exiting at Point M (FST110030). Computer format: HUP194020.IR178.FST110030..(Flight Plan Route). Note: No re-entries are permitted.
 - (b) IR-178 (Z procedure) exiting at Point Z (INK348017). Computer format: HUP194020.IR178..(Flight Plan Route).
 - (c) IR-178 (Racetrack filing procedures) HUP194020.IR178+R1.INK348017..(Flight Plan Route). The (+R1) value represents the number of racetrack circuits requested. Enter a numerical value after (R) for racetrack's requested.

IR ROUTES

- (20) Alternate Entry: Point F1; filing procedures:
MRF235030.IR178.(follow filing procedures for Alternate Exits M, Z, AL).
(a) IR-178 (Alternate Entry Procedures at F1)
MRF235030.IR178.INK348017..(Flight Plan Route).
- (21) Alternate Exit: Point AL filing procedures:
HUP194020.IR178.BGS039019..(Flight Plan Route). The (BGS039019) is the (AL) exit point entering LANCER MOA. Filing the alternate exit (AL) exit point does not authorize use of LANCER MOA/ATCAA. LANCER must be scheduled separately with Dyess Scheduling Office.
- (22) Alternate Route: O1; filing procedures:
HUP194020.IR178.FST067028.IR17801.BGS039019..(Flight Plan Route).
- (23) CAUTION: IR-178Z. This route has a ROUTE CORRIDOR conflict with VR-196 and VR-197 from Point T to U. These VR routes are not on MAMS and you are not deconflicted with them. VR routes are See and Avoid. Conflict potential is during daytime only. Be especially vigilant for same direction traffic from VR-196 and opposite direction traffic from VR-197 in this area. IR-178Z users should contact 86 FTS (DSN 732-5584) with your times from Point T to U and make a broadcast in the blind on 255.4 approaching Point T.
- (24) Restricted use of IR-178 Zulu exit (only) due to explosive testing between points R-S at Old Goodyear Test Track. Prior coordination required prior to use from 70SS Scheduling or Airspace Management Office.
- (25) Alternate exit AI; Filing procedures:
HUP194020.IR178.FST067028.IR180.MAF113047..(Flight plan route).

FSS Within 100 NM Radius:

ABQ, SJT

IR-180

ORIGINATING ACTIVITY: 7 OSS/OSR, 965 Ave. D-4, Bldg 5202, Dyess AFB, TX 79607 DSN 461-3666/2877, C325-696-3666/2877, 325-280-8235.

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 170 MSL to or as assigned (TFR Initiation Point)	A	MAF 109/60	N31°30.50' W101°11.00'
02 AGL B 170 MSL descend direct to cross			
02 AGL B 60 MSL to (TA Initiation Point) (Contact Midland APP CON 372.1) direct to	B	MAF 126/39	N31°31.50' W101°40.00'
02 AGL B 60 MSL to direct to	C	MAF 160/28	N31°32.50' W102°06.00'
06 AGL B 60 MSL to turn right to	D	MAF 173/28	N31°32.50' W102°14.00'
02 AGL B 60 MSL to direct to	E	MAF 180/28	N31°33.00' W102°17.50'

08 AGL B 60 MSL to (Contact Ft. Worth ARTCC 298.95 and report Point F, IR-180) turn right and climb to	F	MAF 232/34	N31°45.00' W102°47.50'
02 AGL B 70 MSL to direct to	G	MAF 240/37	N31°48.50' W102°52.00'
02 AGL B 70 MSL to (Alternate Entry Point) turn left to	H	HOB 146/29	N32°12.00' W103°03.00'
04 AGL B 70 MSL to direct to	I	HOB 164/23	N32°15.50' W103°14.00'
07 AGL B 70 MSL to turn right to	J	HOB 193/30	N32°11.00' W103°30.50'
09 AGL B 70 MSL to direct to	K	HOB 218/30	N32°18.50' W103°42.50'
02 AGL B 70 MSL to direct to	L	HOB 230/25	N32°26.00' W103°42.00'
02 AGL B 70 MSL to direct to	M	HOB 250/21	N32°35.00' W103°41.00'
02 AGL B 70 MSL to direct to	N	HOB 264/21	N32°40.00' W103°41.00'
02 AGL B 70 MSL to direct to	O	HOB 291/24	N32°51.00' W103°40.50'
12 AGL B 70 MSL to turn right to	P	HOB 314/34	N33°06.00' W103°39.00'
02 AGL B 70 MSL to direct to	Q	HOB 320/36	N33°10.00' W103°37.50'
02 AGL B 70 MSL to direct to	R	HOB 328/40	N33°16.00' W103°33.00'
05 AGL B 70 MSL to direct to	S	LBB 258/65	N33°40.50' W103°13.00'
02 AGL B 70 MSL to turn right to	T	LBB 264/62	N33°47.50' W103°09.00'
05 AGL B 70 MSL to continue right turn to	U	LBB 268/51	N33°50.00' W102°55.00'
02 AGL B 70 MSL to direct to	V	LBB 256/49	N33°39.50' W102°53.50'
02 AGL B 70 MSL to turn left to	W	LBB 250/55	N33°33.50' W103°00.00'
02 AGL B 70 MSL to direct to	X	LBB 240/56	N33°23.50' W102°57.50'
02 AGL B 70 MSL to direct to	Y	LBB 231/52	N33°18.00' W102°49.50'
06 AGL B 70 MSL to direct to	Z	LBB 224/50	N33°13.50' W102°44.00'
02 AGL B 70 MSL to turn left to	AA	LBB 195/50	N32°57.50' W102°21.00'
02 AGL B 70 MSL to direct to	AB	LBB 187/49	N32°56.00' W102°13.00'
05 AGL B 70 MSL to turn left to	AC	LBB 171/45	N32°57.50' W101°56.50'
02 AGL B 70 MSL to direct to	AD	LBB 167/44	N32°58.50' W101°53.00'
06 AGL B 70 MSL to turn right to	AE	LBB 153/40	N33°04.00' W101°41.50'

02 AGL B 70 MSL to (TA/TFR Termination Point) (Contact Ft. Worth ARTCC 269.05 or 316.1) 70 MSL B 110 MSL climb direct to cross 110 MSL to or as assigned Re-Entry: BA direct to	AF	LBB 142/48	N32°59.50' W101°29.00'
02 AGL B 70 MSL to direct to	W1	LBB 250/55	N33°33.50' W103°00.00'
02 AGL B 70 MSL to turn right to	BA	HOB 347/29	N33°07.50' W103°17.50'
02 AGL B 70 MSL to Thence via published route. Alternate Exit: RG direct to	R1	HOB 328/40	N33°16.00' W103°33.00'
04 AGL B 60 MSL to direct to	RA	TXO 193/65	N33°30.50' W103°22.00'
02 AGL B 60 MSL to direct to	RB	TXO 203/64	N33°36.50' W103°33.00'
02 AGL B 60 MSL to turn right to	RC	TXO 213/65	N33°43.00' W103°45.00'
02 AGL B 60 MSL to continue turn and climb to	RD	TXO 218/64	N33°47.00' W103°48.50'
02 AGL B 70 MSL to climb direct to	RE	TXO 220/63	N33°49.50' W103°49.00'
02 AGL B 70 MSL to direct to	RF	TXO 223/60	N33°54.50' W103°49.00'
05 AGL B 70 MSL to Re-Entry: RG then R-5104/R-5105 Re-Entry: R-5104/R-5105 Exit R-5104/R-5105 at or below 70 MSL On Re-Entry RG: turn left to	RG	TXO 237/52	N34°10.00' W103°48.00'
02 AGL B 70 MSL to direct to	RH	TCC 184/33	N34°39.00' W103°47.00'
02 AGL B 70 MSL to direct to	RI	CVS 288/39	N34°39.00' W104°02.00'
06 AGL B 70 MSL to turn left to	RJ	CVS 232/43	N34°00.00' W104°04.00'
05 AGL B 70 MSL to direct to	RK	CVS 221/34	N34°00.00' W103°50.00'
02 AGL B 70 MSL to To R-5104/R-5105 (Contact Albuquerque ARTCC 319.2 for exit instructions)	RG1	CVS 235/27	N34°10.00' W103°48.00'

PMSV CONTACTS: Primary Home Station. Alternates Whiteman (SZL 344.6), Barksdale (BAD 373.1).

TERRAIN FOLLOWING OPERATIONS: IMC/VMC terrain following (TF) visual contour (VC) operations are authorized IAW command directives within the published altitude blocks from A to AF and W1 to R1 on re-entry BA and RA to RG1 on re-entry R-5104/R-5105. VMC terrain avoidance (TA) Visual Contour (VC) authorized within the published altitude blocks

from B to AF, W1 to R1 on re-entry BA, RA to RG1 on re-entry R-5104/R-5105. When command directives preclude TF/TA/VMC operations aircrews will maintain the IFR altitude for each route segment. Minimum altitudes, other than surface, are established to provide 100' vertical clearance of unknown man-made obstructions within the route width. Command directives may require additional obstruction clearance for TF/TA/VMC operations. The entire route is designated nonmountainous. Regulations governing operations below 500' AGL must be complied with. The route corridor provides airspace for 500' lateral separation from man-made obstacles. Obstructions under 200' AGL were not considered in route design. Aircrews must be aware of charted airports within or near route corridor limits.

ROUTE WIDTH - 4 NM either side of centerline from A to G; 3 NM either side of centerline from G to H; 3 NM left and 4 NM right of centerline from H to J; 4 NM either side of centerline from J to L; 4 NM left and 3 NM right of centerline from L to O; 3 NM left and 4 NM right of centerline from O to P; 4 NM either side of centerline from P to T; 4 NM left and 5 NM right of centerline from T to V; 4 NM either side of centerline from V to AB; 3 NM either side of centerline from AB to AC; 2.5 NM left and 3 NM right of centerline from AC to AE; 4 NM either side of centerline from AE to AG. Re-Entry; 4 NM either side of centerline from W1 to R1. Alternate Exit RG: 4 NM left and 5 NM right of centerline from RA to RC; 5 NM either side of centerline from RC to RE; 5 NM left and 3 NM right of centerline from RE to RG. R-5104/R-5105 boundaries from RG to RH; 4 NM either side of centerline from RH to RG1.

Special Operating Procedures:

- (1) Airspace scheduling is available 24/7 to personnel with center scheduling enterprise (CSE) accounts. To schedule by phone, call DSN: 461-3666/3612 or C325 -696-3666/3612, Monday-Friday, 0730-1630L. After-hours scheduling not available.
- (2) Lost communications (LC) procedures: LC altitude will be the published IFR altitude on the route. On exit aircrews will climb at AF to cross exit AG at 110 MSL and use 110 MSL as LC altitude from this point. Note: Aircraft going to Dyess AFB, TX will proceed at 110 MSL to the ABI 161/30 DME, IAF (Jessa) and execute the HI-ILS or LOC/DME RWY 34 (circle as required).
- (3) Participating aircraft separation: Route is designated for MARSA operations established by coordinated scheduling.
- (4) Centerline between turn points is depicted as a 7.5 NM arc except between RH, RI, RJ, and RK which are 6 NM arc.
- (5) Aircraft at TF/TA/VMC altitude may be required to fly at a higher minimum tracking altitude as listed in 99 ECRGR 50-3 for scored activity. In no case will aircraft fly below command directed TF/TA/VMC altitudes.
- (6) Aircrews must be aware of airports within or near route corridor limits. Avoid flight within 1500' vertical or 3 NM horizontal of these airports when practical. Particular vigilance must be given to the following airports: N33-02.0 W101-55.7; N34-00.8 W102-59.6; N32-08.5 W103-09.5; N33-16.1 W103-11.4; N32-56.0 W102-18.0; N32-55.0 W102-21.0.
- (7) TF capable aircraft can make an AUTO-TF descent beginning at point A from 170 MSL.
- (8) Additional tactical descent procedures: TF capable aircraft, when specifically cleared by ARTCC, will cross point A at FL 220 or as assigned and begin descent to cross point B at or below 50 MSL, then via published route.
- (9) The method of MARSA between IR-180 and IR-128 will be scheduling.

IR ROUTES

- (10) Unit schedulers using Alternate Exit RG must deconflict IR-113 and R-5104/R-5105 and must comply with range orders.
- (11) Aircrews aborting an Alternate Exit RG will if conditions permit, abort to the southwest to avoid turning into Cannon Approach Airspace.
- (12) Minimum separation between scheduled entry times is 10 minutes. ARTCC provides users with separation from known IFR traffic only. MARSA applies after aircraft have passed the Entry/Alternate Entry point until ATC establishes standard separation after exiting the route.
- (13) Aircrews should be aware of the 5549' tower at N33-33.2 W103-39.1 which is 451' below the IFR altitude on Alternate Exit RG, but outside the corridor.
- (14) Aircrews should be alerted to the increase of migratory waterfowl throughout the entire route, (especially between points S and W) during the spring and fall migration season.
- (15) Aircrews are advised of a new 923' tower at N32-54-40 W103-41-13.
- (16) Aircrews should monitor 255.4 approaching point Z. T-37 and T-1 aircraft flying SR 275/277 cross at point Z at 1000' AGL.
- (17) Noise Sensitive Areas: Avoid all Noise Sensitive areas by 1000' or 1/4 mile:
 - (a) Residence at N32-14.4 W103-03.9;
 - (b) Residence at N32-10.0 W103-33.9;
 - (c) School at N32-47.9 W101-26.8.

FSS Within 100 NM Radius:

ABQ, SJT

IR-181

ORIGINATING ACTIVITY: 71 OSS, 301 Gritz St., Vance AFB, OK 73705-5202 DSN 448-6276, C580-213-6276, VANCEAIRSPACE@US.AF.MIL.

SCHEDULING ACTIVITY: Same as Originating Activity.

HOURS OF OPERATION: 30 min after Sunrise-30 min before Sunset and active days per local directives

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	END 286/27	N36°30.00' W98°26.00'
05 AGL B 50 MSL to	B	END 269/38	N36°23.00' W98°42.00'
05 AGL B 40 MSL to	C	MMB 094/27	N36°14.00' W99°20.00'
05 AGL B 40 MSL to	D	MMB 124/26	N36°03.00' W99°30.00'
05 AGL B 40 MSL to	E	MMB 164/21	N36°00.00' W99°50.00'
05 AGL B 40 MSL to	F	MMB 177/27	N35°54.00' W99°57.00'
05 AGL B 40 MSL to	G	BFV 322/34	N35°43.00' W99°35.00'
05 AGL B 40 MSL to	H	IFI 260/58	N35°47.00' W99°12.00'
05 AGL B 40 MSL to	I	IFI 266/36	N35°51.00' W98°44.00'

05 AGL B 40 MSL to	J	END 230/38	N35°59.00' W98°33.00'
05 AGL B 60 MSL to	K	END 237/23	N36°10.00' W98°20.00'

ROUTE WIDTH - 2 NM either side of centerline from A to B; 4 NM either side of centerline from B to I; 3 NM either side of centerline from I to K.

Special Operating Procedures:

- (1) Aircrews may use 265.25 for interplane frequency.
- (2) Report Point F to Kansas City Center 379.2.
- (3) Cross Point K at 60 MSL. Contact Vance Approach 346.325 no later than crossing the Exit Point. Replying with (negative ATIS) is acceptable.
- (4) IR-181 and IR-183 have same geographical Points A-F.
- (5) 71 FTW Aircraft Only: On route departure proceed direct to Vance, or as directed.
- (6) 71 FTW Aircraft Only: MARSA applies between all flights that have passed the entry/alternate entry fixes and remains in effect until standard ATC separation is achieved. Minimum exit intervals shall be: 5 minutes between like-type aircraft or between different type aircraft when the faster aircraft precedes the slower aircraft, 20 minutes between different-type aircraft when the faster aircraft follows the slower aircraft.
- (7) 71 FTW Aircraft Only: Alternate Entry Point C.

FSS Within 100 NM Radius:

ICT

IR-182

ORIGINATING ACTIVITY: 71 OSS, 301 Gritz St., Vance AFB, OK 73705-5202 DSN 448-6276/7820, C580-213-6276/7820.

SCHEDULING ACTIVITY: Same as Originating Activity.

HOURS OF OPERATION: 30 min after Sunrise-30 min before Sunset and active days per local directives

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	END 237/23	N36°10.00' W98°20.00'
05 AGL B 50 MSL to	B	END 230/38	N35°59.00' W98°33.00'
05 AGL B 40 MSL to	C	IFI 266/36	N35°51.00' W98°44.00'
05 AGL B 40 MSL to	D	IFI 260/58	N35°47.00' W99°12.00'
05 AGL B 40 MSL to	E	BFV 322/34	N35°43.00' W99°35.00'
05 AGL B 40 MSL to	F	MMB 177/27	N35°54.00' W99°57.00'
05 AGL B 40 MSL to	G	PNH 056/87	N35°51.50' W100°05.00'
40 MSL B 60 MSL to	H	PNH 061/79	N35°42.00' W100°12.00'
60 MSL to	I	PNH 069/68	N35°29.00' W100°21.00'

60 MSL to	J	PNH 073/51	N35°22.00' W100°40.00'
60 MSL to	K	PNH 069/27	N35°20.00' W101°10.00'

ROUTE WIDTH - 3 NM either side of centerline from A to C; 4 NM either side of centerline from C to F; 3 NM either side of centerline from F to G; 4 NM either side of centerline from G to K.

Special Operating Procedures:

- (1) Aircrews may use 265.25 for interplane frequency.
- (2) Climb to be at 60 MSL 4 NM prior to Point H.
- (3) Report Point F to Kansas City Center 379.2.
- (4) On route departure, maintain 60 MSL (or as directed) and contact Amarillo Approach 319.15.
- (5) IR-171 and IR-182 have same geographical Points A-F.

FSS Within 100 NM Radius:

ICT

IR-183

ORIGINATING ACTIVITY: 71 OSS, 301 Gritz St., Vance AFB, OK 73705-5202 DSN 448-6276/7820, C580-213-6276/7820.

SCHEDULING ACTIVITY: Same as Originating Activity.

HOURS OF OPERATION: 30 min after Sunrise-30 min before Sunset and active days per local directives

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	END 286/27	N36°30.00' W98°26.00'
05 AGL B 50 MSL to	B	END 269/38	N36°23.00' W98°42.00'
05 AGL B 40 MSL to	C	MMB 094/27	N36°14.00' W99°20.00'
05 AGL B 40 MSL to	D	MMB 124/26	N36°03.00' W99°30.00'
05 AGL B 40 MSL to	E	MMB 164/21	N36°00.00' W99°50.00'
05 AGL B 40 MSL to	F	MMB 177/27	N35°54.00' W99°57.00'
05 AGL B 40 MSL to	G	MMB 189/31	N35°51.50' W100°05.00'
40 MSL B 60 MSL to	H	PNH 061/79	N35°42.00' W100°12.00'
60 MSL to	I	PNH 069/68	N35°29.00' W100°21.00'
60 MSL to	J	PNH 073/51	N35°22.00' W100°40.00'
60 MSL to	K	PNH 069/27	N35°20.00' W101°10.00'

ROUTE WIDTH - 2 NM either side of centerline from A to B; 4 NM either side of centerline from B to F; 3 NM either side of centerline from F to G; 4 NM either side of centerline from G to K.

Special Operating Procedures:

- (1) Aircrews may use 265.25 for interplane frequency.
- (2) Climb to be at 60 MSL 4 NM prior to Point H.
- (3) Report Point F to Kansas City Center 379.2.
- (4) On route departure, maintain 60 MSL (or as directed) and contact Amarillo Approach 319.15.
- (5) IR-181 and IR-183 have same geographical Points A-F.

FSS Within 100 NM Radius:

ICT

IR-185

ORIGINATING ACTIVITY: 71 OSS, 301 Gritz St., Vance AFB, OK 73705-5202 DSN 448-6276, C580-213-6276, VANCEAIRSPACE@US.AF.MIL.

SCHEDULING ACTIVITY: Same as Originating Activity.

HOURS OF OPERATION: 30 min after Sunrise-30 min before Sunset and active days per local directives

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	ANY 205/21	N36°52.00' W98°24.00'
05 AGL B 50 MSL to	B	ANY 219/21	N36°55.00' W98°29.00'
05 AGL B 40 MSL to	C	ANY 246/31	N37°00.50' W98°46.67'
05 AGL B 40 MSL to	D	ANY 263/51	N37°09.00' W99°14.00'
05 AGL B 40 MSL to	E	MMB 006/43	N37°02.00' W99°38.00'
05 AGL B 40 MSL to	F	MMB 323/25	N36°43.00' W100°07.00'
05 AGL B 40 MSL to	G	MMB 349/13	N36°34.00' W99°53.00'
05 AGL B 40 MSL to	H	END 297/63	N36°54.00' W99°02.00'
05 AGL B 40 MSL to	I	END 273/52	N36°28.00' W98°59.00'
05 AGL B 40 MSL to	J	END 280/42	N36°31.50' W98°45.00'
05 AGL B 60 MSL to	K	END 291/32	N36°35.00' W98°31.00'

ROUTE WIDTH - 3 NM left and 2 NM right of centerline from A to C; 3 NM left and 4 NM right of centerline from C to E; 3 NM either side of centerline from E to G; 4 NM either side of centerline from G to H; 3 NM left and 4 NM right of centerline from H to I; 2 NM left and 4 NM right of centerline from I to K.

Special Operating Procedures:

- (1) Aircrews may use 265.25 for interplane frequency.
- (2) Use caution for ACC aircraft operating at low level in the airspace immediately Northwest of Points C to E.
- (3) Report Point F to Kansas City Center 126.95/379.2.
- (4) Cross Point K at 60 MSL. Contact Vance Approach 346.325 no later than crossing the Exit Point. Replying with (negative ATIS) is acceptable.

IR ROUTES

- (5) 71 FTW Aircraft Only: On route departure, proceed to Vance, or as directed.
- (6) 71 FTW Aircraft Only: MARSA applies between all flights that have passed the entry/alternate entry fixes and remains in effect until standard ATC separation is achieved. Minimum exit intervals shall be: 5 minutes between like-type aircraft or between different type aircraft when the faster aircraft precedes the slower aircraft, 20 minutes between different-type aircraft when the faster aircraft follow the slower aircraft.
- (7) 71 FTW Aircraft Only: Alternate entry Points D or F. If entering via Point F, request with Kansas City Center 126.95/379.2 at least 5 minutes prior.
- (8) 71 FTW Aircraft Only: Alternate exit Points F or H. If exiting Point F, remain within published route altitudes and contact Kansas City Center 126.95/379.2. If exiting Point H, climb and maintain 60 MSL and contact Vance Approach 126.75/346.32.

FSS Within 100 NM Radius:

ICT, MLC

IR-192

ORIGINATING ACTIVITY: 54 OSS/OSP, 744 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-3536, C575-572-3536.

SCHEDULING ACTIVITY: 54 OSS/OSOS, 744 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-3536, C575-572-3536.

HOURS OF OPERATION: Sunrise-0600Z++

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 120 MSL to or as assigned	A	PIO 344/24	N32°56.00' W105°20.10'
10 AGL B 120 MSL to	B	PIO 357/16	N32°47.80' W105°15.40'
10 AGL B 110 MSL to	C	PIO 007/16	N32°46.60' W105°12.20'
01 AGL B 80 MSL to Alternate Exit: from-Talon Low MOA only	D	PIO 041/18	N32°42.50' W105°01.30'
01 AGL B 90 MSL to	E	CNM 294/42	N32°40.00' W104°54.50'
01 AGL B 90 MSL to Alternate Entry: from TALON Low MOA only	F	CNM 307/33	N32°40.10' W104°39.00'
01 AGL B 48 MSL to	G	CNM 341/26	N32°40.80' W104°17.00'
01 AGL B 70 MSL to	H	CNM 021/24	N32°36.00' W103°58.00'
01 AGL B 70 MSL to	I	CNM 074/19	N32°16.80' W103°51.50'
01 AGL B 70 MSL to	J	CNM 126/15	N32°04.50' W104°02.10'
01 AGL B 70 MSL to	K	SFL 058/41	N31°58.50' W104°20.00'

01 AGL B 70 MSL to	L	SFL 058/32	N31°55.80' W104°30.00'
01 AGL B 70 MSL to	M	SFL 065/28	N31°51.00' W104°33.30'
01 AGL B 70 MSL to	N	SFL 111/43	N31°21.50' W104°23.50'
01 AGL B 70 MSL to	O	SFL 128/26	N31°25.00' W104°45.60'
01 AGL B 70 MSL to	P	SFL 123/17	N31°32.70' W104°51.00'
01 AGL B 70 MSL to	Q	SFL 199/9	N31°37.20' W105°10.50'
01 AGL B 65 MSL to	R	SFL 223/27	N31°29.30' W105°31.20'
01 AGL B 65 MSL to	S	SFL 278/35	N31°56.80' W105°43.50'
01 AGL B 80 MSL to	T	PIO 202/24	N32°11.50' W105°34.50'
01 AGL B 80 MSL to	U	PIO 225/17	N32°22.50' W105°35.00'
01 AGL B 125 MSL to	V	PIO 246/19	N32°27.90' W105°39.80'
01 AGL B 125 MSL to	W	PIO 256/32	N32°30.40' W105°56.00'

Alternate Entry: ELK 120 MSL to	A2	CME 256/39	N33°18.50' W105°24.00'
120 MSL to	A1	CME 230/43	N33°00.20' W105°22.10'

Alternate Entry: EL PASO GAP			
01 AGL B 98 MSL to	L2	CNM 240/33	N32°05.00' W104°50.00'
10 AGL B 98 MSL to	L1	CNM 219/27	N31°58.50' W104°38.00'
01 AGL B 70 MSL to Thence via flight plan route.	M1	SFL 065/28	N31°51.00' W104°33.30'
Alternate Exit: EL PASO GAP			
01 AGL B 70 MSL to	L	SFL 058/32	N31°55.80' W104°30.00'
01 AGL B 70 MSL to	L1	SFL 048/27	N31°58.50' W104°38.00'
10 AGL B 98 MSL to	L3	SFL 021/24	N32°05.00' W104°50.00'

Alternate Exit: ZIPER			
01 AGL B 80 MSL to	T	PIO 202/24	N32°11.50' W105°34.50'
10 AGL B 80 MSL to	T1	PIO 329/6	N32°37.00' W105°20.50'
10 AGL B 130 MSL to	T2	PIO 314/15	N32°44.10' W105°28.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from Point D to V.

ROUTE WIDTH - 10 NM left and 7 NM right of centerline from A to B; 8 NM left and 7 NM right of centerline from B to E; 2 NM left and 8 NM right of centerline from E to G; 4 NM left and 7 NM right of centerline from G to H; 3 NM left and 7 NM right of centerline from H to I; 3 NM left and 4 NM right of centerline

from I to J; 3 NM either side of centerline from J to K; 3 NM left and 4 NM right of centerline from K to L; 8 NM left and 10 NM right of centerline from L to N; 5 NM left and 10 NM right of centerline from N to Q; 4 NM left and 13 NM right of centerline from Q to R; 5 NM left and 8 NM right of centerline from R to S; 7 NM left and 6 NM right of centerline from S to T; 7 NM left and 13 NM right of centerline from T to U; 10 NM either side of centerline from U to V; 10 NM left and 9 NM right of centerline from V to W. Alternate Entry ELK: 2 NM either side of centerline from A2 to A.

Special Operating Procedures:

- (1) Request use through 54 OSS/OSOS 24 hours in advance and between 0730-1630 local Mon-Fri.
- (2) From Point D to F and from Point G to W route is designated maneuvering airspace and cleared for LOWAT.
- (3) IR-192 is the reverse of IR-194 and is only available on odd days. On even days, IR-194 is available. Deconfliction with IR-134 and IR-195 is accomplished by 54 OSS/OSOS. Contact the applicable scheduling agency to deconfliction with VR-196.
- (4) Do not enter R-5103C or the Centennial Fly Area on segment U-W unless scheduled into this airspace through 54 OSS/OSOS and then only after having received clearance from White Sands RADAR Facility 336.2. Use alternate exit ZIPER to avoid R-5103C.
- (5) If using alternate exit ZIPER contact White Sands RADAR Facility 336.2. All other exits not entering restricted airspace contact Albuquerque ARTCC 292.15.
- (6) To schedule Centennial Range, contact 54 OSS/OSOS. Comply with all procedures listed in current HAFB range supplement which can be obtained from Holloman Range offices (C575-572--5074).
- (7) To transition from IR-192 to/from Talon Low MOA, both the MOA and the IR must be scheduled and procedural briefing received from 54 OSS/OSOS. Request 20 minute block time in Talon MOA, starting 5 minutes after IR entry. Prior to exceeding top of altitude block on route segment D-F, contact Albuquerque ARTCC 292.15 for clearance into MOA, and do not exceed 12,500' MSL until cleared to do so by Albuquerque ARTCC.
- (8) For re-entry into IR-192 from Talon Low MOA, contact Albuquerque ARTCC and request clearance to depart MOA and re-enter IR-192 at Point F.
- (9) Alternate entries are: A1-A (Elk from IR-142 only) F (from Talon Low MOA only); L2-M1 (from IR-195 via El Paso Gap only).
- (10) Alternate exits are: D (to Talon Low MOA only); L-L2 (to IR-134, El Paso Gap only); T-T2 (to ZIPER only).
- (11) MARSAs applies at entry, along the route and at exit.
- (12) Numerous towers, avoidance and noise sensitive areas exist within the MTR. You must receive the MTR brief and associated products from 54 OSS/OSP prior to flying the route.
- (13) Route is surveyed for operations down to 200' AGL.

FSS Within 100 NM Radius:

ABQ

IR-193

ORIGINATING ACTIVITY: 97 OSS/DOA, 101 South Sixth Street, Bldg 225, Altus AFB, OK 73521 DSN 866-6098, C580-481-6098.

SCHEDULING ACTIVITY: 97 OSS / OSK, 101 South Sixth Street, Bldg 225, Altus AFB, OK 73521 DSN 866-7422/1375/7490, C580-481-7422/1375/7490.

HOURS OF OPERATION: 0830-0230 local Mon-Fri

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
03 AGL B 40 MSL to	A	LTS 250/22	N34°34.20' W99°42.00'
03 AGL B 40 MSL to	B	CDS 022/17	N34°36.70' W100°06.50'
03 AGL B 50 MSL to	C	CDS 334/22	N34°43.70' W100°25.00'
03 AGL B 50 MSL to	D	BFV 260/69	N35°07.50' W100°36.60'
03 AGL B 50 MSL to	E	BFV 267/51	N35°16.10' W100°14.80'
03 AGL B 50 MSL to	F	BFV 242/26	N35°03.70' W99°41.70'
03 AGL B 50 MSL to	G	LTS 250/22	N34°34.20' W99°42.00'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 10 NM either side of centerline from A to B; 5 NM either side of centerline from B to D; 5 NM right widening to 7 NM right and 5 NM left of centerline from D to E; 7 NM right narrowing to 5 NM right and 5 NM left of centerline from E to F; 10 NM either side of centerline from F to G.

Special Operating Procedures:

- (1) Aircraft desiring to use route, contact scheduling unit 24 hours in advance or contact Altus Command Post for same day scheduling at DSN 866-6313, C580-481-6313.
- (2) Primary Entry: A; Alternate Entry: B; Primary Exit: G; Alternate Exit: F.
- (3) Aircraft accomplishing airdrops at Sooner DZ, report commencement of airdrop run-in not later than 5 minutes prior to Altus Approach Control 353.7, using the phrase (call sign, inbound Sooner DZ, intentions to follow).
- (4) At C, when practicable, avoid Memphis Municipal Airport by 1500' AGL or 3 NM.
- (5) From C to D avoid flight over town of Quail, TX, by 2 NM.
- (6) From D to E avoid flight over town of Shamrock, OK, and when practicable avoid McLean Gray Airport and Shamrock Municipal Airport by 1500' AGL or 3 NM.
- (7) From E to F, when practicable, avoid Haddock Airport by 1500' AGL or 3 NM.
- (8) Contact Altus Approach Control 125.1/353.7 (CH 6) upon exiting F or G. Monitor 255.4 entire route of flight.
- (9) Route designated MARSAs, MARSAs between Tornado, Cyclone and Twister SKE routes; VR-144, VR-184, VR-190, VR-191, VR-198, VR-199, SR-205, SR-206, SR-208, SR-216, SR-217 and VR-106 is accomplished through restrictive scheduling. IR-193 is the exact routing as VR-106.
- (10) Deconflict with IR-105 (NAS Ft. Worth), VR-159, VR-1141, VR-1142, VR-1143, VR-1144 (Sheppard AFB) with appropriate route schedulers. For day low levels on legs C, D, E, and F, all aircraft will remain east of the McLean-Hedley line (near Point D) and south of I-40 (south of the town of Shamrock, near Point E) in order to avoid the eastern and southern halves of the VR-1141/1142 corridor.

IR ROUTES

The coordinates for this line are approximately N34-43.08 W100-35.68 straight north to N35-14.42 and straight east to W99-52.10.

- (11) PMSV: Altus AFB 239.8.
- (12) Aircraft unable to meet their assigned entry time within the window of two minutes early to two minutes late must not enter route. Aircraft must also exit route within the window of two minutes early to two minutes late.
- (13) Use caution for uncharted airfield just beyond Point F, N34-58.5 W99-29.0.
- (14) Charted Tower south of Russell OK, approximate location N34-43.00/W099-40.00, has been removed.
- (15) Use caution for several uncharted obstructions. Approximate locations: N34-56.00/W100-32.00; N34-36.57/W099-51.11; N35-13.27/100-12.80.
- (16) Entire route susceptible to wild fires. Aircrews should check NOTAMs before scheduling.
- (17) To report fires, uncharted obstructions or any other operational issues requiring attention on this route, please send an email to: Altus.airspace@altus.af.mil.
- (18) CAUTION: Airdrop operations at or below 4500' MSL between points F and G: N34-34.78 W99-41.09, N34-34.78 W99-42.04, N34-33.47 W99-42.04, N34-33.47 W99-41.09.
- (19) Aircraft utilizing Alternate Entry point B: Do not descend below 5500' MSL until within 10 NM of point B unless under radar control.
- (20) Aircraft exiting Alternate Exit point F: be at or above 5500' MSL prior to crossing south of the line between N34-54.28 W99-25.10 and N34-54.28 W100-00.24.
- (21) For noise abatement, from B to C remain right of centerline and avoid overflight of buildings at approximately N34-36 W100-14 by 2 NM.
- (22) Maintain at or above 800' AGL when overflying the Red River.
- (23) Route operations are suspended while high altitude airdrops are being conducted over Sooner DZ. Contact scheduling authority the day prior to flying to confirm route status. If scheduling for same day, contact 97 AMW supervisor of flying at C580-481-7490, DSN 866-7490.

FSS Within 100 NM Radius:

FTW, SJT

IR-194

ORIGINATING ACTIVITY: 54 OSS/OSP, 744 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-3536, C575-572-3536.

SCHEDULING ACTIVITY: 54 OSS/OSOS, 744 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-3536, C575-572-3536.

HOURS OF OPERATION: Sunrise-0600Z++

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 120 MSL to or as assigned	A	PIO 317/11	N32°41.00' W105°25.00'
10 AGL B 120 MSL to	B	PIO 329/6	N32°37.00' W105°20.50'
10 AGL B 80 MSL to	C	PIO 261/4	N32°32.00' W105°23.30'

01 AGL B 80 MSL to	D	PIO 202/24	N32°11.50' W105°34.50'
01 AGL B 80 MSL to	E	SFL 278/35	N31°56.80' W105°43.50'
01 AGL B 65 MSL to	F	SFL 223/27	N31°29.30' W105°31.20'
01 AGL B 65 MSL to	G	SFL 199/9	N31°37.20' W105°10.50'
01 AGL B 70 MSL to	H	SFL 123/17	N31°32.70' W104°51.00'
01 AGL B 70 MSL to	I	SFL 128/26	N31°25.00' W104°45.60'
01 AGL B 70 MSL to	J	SFL 111/43	N31°21.50' W104°23.50'
01 AGL B 70 MSL to	K	SFL 065/28	N31°51.00' W104°33.30'
01 AGL B 70 MSL to	L	SFL 058/32	N31°55.80' W104°30.00'
01 AGL B 70 MSL to	M	SFL 058/41	N31°58.50' W104°20.00'
01 AGL B 70 MSL to	N	CNM 126/15	N32°04.50' W104°02.20'
01 AGL B 70 MSL to	O	CNM 074/19	N32°16.80' W103°51.50'
01 AGL B 70 MSL to	P	CNM 021/24	N32°36.00' W103°58.00'
01 AGL B 70 MSL to	Q	CNM 341/26	N32°40.80' W104°17.00'
01 AGL B 48 MSL to	R	PIO 064/34	N32°40.17' W104°39.00'
01 AGL B 90 MSL to	S	CNM 294/42	N32°40.00' W104°54.50'
01 AGL B 90 MSL to	T	PIO 041/18	N32°42.50' W105°01.30'
01 AGL B 80 MSL to	U	PIO 007/16	N32°46.60' W105°12.20'
10 AGL B 110 MSL to	V	PIO 357/16	N32°47.80' W105°15.40'
10 AGL B 120 MSL to	W	PIO 344/24	N32°56.00' W105°20.10'
10 AGL B 110 MSL to	X	PIO 274/14	N32°35.50' W105°34.20'
01 AGL B 125 MSL to	Y	PIO 246/19	N32°27.90' W105°39.80'
01 AGL B 125 MSL to	Z	PIO 256/32	N32°30.40' W105°56.00'

Alternate Entry:
EL PASO GAP

01 AGL B 98 MSL to	K2	PIO 126/36	N32°05.00' W104°50.00'
10 AGL B 98 MSL to	K1	SFL 048/27	N31°58.50' W104°38.00'
01 AGL B 70 MSL to Thence via flight plan route.	L1	SFL 058/32	N31°55.80' W104°30.00'

Alternate Entry:
TALON LOW

03 AGL B 90 MSL to	T1	PIO 041/18	N32°42.50' W105°01.30'
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Alternate Exit:
EL PASO GAP

01 AGL B 70 MSL to	K	SFL 065/28	N31°51.00' W104°33.30'
01 AGL B 70 MSL to	K1	SFL 048/27	N31°58.50' W104°38.00'
10 AGL B 98 MSL to	K3	PIO 126/36	N32°05.00' W104°50.00'
Alternate Exit: ZIPER			
10 AGL B 110 MSL to	V	PIO 357/16	N32°47.80' W105°15.40'
10 AGL B 130 MSL to	V1	PIO 314/15	N32°44.10' W105°28.00'
Alternate Exit: TALON LOW			
01 AGL B 48 MSL to	R	PIO 064/34	N32°40.17' W104°39.00'
Alternate Exit: ELK			
10 AGL B 120 MSL to	W	PIO 344/24	N32°56.00' W105°20.10'
120 MSL to	W1	CME 230/43	N33°00.20' W105°22.10'
120 MSL to	W2	CME 256/39	N33°18.50' W105°24.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from Point C to Q.

ROUTE WIDTH - 3 NM left and 2 NM right of centerline from A to B; 9 NM left and 6 NM right of centerline from B to D (excludes airspace within R-5103B); 6 NM left and 7 NM right of centerline from D to E; 8 NM left and 5 NM right of centerline from E to F; 13 NM left and 4 NM right of centerline from F to G; 10 NM left and 5 NM right of centerline from G to J; 10 NM left and 8 NM right of centerline from J to L; 4 NM left and 3 NM right of centerline from L to M; 3 NM either side of centerline from M to N; 4 NM left and 3 NM right of centerline from N to O; 7 NM left and 3 NM right of centerline from O to P; 7 NM left and 4 NM right of centerline from P to Q; 8 NM left and 2 NM right of centerline from Q to S; 7 NM left and 8 NM right of centerline from S to V; 7 NM left and 10 NM right of centerline from V to W; 3 NM left and 4 NM right of centerline from W to Y; 10 NM left and 9 NM right of centerline from Y to Z; Alternate Exit ELK: 2 NM either side of centerline from W to W2.

Special Operating Procedures:

- (1) Request use through 54 OSS/OSOS 24 hours in advance between 0730-1630 local Mon-Fri.
- (2) From Point C to Q; from Point R to T and from Point X to Z, route is designated maneuvering airspace and cleared for LOWAT.
- (3) IR-194 is the reverse of IR-192 and is only available on even days. On odd days, IR-192 is available. Deconfliction with IR-134 and IR-195 is accomplished by 54 OSS/OSOS. Contact the applicable scheduling agency for deconfliction with VR-196.
- (4) Do not enter R-5103C or the Centennial Fly Area on segment X-Z unless scheduled into this airspace by 54 OSS/OSOS and then only after having received clearance from White Sands RADAR Facility 336.2. Use alternate exit ZIPER to avoid R-5103C.
- (5) If using alternate exit ZIPER contact White Sands RADAR Facility 336.2. All other exits not entering restricted airspace contact Albuquerque ARTCC 292.15.

- (6) To schedule Centennial Range, contact 54 OSS/OSOS. Comply with all procedures listed in current HAFB range supplement which can be obtained from Holloman Ranges office (C575-572-2074).
- (7) To transition from IR-194 to/from Talon Low MOA, both the MOA and the IR must be scheduled and procedural briefing received from 54 OSS/OSOS. Request 20 minute block time in Talon MOA, starting 20 minutes after IR entry. Prior to exceeding top of altitude block on route segment R-S, contact Albuquerque ARTCC 292.15 for clearance into MOA, and then do not exceed 12,500' MSL until cleared to do so by Albuquerque ARTCC.
- (8) For re-entry to IR-194 from Talon Low MOA, contact Albuquerque ARTCC and request clearance to depart MOA and re-enter IR-194 at Point T.
- (9) Alternate entries are: El Paso Gap (K2-L1) from IR-134 only; T from Talon Low MOA only.
- (10) Alternate exits are: El Paso Gap (K2-L1) to IR-195 only; R to Talon Low MOA only;
- (11) MARSA applies at entry, along the route and at exit.
- (12) Numerous towers, avoidance and noise sensitive areas exist within the MTR. You must receive the MTR brief and associated products from 54 OSS/OSP prior to flying the route.
- (13) Route is surveyed for operations down to 200' AGL.

FSS Within 100 NM Radius:

ABQ

IR-195

ORIGINATING ACTIVITY: 54 OSS/OSP, 744 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-3536, C575-572-3536.

SCHEDULING ACTIVITY: 54 OSS/OSOS, 744 Delaware Ave., Holloman AFB, NM 88330-8014 DSN 572-3536, C575-572-3536.

HOURS OF OPERATION: Sunrise-0600Z++

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 120 MSL to or as assigned	A	PIO 344/24	N32°56.00' W105°20.10'
10 AGL B 120 MSL to	B	PIO 004/14	N32°45.10' W105°13.90'
01 AGL B 80 MSL to	C	PIO 061/10	N32°34.50' W105°07.50'
01 AGL B 90 MSL to	D	PIO 122/29	N32°11.10' W104°53.50'
01 AGL B 98 MSL to	E	PIO 126/36	N32°05.00' W104°50.00'
01 AGL B 98 MSL to	F	PIO 183/23	N32°09.30' W105°25.60'
01 AGL B 80 MSL to	G	PIO 202/24	N32°11.50' W105°34.50'
01 AGL B 80 MSL to	H	PIO 225/17	N32°22.50' W105°35.00'
01 AGL B 125 MSL to	I	PIO 246/19	N32°27.90' W105°39.80'
01 AGL B 125 MSL to	J	PIO 256/32	N32°30.40' W105°56.00'

IR ROUTES

Alternate Entry:

EL PASO GAP

10 AGL B 70 MSL to	E1	SFL 048/27	N31°58.50' W104°38.00'
10 AGL B 98 MSL to	E	PIO 126/36	N32°05.00' W104°50.00'

Alternate Entry:

TALON LOW

10 AGL B 80 MSL to	D1	PIO 122/29	N32°11.10' W104°53.50'
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Alternate Exit:

EL PASO GAP

01 AGL B 98 MSL to	E	PIO 126/36	N32°05.00' W104°50.00'
10 AGL B 98 MSL to	E1	SFL 048/27	N31°58.50' W104°38.00'
01 AGL B 70 MSL to	E2	SFL 065/28	N31°51.00' W104°33.30'

Alternate Exit:

TALON LOW

01 AGL B 98 MSL to	C	PIO 061/10	N32°34.50' W105°07.50'
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Alternate Exit:

Zipper

01 AGL B 80 MSL to	G	PIO 202/24	N32°11.50' W105°34.50'
10 AGL B 80 MSL to	G1	PIO 329/6	N32°37.00' W105°20.50'
10 AGL B 130 MSL to	G2	PIO 314/15	N32°44.10' W105°28.00'

TERRAIN FOLLOWING OPERATIONS: Terrain following is authorized from Point B to Point J.

ROUTE WIDTH - Starting at N32-35 W105-10 to N32-13 W105-15 to N32-10.5 W105-00 to N32-35 W105-10 to N32-44 W105-23 to N32-34 W105-30 to N32-36 W105-38.5 to N32-44 W105-59 to N32-28 W106-00 to N32-23 W105-42.5 to N32-06 W105-41 to N32-02 W104-41 to N32-12 W104-41 to N32-52.2 W105-04.5 to N32-49 W105-12 to N32-57.6 W105-17.3 to N32-54.8 W105-22.7 to N32-44 W105-23 to point of beginning.

Special Operating Procedures:

- (1) Request use through 54 OSS/OSOS 24 hours in advance and between 0730-1630 local Mon-Fri.
- (2) From Point C to Point J route is designated maneuvering airspace and cleared for LOWAT.
- (3) IR-195 is the reverse of IR-134 and is only available on odd days. On even days, IR-134 is available. Deconfliction with IR-192 and IR-194 is accomplished by 54 OSS/OSOS.
- (4) Do not enter R-5103C or the Centennial Fly Area on segment H-J unless scheduled into this airspace through 54 OSS/OSOS and then only after having received clearance from White Sands RADAR Facility 336.2. Use alternate exit ZIPER to avoid R-5103C.
- (5) If using alternate exit ZIPER, contact White Sands RADAR Facility 336.2. All other exits not entering restricted airspace contact Albuquerque ARTCC 292.15.
- (6) To schedule Centennial Range, contact 54 OSS/OSOS. Comply with all procedures listed in current HAFB Range Supplement which can be obtained from Holloman Ranges Office (C575-572-5074).

- (7) To transition from IR-195 to/from Talon Low MOA, both the MOA and the IR must be scheduled and procedural briefing received from 54 OSS/OSOS. Request 20 minute block time in Talon MOA starting 5 minutes after IR entry time. Contact Albuquerque ARTCC 292.15 for clearance into Talon High MOA, prior to exceeding top of the altitude block on segment C-D, and do not exceed 12,500' MSL until cleared by Albuquerque ARTCC to do so.
- (8) Alternate Entries: Point D (from Talon Low MOA only); Point E (from IR-192, El Paso Gap only).
- (9) Alternate Exits: Point C (to Talon Low MOA only); Point E (to IR-192, El Paso Gap only); Point G (To alternate exit ZIPER only).
- (10) MARSA applies at entry, exit and along the route.
- (11) Numerous towers, avoidance and noise sensitive areas exist within the MTR. You must receive the MTR brief and associated products from 54 OSS/OSP prior to flying the route.
- (12) Route is surveyed for operations down to 200' AGL.

FSS Within 100 NM Radius:

ABQ

IR-200

ORIGINATING ACTIVITY: Commander Naval Air Warfare Center, Weapons Division, Code P529800E, (Naval Bases, Ventura County) Pt. Mugu, CA 93042-5001 DSN 351-7358, C805-989-7358.

SCHEDULING ACTIVITY: Commander Naval Air Warfare Center, Weapons Division, Code P529800E, (Naval Bases, Ventura County) Pt. Mugu, CA 93042-5001 DSN 351-7545, C805-989-7545.

HOURS OF OPERATION: Sunrise-Sunset by NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	GVO 189/19	N34°15.00' W120°15.00'
30 AGL B 70 MSL to	B	GVO 269/13	N34°35.30' W120°20.60'
30 AGL B 60 MSL to	C	GVO 338/14	N34°46.30' W120°07.20'
30 AGL B 100 MSL to	D	GVO 020/10	N34°40.20' W119°58.10'
14 AGL B 100 MSL to	DA	GVO 047/19	N34°40.50' W119°45.00'
11 AGL B 100 MSL to	DB	GVO 063/47	N34°40.20' W119°10.00'
11 AGL B 100 MSL to	E	GMN 117/12	N34°40.10' W118°41.00'
20 AGL B 90 MSL to	F	LHS 091/3	N34°40.10' W118°30.90'
15 AGL B 90 MSL to	G	LHS 011/9	N34°48.70' W118°30.00'
05 AGL B 100 MSL to	H	LHS 008/23	N35°02.50' W118°23.50'
05 AGL B 110 MSL to	I	LHS 016/29	N35°05.70' W118°16.50'

05 AGL B 85 MSL to	J	LHS 028/47	N35°15.00' W117°55.50'
05 AGL B 85 MSL to	K	NID 168/17	N35°24.00' W117°42.00'
05 AGL B 85 MSL to	L	NID 103/10	N35°37.00' W117°31.00'
05 AGL B 85 MSL to	M	NID 012/12	N35°52.00' W117°35.00'
05 AGL B 95 MSL to	N	NID 024/30	N36°05.20' W117°18.50'
05 AGL B 75 MSL to	O	NID 012/38	N36°15.00' W117°21.00'
05 AGL B 110 MSL to	P	NID 013/45	N36°21.10' W117°15.90'
05 AGL B 110 MSL to	PA	NID 011/47	N36°24.00' W117°16.50'
30 AGL B 120 MSL to	Q	BTY 269/39	N36°58.10' W117°31.80'
05 AGL B 105 MSL to	R	BTY 279/38	N37°04.00' W117°28.50'
05 AGL B 100 MSL to	S	BTY 286/44	N37°11.10' W117°31.20'
05 AGL B 115 MSL to	T	BTY 291/65	N37°26.80' W117°50.50'
05 AGL B 115 MSL to	U	TPH 216/40	N37°37.70' W117°41.70'
05 AGL B 110 MSL to	V	TPH 215/22	N37°48.00' W117°24.00'
05 AGL B 110 MSL to	W	TPH 152/8	N37°54.00' W117°00.00'
05 AGL B 110 MSL to	X	TPH 111/13	N37°54.00' W116°49.50'
05 AGL B 110 MSL to	Y	TPH 060/30	N38°08.50' W116°25.50'
05 AGL B 110 MSL to	Z	TPH 068/46	N38°06.00' W116°04.00'
05 AGL B 110 MSL to	AA	TPH 083/54	N37°52.00' W115°54.50'
05 AGL B 115 MSL to	AB	TPH 086/70	N37°45.00' W115°36.00'
05 AGL B 115 MSL to	AC	ILC 221/49	N37°48.00' W115°15.00'
05 AGL B 115 MSL to	AD	ILC 213/51	N37°41.20' W115°12.00'
05 AGL B 120 MSL to	AE	ILC 174/48	N37°27.70' W114°34.20'
05 AGL B 115 MSL to	AF	ILC 151/38	N37°38.20' W114°12.80'
05 AGL B 120 MSL to	AG	ILC 093/21	N38°08.20' W113°58.70'
05 AGL B 120 MSL to	AH	ILC 061/18	N38°19.00' W114°02.00'
05 AGL B 120 MSL to	AI	ILC 051/24	N38°24.20' W113°55.90'
05 AGL B 120 MSL to	AJ	ILC 027/32	N38°38.00' W113°55.90'
05 AGL B 120 MSL to	AK	ILC 024/56	N38°57.50' W113°38.00'
05 AGL B 120 MSL to	AL	DTA 250/53	N39°14.40' W113°38.00'
05 AGL B 105 MSL to	AM	DTA 262/44	N39°24.00' W113°27.00'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 4 NM either side of centerline from A to R; 7 NM left and 4 NM right of centerline R to S; 7 NM either side of centerline from S to T; 4 NM either side of centerline from T to AF; 7 NM left and 4 NM right of centerline AF to AG; 7 NM left and 10 NM right of centerline AG to AI; 4 NM either side of centerline from AI to AM.

Special Operating Procedures:

- (1) This route to be used only in direct support of test programs authorized by PMTC or AFFTC.
- (2) Alternate Entry/Exits: G, H, O, R, S, V, W, X, Z, AA, AB, AD, AE, AF, AI and AK.
- (3) Remain clear of Sisquoc Condor Sanctuary between D and E by 1 mile laterally or 3000' AGL.
- (4) Aircraft shall adhere to the following radio procedures:
 - (a) Contact Edward's Approach Control on 348.7.
 - (b) Monitor Oakland ARTCC on 319.8 after S.
 - (c) Contact Nellis Control (when operational) on 392.1 at Z, other times monitor Los Angeles ARTCC on 343.6.
 - (d) Monitor Salt Lake City ARTCC on 360.8 after AG.
- (5) Unmanned aerospace vehicles will avoid charted airports by 1500' vertically or 3 NM laterally.
- (6) Route is designated for MARSA operations established by coordinated scheduling.

FSS Within 100 NM Radius:

CDC, HHR, RAL, RNO, SAN

IR-203

ORIGINATING ACTIVITY: Commander Strike Fighter Wing, US. Pacific Fleet, 001 (K) Street, Room 121, NAS Lemoore, CA 93246-5022 DSN 949-1034, C559-998-1034.

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: Daylight hours, OT by NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	AVE 057/1	N35°39.00' W119°58.00'
80 MSL B 100 MSL to	B	MQO 303/10	N35°23.00' W120°54.00'
80 MSL B 100 MSL to	C	BSR 069/25	N36°13.00' W121°08.00'
80 MSL B 100 MSL to	D	SNS 287/18	N36°50.00' W121°55.00'
110 MSL B 120 MSL to	E	PXN 305/26	N37°03.00' W121°07.00'
110 MSL B 120 MSL to	F	LIN 009/13	N38°16.00' W120°53.00'
110 MSL B 120 MSL to	G	CZQ 024/9	N37°00.00' W119°42.00'
110 MSL B 120 MSL to	H	NLC 070/47	N36°25.00' W119°00.00'

ROUTE WIDTH - 6 NM either side of centerline.

IR ROUTES

Special Operating Procedures:

- (1) Alternate Exit: Point F and G.
- (2) Tie-in FSS: Rancho Murieta (RIU).
- (3) Altitude data is a block from which Oakland Center will assign an altitude.
- (4) Radar training route. Simulated dive attacks not authorized.
- (5) Users of this route shall ensure that Hunter and Foothill MOA's are scheduled for transit with COMSTRKFIGHTWINGPAC.
- (6) Aircraft flying this route at night may be operating without flashing collision avoidance lights. Exercise extreme caution between the hours of sunset and sunrise.
- (7) Remain clear of R-2513 between B and C.
- (8) Contact Oakland Center on 353.8 prior to H for further IFR clearance.
- (9) Be alert for C-5/C-141 aircraft flying 250 KCAS at 1000' AGL on a crossing route

FSS Within 100 NM Radius:

HHR, OAK, RNO, RAL, RIU

IR-206

ORIGINATING ACTIVITY: Commander Naval Air Warfare Center, Weapons Division, Code P3524, NAWS, Pt. Mugu, CA 93042-5008 DSN 351-7527, C805-989-7527.

SCHEDULING ACTIVITY: Commander Naval Air Warfare Center, Weapons Division, Code P3506, NAWS, Pt. Mugu, CA 93042-5008 DSN 351-7545, C805-989-7545.

HOURS OF OPERATION: Daylight hours by NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
05 AGL B 110 MSL to (exit IR-200 at Pt V)	A	TPH 215/22	N37°48.00' W117°24.00'
05 AGL B 110 MSL to	B	TPH 300/29	N38°23.00' W117°27.00'
05 AGL B 140 MSL to	C	MVA 093/11	N38°30.00' W117°48.50'
05 AGL B 140 MSL to	D	MVA 012/8	N38°41.00' W117°57.00'
05 AGL B 85 MSL to	E	MVA 329/25	N38°58.00' W118°09.70'
05 AGL B 85 MSL to	F	MVA 320/38	N39°09.00' W118°21.50'
05 AGL B 85 MSL to	G	MVA 298/49	N39°09.00' W118°46.50'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 4 NM either side of centerline A to B; 3 NM either side of centerline B to G.

Special Operating Procedures:

- (1) Airspeeds are subsonic.
- (2) This route to be used only in support of Test missions authorized by PMTC or AAFTC in conjunction with IR-200.
- (3) Unmanned aerospace vehicles will avoid charted airports by 1500' vertically or 3 NM laterally.

- (4) Alternate Exits: D and F.
- (5) Aircraft shall adhere to the following radio procedures:
 - (a) Contact Oakland ARTCC on 319.8 MHZ at Point S on IR-200.
 - (b) Contact Fallon desert control on 322.35 MHZ at Point D on IR-206.
- (6) Prior coordination with NAS Fallon Range Scheduling required by user. (DSN 890-2416/2418, C775-426-2416/2418).
- (7) Route is designated for MARSAs operations established by coordinated scheduling.

FSS Within 100 NM Radius:

RIU, RNO

IR-207

ORIGINATING ACTIVITY: Commander Strike Fighter Wing, US. Pacific Fleet, 001 (K) Street, Room 121, NAS Lemoore, CA 93246-5022 DSN 949-1034, C559-998-1034.

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: Daylight hours, OT by NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 150 MSL to or as assigned	A	SNS 227/18	N36°32.00' W121°56.00'
80 MSL B 150 MSL to	B	SNS 270/35	N36°50.00' W122°18.00'
30 MSL B 80 MSL to	C	OSI 187/26	N37°00.00' W122°30.00'
30 MSL to	D	OSI 235/28	N37°15.00' W122°50.00'
30 MSL to	E	OSI 282/38	N37°42.00' W122°59.00'
30 MSL to	F	PYE 176/14	N37°51.00' W122°56.00'
30 MSL B 50 MSL to	G	PYE 238/15	N38°01.00' W123°10.00'
50 MSL to	H	PYE 315/25	N38°27.00' W123°07.00'
50 MSL B 90 MSL to	I	PYE 331/33	N38°37.00' W123°01.00'
90 MSL to	J	ENI 077/25	N39°02.00' W122°45.00'
90 MSL to	K	ENI 064/36	N39°09.00' W122°31.00'
60 MSL B 90 MSL to	L	ENI 060/44	N39°14.00' W122°21.00'
60 MSL to	M	RBL 110/42	N39°40.00' W121°31.00'
05 AGL B 100 MSL to	N	RBL 063/51	N40°14.00' W121°08.00'
05 AGL B 100 MSL to	O	RBL 049/72	N40°33.00' W120°47.00'
05 AGL B 130 MSL to	P	LLC 261/45	N40°12.50' W119°32.50'
02 AGL B 120 MSL to	PA	LLC 251/31	N40°06.00' W119°15.00'

02 AGL B 120 MSL to	Q	LLC 178/15	N39°53.00' W118°39.50'
02 AGL B 120 MSL to	R	LLC 096/11	N40°03.50' W118°22.00'
02 AGL B 120 MSL to	S	LLC 092/21	N40°01.00' W118°09.00'
02 AGL B 120 MSL to	T	LLC 110/19	N39°56.00' W118°14.50'

TERRAIN FOLLOWING OPERATIONS: Authorized from M to P. Radar navigation activity from A to M and from P to T.

ROUTE WIDTH - 2.5 NM either side of centerline from A to H; 5 NM either side of centerline from H to P; 2 NM either side of centerline from P to T.

Special Operating Procedures:

- (1) Alternate Entry: G and M.
- (2) Alternate Exit: Q, R and S.
- (3) Monitor assigned Oakland Center frequency for entire route. After O, expect to monitor Oakland Center 285.5/128.8.
- (4) Avoid all towns and airports along route by 1500' AGL or 3 NM.
- (5) Tie-in FSS: Rancho Murieta (RIU).
- (6) Radar training route. Simulated dive attacks not authorized.
- (7) Aircraft flying this route at night may be operating without flashing collision avoidance lights. Exercise extreme caution between the hours of sunset to sunrise.
- (8) Reserving this route does not authorize access to the Carson MOA or R-4813 between PA and T. Contact NAS Fallon Range Department at DSN 890-2416/2418 or C775-426-2416/2418 prior to flight for airspace entry authorization.
- (9) Aircraft scheduled for NAS Fallon airspace shall attempt contact with Desert Control on 322.35/126.6 prior to entry. If unable to contact Desert prior to penetrating NAS Fallon airspace, maintain route, continue periodic calls and MARSA while in MOA's until contact is established. Entry into Restricted Areas is not authorized without prior contact. Notify Desert of intentions to maneuver off route once established in MOA/Restricted Areas.
- (10) Minimum altitude does not guarantee terrain clearance on all route segments. Pilots flying IMC are responsible for maintaining adequate terrain clearance.
- (11) Reserving this route does not authorize access to the China MOA between Points M and N. See the AP/1A for MOA scheduling if unable to remain below the China MOA.
- (12) Remain left of route centerline between N and O to avoid the town of Westwood.
- (13) Remain left of route centerline between O and P to avoid the town and airport of Susanville.
- (14) Remain below 100 MSL between PA and Q to deconflict with V6.
- (15) Be alert for C-5/C-141 aircraft flying 250 KCAS at 1000' AGL on a crossing route.

FSS Within 100 NM Radius:

HHR, OAK, RNO, RIU

IR-211

ORIGINATING ACTIVITY: G-3, 3D MAW, MCAS Miramar, San Diego, CA 92145 DSN 267-5157, C858-577-5157. Non-working hours DSN 267-9517/9518, C858-577-9517/9518.

SCHEDULING ACTIVITY: Flight Planning, MCAS Miramar, San Diego, CA 92145, DSN 267-4981/1532.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	LAX 262/54	N34°02.00' W119°31.00'
02 AGL B 30 MSL to	B	RZS 104/23	N34°20.00' W119°22.00'
10 AGL B 50 MSL to	C	RZS 049/23	N34°41.00' W119°21.00'
02 AGL B 80 MSL to	D	GMN 121/4	N34°45.00' W118°48.00'
02 AGL B 80 MSL to	E	GMN 079/13	N34°47.00' W118°36.00'
02 AGL B 80 MSL to	F	GMN 040/32	N35°06.00' W118°19.00'
02 AGL B 80 MSL to	G	GMN 039/52	N35°18.00' W118°00.00'
02 AGL B 80 MSL to	H	GMN 040/58	N35°20.00' W117°53.00'
02 AGL B 80 MSL to	I	DAG 294/54	N35°32.00' W117°26.00'

TERRAIN FOLLOWING OPERATIONS: Terrain following operations are not authorized on the route segment from B to C.

ROUTE WIDTH - 2 NM either side of centerline from A to F; 4 NM either side centerline from F to I.

Special Operating Procedures:

- (1) Alternate Entry Point C.
- (2) Alternate Exit Point F.
- (3) Aircraft will remain VMC at all times on this route.
- (4) CAUTION: Tower extending to 1545' MSL located 3 NM West of Point A.
- (5) Maintain 3000' AGL within 3 NM of Conover Airport on Point C to D segment and White Oaks Lodge Airport Point E to F segment.
- (6) Forest Service Heliport located NW corner of Lake Casitas under route segment B to C.
- (7) Aircraft shall contact High Desert TRACON for traffic advisories at Point E on 348.7.
- (8) Comply with R-2508 restrictions. Aircrews transiting R-2508 complex airspace are required to see FLIP, Area Planning, AP/1 California, Flight Hazards, R-2508.
- (9) Aircraft will be VFR. See and Avoid with other R-2508 complex users within the lateral confines of R-2508.
- (10) Contact High Desert TRACON on 348.7 for return clearance to El Toro.
- (11) Special coordination instructions -Route conflicts with VR-1265 between Points C and E. VR-1257 at Point E, VR-1262 between Points E and G. VR-232 at Point E, IR-200 at Point C and between Points E and F/H and I, IR-425 at

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Point C and between Point E and F/H and I, VR-236 between E and H, VR-1293 between Points E and F, IR-256 between Points E and G, IR-297 between Points E and G, VR-1206 at Point E, VR-294 at Point H, IR-298 between Point F and G, and VR-1216 at Point G.

(12) Separation Criteria - Scheduling coordinated by user for IR conflicts and See and Avoid for VR conflicts.

(13) Maintain at or above 3000' AGL when within 5 NM of Mojave Airport (between Points F and G).

FSS Within 100 NM Radius:

HHR, RAL, SAN

IR-212

ORIGINATING ACTIVITY: G-3, 3D MAW, MCAS Miramar, San Diego, CA 92145 DSN 267-5157, C858-577-5157.

Non-working hours DSN 267-9517/9518, C858-577-9517/9518.

SCHEDULING ACTIVITY: Flight Planning, MCAS Miramar, San Diego, CA 92145, DSN 267-4981/1532.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	DAG 156/42	N34°16.00' W116°27.00'
02 AGL B 70 MSL to	B	DAG 158/12	N34°46.00' W116°33.00'
02 AGL B 70 MSL to	C	DAG 083/20	N34°55.00' W116°11.00'
02 AGL B 70 MSL to	D	DAG 046/38	N35°16.00' W115°54.00'
02 AGL B 80 MSL to	E	DAG 005/43	N35°38.00' W116°17.00'
02 AGL B 80 MSL to	F	DAG 339/46	N35°44.00' W116°41.00'
02 AGL B 80 MSL to	G	DAG 325/48	N35°43.00' W116°55.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from A to D and F.

ROUTE WIDTH - 5 NM either side of centerline from A to C; 3 NM either side of centerline from C to G.

Special Operating Procedures:

- (1) Aircraft will remain VMC at all times on this route.
- (2) Comply with R-2501 and R-2502 restrictions.
- (3) Cross a point 15 miles south of Pt. B at or below 7000' MSL.
- (4) Upon entering R-2508 complex, aircraft will transmit in the blind on 315.9 and continue to monitor while in the complex. Aircrews transiting R-2508 complex are required to see FLIP, Area Planning, AP/1, California, Flight Hazards, R-2508.
- (5) Contact Edwards RAPCON on 291.6 for return clearance after exit at F or G.
- (6) Special Coordination Instructions - Route conflicts with VR-1217 between Points A and C, IR-213 between Points A and C, IR-217 between Points A and C, VR-1218 between

Points A and B/C and D, VR-1265 between Points B and C, VR-1214 between Points D and E, and VR-1215 between Points E and G.

- (7) Separation Criteria-Scheduling coordination by user for IR conflicts and See and Avoid for VR conflicts.

FSS Within 100 NM Radius:

HHR, RAL, RNO, SAN

IR-213

ORIGINATING ACTIVITY: G-3, 3D MAW, MCAS Miramar, San Diego, CA 92145 DSN 267-5157, C858-577-5157.

Non-working hours DSN 267-9517/9518, C858-577-9517/9518.

SCHEDULING ACTIVITY: Flight Planning, MCAS Miramar, San Diego, CA 92145, DSN 267-4981/1532.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	DAG 156/42	N34°16.00' W116°27.00'
02 AGL B 70 MSL to	B	DAG 158/12	N34°46.00' W116°33.00'
02 AGL B 70 MSL to	C	DAG 083/20	N34°55.00' W116°11.00'
02 AGL B 70 MSL to	D	GFS 307/26	N35°28.00' W115°30.00'
15 AGL B 70 MSL to	E	GFS 007/14	N35°21.00' W115°04.00'
02 AGL B 70 MSL to	F	GFS 091/18	N35°03.00' W114°50.00'
02 AGL B 70 MSL to	G	EED 346/17	N35°03.00' W114°28.00'
02 AGL B 80 MSL to	H	EED 012/19	N35°03.00' W114°18.00'
02 AGL B 80 MSL to	I	EED 075/31	N34°46.00' W113°51.00'
02 AGL B 80 MSL to	J	EED 098/43	N34°28.90' W113°40.00'
02 AGL B 60 MSL to	K	PKE 084/1	N34°06.00' W114°40.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from A to C and from E to K.

ROUTE WIDTH - 5 NM either side of centerline from A to F; 2 NM left and 5 NM right of centerline from F to G; 3 NM either side of centerline from G to I; 1 NM left and 3 NM right of centerline from I to J; 2 NM left and 3 NM right of centerline from J to K.

Special Operating Procedures:

- (1) Aircraft will remain VMC at all times on this route.
- (2) Avoid airports along route by 2000' or 3 NM.
- (3) Comply with R-2501 restrictions.
- (4) Cross a point 15 miles south of B at or below 7000' MSL.
- (5) Attempt contact with Los Angeles Center at D on 360.65 .
- (6) Do not fly between 1000' AGL within 4 NM of Parker Dam.

- (7) Contact Los Angeles Center on 285.6 at K for return clearance.
- (8) Special Coordination Instructions - Route conflicts with IR-212 between Point A and C, IR-217 between Point A and F, VR-1217 between Points A and C, VR-1218 between Points A and B/C and D, VR-1265 between Points B and D/F and H, VR-1225 between Points C and D, VR-299 between Points F and G/I and J, VR-247 between Points G and H, VR-283 between Points G and H/I and J, VR-1220 at Point H and between Points I and J, VR-1203 between Points H and I, IR-254 at Point I, VR-1268 at Point H and between I and J, IR-255 between Points I and J, IR-252 between Points I and J, VR-296 at Point J, and IR-214 between Points H and J.
- (9) Separation Criteria-scheduling coordinated by user for IR conflicts and See and Avoid for VR conflicts.
- (10) Avoid overflight of Gene Wash Airfield (between Points J and K) by 3NM when below 3000' AGL.
- (11) Critical bald eagle breeding and nesting areas below the Baghdad 1 MOA and to the north toward Mohan Peak (between Points I and J, left of centerline), mid Dec through mid Jun.
- (12) CAUTION: 100' tower located at N35-29-27 W115-33-27W between Points C and D 3.5 NM NW of Point D.
- (13) CAUTION: Antenna Farm located at N35-01-58 W114-21-57 between Points G and H approximately 4.5 NM past Point G; 1 NM right of centerline tallest 164'.

FSS Within 100 NM Radius:

HHR, PRC, RAL, RNO, SAN

IR-214

ORIGINATING ACTIVITY: G-3, 3D MAW, MCAS Miramar, San Diego, CA 92145 DSN 267-5157, C858-577-5157.
Non-working hours DSN 267-9517/9518, C858-577-9517/9518.

SCHEDULING ACTIVITY: Flight Planning, MCAS Miramar, San Diego, CA 92145, DSN 267-4981/1532.

HOURS OF OPERATION: Even numbered days only

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	PKE 235/35	N33°54.00' W115°20.00'
02 AGL B 70 MSL to	B	PKE 107/12	N34°00.00' W114°29.00'
02 AGL B 60 MSL to	C	PKE 076/46	N34°05.00' W113°46.00'
02 AGL B 60 MSL to	D	DRK 221/40	N34°19.00' W113°08.00'
02 AGL B 60 MSL to	E	DRK 251/25	N34°40.00' W112°59.00'
02 AGL B 80 MSL to	F	DRK 281/34	N34°56.50' W113°06.50'
02 AGL B 80 MSL to	G	EED 075/31	N34°46.00' W113°51.00'
02 AGL B 60 MSL to	H	EED 098/43	N34°28.90' W113°40.00'
02 AGL B 60 MSL to	I	PKE 084/1	N34°06.00' W114°40.00'

TERRAIN FOLLOWING OPERATIONS: Authorized for the entire route.

ROUTE WIDTH - 4 NM either side of centerline A to C; 1 NM left and 4 NM right of centerline C to F; 1 NM either side of centerline F to G; 1 NM left and 3 NM right of centerline G to H; 2 NM left and 4 NM right of centerline H to I.

Special Operating Procedures:

- (1) Aircraft shall remain VMC at all times when on this route.
- (2) Do not fly below 2000' AGL within 3NM of Vital Junction and Parker Airports.
- (3) Do not fly below 1000' AGL within 4 NM of Parker Dam.
- (4) Cross a Point 9 NM South of G at or below 6000' MSL
- (5) Report at F to Albuquerque on 298.9. if unable, contact Prescott FSS.
- (6) Contact Los Angeles Center 285.6 at Parker for return clearance to El Toro.
- (7) Special Coordination Instructions-Route conflicts with VR-1265 near A, IR-217 between Points A and B, IR-255 between Points A and B, IR-250 between Points A and B, IR-252 between Points A and B, VR-296 between Points B and C, VR-299 between Points B and C/H and I. VR-1267 at Point C, VR-1268 between C and G/H and I, IR-283 at Point C and between Points H and I, VR-1220 at Point C and between Points D and F/H and I, IR-272 between Points C and D, VR-245 between Points C and D, VR-1203 between Points C and D/G and H, VR-242 between Points C and D, VR-225 between Points D and F, IR-254 between Points D and F and at Point H, and IR-213 between Points G and H.
- (8) Avoid Gene Wash Airfield (between Points H and I) by 3 NM when below 3000' AGL.
- (9) Critical bald eagle breeding and nesting areas in the vicinity of the Alamo Lake (N34 16.0 W113 34.0) below the Baghdad 1 MOA and to the north toward Mohan Peak (Point F) mid-Dec thru mid-Jun. recommend 1500' AGL when crossing Aquarius Mountains (between Points F and G).

FSS Within 100 NM Radius:

HHR, PRC, RAL, RNO, SAN

IR-216

ORIGINATING ACTIVITY: G-3, 3D MAW, MCAS Miramar, San Diego, CA 92145 DSN 267-5157, C858-577-5157.
Non-working hours DSN 267-9517/9518, C858-577-9517/9518.

SCHEDULING ACTIVITY: Flight Planning, MCAS Miramar, San Diego, CA 92145, DSN 267-4981/1532.

HOURS OF OPERATION: Even numbered days- daylight only

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	TNP 042/4	N34°09.00' W115°42.00'
02 AGL B 70 MSL to	B	TNP 063/15	N34°10.00' W115°28.00'
02 AGL B 70 MSL to	C	TNP 121/21	N33°52.00' W115°29.00'

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02 AGL B 70 MSL to	D	TRM 070/30	N33°41.00' W115°34.00'
02 AGL B 70 MSL to	E	TRM 088/35	N33°31.00' W115°28.00'

TERRAIN FOLLOWING OPERATIONS: Authorized for the entire route.

ROUTE WIDTH - 3 NM either side of centerline.

Special Operating Procedures:

- (1) R-2507 restrictions to be complied with after Point E.
- (2) Aircraft shall remain VMC at all times.
- (3) Contact Yuma Control on 274.0 for return clearance to El Toro after completing operations in R2507.
- (4) Mandatory reporting Point at E. Contact Los Angeles Center on 285.6.
- (5) Special Coordination Instructions - Route conflicts with VR-1265 between Points A and B, IR-250 at Point A, VR-289 between Points A and D, IR-248 between Points C and D, VR-296 at Point D, IR-218 between Points D and E, VR-1266 between Points D and E, and IR-217 between Points D and F.
- (6) Separation Criteria - Scheduling coordinated by user for IR conflicts and See and Avoid for VR conflicts.
- (7) Cross Point B at or above 7000' MSL.

FSS Within 100 NM Radius:

HHR, RAL, RNO, SAN

IR-217

ORIGINATING ACTIVITY: G-3, 3D MAW, MCAS Miramar, San Diego, CA 92145 DSN 267-5157, C858-577-5157.
Non-working hours DSN 267-9517/9518, C858-577-9517/9518.

SCHEDULING ACTIVITY: Flight Planning, MCAS Miramar, San Diego, CA 92145, DSN 267-4981/1532.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	DAG 156/42	N34°16.00' W116°27.00'
02 AGL B 70 MSL to	B	DAG 158/12	N34°46.00' W116°33.00'
02 AGL B 70 MSL to	C	DAG 083/20	N34°55.00' W116°11.00'
02 AGL B 70 MSL to	D	GFS 307/26	N35°28.00' W115°30.00'
15 AGL B 70 MSL to	E	GFS 007/14	N35°21.00' W115°04.00'
02 AGL B 70 MSL to	F	GFS 091/18	N35°03.00' W114°50.00'
02 AGL B 60 MSL to	G	PKE 279/22	N34°15.00' W115°05.00'
02 AGL B 70 MSL to	H	TNP 113/30	N33°48.00' W115°18.00'
02 AGL B 70 MSL to	I	TRM 099/23	N33°29.00' W115°44.00'

02 AGL B 70 MSL to	J	TRM 152/15	N33°23.00' W116°05.00'
02 AGL B 70 MSL to	K	TRM 154/31	N33°07.00' W116°01.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from A to D and from E to K.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Alternate Exit: I.
- (2) Alternate Entry: F and G
- (3) Aircraft will remain VMC at all times on this route.
- (4) Avoid airports along route by 2000' or 3 NM.
- (5) Comply with R-2501 restrictions.
- (6) Cross a point 15 miles south of B at or below 7000' MSL.
- (7) Attempt contact with Los Angeles ARTCC at D on 360.65.
- (8) Contact Los Angeles Center on 285.6 for exit at I or 291.7 for exit at K for return clearance.
- (9) Special Coordination Instructions - Route conflicts with IR-212 between Points A and C, IR-217 between A and F, VR-1217 between Points A and C, VR-1218 between Points A and B/C and D. VR-1265 between Points B and D/F and H, VR-1225 between Points C and D/F and G, IR-248 between Points G and I, IR-255 between Points G and H, IR-214 between G and H, VR-296 between Points H and I, IR-218 between Points H and I, IR-216 between Points H and I, VR-1266 between Points H and I, VR-289 between Points I and K, IR-252 between Points F and G, and IR-288 between Points I and K.
- (10) Light aircraft and glider activity at Desert Sky Ranch N33-28-52 W115-52-24.
- (11) Separation Criteria - Scheduling coordinated by user for IR conflicts and See and Avoid for VR conflicts.
- (12) When alternate entry Point G is used, cross a point 15 NM north of H at or below 7000' MSL.
- (13) CAUTION: 112' Radio Tower located N33-39-20 W115-27-10 (Chuckwalla Peak, 3766' MSL, approximately 9 NM past Point H, 2 NM left of centerline).
- (14) Contact Yuma Range Control on 274.0 for clearance into R-2507 if exiting at Point I.
- (15) CAUTION: 199' Radio Tower located at N33-43-00 W115-24-32 between Points H and I approximately 7 NM past Pt. H 1.5 NM left of centerline.
- (16) CAUTION: Radio Tower located at N34-08-44 W115-07-15 between Point G and H approximately 8 NM past Pt. G 1 NM left of centerline.
- (17) CAUTION: 100' Radio Tower located at N35-29-27 W115-33-27 3.5 NM NW of Point D.

FSS Within 100 NM Radius:

HHR, PRC, RAL, RNO, SAN

IR-218

ORIGINATING ACTIVITY: G-3, 3D MAW, MCAS Miramar, San Diego, CA 92145 DSN 267-5157, C858-577-5157.
Non-working hours DSN 267-9517/9518, C858-577-9517/9518.

SCHEDULING ACTIVITY: Flight Planning, MCAS Miramar, San Diego, CA 92145, DSN 267-4981/1532.

HOURS OF OPERATION: Continuous**ROUTE DESCRIPTION:**

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	TNP 165/33	N33°34.00' W115°46.00'
05 AGL B 60 MSL to	B	BLH 340/17	N33°53.00' W114°48.00'
05 AGL B 60 MSL to	C	BLH 069/27	N33°39.00' W114°13.00'
45 MSL B 50 MSL to	D	BXK 269/12	N33°30.00' W113°04.00'
35 MSL B 40 MSL to	E	GBN 245/27	N32°52.00' W113°12.00'
35 MSL B 40 MSL to	F	BZA 073/42	N32°48.00' W113°46.00'
05 AGL B 40 MSL to	G	BZA 089/26	N32°40.00' W114°06.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from A to C and from F to G.**ROUTE WIDTH** - 5 NM either side of centerline except, 2 NM either side of centerline between Pts. E and F.**Special Operating Procedures:**

- (1) Aircraft will remain VMC at all times on this route.
- (2) Maintain at or above 2000' AGL within 3 NM of all airports.
- (3) Route user must comply with altitudes listed to avoid conflict with users of IR-266 and 500' vertical separation provided at route intersections.
- (4) Report D to Prescott FSS, if two-way communications cannot be maintained with Albuquerque ARTCC on 307.3.
- (5) Comply with R-2301 restrictions.
- (6) Contact Yuma Approach on 314.0 or 374.8 for clearance to El Toro if not operating in R-2301.
- (7) Contact Yuma Range Control on 274.0 inside the R-2301 for return clearance to El Toro. Contact prior to exiting R-2301.
- (8) Special Coordination Instructions - Route conflicts with IR-248 between Points A and B, VR-289 between A and B, VR-296 between Points A and B, IR-216 between Points A and B, IR-217 between Points A and B, VR-1265 between Points A and B, VR-1267 between Points A and B/C and D/E and F, VR-1268 between Point A and B/C and D/E and F, IR-250 at Point B, VR-231 between C and D/E and F, VR-283 between C and D/E and F, VR-1220 between Points C and D, E and F, IR-272 between Points C and E, VR-242 between Points C and E, VR-225 between Points C and F, VR-1207 between Points D and F, and VR-245 between Points C and D/E and F.
- (9) Separation Criteria-Scheduling coordinated by user for IR conflicts and See and Avoid for VR conflicts.
- (10) Cross a point 15 NM southeast of B at or below 6000' MSL.
- (11) CAUTION: 112' Radio Tower located N33-39-20 W115-27-10 (Chuckwalla Peak, 3766' MSL approximately 16 NM past Point A 1.2 NM right of centerline).
- (12) CAUTION: 199' Radio Tower located N33-43-00 W115-23-22 between Points A and B approximately 20 NM past Point A 2 NM left of centerline.

FSS Within 100 NM Radius:

HHR, PRC, RAL, RNO, SAN

IR-234**ORIGINATING ACTIVITY:** Commander, 412 TWOSS/OSOA, 235 S Flightline Rd, Edwards AFB, CA 93523-6460
DSN 527-4110, C661-227-4110.**SCHEDULING ACTIVITY:** Commander, 412 TWOSS/OSOA, 235 S Flightline Rd, Edwards AFB, CA 93523-6460
DSN 527-4110, C661-227-4110.**HOURS OF OPERATION:** Daylight hours by NOTAM**ROUTE DESCRIPTION:**

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	TPH 068/46	N38°06.00' W116°04.00'
SFC B 105 MSL to	B	TPH 052/43	N38°17.00' W116°11.00'
SFC B 115 MSL to	C	TPH 044/48	N38°25.00' W116°08.00'
SFC B 115 MSL to	D	TPH 025/78	N39°00.00' W115°55.00'
SFC B 115 MSL to	E	BQU 137/51	N40°00.00' W115°17.00'
SFC B 115 MSL to	F	BVL 204/50	N40°03.00' W114°24.00'

TERRAIN FOLLOWING OPERATIONS: Authorized for the entire route.**ROUTE WIDTH** - 7 NM either side of centerline from A to B; 10 NM either side of centerline from B to D; 8 NM either side of centerline D to E; 4 NM either side of centerline from E to F.**Special Operating Procedures:**

- (1) Route authorized in direct support of a 412 TW test program only.
- (2) Route authorized for cruise missile testing only. Obtain cruise missile route LOA from 412 TW scheduling office. Review and comply.
- (3) Route is designated as MARSAs established by coordinated scheduling.
- (4) Alternate entry/exit: C.
- (5) Schedule Reveille MOA if entering at A (Nellis AFB, NV (DSN 348-4710)).
- (6) Schedule Gandy MOA if exiting at F Hill AFB, UT (DSN 777-9385/DSN 777-9386 (Same Day Ops)).
- (7) Prior to departure, contact Blackjack (DSN 348-4537) to coordinate entry to Reveille MOA.
- (8) Approaching Reveille MOA, contact Nellis Control 254.4. Coordinate entry to Reveille in case.
- (9) Approaching Gandy MOA, contact Clover 363.5, 118.45, or 134.1.
- (10) Conflicts:
 - (a) IRS: IR-235 opposite direction entire route. A to B IR-200-237-238-286-293-425. B to D IR-237-238. D to E IR-1293.
 - (b) VRS: A to B 1253-1260, D to E VR-209-1253-1260.
 - (c) Mining/Driving activity: Multiple mines between D and E. Cranes 100' tall used as part of operations. Mine at N39 18.3 W115 45.2 with chart note, caution for blasting area hazardous to flight below 5,000- AGL. Other charted mines at N39 38.6 W115 36.1 and N39 40.7 W115 31.5.

IR ROUTES

(11) Towers:

- 120' tower within 2NM of boundary, 2 miles NW of Duckwater, N38-54.59 W115-41.21.
- 120' VVOD tower, N35-54.52 W115-41.04.
- Chum inaccuracy: Depicts multiple towers between D/E associated with powerlines. These do not exist. Powerlines associated with Hwy 93 are several miles prior to route and 40' tall.

(12) Conflicts:

FSS Within 100 NM Radius:

CDC, RNO

IR-235

ORIGINATING ACTIVITY: Commander, 412 TW

OSS/OSOA, 235 S Flightline Rd, Edwards AFB, CA 93523-6460
DSN 527-4110, C661-227-4110.

SCHEDULING ACTIVITY: Commander, 412 TW

OSS/OSOA, 235 S Flightline Rd, Edwards AFB, CA 93524-6460
DSN 527-4110, C661-227-4110.

HOURS OF OPERATION: Daylight hours by NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	BVL 204/50	N40°03.00' W114°24.00'
SFC B 115 MSL to	B	BQU 137/51	N40°00.00' W115°17.00'
SFC B 115 MSL to	C	TPH 025/78	N39°00.00' W115°55.00'
SFC B 115 MSL to	D	TPH 044/48	N38°25.00' W116°08.00'
SFC B 115 MSL to	E	TPH 052/43	N38°17.00' W116°11.00'
SFC B 105 MSL to	F	TPH 068/46	N38°06.00' W116°04.00'

TERRAIN FOLLOWING OPERATIONS: Authorized for the entire route.

ROUTE WIDTH - 4 NM either side of centerline from A to B; 8 NM either side of centerline from B to C; 10 NM either side of centerline from C to E; 7 NM either side of centerline from E to F.

Special Operating Procedures:

- Route authorized only in direct support of 412 TW test program.
- Obtain cruise missile route LOA from 412 TW scheduling office. Review and comply.
- Route is designated for MARSA ops established by coordinated scheduling.
- Alternate entry/exit: D.
- Schedule Reveille MOA if entering at A (Nellis AFB, NV (DSN 348-4710)).
- Schedule Gandy MOA if exiting at F (Hill AFB, UT (DSN 777-9385/DSN 777-9386 (Same Day Ops))).
- Large visible depression/crater, possible supplement for map date/visual feature (N35-23.78 W116-04.08).

(8) Prior to departure, contact Blackjack (DSN 348-4537) to coordinate entry to Reveille MOA.

(9) Approaching Reveille MOA, contact Nellis Control 254.4.

(10) Approaching Gandy MOA, contact Clover 363.5, 118.45, or 134.1. Terrain masking at low altitude; aircrew must climb to contact Clover at A.

(11) Towers:

- 120' Tower within 2NM of boundary, 2 miles NW of Duckwater, N38-54.59 W115-41.21.
- 120' VVOD Tower, N35-54.52 W115-41.04.
- Chum inaccuracy: Depicts multiple towers between D/E associated with powerlines. These do not exist. Powerlines associated with Hwy 93 are several miles prior to route and 40' tall.

(12) Conflicts:

- IRS: IR-234 opposite direction entire route B to C IR-1293. C to E IR-237-238. E to F IR-200-237-238-286-293-425.
- VRS: B to C VR-209-1253-1260. E to F 1253-1260.
- Mining/Driving activity: Multiple mines between D and E. Cranes 100' tall used as part of operations. Mine at N39 18.3 W115 45.2 with chart note, caution for blasting area hazardous to flight below 5,000- AGL. Other charted mines at N39 38.6 W115 36.1 and N39 40.7 W115 31.5.

FSS Within 100 NM Radius:

CDC, RNO

IR-237

ORIGINATING ACTIVITY: Commander 412 TW, 412

OSS/OSOA, 100 East Sparks Road, Edwards AFB, CA 93523-6460 DSN 527-2515, C661-277-2515.

SCHEDULING ACTIVITY: Commander AFFTC, 412 TW,

412 OSS/OSOS, 235 E Yeager Blvd, Edwards AFB, CA 93524 DSN 527-4110, C661-277-4110.

HOURS OF OPERATION: Daylight hours by NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	TPH 111/13	N37°54.00' W116°49.50'
05 AGL B 115 MSL to	B	TPH 016/19	N38°17.40' W116°49.20'
05 AGL B 120 MSL to	C	TPH 008/53	N38°50.10' W116°32.60'
05 AGL B 120 MSL to	D	TPH 015/69	N39°00.00' W116°15.00'
05 AGL B 120 MSL to	E	TPH 068/46	N38°06.00' W116°04.00'

TERRAIN FOLLOWING OPERATIONS: Authorized for the entire route.

ROUTE WIDTH - 4 NM either side of centerline.

Special Operating Procedures:

- This route authorized in direct support of 412 TW test program only.

- (2) Aircrew shall schedule the Reveille MOA with the NTTR Scheduling Office at Nellis AFB, NV (DSN 348-4710). If within 2 days of scheduled operation, contact Blackjack (DSN 348-4537). If required, schedule R-4809.
- (3) Route is designated for MARSAs operations established by coordinated scheduling.
- (4) Special Coordination Instructions: Route conflicts with IRs 200-238-286-425 between A and B, IRs 238-275-286 and VR-1253 between B and C, IRs 238-275 between C and D, IRs 200-234-235-238-275-279-286-425 and VRs 209-1253-1259-1260 between D and E. Scheduling coordination by user for MOA entry and IR conflicts and See and Avoid for VR conflicts.
- (5) Approaching the Reveille MOA, aircrew shall contact Nellis Control 343.0 for clearance into the MOA.
- (6) Aircrew will obtain a copy of the Cruise Missile Route Letter of Agreement from Edwards AFB Center Scheduling office.

FSS Within 100 NM Radius:

CDC, RNO

IR-238

ORIGINATING ACTIVITY: Commander AFFTC, 412 TW, 412 OSS/OSOA, 100 East Sparks Rd, Edwards AFB, CA 93523-6460 DSN 527-2515, C661-277-2515.

SCHEDULING ACTIVITY: Commander AFFTC, 412 TW, 412 OSS/OSOS, 235 E. Yeager Blvd, Edwards AFB, CA 93524 DSN 527-4110, C661-277-4110.

HOURS OF OPERATION: SUNRISE TO SUNSET

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	TPH 068/46	N38°06.00' W116°04.00'
05 AGL B 120 MSL to	B	TPH 015/69	N39°00.00' W116°15.00'
05 AGL B 120 MSL to	C	TPH 008/53	N38°50.10' W116°32.60'
05 AGL B 140 MSL to	D	TPH 016/19	N38°17.40' W116°49.20'
05 AGL B 115 MSL to	E	TPH 111/13	N37°54.00' W116°49.50'

TERRAIN FOLLOWING OPERATIONS: Authorized for the entire route.

ROUTE WIDTH - 4 NM either side of centerline.

Special Operating Procedures:

- (1) This route authorized in direct support of 412 TW test program only.
- (2) Aircrew shall schedule the Reveille MOA with the NTTR Scheduling Office at Nellis AFB, NV (DSN 348-4710). If within 2 days of scheduled operation, contact Blackjack (DSN 348-4537). If required, schedule R-4809.
- (3) Route is designated for MARSAs operations established by coordinated scheduling.
- (4) Special Coordination Instructions: Route conflicts with IRs 200-234-235-237-275-286-425 and VRs 209-1253-1259-1260 between A and B, IRs 237-275 between B and C, IRs

237-275-286 and VR-1253 between C and D, IRs 200-237-286-425 between D and E. Scheduling coordination by user for MOA entry and IR conflicts and see and avoid for VR conflicts.

- (5) Approaching the Reveille MOA, aircrew shall contact Nellis Control 343.0 for clearance into the MOA.
- (6) Aircrew will obtain a copy of the Cruise Missile Route Letter of Agreement from Edwards AFB scheduling office.

FSS Within 100 NM Radius:

CDC, RNO

IR-250

ORIGINATING ACTIVITY: G-3, 3D MAW, MCAS Miramar, San Diego, CA 92145 DSN 267-4981, C858-577-4981. Non-working hours DSN 267-9517/9518, C858-577-9517/9518.

SCHEDULING ACTIVITY: Flight Planning, MCAS Miramar, San Diego, CA 92145, DSN 267-4981/1532.

HOURS OF OPERATION: Daylight hours on even numbered days

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	PGS 104/38	N35°19.00' W112°52.00'
SFC B 80 MSL to	B	DRK 291/22	N34°55.00' W112°51.00'
SFC B 80 MSL to	C	DRK 272/21	N34°48.00' W112°53.00'
SFC B 80 MSL to	D	DRK 199/34	N34°14.00' W112°51.00'
SFC B 70 MSL to	E	BLH 066/52	N33°45.00' W113°44.00'
SFC B 70 MSL to	F	PKE 189/14	N33°53.00' W114°48.00'
SFC B 70 MSL to	G	PKE 248/9	N34°05.00' W114°52.00'
SFC B 70 MSL to	H	TNP 011/28	N34°32.00' W115°31.00'
SFC B 70 MSL to	I	TNP 042/4	N34°09.00' W115°42.00'

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Remain below Gladden MOA between C and E.
- (2) Remain above 2500' AGL at D to avoid Williams AFB IR-272.
- (3) Report to Riverside FSS at F if radio communications cannot be maintained with Los Angeles.
- (4) Alternate Entry F: Ensure adherence to route boundaries between C and D to avoid towns of Kirkland Junction and Peoples Valley.
- (5) CAUTION: Uncharted tower between A and B at N35-21.1 W112-56.9 128' 6295' MSL.
- (6) Avoid overflight of uncharted airport between E and F, (Indian Hills) at N33-46.0 W113-36.0.

FSS Within 100 NM Radius:

CDC, HHR, PRC, RAL, RNO, SAN

IR ROUTES

IR-252

ORIGINATING ACTIVITY: G-3, 3D MAW, MCAS Miramar, San Diego, CA 92145 DSN 267-4981, C858-577-4981.
Non-working hours DSN 267-9517/9518, C858-577-9517/9518.

SCHEDULING ACTIVITY: Flight Planning, MCAS Miramar, San Diego, CA 92145, DSN 267-4981/1532.

HOURS OF OPERATION: Daylight hours on odd numbered days

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	TNP 355/26	N34°32.00' W115°41.00'
SFC B 80 MSL to	B	GFS 284/23	N35°19.00' W115°35.00'
SFC B 80 MSL to	C	GFS 256/5	N35°08.00' W115°17.00'
SFC B 80 MSL to	D	GFS 166/19	N34°49.00' W115°11.00'
SFC B 70 MSL to	E	GFS 181/31	N34°38.00' W115°21.00'
SFC B 70 MSL to	F	PKE 069/8	N34°07.00' W114°31.00'
SFC B 70 MSL to	G	PKE 107/12	N34°00.00' W114°29.00'

ROUTE WIDTH - 5 NM either side of centerline, excluding restricted area R-2501E.

Special Operating Procedures:

- (1) Remain clear of R-2501E. Airspeed 400-460 KIAS.

FSS Within 100 NM Radius:

HHR, PRC, RAL, RNO, SAN

IR-254

ORIGINATING ACTIVITY: G-3, 3D MAW, MCAS Miramar, San Diego, CA 92145 DSN 267-4981, C858-577-4981.
Non-working hours DSN 267-9517/9518, C858-577-9517/9518.

SCHEDULING ACTIVITY: Flight Planning, MCAS Miramar, San Diego, CA 92145, DSN 267-4981/1532.

HOURS OF OPERATION: Daylight hours, Mon-Fri

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	DRK 194/37	N34°09.00' W112°50.00'
25 AGL B 90 MSL to	B	DRK 218/28	N34°25.00' W112°55.00'
SFC B 90 MSL to	C	DRK 223/24	N34°29.00' W112°53.00'
SFC B 90 MSL to	D	DRK 237/34	N34°31.00' W113°08.00'

SFC B 90 MSL to	E	EED 097/48	N34°28.00' W113°35.00'
SFC B 90 MSL to	F	DRK 289/26	N34°56.00' W112°55.00'

TERRAIN FOLLOWING OPERATIONS: Authorized for entire route.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) If Gladden 1 or Gladden 1A MOAs are penetrated, See and Avoid applies.
- (2) Coordination must be conducted with Luke AFB prior to scheduling due to conflicting routes IR's 224, 225 and 240.
- (3) Coordination required with El Toro MCAS to resolve conflict with IR-214.
- (4) Remain VMC at all times on this route.

FSS Within 100 NM Radius:

PRC, RNO

IR-255

ORIGINATING ACTIVITY: G-3, 3D MAW, MCAS Miramar, San Diego, CA 92145 DSN 267-4981, C858-577-4981.
Non-working hours DSN 267-9517/9518, C858-577-9517/9518.

SCHEDULING ACTIVITY: Flight Planning, MCAS Miramar, San Diego, CA 92145, DSN 267-4981/1532.

HOURS OF OPERATION: Daylight hours, daily

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	BLH 286/21	N33°46.00' W115°07.00'
SFC B 70 MSL to	B	BLH 286/28	N33°50.00' W115°15.00'
SFC B 70 MSL to	C	PKE 248/27	N34°03.00' W115°13.00'
SFC B 70 MSL to	D	PKE 063/19	N34°10.00' W114°18.00'

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Prior coordination with 3d MAW, El Toro MCAS is required for scheduling.
- (2) Fifteen minute delay over Point D.
- (3) Luke AFB IR-230 A-B crosses Point D climbing to 9000' MSL, See and Avoid applies.
- (4) Cross Point B at or below 7000' MSL.

FSS Within 100 NM Radius:

PRC, RAL, RNO, SAN

IR-266

ORIGINATING ACTIVITY: 57 OSS/OSOP, 4450 Tyndall Ave, Nellis AFB, NV 89191 DSN 682-7891, C702-652-7891.

SCHEDULING ACTIVITY: Same as Originating Activity.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 90 MSL to or as assigned	A	UTI 321/39	N37°36.00' W113°53.00'
04 AGL B 90 MSL to	B	UTI 317/29	N37°25.50' W113°49.50'
04 AGL B 90 MSL to	C	MMM 001/19	N37°04.00' W114°10.00'
04 AGL B 90 MSL to	D	MMM 009/11	N36°56.00' W114°11.00'
06 AGL B 80 MSL to	E	MMM 075/9	N36°46.00' W114°05.00'
06 AGL B 90 MSL to	F	MMM 091/11	N36°43.00' W114°03.50'
04 AGL B 90 MSL to	G	MMM 112/19	N36°34.50' W113°58.50'
04 AGL B 90 MSL to	H	MMM 108/27	N36°30.50' W113°48.50'
04 AGL B 80 MSL to	I	UTI 150/28	N36°34.00' W113°20.05'
04 AGL B 90 MSL to	J	UTI 145/29	N36°34.50' W113°17.05'
04 AGL B 90 MSL to	K	UTI 106/32	N36°45.50' W112°55.55'
04 AGL B 90 MSL to	L	BCE 172/45	N36°56.90' W112°25.00'
04 AGL B 90 MSL to	M	BCE 126/29	N37°19.00' W111°55.50'
04 AGL B 90 MSL to	N	BCE 086/36	N37°34.00' W111°33.50'
04 AGL B 90 MSL to	O	BCE 082/45	N37°36.00' W111°22.00'
05 AGL B 90 MSL to	P	HVE 170/64	N37°21.00' W110°49.50'
04 AGL B 90 MSL to	Q	HVE 167/65	N37°20.00' W110°45.00'
04 AGL B 90 MSL to	R	HVE 142/71	N37°19.50' W110°06.50'
04 AGL B 110 MSL to	S	HVE 139/75	N37°17.50' W110°00.00'
10 AGL B 110 MSL to	SA	DVC 209/57	N37°06.50' W109°45.00'
04 AGL B 110 MSL to	SB	TBC 047/100	N36°53.00' W109°26.00'
04 AGL B 110 MSL to	T	RSK 211/37	N36°18.50' W108°39.00'
05 AGL B 110 MSL to	U	RSK 184/35	N36°11.50' W108°19.50'
06 AGL B 110 MSL to	V	RSK 177/34	N36°11.00' W108°14.00'
06 AGL B 100 MSL to	W	RSK 142/31	N36°16.50' W107°50.00'
06 AGL B 100 MSL to (Contact Denver ART- CC 348.7) 100 MSL B 170 MSL to cross	X	RSK 104/37	N36°27.50' W107°26.00'

170 MSL to Y RSK 085/50
or as assigned
Alternate Entry: B1
cross

N36°37.00'
W107°04.00'

90 MSL to B1 UTI 317/29
Thence via published
route.

N37°25.50'
W113°49.55'

TERRAIN FOLLOWING OPERATIONS: IMC/VMC

Terrain Following (TF) Visual Contour (VC) operations are authorized IAW Command Directives A to X. Command Directives preclude TF/VC operations, aircrews will maintain the IFR altitude for each TF route segment. Minimum altitudes other than surface provide at least 100' vertical clearance of known man-made obstructions. Obstructions under 200'AGL were not considered in route design. Command Directives may require additional obstruction clearance for TF/VC operations. The entire route is mountainous. Regulations governing aircraft operation below 00' AGL must be complied with.

ROUTE WIDTH - 4 NM either side of centerline from A to H; 2.5 NM left and 3 NM right of centerline from H to J; 4 NM either side of centerline from J to L; 2 NM left and 4 NM right of centerline from L to M; 3 NM either side of centerline from M to N; 4 NM either side of centerline from N to S; 5 NM either side of centerline from S to Y. Alternate Entry: B1 4 NM either side of centerline.

Special Operating Procedures:

- (1) Participating aircraft separation: Route designated for MARSA operations established by coordinating scheduling.
- (2) Centerline between the following Points is depicted as a .5 NM arc: C to D,G to H, I to J, N to O, P to Q, R to S, U to V.
- (3) Aircrews should be especially vigilant for VFR helicopter traffic from SFC to 500' AGL between Points H and L.
- (4) Primary Entry Point A will only be used by aircraft that are scheduled into the Desert MOA. Contact DSN 34-4710.
- (5) Alternate Entry Point B1: Aircrews using this entry need not own Desert MOA times.
- (6) Aircrews are restricted to IFR altitudes between Points B and C due to blasting in the area of N37-22 W113-52 between the following time frames, 1830Z-1930Z++ and 2230Z-0030Z++.
- (7) Noise Sensitive Areas: Residence at N37-16.1 W109-55.6;
- (8) Fly centerline or south of centerline between points K and L to avoid the Pipe Springs National Monument N3651.7' W11244.2'.

FSS Within 100 NM Radius:

ABQ, CDC, PRC, RNO

IR-275

ORIGINATING ACTIVITY: 60 OSS/OSO, 611 E St., Travis AFB, CA 94535 DSN 837-1075, C707-424-1075.

SCHEDULING ACTIVITY: 60 OSS/OSO, 611 E St., Travis AFB, CA 94535 DSN 837-5145, C707-424-5145.

HOURS OF OPERATION: Continuous

IR ROUTES

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at FL200 to or as assigned descend direct to	B	BAM 261/49	N40°37.00' W118°00.00'
110 MSL B FL200 to turn right and descend to	C	BAM 003/34	N41°07.00' W116°43.00'
90 MSL B 110 MSL to (TA/TFR Initiation Point) direct to	D	BAM 023/34	N41°02.00' W116°28.50'
SFC B 90 MSL to direct to	E	BAM 085/29	N40°30.00' W116°17.50'
SFC B 110 MSL to right to	F	BAM 101/35	N40°20.00' W116°14.00'
SFC B 110 MSL to direct to	G	BAM 126/56	N39°52.00' W116°08.00'
SFC B 110 MSL to direct to	H	BAM 129/59	N39°48.00' W116°08.00'
SFC B 120 MSL to direct to	I	TPH 009/76	N39°10.00' W116°20.00'
SFC B 120 MSL to right to	J	TPH 018/48	N38°41.00' W116°27.50'
SFC B 130 MSL to direct to	K	TPH 015/39	N38°34.50' W116°36.00'
SFC B 130 MSL to (Start Maneuver Area) direct to	L	TPH 329/32	N38°33.00' W117°12.00'
130 MSL to direct to	M	MVA 233/8	N38°31.00' W118°12.00'
130 MSL to (End Maneuver Area) left to	N	MVA 247/36	N38°30.00' W118°48.00'
130 MSL B 150 MSL to (Aircrews exiting IR-275 will contact Oakland ARTCC 319.8 after passing O) direct to	O	MVA 236/44	N38°21.00' W118°56.00'
150 MSL to direct to	P	OAL 266/51	N38°11.00' W118°49.00'
150 MSL to direct to	Q	OAL 263/44	N38°08.00' W118°41.00'
150 MSL B 170 MSL to right to	R	OAL 276/23	N38°09.00' W118°13.00'
170 MSL to direct to	S	OAL 278/20	N38°08.50' W118°09.00'
170 MSL to Re-Entry:	T	OAL VORTAC	N38°00.20' W117°46.23'
130 MSL to (End Maneuver Area) left to	N1	MVA 247/36	N38°30.00' W118°48.00'
130 MSL B 150 MSL to left to	O1	MVA 236/44	N38°21.00' W118°56.00'
150 MSL to left to	P1	OAL 266/51	N38°11.00' W118°49.00'
150 MSL to direct to	Q1	OAL 263/44	N38°08.00' W118°41.00'
140 MSL B 150 MSL to direct to	U	OAL 267/36	N38°08.50' W118°30.00'

140 MSL to direct to	R1	OAL 276/23	N38°09.00' W118°13.00'
140 MSL to left to	V	TPH 325/19	N38°19.50' W117°09.50'
130 MSL B 140 MSL to Thence via published route.	L1	TPH 329/32	N38°33.00' W117°12.00'
Alternate Entry: I Cross			
FL230 to or as assigned direct to	I1	TPH 009/76	N39°10.00' W116°20.00'
130 MSL B FL230 to right to	J1	TPH 018/48	N38°41.00' W116°27.50'
130 MSL B FL230 to right to L	K1	TPH 015/39	N38°34.50' W116°36.00'
Thence via published route.			
Alternate Exit: J			
SFC B 120 MSL to	J	TPH 018/48	N38°41.00' W116°27.50'
SFC B 130 MSL to Thence via published route.	K	TPH 015/39	N38°34.50' W116°36.00'

PMSV CONTACTS: Primary Home Station. Alternates Mountain Home (MUO 342.5).

TERRAIN FOLLOWING OPERATIONS: IMC/VMC

Terrain Following (TF)/Visual Contour operations are authorized IAW Command Directives within published altitude blocks from D to L. The route is designed mountainous. When Command Directives preclude terrain following/visual contour operations, aircrews will maintain the IFR altitude for each terrain following route segment. Regulations governing operations below 500' AGL will be complied with. Aircrews will avoid towns and villages by 1000' vertically or 2000' laterally when operating at terrain following altitudes. (REF: FAR 91.79(B)).

ROUTE WIDTH - 4 NM either side of centerline from B to M; 9 NM either side of centerline from M to N; 4 NM either side of centerline from N to T; 4 NM either side of centerline from N to L (Re-Entry); 4 NM either side of centerline from I to K (Alternate Entry).

Special Operating Procedures:

- (1) Aircraft will cross the end maneuver area at the specified minimum IFR altitude.
- (2) Participating aircraft separation: Route designated for MARSAs operations established by coordinated scheduling.
- (3) Lost communications (LC) procedures: Route LC altitude is 17,000' MSL.
- (4) IR-275 is designated for SN missions.
- (5) Aircrews will contact Oakland ARTCC on 125.75 or 319.8 MHZ passing Point L N38-33-00 W117-12-00 and report (tactical call sign) passing Point L (Number of Re-Entries). No report is required passing L during re-entry.
- (6) Aircraft with dual communications capability may stay on Oakland ARTCC frequency to receive flight advisory service.
- (7) Centerline between the following Points will be depicted as a 7.5 NM radius arc: C to D, G to H, J to K, N to O, P to Q, R to S, V to L on the re-entry.
- (8) Alternate Exit J: Climb to top of block, Contact SALT LAKE CENTER 317.625, expect to maintain own terrain clearance to 140 MSL.

FSS Within 100 NM Radius:

BOI, RNO, RIU

IR-286**ORIGINATING ACTIVITY:** 57 OSS/OSOP, 4450 Tyndall Ave., Nellis AFB, NV 89191 DSN 682-7891, C702-652-7891.**SCHEDULING ACTIVITY:** 57 OSS/OSOS, 4450 Tyndall Ave., Nellis AFB, NV 89191 DSN 682-2040, C702-652-2040.**HOURS OF OPERATION:** Continuous**ROUTE DESCRIPTION:**

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 140 MSL to or as assigned	A	LSV 280/42	N36°30.00' W115°50.00'
100 MSL B 140 MSL to	B	BTY 111/30	N36°30.00' W116°15.00'
05 AGL B 100 MSL to	C	BTY 135/11	N36°38.00' W116°38.00'
05 AGL B 90 MSL to	D	BTY 104/3	N36°46.50' W116°41.50'
01 AGL B 90 MSL to	E	OAL 129/23	N37°41.00' W117°30.00'
SFC B 98 MSL to	F	OAL 102/17	N37°52.00' W117°28.00'
SFC B 98 MSL to	G	OAL 074/14	N38°00.00' W117°28.00'
SFC B 90 MSL to	H	TPH 346/16	N38°18.00' W117°01.00'
SFC B 94 MSL to	I	TPH 055/31	N38°11.00' W116°25.00'
SFC B 95 MSL to	J	TPH 084/73	N37°47.00' W115°32.00'
SFC B 94 MSL to	K	TPH 090/82	N37°37.00' W115°23.00'
SFC B 94 MSL to	L	TPH 097/87	N37°26.00' W115°22.00'
SFC B 94 MSL to	M	TPH 115/99	N36°55.00' W115°30.00'
Alternate Entry: I	AA	TPH 017/49	N38°42.00' W116°27.00'
170 MSL to or as assigned descend to	BB	TPH 025/35	N38°28.00' W116°32.00'
140 MSL to descend to	CC	TPH 035/28	N38°19.00' W116°34.00'
105 MSL to descend to	I1	TPH 055/31	N38°11.00' W116°25.00'
94 MSL to			
Alternate Entry/Exit: G			
SFC B 98 MSL to	G1	OAL 074/14	N38°00.00' W117°28.00'
SFC B 90 MSL to	GX	OAL 091/33	N37°50.00' W117°06.00'
Thence to R-4807			
Alternate Exit: I			
SFC B 94 MSL to	I2	TPH 055/31	N38°11.00' W116°25.00'

SFC B 90 MSL to	IX	TPH 090/30	N37°53.00'
Thence to R-4807 or R-4809.			W116°26.00'
Alternate Exit: J			
SFC B 95 MSL to	J1	TPH 084/73	N37°47.00'
			W115°32.00'
SFC B 90 MSL to	JX	TPH 092/57	N37°43.00'
Thence to R-4807 or R-4809.			W115°54.00'

TERRAIN FOLLOWING OPERATIONS: Terrain Following authorized - VFR beginning at Point C.**ROUTE WIDTH** - 5 NM either side of centerline from A to D; 8 NM either side of centerline (excluding R-4807) from D to E; 5 NM either side of centerline from E to M.**Special Operating Procedures:**

- (1) For VMC use, MARSAs apply and is accomplished by See and Avoid.
- (2) Operations within R4807/09, or Desert MOA, contact Blackjack (DSN 348-4537). Operations in R-4807/R-4809 and Desert MOA will be conducted IAW AFM 13-212, NTTR Addendum A.
- (3) CAUTION: Avoid Beatty Airport N36-52-00 W116-47-00, and the community and airport of Goldfield N37-33-00 W117-14-00 by 3 NM or 1500' AGL.
- (4) CAUTION: Cross B at 10,000' MSL or as assigned by ATC to avoid IFR overflight traffic at 11,000' MSL and traffic exiting VR-222 at 9,500' MSL and below.
- (5) Fly north of centerline between Points B and C.
- (6) CAUTION: Route parallels VR-222 from B to D and VR-1214 from B to E. Additionally, numerous other MTRs cross this route from D to L.
- (7) CAUTION: Route conflicts between segments G and H with Tonopah (KTPH) RNAV GPS Runway 15 initial/final approach.
- (8) During VMC operations monitor 255.4 UHF until entering the MOAs.
- (9) Uncharted Obstacles:
 - (a) Between segments B and C, tower with white strobe N36-32-00 W116-26-00;
 - (b) Between segments B and C, 150' tower N36-34-00 W116-27-00;
 - (c) Between segments B and C, 150' radio tower N36-34-20 W116-27-01;
 - (d) Between segments B and C, powerlines N36-38-00 W116-38-00;
 - (e) Between segments B and C, unlit 100' microwave tower N36-30-09 W116-11-50;
 - (f) Between segments B and C, unlit 110' microwave tower N36-34-23 W116-29-28;
 - (g) Between segments D and E, multiple towers 100' west side of peak N36-56-00 W116-49-00;
 - (h) Between segments D and E, three 100' towers N36-56-00 W116-51-10;
 - (i) Between segments D and E, 50' microwave tower N36-46-50 W116-41-50;
 - (j) Between segments D and E, 250' tower N37-06-60 W116-48-40;
 - (k) Between segments D and E, 249' tower N37-18-00 W117-03-80;
 - (l) Between segments D and E, 1300' microwave tower N37-41-00 W117-24-00;

IR ROUTES

- (m) Between segments D and E, 100' tower N37-26-79 W117-10-14;
- (n) Between segments F and G, unlit 110' microwave N37-41-34 W117-22-80;
- (o) Between segments G and H, unlit 200' microwave tower N38-07-43 W117-16-80;
- (p) Between segments G and H, unlit 100' microwave tower N38-10-35 W117-12-40;
- (q) Between segments H and I, 300' tower below peak in canyon N38-10-70 W116-24-50;
- (r) Between segments H and I, unlit 120' microwave tower N38-11-20 W116-27-60;
- (s) Between segments I and J, 300' tower N37-55-60 W115-53-00;
- (t) Between segments I and J, 110' microwave tower N37-38-75 W115-25-75.
- (10) Aircraft exiting at B will advise Nellis Control on 254.4 upon exit.

FSS Within 100 NM Radius:

CDC, RNO

IR-293

ORIGINATING ACTIVITY: HQ UTTR/ROS, 6606 Cedar Ln. bldg 1274, Hill AFB, UT 84056-5812 DSN 777-4401 C801-777-4401.

SCHEDULING ACTIVITY: Same as Originating Activity.

HOURS OF OPERATION: By NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 140 MSL to or as assigned 140 MSL B 120 MSL descend to cross	AA	BQU 051/58	N41°07.00' W114°34.50'
120 MSL to start descent to cross	AB	BQU 064/47	N40°53.00' W114°44.00'
115 MSL to (TA/TFR Initiation Point) direct to	A	BQU 083/41	N40°38.00' W114°53.00'
01 AGL B 115 MSL to direct to	B	BQU 122/43	N40°13.00' W115°09.00'
01 AGL B 115 MSL to turn left to	C	ELY 259/40	N39°19.50' W115°43.00'
01 AGL B 115 MSL to direct to	D	ELY 245/37	N39°10.50' W115°37.50'
01 AGL B 115 MSL to descend direct to	E	ELY 164/26	N38°51.50' W114°50.00'
01 AGL B 115 MSL to direct to	F	ELY 160/27	N38°51.00' W114°47.00'
01 AGL B 110 MSL to turn right to	G	ELY 147/30	N38°49.50' W114°38.50'
01 AGL B 110 MSL to direct to	H	ELY 142/33	N38°47.50' W114°33.50'
01 AGL B 110 MSL to (TA/TFR Termination Point) turn left and climb to	I	ILC 344/25	N38°40.50' W114°23.50'

110 MSL B 130 MSL to 110 MSL B 130 MSL continue climb direct to cross	J	ILC 354/24	N38°39.00' W114°18.50'
130 MSL to (Contact Clover Control 363.5) direct to	K	ILC 006/25	N38°38.00' W114°12.00'
130 MSL to (Alternate Entry) (Enter Sevier B MOA) turn left to	L	MLF 275/35	N38°34.00' W113°42.50'
130 MSL to (TA/TFR Initiation Point) descend direct to	M	MLF 279/31	N38°34.50' W113°36.50'
01 AGL B 130 MSL to turn left to	N	MLF 309/24	N38°41.50' W113°18.50'
01 AGL B 110 MSL to direct to	O	MLF 318/24	N38°43.50' W113°14.50'
01 AGL B 110 MSL to turn left to	P	MLF 334/29	N38°50.00' W113°07.00'
01 AGL B 110 MSL to direct to	Q	MLF 338/32	N38°53.00' W113°05.00'
01 AGL B 110 MSL to turn left and climb to	R	MLF 346/46	N39°07.50' W112°59.00'
01 AGL B 120 MSL to direct to	S	MLF 340/55	N39°17.00' W113°06.00'
01 AGL B 120 MSL to (Alternate Exit) direct to	SS	MLF 338/56	N39°17.50' W113°08.00'
01 AGL B 120 MSL to	T	MLF 322/66	N39°23.00' W113°32.05'

TERRAIN FOLLOWING OPERATIONS: IMC/VMC

terrain following (TF) visual contour (VC) operations are authorized IAW command directives within published altitude blocks from A to I and M to T. When command directives preclude TF/VC operations, aircrews will maintain the IFR altitudes for each TF route segment. Minimum altitudes are established to provide at least 100' vertical clearance of known man-made obstructions within the route width. Obstruction under 200' AGL were not considered in route design. Command Directives may require additional obstruction clearance for TF/VC operations. The entire route is mountainous. Aircrews should reference their aircraft tech data and the latest clearance plane settings letter for low altitude minimum altitudes. FAA, DOD, Individual service and Major Command directives and instructions governing aircraft operations below 500' AGL must be complied with.

ROUTE WIDTH - 4 NM either side of centerline from AA to D; 4 NM left and 3 NM right of centerline from D to E; 3 NM either side of centerline from E to G; 4 NM left and 3 NM right of centerline from G to H; 4 NM either side of centerline from H to T. Centerline between turn points is depicted as a 7.5 NM arc unless otherwise specified.

Special Operating Procedures:

- (1) Contact scheduling agency one day in advance not later than 2000Z++.
- (2) Participating aircraft separation: Route designated for MARSA operations established by coordinated scheduling.

- (3) Lost communications (LC) is as required by mission tasking order.
- (4) Route designated for SN missions.
- (5) Centerline between turn points is depicted as a 7.5 NM arc unless otherwise specified.
- (6) Aircrews should be especially vigilant when flying IR-293 between N39-53-00 W115-21-18 and N39-45-18 W115-26-18 due to traffic on VR-1253, VR-1260; between N39-19-30 W115-43-00 and N38-55-30 W115-00-00 due to traffic on VR-1258, VR-1260, VR-1253; between Points G and T due to possible traffic on VR-1259, VR-1406, IR-285, IR-310, IR-200, IR-425, and VR-1258.
- (7) IR-293 will only be used by aircraft scheduled into Utah Test and Terrain Range (UTTR).
- (8) Scheduling agency for the Sevier A and B MOA's and UTTR is the HQ UTTR/ROS, DSN 777-4401.
- (9) Contact Clover Control on 363.5 prior to entering Sevier B MOA.
- (10) Between Point L and T aircraft will not deviate outside the route corridor.
- (11) IR-293 ends at T. Routing within the UTTR is not part of IR-293, therefore T must be filed as IR-293 exit, followed by a delay in the UTTR, then file FFU222023 to exit the UTTR. Additionally, show the fix POISN when filing the UTTR with your delay i.e.:
IR293.MLF322066..POISN/D1+00..FFU222023..AS FILED.
- (12) Aircrews should be aware of rapidly rising terrain on either side of centerline between Points S and T.
- (13) Alternate Entry: L.
- (14) Crews coming from East of the ranges and using the alternate entry into IR-293 must fly to Milford VORTAC (MLF) first.
- (15) Alternate Exit Point: SS.
- (16) UTTR is not part of IR-293, therefore when using alternate exit file SS as IR-293 exit, followed by a delay in the UTTR then file FFU222023 to exit UTTR.
- (17) When Alternate Exit is filed aircrews will remain within route corridor from L to SS. Sevier A MOA authorized only.
- (18) Uncharted obstruction: Tower 300' AGL (N41-05-30 W114-34-00).
- (19) Information on migratory bird activity along this route may be obtained from the bird avoidance web page on the Air Force Safety Center site:
<http://safety.kirtland.af.mil/AFSC/Bash/avoid.html>

FSS Within 100 NM Radius:

CDC, RNO

IR-300

ORIGINATING ACTIVITY: 366 OSS/OSOA, 201 1st Street, Mountain Home AFB ID 83648 Airspace Management Information Only. Not a scheduling number C208-828-4722 DSN 728-4722.

SCHEDULING ACTIVITY: 366 OSS/OSOS, 202 1st Street, Mountain Home AFB ID 83648 Routes must be scheduled a minimum of 2 hours prior to entry into airspace C208-828-4607/2172/4631 DSN 728-4607/2172/4631

HOURS OF OPERATION: By NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 150 MSL to or as assigned descend direct to	A	LKV VORTAC	N42°29.57' W120°30.43'
100 MSL B 150 MSL to continue descent to cross	AA	LKV 120/13	N42°20.00' W120°19.07'
100 MSL to (TA/TFR Initiation Point) direct to	B	LKV 120/17	N42°17.00' W120°15.57'
01 AGL B 100 MSL to direct to	C	LKV 121/31	N42°06.00' W120°03.57'
01 AGL B 100 MSL to turn left and climb to	D	SDO 224/58	N40°57.00' W119°09.07'
01 AGL B 110 MSL to direct to	E	SDO 217/53	N40°54.00' W118°59.07'
01 AGL B 110 MSL to direct to	EE	SDO 210/29	N41°05.20' W118°30.00'
01 AGL B 110 MSL to turn left to	F	SDO 092/10	N41°21.00' W117°49.05'
01 AGL B 110 MSL to direct to	G	SDO 061/14	N41°27.00' W117°44.05'
01 AGL B 110 MSL to descend direct to	GA	REO 148/43	N41°53.50' W117°39.07'
01 AGL B 110 MSL to direct to	GB	REO 145/37	N41°59.50' W117°38.07'
01 AGL B 90 MSL to turn right to	H	REO 141/32	N42°05.00' W117°37.07'
01 AGL B 90 MSL to direct to	I	REO 136/30	N42°08.50' W117°35.00'
01 AGL B 90 MSL to turn left to	J	REO 065/29	N42°38.50' W117°12.57'
01 AGL B 90 MSL to descend direct to	K	REO 057/32	N42°43.00' W117°10.07'
01 AGL B 90 MSL to (Start Maneuver Area) direct to	L	REO 040/36	N42°54.00' W117°09.57'
01 AGL B 80 MSL to direct to	M	BOI 272/44	N43°47.50' W117°09.57'
01 AGL B 80 MSL to (End Maneuver Area) turn left to	N	BOI 276/46	N43°51.00' W117°09.57'
01 AGL B 80 MSL to (TA/TFR Termination Point) (Contact Salt Lake City ARTCC 387.15 prior to P) turn left to	O	BOI 280/48	N43°55.00' W117°11.07'
80 MSL to direct to	P	BOI 278/58	N43°57.00' W117°25.07'
80 MSL to 80 MSL B 150 MSL climb direct to cross	Q	BOI 270/70	N43°53.00' W117°43.57'
150 MSL to or as assigned.	R	BOI 260/93	N43°44.00' W118°19.07'

PMSV CONTACTS: Primary Home Station. Alternates Mountain Home (MUO 342.5).

IR ROUTES

TERRAIN FOLLOWING OPERATIONS: IMC/VMC terrain following (TF) terrain avoidance (TA) and visual contour (VC) operations are authorized IAW command directives within published altitudes from B to O. When command directives preclude TA/TF/VMC operations aircrews will maintain the IFR altitude for each route segment. Minimum altitudes other than surface are established to provide at least 100' vertical separation of known man-made obstructions within the route width. Command Directives may require additional obstructions clearance for TA/TF/VMC operations. The entire route is mountainous. Aircrews must comply with regulations governing operations below 500' AGL. The route corridor provides airspace for 500' lateral separation from obstacles. Obstructions under 200' AGL were not considered in the route design.

ROUTE WIDTH - 4 NM either side of centerline from A to E; 4 NM left and 3 NM right of centerline from E to F; 4 NM either side of centerline from F to G; 3 NM left and 4 NM right of centerline from G to H; 4 NM either side of centerline from H to L; 9 NM left and 4 NM right of centerline from L to M; 9 NM left and 3 NM right of centerline from M to N; 4 NM left and 3 NM right of centerline from N to O; 4 NM either side of centerline from O to R.

Special Operating Procedures:

- (1) Participating aircraft separation: Route is designed for MARSA operations established by coordinated scheduling.
- (2) Route is designated for SN missions.
- (3) Aircrews should be especially vigilant when flying IR-300 between N41-16.5 W117-58.5 and Point G due to possible crossing traffic on IR-303 and between N42-10.0 W117-36.0 and N42-17.0 W117-30.0 due to crossing traffic on IR-304. If VMC exists at the crossing point, See and Avoid is the method of MARSA. In IMC the method of MARSA will be procedural.
- (4) Centerline is depicted as a 7.5 NM radius arc between turn points.
- (5) Aircrews should be especially vigilant when flying IR-300 between L and P due to a high volume of general aviation traffic crossing the route.
- (6) Aircrews will indicate the altitude required after exiting IR-300 in the remarks section immediately after the route exit time.
- (7) Aircrew may expect a descent restriction until Point AA by Seattle ARTCC if required for traffic separation. If descent is restricted, aircrews may not be able to make 100 MSL by Point B. Crews are authorized to continue descent into the route altitude structure.
- (8) Alternate Entry EE and K: Alternate Entry K may be used only after exiting out of the Owee and Paradise MOA's.
- (9) Aircrews should be aware of hang gliding activity from Pt. A thru C.
- (10) Noise Sensitive Areas:
 - (a) Residence at N41-25.5 W117-47.5;
 - (b) Residence at N43-17.5 W117-06.0;
 - (c) Residence at N43-21.2 W117-06.9;
 - (d) Residence at N42-00.0 W117-38.5.
- (11) CAUTION: Uncharted airstrips (in order flown); N42-56.450 W117-16.150; N43-06.000 W117-07.633; N43-31.000 W117-08.416; N43-46.683 W118-06.866; N43-52.966 W117-32.266.
- (12) CAUTION: Uncharted obstacles (in order flown); N41-59.568 W117-41.491 (91' AGL); N43-37.233 W117-12.633'W (100' AGL); N43-43.705 W118-12.529W (85' AGL); N43-53.525 W117-32.135'W (250' AGL unverified).
- (13) WARNING: IR-313 is the reverse of IR-300.

- (14) CAUTION: Clearance into IR-300 does not constitute a clearance into the Mountain Home Range Complex (MHRC) MOA airspace. Contact Cowboy Control on 236.05/134.1 MHz prior to turn-point G for entry approval.
- (15) NOISE AVOID: Remain at or above 9,000' AGL between GA-HAND corridor route width therein (Fort McDermitt Reservation).
- (16) Routes must be scheduled a minimum of 2 hours prior to entry into airspace.

FSS Within 100 NM Radius:

BOI, CLE, MMV, RNO

IR-301

ORIGINATING ACTIVITY: 124 WG, Gowen Field, Boise, ID 83705 DSN 422-5345, C208-422-5345.

SCHEDULING ACTIVITY: 366 OSS/OSOS, Mountain Home AFB, ID 83648 DSN 728-4607/2172/4631, C208-828-4607/2172/4631.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 120 MSL to	A	BOI 010/51	N44°18.00' W115°39.00'
01 AGL B 120 MSL to	B	BOI 027/73	N44°25.00' W115°00.00'
01 AGL B 120 MSL to	C	BOI 041/99	N44°25.00' W114°15.00'
01 AGL B 130 MSL to	D	DLN 183/53	N44°25.00' W112°59.00'
01 AGL B 120 MSL to	E	DLN 229/25	N45°05.00' W113°06.00'
01 AGL B 120 MSL to	F	DLN 290/34	N45°36.00' W113°11.50'
01 AGL B 110 MSL to	G	CPN 221/51	N45°34.00' W113°45.00'
01 AGL B 110 MSL to	H	CPN 231/74	N45°32.00' W114°21.80'
01 AGL B 110 MSL to	I	DNJ 358/80	N46°02.00' W115°39.00'
01 AGL B 110 MSL to	J	DNJ 329/41	N45°26.50' W116°25.00'
01 AGL B 110 MSL to	K	DNJ 271/20	N44°53.00' W116°39.00'
110 MSL to	L	BOI 320/65	N44°33.00' W116°47.00'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 8 NM either side of centerline from A to H; 5 NM either side of centerline from H to I; 4 NM either side of centerline from I to L.

Special Operating Procedures:

- (1) This route is closed to all non- 124 FW and 366 FW operations.

- (2) MARSA applies between successive participants and at all route crossings. Technique for applying MARSA is by scheduling and/or See and Avoid.
- (3) IR-301 will not be scheduled/ flown when IR-307 is in use.
- (4) Avoid all airports by 1500' vertically or 3 NM laterally.
- (5) Uncharted heliport (N45-24-00 W114-10-00). Overfly at or above 1500' AGL or avoid by 3 NM.
- (6) Uncharted airport (N45-39-30 W114-18-00). Overfly at or above 1500' AGL or avoid by 3 NM.
- (7) Cypress mine blast area (N44-19.0 W114-32.5). Overfly at or above 1500' AGL or avoid by 3 NM.
- (8) Noise sensitive areas:
 - (a) Cape Horn (N44-16.5 W115-00.0 to N44-26.0 W115-08.5). Overfly at or above 1000' AGL or avoid by 3 NM.
 - (b) Bannock (N45-09-30 W112-59-45). Overfly at or above 1000' AGL or avoid by 3 NM.
 - (c) Peterson (N45-32-00 W113-29-00). Overfly at or above 1000' AGL or avoid by 1 NM.
 - (d) Shook (N45-35-45 W114-19-00). Overfly at or above 1000' AGL or avoid by 1 NM.
 - (e) Salmon river. Overfly at or above 1000' AGL or avoid river by 2 NM from Slate Creek (N45-38-00 W116-18-00) to 5 NM south of Pollock (N45-13-00 W116-27-00).
 - (f) Wiggins (N44-41-00 W116-41-45). Overfly at or above 1000' AGL or avoid by 1 NM.
 - (g) Grant(N45-02-33, W113-08-30). No overflight, Avoid by 3 NM.
 - (h) Big Hole National Battlefield (N45-38.4 W113-38.9). Overfly at or above 2000' AGL or avoid by 3 NM.
 - (i) Gibbonsville noise sensitive area (N45 30 04 W113 57 37), overfly at or above 1500' AGL or avoid by 4 NM.
- (9) Contact Seattle ARTCC on 290.55 to report Pt I.
- (10) Contact Salt Lake ARTCC on 387.15 at L for further clearance.
- (11) Alternate Entry: D, F, H and I.
- (12) Alternate Exit: D, F, H, and I.
- (13) Lost Communications (LC) procedures: Route LC altitude is 12,000' MSL.
- (14) Military aircrews must make a position call when in the vicinity of the Deadwood Reservoir (44-18.43'N, 115-39.86'W) on 122.9 MHz.

FSS Within 100 NM Radius:

BOI, GTF

IR-302

ORIGINATING ACTIVITY: 124 WG, Gowen Field, Boise, ID 83705 DSN 422-5348, C208-422-5348.

SCHEDULING ACTIVITY: 366 OSS/OSOS, Mountain Home AFB, ID 83648 DSN 728-4607/2172, C208-828-4607/2172/4631. Scheduling requests 0730-1630L, Mon-Fri. Must be scheduled minimum 2 hours prior to entry.

HOURS OF OPERATION: Continuous or by NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 130 MSL to	A	BOI 070/46	N43°35.50' W115°08.30'

01 AGL B 130 MSL to	B	BOI 057/98	N43°59.20' W114°00.50'
01 AGL B 130 MSL to	C	PIH 300/65	N43°39.00' W113°40.50'
01 AGL B 130 MSL to	D	PIH 298/50	N43°27.50' W113°28.50'
01 AGL B 110 MSL to	E	PIH 295/40	N43°18.50' W113°19.50'
01 AGL B 70 MSL to	F	PIH 257/26	N42°54.00' W113°14.50'
01 AGL B 65 MSL to	FA	PIH 250/26	N42°51.00' W113°14.00'
01 AGL B 60 MSL to	FB	PIH 245/26	N42°48.50' W113°13.50'
01 AGL B 60 MSL to	G	PIH 224/28	N42°38.50' W113°12.00'
01 AGL B 80 MSL to	H	PIH 203/42	N42°19.80' W113°15.70'
01 AGL B 100 MSL to	I	BYI 120/37	N42°07.00' W113°18.50'
01 AGL B 110 MSL to	J	BYI 153/32	N42°03.00' W113°45.00'
01 AGL B 100 MSL to	JJ	BYI 200/67	N41°42.20' W114°47.00'
01 AGL B 100 MSL to	K	BOI 150/130	N41°26.00' W115°33.50'
01 AGL B 120 MSL to	L	BOI 163/116	N41°36.83' W116°12.00'
01 AGL B 120 MSL to	M	BOI 185/109	N41°52.00' W117°06.00'
01 AGL B 120 MSL to	N	BOI 196/75	N42°30.00' W117°06.00'
130 MSL to Alternate Exit: Y	O	BOI 206/59	N42°50.00' W117°06.00'
01 AGL B 100 MSL to	K1	BOI 150/130	N41°26.00' W115°33.50'
01 AGL B 120 MSL to	X	BOI 149/119	N41°37.00' W115°33.50'
01 AGL B 120 MSL to	Y	BOI 146/97	N42°00.00' W115°33.50'

PMSV CONTACTS: Primary Home Station. Alternates Mountain Home (MUO 342.5).

TERRAIN FOLLOWING OPERATIONS: Authorized for entire route.

ROUTE WIDTH - 8 NM left and 4 NM right of centerline from A to B; 8 NM either side of centerline from B to F; 4 NM either side of centerline from F to I; 5 NM right and 8 NM left of centerline from I to J; 8 NM either side of centerline from J to M; 5 NM either side of centerline from M to O; 4 NM either side of centerline from X to Y. Alternate Exit Y: 8 NM either side of centerline from K1 to X; 4 NM either side of centerline from X to Y.

Special Operating Procedures:

- (1) MARSA applies between successive participants by scheduling block time at Point A. See and Avoid primary method of MARSA in VMC.

IR ROUTES

- (2) Route crossing L to N, IR-300 and IR-304. If IMC is anticipated, transition to VMC conditions to the leg segment minimum IFR altitude. Remain at minimum IFR altitude until past conflict point, or standard ATC separation is established after leaving the route.
- (3) Noise Sensitive Areas:
 - (a) 10,000' MSL minimum altitude from 5 NM prior to 5 NM past Galena Highway (located between A and B).
- (4) Avoid the following Noise Sensitive Areas by 1500' AGL or 3 NM:
 - (a) City of Rocks (N42-05-00 W113-43-00);
 - (b) Mountain City (N41-50-30 W115-57-30);
 - (c) Ranch (N41-43-50 W115-58-50);
 - (d) Ward Ranch/uncharted airport (N42-03-00 W113-29-07);
 - (e) Craters of the Moon National Monument (N43-27-45 W113-33-00);
 - (f) Henry area (N41-42-10 W114-49-00).
- (5) Due to bird strike potential, minimum altitude from 5 NM prior to 5 NM past point G is 1000' AGL.
- (6) Helicopter ski operations in the Boulder and Pioneer Mountains (east of 114-30W) are conducted in daylight hours from 1 Dec to 30 Apr. Maintain 13,000' MSL between A and B during this time frame.
- (7) Contact Salt Lake ARTCC on 387.15 at Point N for further clearance.
- (8) Avoid all airports by overflight of 1500' AGL vertically or 3 NM laterally: Uncharted airports (N41-55-30 W114-07-00, N41-26-00 W115-47-00, N41-39-00 W114-49-50).
- (9) Uncharted tower 100' AGL: N42-35-24 W113-11-50.
- (10) Alternate Entry Points: B, E, F, I, J, JJ, K and M.
- (11) Alternate Exit Points: F, I, J, JJ, K, M and Y.
- (12) Lost communications procedures: Fly 12,000' MSL or top of the block.
- (13) For non-fighter type aircraft: Due to the severity of terrain near Alternate Exit Point Y, terrain following will only be flown in VMC conditions from Point X to N41-50-00. During IMC or at night, fly the published IFR altitudes to avoid the 9912' MSL peak.

FSS Within 100 NM Radius:

BOI, MMV, RNO

IR-303

ORIGINATING ACTIVITY: 366 OSS/OSOA, 201 1st Street, Mountain Home AFB ID 83648 Airspace Management Information Only. Not a scheduling number C208-828-4722 DSN 728-4722.

SCHEDULING ACTIVITY: 366 OSS/OSOS, 202 1st Street, Mountain Home AFB ID 83648 Routes must be scheduled a minimum of 2 hours prior to entry into airspace C208-828-4607/2172/4631 DSN 728-4607/2172/4631

HOURS OF OPERATION: By NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at FL190 to or as assigned.	A	REO 237/27	N42°29.00' W118°27.00'
descend to at or above 120 MSL	B	REO 208/42	N42°07.00' W118°33.00'

120 MSL to	C	REO 202/50	N41°57.00' W118°36.00'
01 AGL B 120 MSL to	D	REO 198/54	N41°52.00' W118°35.00'
01 AGL B 100 MSL to	E	REO 180/63	N41°36.00' W118°20.00'
01 AGL B 100 MSL to	F	BAM 316/38	N41°06.50' W117°21.50'
01 AGL B 100 MSL to	G	BAM 353/41	N41°15.00' W116°50.00'
01 AGL B 100 MSL to climb to	H	BQU 309/50	N41°27.00' W116°23.00'
01 AGL B 140 MSL to	I	BQU 323/50	N41°33.00' W116°08.50'
01 AGL B 140 MSL to	J	BQU 344/57	N41°42.50' W115°45.00'
01 AGL B 140 MSL to Alternate Entry: M	K	MUO 155/64	N42°00.00' W115°34.00'
FL180 to or as assigned.	M	BQU 344/34	N41°20.00' W115°45.00'
descend to 140 MSL to	J1	BQU 344/57	N41°42.50' W115°45.00'
Thence via published route.			
Alternate Exit: I			
01 AGL B 100 MSL to climb to cross	H1	BQU 309/50	N41°27.00' W116°23.00'
140 MSL to	I1	BQU 323/50	N41°33.00' W116°08.50'
Contact Salt Lake City ARTCC 363.15			

TERRAIN FOLLOWING OPERATIONS: IMC/VMC

Terrain Following (TF), Terrain Following Radar (TFR), Visual Contour (VC), and Terrain Avoidance (TA) authorized IAW command directive within published altitudes from Point D to K. Night VC operations are not authorized. Minimum altitudes on TF/TFR/VC/TA legs do not provide vertical clearance from man-made obstructions. Route IFR altitudes provide a minimum of 1000' AGL clearance above the highest terrain obstruction within the route boundaries and 5 NM either side of the route corridor. Obstructions under 200 feet were not considered in the route design. When command directives preclude TF/TFR/VC/TA operations, aircrews will maintain the IFR altitude for each route. Aircrews will comply with regulations governing low level operations. Aircrews must consider all airports within or near route corridor limits when mission planning route of flight. The entire route is designated mountainous.

ROUTE WIDTH - On centerline from Point A to D; 5 NM either side of centerline from D to F; 8 NM either side of centerline from F to H; 4 NM either side of centerline from H to J; 5 NM left and 15 NM right of centerline from J to K.

Special Operating Procedures:

- (1) MARSA applies and is accomplished by timing at route entry based on 480 knots ground speed while on the route. See and Avoid applies during VMC. Other airspeeds may be flown as coordinated with the scheduling agency. Aircraft flying at similar airspeeds may be scheduled with ten minutes separation at entry point. Aircrews unable to make scheduled entry time within plus or minus 2 minutes must coordinate a new entry time with Raymond 27 on 381.3 or 15091/5703 (HF).

- (2) Except for IMC terrain following radar operations, aircrews encountering IMC will climb to the minimum IFR altitude prior to IR route crossing.
- (3) **WARNING:** Chart update manual (CHUM) data used to construct navigational charts does not address vertical obstruction data below 200 feet AGL. Locally obtained vertical obstruction data, from aerial estimation, below 200' AGL may be obtained from the scheduling agency. Aircrews flying this route will report their observations of new developments or cultural changes to the originating agency. This route has been surveyed IAW ACC Sup to AFI 13-201 down to 100' AGL.
- (4) Requesting units will furnish the scheduling agency with the Call sign, number and type of aircraft, planned entry time, entry point, proposed speed, exit point and exit time.
- (5) Clearance to fly this route does not include clearance to enter Mountain Home Range Complex (MHRC). MHRC includes Paradise East/West, Owyhee, Jarbidge MOA's, Saylor Creek Range (R-3202), Juniper Butte Range (R-3204). Prior coordination required with 366 OSS/OSOS (DSN 728-2172) for scheduling. Aircraft not scheduled for MHRC will exit this route at alternate exit Point I.
- (6) Units will not schedule or enter any portion of the MHRC unless they have reviewed governing range and airspace regulations. Regulations are available on the ACC web page at: <https://do.acc.af.mil/dor/DORA/Units-MHAFB.html>
- (7) Information on migratory bird routes along this route may be obtained from the bird avoidance web page on the Air Force Safety Center site: <http://safety.kirtland.af.mil/AFSC/Bash/avoid.html>
- (8) Due to mine blasting operation, avoid by 1000' AGL, an area formed by N41-06 W117-21, N41-13 W117-18, N41-13 W117-15, N41-05 W117-17 to point of beginning.
- (9) Alternate Entry: D, Contact Salt Lake City ARTCC on 306.95, cross Point D at 10,000' MSL or as assigned when cleared into route.
- (10) **CAUTION:** Uncharted airstrips (in order flown): N41-09.663 W117-37.108; N41-08.016 W117-13.316.
- (11) **CAUTION:** Uncharted obstacles (in order flown): N41-09.792 W117-39.000 (115' AGL) N41-09.283 W117-28.395 (117' AGL) N41-13.666 W117-13.514 (110' AGL) N41-32.761 W115-49.581 (100' AGL) N41-14.754 W116-46.827 (100' AGL)
- (12) **Noise Sensitive Areas:**
 - (a) Town of Midas: N41-14-30 W116-47-30, overfly at or above 1500' AGL or avoid by 1 NM;
 - (b) Hansen Ranch: N41-43-30 W115-58-30, overfly at or above 1500' AGL or avoid by 3 NM;
 - (c) Stowell Ranch: N41-58-00 W115-40-30, overfly at or above 1500' AGL or avoid by 1 NM.

FSS Within 100 NM Radius:

BOI, MMV, RNO

IR-304

ORIGINATING ACTIVITY: 366 OSS/OSOA, 201 1st Street, Mountain Home AFB ID 83648 Airspace Management Information Only. Not a scheduling number C208-828-4722 DSN 728-4722.

SCHEDULING ACTIVITY: 366 OSS/OSOS, 202 1st Street, Mountain Home AFB ID 83648 Routes must be scheduled a minimum of 2 hours prior to entry into airspace C208-828-4607/2172/4631 DSN 728-4607/2172/4631

HOURS OF OPERATION: By NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 170 MSL to or as assigned.	A	BOI 285/71	N44°10.00' W117°35.07'
descend to			
140 MSL to	B	BKE 200/13	N44°40.50' W118°00.00'
descend to			
140 MSL to	C	BKE 219/21	N44°39.70' W118°13.70'
descend to			
01 AGL B 100 MSL to	D	BKE 203/34	N44°25.00' W118°21.07'
01 AGL B 100 MSL to	DD	BKE 188/49	N44°07.00' W118°21.07'
01 AGL B 90 MSL to	E	BKE 185/56	N44°00.00' W118°21.07'
01 AGL B 90 MSL to	EE	BKE 180/69	N43°46.00' W118°21.07'
01 AGL B 80 MSL to	F	REO 323/68	N43°40.00' W118°21.07'
01 AGL B 80 MSL to	FF	REO 318/53	N43°24.00' W118°21.07'
01 AGL B 90 MSL to	G	REO 299/33	N43°00.00' W118°22.07'
descend to			
01 AGL B 90 MSL to	H	REO 246/15	N42°34.00' W118°12.07'
descend to			
01 AGL B 85 MSL to	I	REO 229/12	N42°31.00' W118°07.07'
01 AGL B 85 MSL to	J	REO 143/16	N42°20.00' W117°45.50'
01 AGL B 85 MSL to	K	REO 125/30	N42°11.00' W117°28.07'
01 AGL B 85 MSL to	L	REO 113/44	N42°06.00' W117°08.50'
climb to			
01 AGL B 95 MSL to	M	REO 108/49	N42°06.00' W117°00.05'
Alternate Entry: N			
170 MSL to	N	REO 275/48	N42°55.00' W118°52.07'
or as assigned			
descend to			
01 AGL B 110 MSL to	H1	REO 246/15	N42°34.00' W118°12.07'
01 AGL B 85 MSL to	I1	REO 229/12	N42°31.00' W118°07.07'
Thence via published route.			
Alternate Exit: J			
01 AGL B 85 MSL to	J1	REO 143/16	N42°20.00' W117°45.50'
climb to			
140 MSL to	O	REO 130/35	N42°05.00' W117°28.00'
(Contact Salt Lake City ARTCC 387.15)			

TERRAIN FOLLOWING OPERATIONS: IMC/VMC

terrain following (TF), Terrain Following Radar (TFR), Visual Contour (VC) and Terrain Avoidance (TA) authorized IAW command directives within published altitude from Point C to M. Night VC operations are not authorized. Minimum altitudes on TF/TFR/VC/TA legs do not provide vertical clearance from man-made obstructions. Route IFR altitudes provide a minimum of 1000' AGL clearance above the highest terrain obstruction within the route boundaries and 5 NM either side of the route corridor. Obstructions under 200' were not considered in the route design. When command directives preclude TF/TFR/VC/TA

IR ROUTES

operations, aircrews will maintain the IFR altitude for each route. Aircrews will comply with regulations governing low level operations. Aircrews must consider all airports within or near route corridor limits when mission planning route of flight. The route is designated mountainous.

ROUTE WIDTH - On centerline from A to D; 8 NM either side of centerline from D to DD; 8 NM right and 6 NM left of centerline from DD to E; 8 NM either side of centerline from E to G; 8 NM left and 5 NM right of centerline from G to H; 8 NM either side of centerline from H to M. Alternate Entry N: On centerline from N to H1; 8 NM either side of centerline from H1 to I1. Alternate Exit J: On centerline J1 to O.

Special Operating Procedures:

- (1) MARSA applies and is accomplished by timing at route entry based on 480 knot ground speed while on the route. See and Avoid applies during VMC. Other airspeeds may be flown as coordinated with the scheduling agency. Aircraft flying at similar airspeeds may be scheduled with ten minutes of separation at the entry point. Aircrews unable to make scheduled entry time within plus or minus 2 minutes must coordinate a new entry time with Raymond 27 on 381.3 (UHF) or 15091/5703 (HF).
- (2) Except for IMC terrain following Radar operations, aircrews encountering IMC will climb to the minimum IFR altitude prior to IR route crossing.
- (3) WARNING: Chart update manual (CHUM) data used to construct navigational charts does not address vertical obstruction data below 200' AGL. Locally obtained vertical obstruction data, from aerial estimations, below 200' AGL may be obtained from the scheduling agency. Aircrews flying this route will report their observations of new developments or cultural changes to the originating agency. This route has been surveyed IAW ACC Sup 1 to AFI 13-201 down to 100' AGL.
- (4) Requesting units will furnish the scheduling agency with Call Sign, number and type of aircraft, planned entry time, entry point, proposed speed, exit point and exit time.
- (5) Clearance to fly this route does not include clearance to enter Mountain Home Range Complex (MHRC). MHRC includes Paradise East/West, Owyhee, Jarbidge MOA's, Saylor Creek Range (R-3202), Juniper Butte Range (R-3204). Prior coordination required with 366 OSS/OSOS (DSN 728-2172) for scheduling. Aircraft not scheduled for MHRC will exit this route at alternate exit Point J.
- (6) Units will not schedule or enter any portion of the MHRC unless they have reviewed governing range and airspace regulations. Regulations are available on the ACC web page at: <https://do.acc.af.mil/dor/DORA/Units-MHAFB.html>
- (7) Alternate Entry: D. Contact Salt Lake City ARTCC on 387.15, cross Point D southbound at 10,000' MSL or as assigned then descend into the block 100' AGL to 10,000' MSL by Point DD. H. Contact Salt Lake City ARTCC on 387.15, cross Point H at 8500' MSL or as assigned then descend into the block 100' AGL to 8500' MSL by Point I.
- (8) Uncharted airports: N43-57-30 W118-08-00, N43-45-00 W118-28-00, N43-34-30 W118-33-00, N42-13-00 W117-55-00. Overfly at or above 1500' AGL or avoid by 3 NM.
- (9) Uncharted towers: 65', N41-28-29 W118-03-21 and N41-24-30 W118-01-30 located next to SDO TACAN. 75', N41-09-28 W117-28-16. 50', N41-09-20 W117-28-32.
- (10) Information on migratory bird routes along this route may be obtained from the bird avoidance web page on the Air Force Safety Center site:
<http://safety.kirtland.af.mil/AFSC/Bash/avoid.html>

(11) CAUTION: Large obstacle (450' AGL Guyed Tower) at N43-06-07.20 W118-13-23.80 along eastern corridor route edge.

FSS Within 100 NM Radius:

BOI, MMV, RNO

IR-305

ORIGINATING ACTIVITY: 124 WG, Gowen Field, Boise, ID 83705 DSN 422-5348, C208-422-5348.

SCHEDULING ACTIVITY: 366 OSS/OSOS, Mountain Home AFB, ID 83648, DSN 728-4607/2172, C208-828-4607/2172/4631. Scheduling requests 0730-1630L, Mon-Fri. Must be scheduled minimum 2 hours prior to entry.

HOURS OF OPERATION: Continuous or by NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 120 MSL to	A	BOI 206/59	N42°50.00' W117°06.00'
01 AGL B 120 MSL to	B	BOI 196/75	N42°30.00' W117°06.00'
01 AGL B 120 MSL to	C	BOI 185/109	N41°52.00' W117°06.00'
01 AGL B 120 MSL to	D	BOI 163/116	N41°36.83' W116°12.00'
01 AGL B 120 MSL to	E	BOI 150/130	N41°26.00' W115°33.50'
01 AGL B 100 MSL to	F	BYI 200/67	N41°42.20' W114°47.00'
01 AGL B 100 MSL to	G	BYI 153/32	N42°03.00' W113°45.00'
01 AGL B 110 MSL to	H	BYI 120/37	N42°07.00' W113°18.50'
01 AGL B 80 MSL to	I	PIH 203/42	N42°19.80' W113°15.70'
01 AGL B 60 MSL to	J	PIH 224/28	N42°38.50' W113°12.00'
01 AGL B 60 MSL to	JA	PIH 245/26	N42°48.50' W113°13.50'
01 AGL B 65 MSL to	JB	PIH 250/26	N42°51.00' W113°14.00'
01 AGL B 70 MSL to	K	PIH 257/26	N42°54.00' W113°14.50'
01 AGL B 110 MSL to	L	PIH 295/40	N43°18.50' W113°19.50'
01 AGL B 130 MSL to	M	PIH 298/50	N43°27.50' W113°28.50'
01 AGL B 130 MSL to	N	PIH 300/65	N43°39.00' W113°40.50'
01 AGL B 130 MSL to	O	PIH 302/89	N43°59.20' W114°00.50'
01 AGL B 140 MSL to Alternate Exit: Y	P	BOI 060/75	N43°49.00' W114°30.00'
01 AGL B 100 MSL to	E1	BOI 150/130	N41°26.00' W115°33.50'

01 AGL B 120 MSL to X BOI 149/119 N41°37.00'
W115°33.50'

01 AGL B 120 MSL to Y BOI 146/97 N42°00.00'
W115°33.50'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 5 NM either side of centerline from A to C; 8 NM either side of centerline from C to G; 5 NM left and 8 NM right of centerline from G to H; 4 NM either side of centerline from H to K; 8 NM either side of centerline from K to O; 8 NM right and 4 NM left of centerline from O to P; 4 NM either side of centerline from X to Y.

Special Operating Procedures:

- (1) MARSA applies between successive participants by scheduling block of time at Point A. See and Avoid primary method of MARSA in VMC.
- (2) Route crossing A to D, IR-300 and IR-304. If IMC is anticipated, transition to VMC conditions to the leg segment minimum IFR altitude. Remain at minimum IFR altitude until past conflict point, or standard ATC separation is established after leaving the route.
- (3) Noise Sensitive Areas:
 - (a) 10,000' MSL minimum altitude from 5 NM prior to 5 NM past Galena Highway (located between O and P).
- (4) Avoid the following Noise Sensitive Areas by 1500' AGL or 3 NM:
 - (a) City of Rocks (N42-05-00 W113-43-00);
 - (b) Marys River area (N41-39-00 W115-06-00, N41-33-00 W115-20-00, N41-23-00 W115-14-00, N41-28-00 W114-59-00);
 - (c) Mountain City (N41-50-30 W115-57-30);
 - (d) Ranch (N41-43-50 W115-58-50);
 - (e) Ward Ranch/uncharted airport (N42-03-00 W113-29-07);
 - (f) Craters of the Moon Park National Monument (N43-27-45 W113-33-00);
 - (g) Henry area (N41-42-10 W114-49-00).
- (5) Due to bird strike potential, minimum altitude from 5 NM prior to 5 NM past Point J is 1000' AGL.
- (6) Helicopter ski operations is the Boulder and Pioneer Mountains (east of W114-30-00) are conducted in daylight from 1 Dec to 30 Apr. Maintain 13,000' MSL between O and P during this time frame.
- (7) Contact Salt Lake ARTCC on 363.0 at Point O for further clearance.
- (8) Avoid all airports by overflight of 1500' AGL vertically or 3 NM laterally: Uncharted airports (N41-55-30 W114-07-00, N41-26-00 W115-47-00, N41-39-00 W114-49-50).
- (9) Uncharted obstructions:
 - (a) Tower 190' AGL (N43-17-30 W113-11-50);
 - (b) Tower 100' AGL (N42-35-24 W113-11-50);
 - (c) Tower 75' AGL (N42-30-00 W113-10-00) on top of hill.
- (10) Alternate Entry Points: C, E, F, G, H, K, L and O.
- (11) Alternate Exit Points: C, E, F, G, H, K, L, O and Y.
- (12) Lost communications procedures: Fly 12,000' MSL or top of the block.
- (13) For non-fighter type aircraft: Due to the severity of terrain near Alternate Exit Point Y, terrain following will only be flown in VMC conditions from Point X to N41-50-00. During IMC conditions or at night, fly the published IFR altitudes to avoid the 9912' MSL peak.

FSS Within 100 NM Radius:
BOI

IR-307

ORIGINATING ACTIVITY: 124 WG, Gowen Field, Boise, ID 83705 DSN 422-5348, C208-422-5348.

SCHEDULING ACTIVITY: 366 OSS/OSOS, Mountain Home AFB, ID 83648, DSN 728-4607/2172. C208-828-4607/2172/4631. Scheduling requests 0730-1630L, Mon-Fri. Must be scheduled minimum 2 hours prior to entry.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 110 MSL to	A	BOI 320/65	N44°33.00' W116°47.00'
01 AGL B 110 MSL to	B	DNJ 271/20	N44°53.00' W116°39.00'
01 AGL B 110 MSL to	C	DNJ 329/41	N45°26.50' W116°25.00'
01 AGL B 110 MSL to	D	DNJ 358/80	N46°02.00' W115°39.00'
01 AGL B 110 MSL to	E	CPN 231/74	N45°32.00' W114°21.80'
01 AGL B 110 MSL to	F	CPN 221/51	N45°34.00' W113°45.00'
01 AGL B 120 MSL to	G	DLN 290/34	N45°36.00' W113°11.50'
01 AGL B 120 MSL to	H	DLN 229/25	N45°05.00' W113°06.00'
01 AGL B 120 MSL to	I	DLN 183/53	N44°25.00' W112°59.00'
01 AGL B 130 MSL to	J	BOI 041/99	N44°25.00' W114°15.00'
01 AGL B 120 MSL to	K	BOI 027/73	N44°25.00' W115°00.00'
120 MSL to	L	BOI 010/51	N44°18.00' W115°39.00'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 4 NM either side of centerline from A to D; 5 NM either side of centerline from D to E; 8 NM either side of centerline from E to L.

Special Operating Procedures:

- (1) This route is closed to all non- 124 FW and 366 FW operations.
- (2) MARSA applies between successive participants and at all route crossings. Technique for applying MARSA is by scheduling and/or See and Avoid.
- (3) IR-307 will not be scheduled/flown when IR-301 is in use.
- (4) Avoid all airports by 1500' vertically or 3 NM laterally.
- (5) Uncharted airport (N45-39-30 W114-18-00). Overfly at or above 1500' AGL or avoid by 3 NM.
- (6) Uncharted heliport (N45-24-00 W114-10-00). Overfly at or above 1500' AGL or avoid by 3 NM.

IR ROUTES

- (7) Cypress mine blast area (N44-19.0 W114-32.5). Overfly at or above 1500' AGL or avoid by 3 NM.
- (8) Noise sensitive areas:
 - (a) Big Hole National Battlefield (N45-38.4 W113-38.9). Overfly at or above 2000' AGL or avoid by 3 NM.
 - (b) Grant(N45-02-33 W113-08-30). No overflight, Avoid by 3 NM.
 - (c) Wiggins (N44-41-00 W116-41-45). Overfly at or above 1000' AGL or avoid by 1 NM.
 - (d) Salmon river. Overfly at or above 1000' AGL or avoid river by 2 NM from Slate Creek (N45-38-00 W116-18-00) to 5 NM south of Pollock (N45-13-00 W116-27-00).
 - (e) Shook (N45-35-45 W114-19-00). Overfly at or above 1000' AGL or avoid by 1 NM.
 - (f) Peterson (N45-32-00 W113-29-00). Overfly at or above 1000' AGL or avoid by 1 NM.
 - (g) Bannock (N45-09-30 W112-59-45). Overfly at or above 1000' AGL or avoid by 3 NM.
 - (h) Cape Horn (N44-16.5 W115-00.0 to N44-26.0 W115-08.5). Overfly at or above 1000' AGL or avoid by 3 NM.
 - (i) Gibbonsville Noise Sensitive Area (N45 30 04, W113 57 37). Overfly at or above 1500' AGL or avoid by 4NM.
- (9) Contact Seattle ARTCC on 290.55 to report Pt D.
- (10) Contact Salt Lake ARTCC on 387.15 at L for further clearance.
- (11) Alternate Entry: D, E, G and I.
- (12) Alternate Exit: D, E, G, and I.
- (13) Lost Communications (LC) procedures: Route LC altitude is 12,000' MSL.
- (14) Military aircrews must make a position call when in the vicinity of the Deadwood Reservoir (N44-18.43N W115-39.86)(vicinity of L) on 122.9 MHz.

FSS Within 100 NM Radius:

BOI, GTF

IR-308

ORIGINATING ACTIVITY: 58 OSS/OSO, 4301 Randolph Ave., Kirtland AFB, NM 87117-5835 DSN 263-5979/5888/5701, C505-853-5979/5888/5701.

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	PUB 178/18	N38°00.00' W104°28.00'
02 AGL B 160 MSL to	B	ALS 072/46	N37°25.00' W104°52.00'
02 AGL B 130 MSL to	C	ALS 069/22	N37°24.00' W105°22.00'
02 AGL B 160 MSL to	D	ALS 112/26	N37°06.00' W105°22.00'
SFC B 140 MSL to	E	ALS 202/28	N36°58.00' W106°09.00'
02 AGL B 130 MSL to	F	ALS 224/36	N37°01.00' W106°27.00'

02 AGL B 110 MSL to	G	ALS 227/54	N36°54.00' W106°47.00'
02 AGL B 110 MSL to	H	ALS 214/71	N36°32.00' W106°53.00'
02 AGL B 110 MSL to	I	ABQ 341/46	N35°48.00' W106°55.00'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route. IMC Terrain Following (TF) authorized within major command guidance.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) This route restricted to turboprop, tiltrotor, and rotary wing aircraft only.
- (2) This route conflicts with IR-109, IR-409, IR-415/424, and VR-1175. To deconflict with IR-409 or IR-415/424, contact 140th OG, Buckley ANGB, DSN 847-9470/71/72. To deconflict with IR-109, contact 27 OSS, Cannon AFB, DSN 681-2276/7634.
- (3) Alternate Entry: Points B, D and E.
- (4) Avoid the following airfields by 2 NM or 2000' AGL:
 - (a) N36-50.0 W106-53.0;
 - (b) Cuchara Valley at N37-31.0 W105-01.0;
 - (c) Johnson at N37-42.0 W104-47.0.
- (5) CAUTION: Tower, 275' AGL at N37-23.82 W105-24.35.
- (6) CAUTION: Numerous towers and obstructions exist on this route which are hazards to flight at flight altitudes less than 300' AGL. Contact 58 OSS/OSO DSN 263-5979/5888, C505-853-5979 to obtain a current and complete fax list of unchummed/uncharted obstructions.
- (7) Contact 58 OSS/DOO for a fax or email of the most current avoid areas.
- (8) When contacting the scheduling activity, be prepared to provide arrival time at checkpoint E in addition to entry/exit points and times.
- (9) If aircrews are going to miss their scheduled entry time by more than 10 minutes, they must call the 58 SOW Wing Operations Center (DSN 246-9482) for a new entry time.
- (10) CAUTION: Aircraft utilizing IR-308 routing cross IR-109 at multiple locations. All aircraft utilizing this routing (VFR and IFR) will report position updates upon reaching IR-308 point (C) and IR-308 point (H) on UHF 255.4 to avoid potential IR-109 traffic conflicts.
- (11) CAUTION: Frequent tilt-rotor VFR low level traffic transits east to west on the San Pedro cutoff (identified as IR-137 at N36-10.08 W106-23.91 to IR-308 at N36-14.02 W106-53.84) as well as between IR-137 point (E) to IR-308 point (G), and IR-137 point (D) to IR-308 point (H). VFR traffic will monitor and transmit position updates on UHF 255.4 when using these cutoffs to avoid potential conflicts with other IR-308 and IR-109 traffic.

FSS Within 100 NM Radius:

ABQ, DEN

IR-313

ORIGINATING ACTIVITY: 366 OSS/OSOA, Mountain Home AFB, ID 83648 DSN 728-4722 C208-828-4722. Airspace Management information DSN 728-4722.

SCHEDULING ACTIVITY: 366 OSS/OSOS, Mountain Home AFB, ID 83648 DSN 728-4607/2172/4631 C208-828-4607/2172/4631.

HOURS OF OPERATION: By NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 150 MSL to or as assigned	A	BOI 260/93	N43°44.00' W118°19.00'
80 MSL B 150 MSL to descend direct to	B	BOI 270/70	N43°53.00' W117°43.50'
80 MSL to direct to	C	BOI 278/58	N43°57.00' W117°25.00'
01 AGL B 80 MSL to turn right to (TA/TRR initiation point)	D	BOI 280/48	N43°55.00' W117°11.00'
01 AGL B 80 MSL to (Start Maneuver Area) direct to	E	BOI 276/46	N43°51.00' W117°09.50'
01 AGL B 80 MSL to direct to	F	BOI 272/44	N43°47.50' W117°09.50'
01 AGL B 80 MSL to (End Maneuver Area) direct to	G	REO 040/36	N42°54.00' W117°09.50'
01 AGL B 90 MSL to climb direct to	H	REO 057/32	N42°43.00' W117°10.00'
01 AGL B 90 MSL to turn right to (alternate exit)	I	REO 065/29	N42°38.50' W117°12.50'
01 AGL B 90 MSL to direct to (alternate entry)	J	REO 136/30	N42°08.50' W117°35.00'
01 AGL B 90 MSL to direct to	K	REO 141/32	N42°05.00' W117°37.00'
01 AGL B 110 MSL to turn left to	L	REO 145/37	N41°59.50' W117°38.00'
01 AGL B 110 MSL to climb direct to	M	REO 148/43	N41°53.50' W117°39.00'
01 AGL B 110 MSL to direct to	N	SDO 061/14	N41°27.00' W117°44.00'
01 AGL B 110 MSL to turn right to	O	SDO 091/10	N41°21.00' W117°49.00'
01 AGL B 110 MSL to direct to	P	SDO 210/29	N41°05.20' W118°30.00'
01 AGL B 110 MSL to direct to	Q	SDO 217/53	N40°54.00' W118°59.00'
01 AGL B 100 MSL to turn right and climb to	R	SDO 224/57	N40°57.00' W119°09.00'
01 AGL B 100 MSL to direct to	S	LKV 121/31	N42°06.00' W120°03.50'
01 AGL B 100 MSL to (TA/TFR Termination Point) direct to	T	LKV 120/17	N42°17.00' W120°15.50'
90 MSL B 100 MSL to continue climb to cross	U	LKV 119/13	N42°20.00' W120°19.00'
100 MSL to or as assigned to	V	LKV VORTAC	N42°29.57' W120°30.43'

ALTERNATE ENTRY/EXIT

01 AGL B 90 MSL to I1 REO 104/44 N42°11.28'
W117°02.45'

ALTERNATE EXIT

01 AGL B 90 MSL to I REO 065/29 N42°38.50'
W117°12.50'

PMSV CONTACTS: Primary Home Station. Alternates Mountain Home (MUO 342.5).

TERRAIN FOLLOWING OPERATIONS: IMC/VMC terrain following (TF) terrain avoidance (TA) and visual contour (VC) operations are authorized IAW command directives within published altitudes from D to S. When command directives preclude TA/TF/VMC operations aircrews will maintain the IFR altitude for each route segment. Minimum altitudes other than surface are established to provide at least 100' vertical separation of known man-made obstructions within the route width. Command Directives may require additional obstructions clearance for TA/TF/VMC operations. The entire route is mountainous. Aircrews must comply with FAA regulations governing operations below 500' AGL. The route corridor provides airspace for 500' lateral separation from obstacles. Obstructions under 200' AGL were not considered in the route design.

ROUTE WIDTH - 4 NM either side of centerline from A to D; 3 NM left and 4 NM right of centerline from D to E; 3 NM left and 9 NM right of centerline from E to F; 4 NM left and 9 NM right of centerline from F to G; 4 NM either side of centerline from G to K; 4 NM left and 3 NM right of centerline from K to N; 4 NM either side of centerline from N to O; 3 NM left and 4 NM right of centerline from O to Q; 4 NM either side of centerline from Q to V; 4 NM either side of centerline from Alternate Exit I to I1; 4 NM either side of centerline from Alternate Entry I1 to J.

Special Operating Procedures:

- (1) Participating aircraft separation: Route is designed for MARSA operations established by coordinated scheduling.
- (2) Route is designated for System Strategic Navigation (SN) missions.
- (3) Aircrews should be especially vigilant when flying IR-313 between N41-16.5 W117-58.5 and Point N due to possible crossing traffic on IR-303 and between N42-10.0 W117-36.0 and N42-17.0 W117-30.0 due to crossing traffic on IR-304. If VMC exists at the crossing point, See and Avoid is the method of MARSA. In IMC the method of MARSA will be procedural established by scheduling agency.
- (4) Centerline is depicted as a 7.5 NM radius arc between turn points.
- (5) Aircrews should be especially vigilant when flying IR-313 between C and G due to a high volume of general aviation traffic crossing the route.
- (6) Aircrews will indicate the altitude required after exiting IR-313 in the remarks section immediately after the route exit time.
- (7) Aircrew may expect a climb restriction by Point T by Seattle ARTCC if required for traffic separation at LKV. Contact Seattle ARTCC on 351.7 at point S for possible Lakeview altitude restrictions and IFR route clearance.
- (8) Alternate Exit I to I1 requires prior coordination to schedule the Owyhee MOA.
- (9) Alternate Entry I1 to J may be used only after exiting out of the Owyhee and Paradise MOAS.
- (10) Aircrews should be aware of hang gliding activity from Pt. S thru V.

IR ROUTES

(11) Noise Sensitive Areas:

- (a) Residence at N41-25.5 W117-47.5;
- (b) Residence at N43-17.5 W117-06.0;
- (c) Residence at N43-21.2 W117-06.9;
- (d) Residence at N42-00.0 W117-38.5.

(12) Unverified airport at N42-11.0 W116-52.0.

(13) Between turn points S and T recommend initiating climb early to establish communications with Seattle ARTCC (ZSE) on 351.7 prior to T to receive IFR clearance restrictions by LKV.

(14) Inquire of Mountain Home AFB scheduling as to the status of IR-300 when booking the route. Use caution: IR-300 is the reverse of this routing.

(15) CAUTION: Uncharted meteorological tower installed at 42°07'00N/120°06'46W, and is immediately to the right of centerline between turn points B and C. Height of tower is greater than 150' tall, and possibly up to 190' in height. Uncharted dirt/turf airstrip at 42°24'23N/117°04'52W.

FSS Within 100 NM Radius:

BOI, CLE, MMV, RNO

IR-320

ORIGINATING ACTIVITY: 27 SOSS/OSA, 201 S Chindit Ave. Bldg 728, Rm 112, Cannon AFB, NM 88103, 27SOSS.ATC.ORG@US.AF.MIL, DSN 640-6497, C575-904-6497.

SCHEDULING ACTIVITY: 27 SOAOS/RMO, 205 S Chindit Ave. Bldg 780, Rm 119, Cannon AFB, NM 88103, 27SOAOS.RMO.GROUND@us.af.mil, DSN 681-2276/7634, C575-784-2276/7634.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at FL230 to or as assigned (Start TFR Point) descend direct to	A	JNC 183/42	N38°24.00' W109°04.00'
01 AGL B FL230 to (Start TA Point) direct to	B	DVC 251/12	N37°47.50' W109°10.50'
06 AGL B 95 MSL to turn right to	C	DVC 190/43	N37°09.00' W109°18.00'
01 AGL B 95 MSL to direct to	D	DVC 192/51	N37°03.00' W109°24.00'
01 AGL B 95 MSL to turn left to	E	DVC 202/62	N36°58.00' W109°41.00'
01 AGL B 95 MSL to turn right to	F	TBC 043/84	N36°51.00' W109°47.50'
01 AGL B 95 MSL to direct to	G	TBC 058/75	N36°28.50' W109°47.50'
01 AGL B 95 MSL to descend direct to	H	TBC 063/74	N36°21.50' W109°47.00'
04 AGL B 95 MSL to direct to	I	TBC 080/75	N36°00.00' W109°43.50'
01 AGL B 90 MSL to direct to	J	TBC 089/79	N35°48.00' W109°42.00'
01 AGL B 90 MSL to direct to	K	SJN 322/50	N35°10.00' W109°35.50'

01 AGL B 90 MSL to turn right to	L	SJN 284/20	N34°34.00' W109°30.00'
01 AGL B 90 MSL to climb direct to cross	M	SJN 269/20	N34°29.00' W109°32.00'
100 MSL to direct to	N	SJN 260/22	N34°26.00' W109°35.00'
100 MSL to turn right to	O	SJN 229/45	N34°03.50' W109°55.50'
01 AGL B 100 MSL to direct to	P	SJN 230/51	N34°01.00' W110°03.00'
01 AGL B 100 MSL to turn right to	Q	SJN 237/63	N34°02.50' W110°20.00'
01 AGL B 100 MSL to direct to	R	SJN 246/67	N34°11.50' W110°27.50'
06.5 AGL B 90 MSL to turn left to	S	INW 051/35	N35°18.50' W110°08.50'
90 MSL to direct to	T	INW 045/37	N35°22.50' W110°09.00'
90 MSL to (Contact Denver ART-CC on 256.87) climb to cross	U	INW 030/43	N35°34.50' W110°11.50'
160 MSL to	V	TBC 088/50	N35°56.00' W110°16.00'
160 MSL to	W	TBC 082/43	N36°02.00' W110°23.00'
160 MSL to Alternate Entry: F1	X	TBC 078/22	N36°06.00' W110°49.00'
120 MSL to or as assigned then descend direct to cross	F1	TBC 053/77	N36°36.00' W109°47.50'
01 AGL B 100 MSL to turn right to	G1	TBC 058/75	N36°28.50' W109°47.50'
01 AGL B 100 MSL to Thence via published route.	H1	TBC 063/74	N36°21.50' W109°47.00'
Alternate Entry: AD FL230 to or as assigned then direct to cross	AD	ZUN 124/24	N34°40.00' W108°50.00'
at or below 170 MSL then turn left and continue descent to	AE	ZUN 175/15	N34°43.00' W109°12.00'
100 MSL B 170 MSL to then continue descent direct to cross	AF	ZUN 191/19	N34°41.00' W109°19.00'
100 MSL to direct to	AG	SJN 300/17	N34°37.00' W109°24.00'
100 MSL to Thence via published route.	M1	SJN 269/20	N34°29.00' W109°32.00'
Alternate Exit: S 01 AGL B 100 MSL to turn right to	Q1	SJN 237/63	N34°02.50' W110°20.00'
01 AGL B 100 MSL to direct to	R1	SJN 246/67	N34°11.50' W110°27.50'
06.5 AGL B 90 MSL to Contact ABQ ARTCC 306.2	S1	INW 051/35	N35°18.50' W110°08.50'

TERRAIN FOLLOWING OPERATIONS: Terrain

Following (TF) Visual Contour (VC) operations are authorized IAW major commands/MDS guidance.

ROUTE WIDTH - 3 NM left and 5 NM right of centerline from A to B; 4 NM either side of centerline from B to X. **ALTERNATE ENTRY, F1:** 4 NM either side of centerline from F1 to H1. **ALTERNATE ENTRY, AD:** 4 NM either side of centerline from AD to M1. **ALTERNATE EXIT, S:** 4 NM either side of centerline from Q1 to S1.

Special Operating Procedures:

- (1) Route is not available for use. Contact Cannon AFB airspace management for additional information.
- (2) Deconfliction will be by coordinated scheduling. Aircraft utilizing this MTR shall meet their scheduled entry, and exit points by plus or minus 2.5 minutes to ensure the mandatory separation time of 10 minutes. If unable, contact the scheduling authority to cancel and or reschedule mission.
- (3) Lost Communications (LC) procedures: Route LC altitude is 16,000' MSL. Desired deviation from this procedure must be filed IAW command directive and verified with Denver ARTCC prior to route entry.
- (4) Aircrews are advised of 550' smokestack located at N34-56-26 W110-17-59.
- (5) Aircraft will contact the following ARTCC's with their call sign, location and route identifier:
 - (a) Albuquerque ARTCC at Point L on 239.05;
 - (b) Denver ARTCC at Point U on 256.87.
- (6) IR-320 and IR-112 conflict in the area of Point J and between Points R and S. Deconfliction is accomplished by scheduling activity. The method of marsa in these areas will be coordinated scheduling.
- (7) Centerline between designated turn points is depicted as a 7.5 NM radius arc.
- (8) Aircrews should be especially vigilant during summer months for increased VFR traffic between Points N and S.
- (9) Aircrews are advised of a 300' smokestack located at the Pulp Mill located at N34-30.3 W110-20.2. Avoid by 1/4 NM.
- (10) Noise Sensitive Areas:
 - (a) Residence at N34-52.0 W110-18.5;
 - (b) Residence at N34-22.4 W110-25.9;
 - (c) Residence at N34-23.1 W110-23.0;
 - (d) Residence at N37-52.4 W109-11.3;
 - (e) High School at N35-45.3 W109-37.8;
 - (f) Residence at N34-53.3 W110-16.3;
 - (g) Residence at N34-54.5 W110-14.9;
 - (h) Residence at N34-54.8 W110-13.2.
- (11) Aircrew requesting to use the Alternate Entry Track AD request to schedule IR-320AD with the scheduling agency.
- (12) Alternate Exit: Point S; climb to cross Point S at 9000 MSL, contact Albuquerque ARTCC 306.2, exit at Point S under Albuquerque's control direct to next filed point.
- (13) Due to evolving avoidance areas, obstacles, and land beneath the route, all users must have/utilize the current local route brief, 27 SOG Master CHUM, and Master DRAW files before flying the route. This information can be obtained by request to the scheduling activity.

FSS Within 100 NM Radius:

ABQ, CDC, PRC

IR-324

ORIGINATING ACTIVITY: 62 OSS/OSK, 1172 Levitow Blvd., McChord Fld, WA 98438 DSN 382-3615, C253-982-3615.

SCHEDULING ACTIVITY: 62 OSS/OSO, 100 Main St., McChord Fld, WA 98438 DSN 382-9925, C253-982-9925. Non-duty hours McChord Command Post DSN 382-2635, C253-982-2635.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	EPH 105/21	N47°10.00' W119°00.00'
03 AGL B 50 MSL to	B	GEG 212/30	N47°13.00' W118°09.00'
03 AGL B 50 MSL to	C	GEG 265/26	N47°38.00' W118°15.70'
03 AGL B 60 MSL to	D	GEG 285/32	N47°49.00' W118°19.00'
03 AGL B 60 MSL to	E	GEG 277/42	N47°49.00' W118°36.00'
03 AGL B 60 MSL to	F	EPH 359/28	N47°49.00' W119°11.00'
03 AGL B 60 MSL to	G	EPH 334/23	N47°46.00' W119°28.50'
03 AGL B 60 MSL to	H	EPH 297/26	N47°42.00' W119°51.00'
03 AGL B 50 MSL to	I	EPH 218/15	N47°15.00' W119°44.00'
03 AGL B 50 MSL to	J	EPH 187/22	N47°03.40' W119°40.50'

TERRAIN FOLLOWING OPERATIONS: After crossing Point A descent to 300' AGL can be initiated. From Point A to J, 300' AGL modified contour will be conducted in VMC. All structures on the route will be avoided by a minimum of 500' horizontally.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) All turns must remain within route width.
- (2) Authorized aircraft C-17 and C-130.
- (3) Primary Entry: Point A. Alternate Entry: Point B and F.
- (4) Primary Exit: Point J. Alternate Exit: Points G and H.
- (5) Route Communications:
 - (a) Contact Grant County Approach Control 126.4 or 385.5 prior to Point A for clearance;
 - (b) Between Points B and C monitor Spokane Approach Control 123.75 or 282.25;
 - (c) Between Points C and H monitor Seattle Center 126.1 or 291.6. Give progress report at Point E. If exiting at Point G, relay intentions after exit prior to Point F;
 - (d) Between Points H and J monitor Grant County Approach 126.4 or 385.5. Before Point I, advise of intentions after exit;
 - (e) Between 2200 (L) and 0600 (L) contact Seattle Center on 126.1 or 291.6 for clearance, then monitor between Points A and B. Monitor Spokane Approach Control 123.75 or 282.25 between Points B and C. Then monitor

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Seattle Center 126.1 or 291.6 between Points C and J.
Prior to Point I advise Center of intentions after exit. (Tie in FSS: SEA).

- (6) Speed:
- (a) Maintain 250 KCAS or below until route entry;
 - (b) Route may be scheduled at 240 or 300 knots ground speed. Indicate desired speed when scheduling. MARSA established via coordinated scheduling;
 - (c) Maximum speed on route: 360 KCAS.
- (7) Caution:
- (a) Deconflict traffic on VR-1350, VR-1351, IR-325, IR-326, IR-327, IR-328, IR-330 and IR-341 with scheduling activity.
 - (b) Be alert for crop duster activity while over any agricultural area below 1000' AGL;
 - (c) Prior to Point A, crews should be alert for light aircraft conducting basic flight training that may not be talking to air traffic control;
 - (d) Extensive glider activity (Apr to Oct) West of Ephrata Airport and Township from Points H to J. Crews should be alert for aircraft and glider aircraft under tow without transponders and not talking to air traffic control. Crews should use extreme caution when exiting;
 - (e) During summer months (May-Oct) crews must check Seattle Center NOTAMs for any Temporary Flight Restrictions that may be in effect in support of fire suppression;
 - (f) Crews should remain vigilant for fire suppression aircraft operating in and out of Grant County. Crews should be alert for these aircraft when operating near any source of water. Avoid areas of smoke by ten miles.
 - (g) A wind farm will begin construction in the spring of 2011, this farm is located near Point H, towering heights are 453' AGL.
 - (h) Be alert for crop duster aircraft departing a grass strip located at N40-20-28 W119-42-20.
- (8) When practicable avoid by 1500' AGL or 3 NM:
- (a) Franz Afd N47-03-01 W118-51-10;
 - (b) Tree Heart Afd (Pvt) N47-08-30 W118-48-04;
 - (c) Pru AFLD N47-07-30 W118-23-34;
 - (d) Kramer AFLD N47-22-54 W118-17-48;
 - (e) Hanes AFLD (Pvt) N47-29-30 W118-15-04;
 - (f) Davenport AFLD N47-39-15 W118-10-04;
 - (g) 7 Bays AFLD (Pvt) N47-51-04 W118-19-49;
 - (h) Gollehon AFLD (Pvt) N47-49-13 W118-41-13;
 - (i) Wilbur AFLD N47-45-12 W118-44-38;
 - (j) Sheffels Ranch AFLD (Pvt) N47-49-02 W118-48-05;
 - (k) Grand Coulee AFLD N47-55-30 W119-04-15;
 - (l) Mansfield AFLD N47-48-35 W119-38-14;
 - (m) Quincy AFLD N47-12-42 W119-50-23;
 - (n) Grigg AFLD (Pvt) N47-10-24 W119-44-48.
- (9) Sensitive Areas:
- (a) Avoid Sprague Lake NE of Point B;
 - (b) Maintain 2000' AGL or above over FDR Lake between Points D and E;
 - (c) Avoid by 1 NM wildlife areas between Points D and E: N47-49-30 W118-20-48, N47-53-00 W118-27-48.
 - (d) Avoid sport parachute activity by 3NM at N47-09-38 W118-17-33.
- (10) Crews should forward any observed hazard to aviation or concerns to the 62nd AW Airspace Manager at DSN 382-4057, C253-982-4057.

FSS Within 100 NM Radius:

SEA

IR-325

ORIGINATING ACTIVITY: 62 OSS/OSK, 1172 Levitow Blvd., McChord Fld, WA 98438 DSN 382-3615, C253-982-3615.

SCHEDULING ACTIVITY: 62 OSS/OSO, 100 Main St., McChord Fld, WA 98438 DSN 382-9925, C253-982-9925.
Non-duty hours McChord Command Post DSN 382-2635, C253-982-2635.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	EPH 218/15	N47°15.00' W119°44.00'
03 AGL B 60 MSL to	B	EPH 297/26	N47°42.00' W119°51.00'
03 AGL B 60 MSL to	C	EPH 334/23	N47°46.00' W119°28.50'
03 AGL B 60 MSL to	D	EPH 359/28	N47°49.00' W119°11.00'
03 AGL B 60 MSL to	E	GEG 285/32	N47°49.00' W118°19.00'
03 AGL B 60 MSL to	F	GEG 265/26	N47°38.00' W118°15.70'
03 AGL B 50 MSL to	G	GEG 212/30	N47°13.00' W118°09.00'
03 AGL B 50 MSL to	H	EPH 105/21	N47°10.00' W119°00.00'

TERRAIN FOLLOWING OPERATIONS: After crossing Point A descent to 300' AGL can be initiated. From Point A to H, 300' AGL modified contour will be conducted in VMC. All structures on the route will be avoided by a minimum of 500' horizontally.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) All turns must remain within route width.
- (2) Authorized aircraft C-17 and C-130.
- (3) Primary Entry: Point A. Alternate Entry: Points B, C, and D.
- (4) Primary Exit: Point H. There are no alternate exit points.
- (5) Route Communications:
 - (a) Contact Grant County Approach Control 126.4 or 385.5 prior to Point A for clearance;
 - (b) Between Points B and F monitor Seattle Center 126.1 or 291.6;
 - (c) Between Points F and G monitor Spokane Approach Control 123.75 or 282.25;
 - (d) Before Point H, advise Grant County Approach of intentions after exit on 126.4 or 385.5;
 - (e) Between 2200 (L) and 0600 (L) contact Seattle Center on 126.1 or 291.6 for clearance, then monitor between Points A and F. Monitor Spokane Approach Control on 123.75 or 282.25 from Point F to G. Then monitor Seattle Center 126.1 or 291.6 from Point G to H. At Point G advise of intentions after exit.
- (6) Speed:
 - (a) Maintain 250 KCAS or below until route entry;

- (b) Route may be scheduled at 240 or 300 knots ground speed. Indicate desired speed when scheduling. MARSA established via coordinated scheduling;
- (c) Maximum speed on route: 360 KCAS.
- (7) Caution:
 - (a) Deconflict traffic on VR-1350, VR-1351, IR-324, IR-326, IR-327, IR-328, IR-330 and IR-341 with scheduling activity. Entry at Point C will deconflict with VR-1350;
 - (b) Be alert for crop duster activity while over any agricultural area below 1000' AGL;
 - (c) Extensive glider activity (Apr to Oct) West of Ephrata Airport and Township from Points E to H. Crews should be alert for glider aircraft and glider aircraft under tow without transponders and not talking to air traffic control. Crews should use extreme caution when exiting;
 - (d) When climbing out of the low level near Point H, be alert for small aircraft conducting basic flight training;
 - (e) During summer months (May-Oct) crews must check Seattle Center NOTAMs for any Temporary Flight Restrictions that may be in effect in support of fire suppression;
 - (f) Crews should remain vigilant for fire suppression aircraft operating in and out of Grant County. Crews should be alert for these aircraft when operating near any source of water. Avoid areas of smoke by ten miles.
 - (g) A wind farm will begin construction in the spring of 2011, this farm is located near Point B, towering heights are 453' AGL.
 - (h) Be alert for crop duster aircraft departing a grass strip located at N47-20-47 W119-42-33.
- (8) When practicable avoid by 1500' AGL or 3 NM:
 - (a) Grigg AFDL (Pvt) N47-10-24 W119-44-48;
 - (b) Quincy AFDL N47-12-42 W119-50-23;
 - (c) Mansfield AFDL N47-48-35 W119-38-14;
 - (d) Grand Coulee AFDL N47-55-30 W119-04-15;
 - (e) Sheffels Ranch AFDL (Pvt) N47-49-02 W118-48-05;
 - (f) Wilbur AFDL N47-45-12 W118-44-38;
 - (g) Gollehon AFDL (Pvt) N47-49-13 W118-41-13;
 - (h) 7 Bays AFDL (Pvt) N47-51-04 W118-19-49;
 - (i) Davenport AFDL N47-39-15 W118-10-04;
 - (j) Hanes AFDL (Pvt) N47-29-30 W118-15-04;
 - (k) Kramer AFDL N47-22-54 W118-17-48;
 - (l) Pru AFDL N47-07-30 W118-23-34;
 - (m) Tree Heart Afdl N47-08-30 W118-48-04.
 - (n) Franz Afdl N47-03-01 W118-51-10;
- (9) Sensitive Areas:
 - (a) Avoid Sprague Lake NE of Point G;
 - (b) Maintain 2000' AGL or above over FDR Lake between Points D and E;
 - (c) Avoid by 1 NM wildlife areas between Points D and E: N47-53-00 W118-27-48, N47-49-30 W118-20-48.
 - (d) Avoid sport parachute activity by 3NM at N47-09-38 W118-17-33.
- (10) Crews should forward any observed hazard to aviation or concerns to the 62nd AW Airspace Manager at DSN 382-4057, C253-982-4057.

FSS Within 100 NM Radius:

SEA

IR-326

ORIGINATING ACTIVITY: 62 OSS/OSK, McChord Fld, WA 98438 DSN 382-3615 C253-982-3615.

SCHEDULING ACTIVITY: 62 OSS/OSO, 100 Main St., McChord Fld, WA 98438 DSN 382-9925. C253-982-9925
Non-duty hours McChord Command Post DSN 382-2635, C253-982-2635.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	EPH 114/40	N46°54.00' W118°44.10'
03 AGL B 50 MSL to	B	EPH 091/32	N47°10.40' W118°41.40'
03 AGL B 50 MSL to	C	GEG 211/29	N47°13.20' W118°08.20'
03 AGL B 50 MSL to	D	PUW 280/16	N46°48.30' W117°33.00'
03 AGL B 50 MSL to	E	ALW 353/19	N46°23.80' W118°14.30'
03 AGL B 50 MSL to	F	EPH 139/50	N46°35.70' W119°00.00'
03 AGL B 50 MSL to	G	EPH 187/22	N47°03.40' W119°40.50'

TERRAIN FOLLOWING OPERATIONS: After crossing Point A descent to 300' AGL can be initiated. From Point A to G, 300' AGL modified contour will be conducted in VMC, unless overflying Columbia National Wildlife Refuge, where minimum altitude will be 2000 feet AGL. All structures on the route will be avoided by a minimum of 500' horizontally.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) All turns must remain within route width.
- (2) Authorized aircraft C-17 and C-130.
- (3) Primary Entry: Point A. Alternate Entry: Points B, C and D.
- (4) Primary Exit: Point G. There are no alternate exit points.
- (5) Route Communications:
 - (a) Contact Grant County Approach Control 126.4 or 385.5 prior to Point A for clearance;
 - (b) For entry at Point D contact Seattle Center on 123.95 or 290.55 for clearance;
 - (c) Between Point C and E monitor Seattle Center on 123.95 or 290.55. Provide progress report to Seattle Center at Point D;
 - (d) Monitor Spokane Approach 128.75 or 377.2 between Points E and F;
 - (e) At Point F, advise Grant County Approach of intentions after exit on 126.4 or 385.5;
 - (f) Between 2200 (L) and 0600 (L) contact Seattle Center on 126.1 or 291.6 for clearance, then monitor between Points A and C. Monitor Seattle on 123.95 or 290.55 from Point C to E, relay progress report at Point D. Then monitor Seattle on 126.1 or 291.6 between Points E and G. At Point F advise of intentions after exit.
- (6) Speed:
 - (a) Maintain 250 KCAS or below until route entry;

IR ROUTES

- (b) Route may be scheduled at 240 or 300 knots ground speed. Indicate desired speed when scheduling. MARSA established via coordinated scheduling;
- (c) Maximum speed on route: 360 KCAS.
- (7) Caution:
- (a) Deconflict traffic on VR-1351, VR-1354, IR-324, IR-325, IR-329, IR-330 and IR-341 with scheduling activity;
- (b) Be alert for small aircraft conducting spin training 6000' MSL and below midway between Point F and G;
- (c) Be alert for crop duster activity while over any agricultural area below 1000' AGL;
- (d) Extensive glider activity (Apr to Oct) West of Ephrata Airport and Township. When exiting the route, crews should be alert for glider aircraft and glider aircraft under tow without transponders and not talking to air traffic control;
- (e) During summer months (May-Oct) crews must check Seattle Center NOTAMs for any Temporary Flight Restrictions that may be in effect in support of fire suppression;
- (f) Crews should remain vigilant for fire suppression aircraft operating in and out of Grant County. Crews should be alert for these aircraft when operating near any source of water. Avoid areas of smoke by ten miles.
- (g) Numerous wind turbines left and right of centerline near Point E, south of the town of Starbuck. Some of these wind mills may reach 458' AGL.
- (8) When practicable avoid by 1500' AGL or 3 NM:
- (a) Lind AFDL N46-58-40 W118-35-09;
- (b) Franz AFDL N47-03-01 W118-51-10;
- (c) Tree Heart Afdl (Pvt) N47-08-30 W118-48-04;
- (d) Pru AFDL N47-07-30 W118-23-34;
- (e) Hon AFDL (Pvt) N46-55-51 W117-58-27;
- (f) Little Goose AFDL N46-35-00 W118-00-04;
- (g) Lower Monumental AFDL N46-33-00 W118-32-12;
- (h) Slinkard AFDL (Pvt) N46-36-12 W119-03-46;
- (i) Gearhart AFDL (Pvt) N46-47-20 W119-12-30;
- (j) Christensen AFDL (Pvt) N46-55-14 W119-35-24;
- (k) Hanes AFDL (Pvt) N47-29-30 W118-15-04;
- (l) Kramer AFDL (Pvt) N47-22-54 W118-17-48.
- (9) Sensitive Areas:
- (a) Avoid Sprague Lake NE of Point C;
- (b) Avoid sport parachute activity by 3NM at N47-09-38 W118-17-33.
- (10) Crews should forward any observed hazard to aviation or concerns to the 62nd AW Airspace Manager at DSN 382-4057, C253-982-4057.

FSS Within 100 NM Radius:

SEA

IR-327

ORIGINATING ACTIVITY: 62 OSS/OSK, 1172 Levitow Blvd., McCord Fld, WA 98438 DSN 382-3615, C253-982-3615.

SCHEDULING ACTIVITY: 62 OSS/OSO, 100 Main St., McChord Fld, WA 98438 DSN 382-9925, C253-982-9925. Non-duty hours McChord Command Post DSN 382-2635, C253-982-2635.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	EPH 063/18	N47°24.50' W118°59.20'
50 MSL to	B	GEG 257/32	N47°34.20' W118°25.10'
03 AGL B 50 MSL to	C	GEG 282/37	N47°49.80' W118°26.40'
03 AGL B 70 MSL to	D	GEG 298/45	N48°04.20' W118°27.80'
03 AGL B 70 MSL to	E	EPH 001/57	N48°15.80' W118°54.00'
03 AGL B 70 MSL to	F	EPH 324/37	N47°58.00' W119°39.20'
03 AGL B 60 MSL to	G	EPH 287/21	N47°35.40' W119°49.40'
03 AGL B 60 MSL to	H	EPH 218/15	N47°15.00' W119°44.00'
03 AGL B 50 MSL to	I	EPH 187/22	N47°03.40' W119°40.50'

TERRAIN FOLLOWING OPERATIONS: After crossing Point B descent to 300' AGL can be initiated. From Point B to I, 300' AGL modified contour will be conducted in VMC, unless overflying Columbia National Wildlife Refuge, where minimum altitude will be 2000 feet AGL. All structures on the route will be avoided by a minimum of 500' horizontally.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Crews wishing to schedule this route must coordinate with 62 OSO at DSN 382-9925, C253-982-9925 early in the planning day to have the route coordinated with NAS Whidbey Island for transit of the Okanogan MOA.
- (2) All turns must remain within route width.
- (3) Authorized aircraft C-17 and C-130.
- (4) Primary Entry: Point A. Alternate Entry: Points B and D.
- (5) Primary Exit: Point I. Alternate Exit: Points F and G.
- (6) Coordination is required with Whidbey Island NAS, DSN 820-2877, for transition through Roosevelt and Okanogan MOAs.
- (7) Route Communications:
- (a) Contact Grant County Approach Control 126.4 or 385.5 prior to Point A or B for clearance;
- (b) For entry at Point D contact Seattle Center on 126.1 or 291.6 for clearance;
- (c) Monitor Seattle Center 126.1 or 291.6 between Point B and G. Relay progress report at Point F;
- (d) Monitor Grant County Approach Control 126.4 or 385.5 between Point G and I. At Point G report on Freq and advise of intentions after exit;
- (e) Between 2200 (L) and 0600 (L) contact Seattle Center on 126.1 or 291.6 for clearance, then monitor between Points A and I. Prior to Point H advise of intentions after exit.
- (8) Speed:
- (a) Maintain 250 KCAS or below until route entry;
- (b) Route may be scheduled at 240 or 300 knots ground speed. Indicate desired speed when scheduling. MARSA established via coordinated scheduling;
- (c) Maximum speed on route: 360 KCAS.
- (9) Caution:

- (a) Deconflict traffic on VR-1350, VR-1351, IR-324, IR-325, IR-328 and IR-330 with scheduling activity. Exit at Point F will avoid VR-1350;
- (b) Be alert for crop duster activity while over any agricultural area below 1000' AGL;
- (c) Extensive glider activity (Apr to Oct) West of Ephrata Airport and Township from Points H to J. Crews should be alert for glider aircraft under tow without transponders and not talking to air traffic control. Crew should use extreme caution when exiting;
- (d) During summer months (May-Oct) crews must check Seattle Center NOTAMs for any Temporary Flight Restrictions that may be in effect in support of fire suppression;
- (e) Crews should be vigilant for fire suppression aircraft operating in and out of Grant County. Crews should be alert for these aircraft when operating near any source of water. Avoid areas of smoke by ten miles.
- (f) A wind farm will begin construction in the spring of 2011, this farm is located near Point G, towering heights are 453' AGL.
- (g) Be alert for crop duster aircraft departing a grass strip located at N47-20-47 W119-42-33.
- (10) When practicable avoid by 1500' AGL or 3 NM:
 - (a) 7 Bays AFLD (Pvt) N47-51-04 W118-19-49;
 - (b) Mansfield AFLD N47-48-35 W119-38-14;
 - (c) Quincy AFLD N47-12-42 W119-50-23;
 - (d) Grigg AFLD (Pvt) N47-10-24 W119-44-48.
- (11) Sensitive Areas:
 - (a) Minimize overflight of Lake Creek, right of course centerline between Point A and B during summer months (May-Sep);
 - (b) Maintain 2000' AGL or above over FDR Lake between Points B and D.
 - (c) Avoid by 1 NM wildlife area East and Northwest of Point C. N47-53-00 W118-27-48, N47-49-30 W118-20-48.
- (12) Crews should forward any observed hazard to aviation or concerns to the 62nd AW Airspace Manager at DSN 382-4057, C253-982-4057.

FSS Within 100 NM Radius:

SEA

IR-328

ORIGINATING ACTIVITY: 62 OSS/OSK, 1172 Levitow Blvd., McCord Fld, WA 98438 DSN 382-3615, C253-982-3615.

SCHEDULING ACTIVITY: 62 OSS/OSO, 100 Main St., McChord Fld, WA 98438 DSN 382-9925, C253-982-9925. Non-duty hours McChord Command Post DSN 382-2635, C253-982-2635.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	EPH 218/15	N47°15.00' W119°44.00'
03 AGL B 60 MSL to	B	EPH 287/21	N47°35.40' W119°49.40'
03 AGL B 60 MSL to	C	EPH 324/37	N47°58.00' W119°39.20'

03 AGL B 70 MSL to	D	EPH 001/57	N48°15.80' W118°54.00'
03 AGL B 70 MSL to	E	GEG 298/45	N48°04.20' W118°27.80'
03 AGL B 70 MSL to	F	GEG 282/37	N47°49.80' W118°26.40'
03 AGL B 50 MSL to	G	GEG 257/32	N47°34.20' W118°25.10'
03 AGL B 50 MSL to	H	EPH 063/18	N47°24.50' W118°59.20'

TERRAIN FOLLOWING OPERATIONS: After crossing Point A descent to 300' AGL can be initiated. From Point A and H, 300' AGL modified contour will be conducted in VMC. All structures on the route will be avoided by a minimum of 500' horizontally.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Crews wishing to schedule this route must coordinate with 62 OSO at DSN 382-9925, C253-982-9925 early in the planning day to have the route coordinated with NAS Whidbey Island for transit of the Okanogan MOA.
- (2) All turns must remain within route width.
- (3) Authorized aircraft C-17 and C-130.
- (4) Primary Entry: Point A. Alternate Entry: Points B and C.
- (5) Primary Exit: Point H. There are no alternate exit points.
- (6) Coordination is required with Whidbey Island NAS, DSN 820-2877, for transition through Roosevelt and Okanogan MOAs.
- (7) Route Communications:
 - (a) Contact Grant County Approach Control 126.4 or 385.5 prior to Point A;
 - (b) For entry at Point B or C, contact Seattle Center on 126.1 or 291.6 for clearance;
 - (c) Monitor Seattle Center 126.1 or 291.6 between Point B and G. Relay progress report at Point F;
 - (d) Contact Grant County Approach Control 126.4 or 385.5 at Point G and advise of intentions after exit;
 - (e) Between 2200 (L) and 0600 (L) contact Seattle Center on 126.1 or 291.6 for clearance, then monitor between Points A and H. Prior to Point G advise of intentions after exit.
- (8) Speed:
 - (a) Maintain 250 KCAS or below until route entry;
 - (b) Route may be scheduled at 240 or 300 knots ground speed. Indicate desired speed when scheduling. MARSA established via coordinated scheduling;
 - (c) Maximum speed on route: 360 KCAS.
- (9) Caution:
 - (a) Deconflict traffic on VR-1350, VR-1351, IR-324, IR-325, IR-328 and IR-330 with scheduling activity. Exit at Point F will avoid VR-1350;
 - (b) Be alert for crop duster activity while over any agricultural area below 1000' AGL;
 - (c) Extensive glider activity (Apr to Oct) West of Ephrata Airport and Township from Points A to B. Enroute to Point A, crews should be alert for glider aircraft and glider aircraft under tow without transponders and not talking to air traffic control;
 - (d) During summer months (May-Oct) crews must check Seattle Center NOTAMs for any Temporary Flight

IR ROUTES

Restrictions that may be in effect in support of fire suppression;

- (e) Crews should remain vigilant for fire suppression aircraft operating in and out of Grant County. Crews should be alert for these aircraft when operating near any source of water. Avoid areas of smoke by ten miles.
 - (f) A wind farm will begin construction in the spring of 2011, this farm is located near Point G, towering heights are 453' AGL.
 - (g) Be alert for crop duster aircraft departing a grass strip located at N47-20-28 W119-42-20.
- (10) Sensitive Areas:
- (a) Maintain 2000' AGL or above over FDR Lake between Pts E and F;
 - (b) Avoid by 1 NM wildlife area east and northwest of Pt F (N47-53-00 W118-27-48, N47-49-30 W118-20-48;
 - (c) Minimize overflight of Lake Creek, left of course centerline between Pts G and H during summer months (May-Sep).
- (11) Crews should forward any observed hazard to aviation or concerns to the 62ND AW Airspace Manager at DSN 382-4027 C253-982-4057.

FSS Within 100 NM Radius:

SEA

IR-329

ORIGINATING ACTIVITY: 62 OSS/OSK, 1172 Levitow Blvd., McChord Fld, WA 98438 DSN 382-3615, C253-982-3615.

SCHEDULING ACTIVITY: 62 OSS/OSO, 100 Main St., McChord Fld, WA 98438 DSN 382-9925, C253-982-9925.
Non-duty hours McChord Command Post DSN382-2635.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	EPH 136/25	N46°59.40' W119°11.00'
03 AGL B 50 MSL to	B	MWH 135/28	N46°47.70' W119°00.88'
03 AGL B 50 MSL to	C	ALW 301/24	N46°22.00' W118°41.80'
03 AGL B 50 MSL to	D	ALW 254/20	N46°04.40' W118°46.90'
03 AGL B 50 MSL to	E	PDT 295/36	N46°04.00' W119°36.10'
03 AGL B 50 MSL to	F	YKM 101/38	N46°14.20' W119°40.00'
03 AGL B 60 MSL to	G	YKM 061/28	N46°38.00' W119°46.60'
03 AGL B 50 MSL to	H	YKM 038/30	N46°49.80' W119°48.90'
03 AGL B 50 MSL to	I	EPH 187/22	N47°03.40' W119°40.50'

TERRAIN FOLLOWING OPERATIONS: After crossing Point A descent to 300' AGL can be initiated. From Point A to I, 300' AGL modified contour will be conducted in VMC. All structures on the route will be avoided by a minimum of 500' horizontally.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) All turns must remain within route width.
- (2) Authorized aircraft C-17 and C-130.
- (3) Primary Entry: Point A. Alternate Entry: Point B.
- (4) Primary Exit: Point I. There are no alternate exit points.
- (5) Route Communications:
 - (a) Contact Grant County Approach Control 126.4 or 385.5 prior to Point A or B for clearance;
 - (b) Contact Spokane Approach Control 128.75 or 377.2 at Point B and report Point G. If operating between 1000' and 1500' AGL provide estimates for Points C and D;
 - (c) Contact Grant County Approach Control 126.4 or 385.5 prior to Point H with ETA for Point I and intentions after exit;
 - (d) Between 2200 (L) and 0600 (L) contact Seattle Center on 126.1 or 291.6 for clearance, then monitor between Points A and C. Then monitor Seattle Center 132.6 or 269.35 between Points C and H. Then on 126.1 or 291.6 between Points H and I. Prior to Point H advise Center of intentions after exit.
- (6) Speed:
 - (a) Maintain 250 KCAS or below until route entry;
 - (b) Route may be scheduled at 240 or 300 knots ground speed. Indicate desired speed when scheduling. MARSA established via coordinated scheduling.
 - (c) Maximum speed on route: 360 KCAS.
- (7) Caution:
 - (a) Deconflict traffic on VR-1350, VR-1351, VR-1354 and IR-326 with scheduling activity;
 - (b) Be alert for crop duster activity while over any agricultural area below 1000' AGL;
 - (c) Numerous windmills between Point D and E and in the vicinity of Point D. Some mills are 416' AGL;
 - (d) Extensive glider activity (Apr to Oct) West of Ephrata Airport and Township. When exiting the route, crews should be alert for glider aircraft and glider aircraft under tow without transponders and not talking to air traffic control;
 - (e) During summer months (May-Oct) crews must check Seattle Center NOTAMs for any Temporary Flight Restrictions that may be in effect in support of fire suppression;
 - (f) Crews should remain vigilant for fire suppression aircraft operating in and out of Grant County. Crews should be alert for these aircraft when operating near any source of water. Avoid areas of smoke by ten miles.
- (8) When practicable avoid by 1500' AGL or 3 NM:
 - (a) New Warden AFLD N46-58-00 W119-04-04;
 - (b) Taggares AFLD (Pvt) N46-51-47 W119-08-19;
 - (c) Othello AFLD N46-47-42 W119-04-49;
 - (d) Gearhart AFLD (Pvt) N46-47-20 W119-12-30;
 - (e) Connell City AFLD (Pvt) N46-39-45 W118-50-00;
 - (f) Slinkard AFLD (Pvt) N46-36-12 W119-03-46;
 - (g) Compressor Sta AFLD (Pvt) N46-03-04 W118-50-39;
 - (h) McWhorter AFLD (Pvt) N46-19-14 W119-37-04;
 - (i) Christensen Bro AFLD (Pvt) N46-42-29 W119-48-04;
 - (j) Mattawa AFLD (Pvt) N46-43-57 W119-42-08;
 - (k) B and G Farms AFLD (Pvt) N46-56-25 W119-44-15;
 - (l) Christensen AFLD (Pvt) N46-55-14 W119-35-24.
- (9) Sensitive Areas:
 - (a) Maintain 2000' AGL or above over Columbia National Wildlife Refuge between Points A and B;

- (b) Maintain 2000' AGL or above over Juniper Dunes Wilderness Area between Points B and C;
- (c) Maintain 3000' AGL or above over Kennewick Tank Farm at N46-09 W119-00 Northwest of Point D;
- (d) Maintain 1800' MSL or above over Hanford Nuclear Reservation between Points F and H;
- (e) Maintain 2000' AGL or above over Saddle Mountain National Wilderness Refuge between Point G and H.
- (10) Crews should forward any observed hazard to aviation or concerns to the 62nd AW Airspace Manager at DSN 382-4057, C253-982-4057.

FSS Within 100 NM Radius:

SEA

IR-330

ORIGINATING ACTIVITY: 62 OSS/OSK, 1172 Levitow Blvd., McChord Fld, WA 98438 DSN 382-3615, C253-982-3615.

SCHEDULING ACTIVITY: 62 OSS/OSO, 100 Main St., McChord Fld, WA 98438 DSN 382-9925, C253-982-9925.
Non-duty hours McChord Command Post DSN 382-2635, C253-982-2635.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	EPH 114/40	N46°54.50' W118°44.10'
03 AGL B 50 MSL to	B	EPH 091/32	N47°10.40' W118°41.40'
03 AGL B 50 MSL to	C	EPH 057/37	N47°30.40' W118°32.20'
03 AGL B 50 MSL to	D	EPH 029/21	N47°36.19' W119°01.67'
03 AGL B 50 MSL to	E	EPH 357/17	N47°39.20' W119°17.30'
03 AGL B 50 MSL to	F	EPH 330/11	N47°33.58' W119°27.95'
03 AGL B 50 MSL to	G	EPH 268/11	N47°26.40' W119°41.40'
03 AGL B 50 MSL to	H	EPH 235/11	N47°20.05' W119°41.05'
03 AGL B 51 MSL to	I	EPH 187/22	N47°03.40' W119°40.50'

TERRAIN FOLLOWING OPERATIONS: After crossing Point A descent to 300' AGL can be initiated. From Point A and H, 300' AGL modified contour will be conducted in VMC. All structures on the route will be avoided by a minimum of 500' horizontally.

ROUTE WIDTH - 5 NM either side of centerline from A to F; 5 NM left and 2 NM right of centerline from F to H; 5 NM either side of centerline from H to I.

Special Operating Procedures:

- (1) All turns must remain within route width.
- (2) Authorized aircraft C-17 and C-130.
- (3) Primary Entry: Point A. Alternate Entry: Point B.

- (4) Primary Exit: Point I. Alternate Exit: Point H.
- (5) Route Communications:
 - (a) Contact Grant County Approach Control 126.4 or 385.5 prior to Point A or B for clearance. Then monitor from Point A to I. Provide a progress report at Point D. Prior to Point G advise of intentions after exit. If desire is to exit at Point H, advise controller prior to route entry and give intentions upon exit. Plan to cross Point H at 5000' MSL;
 - (b) Between 2200 (L) and 0600 (L) contact Seattle Center on 126.1 or 291.6 for clearance, then monitor between Points A and I. Prior to Point G advise Center of intentions after exit.
- (6) Speed:
 - (a) Maintain 250 KCAS or below until route entry;
 - (b) Route may be scheduled at 240 or 300 knots ground speed. Indicate desired speed when scheduling. MARSAs established via coordinated scheduling;
 - (c) Maximum speed on route: 360 KCAS.
- (7) Caution:
 - (a) Deconflict traffic on VR-1351, IR-324, IR-325, IR-326, IR-327, IR-328 and IR-341 with scheduling activity. VR-1351 can be avoided by remaining West of centerline or above 2000' AGL from N47-22 W118-36 until West of Point C;
 - (b) Be alert for crop duster activity while over any agricultural area below 1000' AGL;
 - (c) Extensive glider activity (Apr to Oct) West of Ephrata Airport and Township from Points F to I. Crews should be alert for glider aircraft and glider aircraft under tow without transponders and not talking to air traffic control. Crews should use extreme caution when exiting;
 - (d) See NOTAMS/Directory for Class E (sfc) effective hours for Ephrata between Points G and I;
 - (e) During summer months (May-Oct) crews must check Seattle Center NOTAMS for any Temporary Flight Restrictions that may be in effect in support of fire suppression;
 - (f) Crews should remain vigilant for fire suppression aircraft operating in and out of Grant County. Crews should be alert for these aircraft when operating near any source of water. Avoid areas of smoke by ten miles.
 - (g) Be alert for crop duster aircraft departing a grass strip located at N47 20.47 W119 42.33.
- (8) When practicable avoid by 1500' AGL or 3 NM:
 - (a) Franz AFLD N47-03-01 W118-51-10;
 - (b) Tree Heart AFLD (Pvt) N47-08-30 W118-48-04;
 - (c) Odessa AFLD (Pvt) N47-21-30 W118-40-24;
 - (d) Coulee City AFLD (Pvt) N47-37-00 W119-14-34;
 - (e) Quincy AFLD N47-12-42 W119-50-23;
 - (f) Grigg AFLD (Pvt) N47-10-24 W119-44-48.
- (9) Sensitive Areas:
 - (a) Minimize overflight of Lake Creek, West Southwest of Point C during summer months (May-Sep).
- (10) Crews should forward any observed hazard to aviation or concerns to the 62nd AW Airspace Manager at DSN 382-4057, C253-982-4057.

FSS Within 100 NM Radius:

SEA

IR ROUTES

IR-341

ORIGINATING ACTIVITY: Commanding Officer (N32), NAS Whidbey Island, 3730 N. Charles Porter Ave., Oak Harbor, WA 98278-5000 DSN 820-2877, C360-257-2877.

SCHEDULING ACTIVITY: Same as Originating Activity. Scheduling hours 0700-1600 local, Mon-Fri only. Same day scheduling may be accomplished during scheduling hours with 2.5 hrs prior notice.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Report crossing at FL230 or as assigned. descend on YKM 108 to cross YKM 108/28 at 110 MSL then			
Cross at FL230 to or as assigned	A	YKM VORTAC	N46°34.22' W120°26.68'
Report crossing			
70 MSL to	B	PDT 299/21	N45°56.00' W119°18.00'
60 MSL to	C	PDT 350/22	N46°03.70' W118°54.00'
60 MSL to	D	PDT 012/41	N46°18.50' W118°30.00'
05 AGL B 50 MSL to	E	GEG 143/35	N47°02.00' W117°18.07'
05 AGL B 40 MSL to	F	GEG 216/40	N47°08.10' W118°22.40'
05 AGL B 40 MSL to	G	EPH 030/38	N47°46.00' W118°42.00'
15 AGL B 50 MSL to	H	EPH 002/15	N47°36.30' W119°17.00'
15 AGL B 50 MSL to	I	EPH 323/23	N47°45.00' W119°35.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from Point D to I in VFR conditions within published altitude blocks.

ROUTE WIDTH - 4 NM either side of centerline.

Special Operating Procedures:

- (1) Route speed schedules in 60 knot increments. Average route speed may not exceed 540 knots. Indicate desired speed when scheduling. Advise scheduling agency if MARSAs. Route entry times must be within 5 minutes of scheduled time.
- (2) Monitor Seattle ARTCC frequencies: 269.35 Point A to B, 377.2 Point B to D (Chinook Approach), 282.3 Point D to F, 291.6 Point F to I.
- (3) If radio communications cannot be established on ARTCC monitored frequencies, contact the nearest FSS.
- (4) CAUTION: Crop dusting activity (seasonal) below 500' AGL between Points D and G.
- (5) Avoid airports from Points D to I by 2000' or 3 NM. Remain within route structure while avoiding airports.

- (6) Route conflicts with IR-326 between points D and G; IR-327 AND IR-328 between points F and G; IR-324, IR-325 and IR-330 between Points F and I.
- (7) Alternate Exit: Point E.
- (8) Route crosses VR-1351 between Points D and E; VR-1354 between Points D and F; VR-1350 and VR-1351 between Points H and I.
- (9) Avoid TPC uncharted Sheffels Airport located right of centerline at N47-49 W118-47 by 1500' AGL or 3 NM between Points G and H.
- (10) CAUTION: Heavy hangliding activity Apr-Oct off Chelan Butte in the vicinity of Point I.

FSS Within 100 NM Radius:

MMV, SEA

IR-342

ORIGINATING ACTIVITY: Commanding Officer (N32), NAS Whidbey Island, 3730 N. Charles Porter Ave., Oak Harbor, WA 98278-5000 DSN 820-2877, C360-257-2877.

SCHEDULING ACTIVITY: Same as Originating Activity. Scheduling hours 0700-1600 local, Mon-Fri only. Same day scheduling may be accomplished during scheduling hours with 2.5 hrs prior notice.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at FL230 to or as assigned	A	IMB VOR-DME	N44°38.90' W119°42.70'
descend on Kimberly VORTAC 160 deg radial to cross			
at or above 130 MSL	B	IMB 161/20	N44°19.00' W119°43.00'
descend to cross			
at or below 85 MSL	C	IMB 160/43	N43°56.00' W119°43.00'
at or below 85 MSL	D	LKV 017/60	N43°18.30' W119°42.00'
05 AGL B 85 MSL to	E	LKV 316/27	N42°54.20' W120°45.80'
05 AGL B 85 MSL to	F	LKV 331/59	N43°28.08' W120°45.00'
05 AGL B 85 MSL to	G	IMB 189/33	N44°09.90' W120°05.00'
05 AGL B 85 MSL to	H	LTJ 118/39	N45°13.00' W120°30.00'
05 AGL B 53 MSL to	I	LTJ 103/40	N45°20.00' W120°18.50'
05 AGL B 40 MSL to	J	PDT 259/31	N45°43.50' W119°41.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from Point B to J in VFR conditions from 500' AGL day and 800' AGL night. Aircraft equipped with terrain following equipment may operate on these segments within the published altitude blocks regardless of weather both day and night.

ROUTE WIDTH - 4 NM either side of centerline.

Special Operating Procedures:

- (1) Route speed schedules in 60 knot increments. Average route speed may not exceed 540 knots. Indicate desired speed when scheduling. Advise scheduling agency if MARSA. Route entry times must be within 5 minutes of scheduled time.
- (2) Monitor Seattle ARTCC frequencies: 257.75 from Point A to D, 351.7 from Point D to F, 257.75 from Point F to I, 269.35 from Point I to J.
- (3) If radio communications cannot be established on ARTCC monitored frequencies, contact the nearest FSS.
- (4) Avoid airports along the entire route by 2000' or 3 NM. Remain within route structure while avoiding airports.
- (5) Aircraft operating in the vicinity of N44-00 W119-43 shall make an alert call in the blind on 272.15 MHZ to inform aircraft operating in Juniper MOA of their presence. The alert call will consist of call sign, route, speed and estimated time to Juniper MOA.
- (6) Route crosses VR-1301, VR-316 and VR-319 between Points C and E.
- (7) Extreme Radar Hazard Zone within 5.5 NM of N43-17.3 W120-21.6 (LKV 350/048) between Points D and E. Remain on or south of centerline while within Juniper North MOA.
- (8) Avoid town of Summer Lake, or located vicinity of (N42-58.0 W120-46.5) 5 NM N of Point E by 1500' or 2 NM.
- (9) Alternate Exit: Point E.
- (10) Route conflicts with VR-1353 between Points E and J.
- (11) CAUTION: Forest fire suppression air activity left of centerline approximately 8 NM south of Point F at FT. Rock Helibase (N43-26.1 W120-50.6) and Ft. Rock Airstrip (N43-20.4 W120-50.6) during fire season, normally May-Oct.
- (12) Alternate Exit: Point H. Commence climb to 16,000' MSL (minimum 3000' per minute rate of climb) passing N45-00. Upon reaching Point H, proceed direct to Klickitat VORTAC, maintain 16,000' MSL. Contact Seattle ARTCC on 257.6 for clearance.
- (13) CAUTION: Crop dusting activity (seasonal) below 500' AGL between Points I and J.
- (14) CAUTION: Wind turbines approximately 500' AGL, between points I and J. Located within MTR airspace crossing and Northwest of the centerline within area coordinates noted: N45-19-11 W120-26-05 to N45-37-52 W119-57-45 to N45-32-46 W119-50-50 to N45-14-04 W120-19-17 to beginning.
- (15) IFR exit procedures: Shuttle climb to 10,000' MSL west of the Pendleton VORTAC 254/31, 5 mile legs, left turns within R-5701 contacting Seattle ARTCC or Walla Walla FSS for IFR clearance.
- (16) Route conflicts with IR-343, IR-344 and IR-346 between Points H and J.

FSS Within 100 NM Radius:

MMV

IR-343

ORIGINATING ACTIVITY: Commanding Officer (N32), NAS Whidbey Island, 3730 N. Charles Porter Ave., Oak Harbor, WA 98278-5000 DSN 820-2877, C360-257-2877.

SCHEDULING ACTIVITY: Same as Originating Activity. Scheduling hours 0700-1600 local, Mon-Fri only. Same day scheduling may be accomplished during scheduling hours with 2.5 hrs prior notice.

HOURS OF OPERATION: Continuous**ROUTE DESCRIPTION:**

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Report			
Cross at FL230 to or as assigned descend on the Yakima VORTAC 108 deg radial to cross YKM 108/28 at 110 MSL then	A	YKM VORTAC	N46°34.22' W120°26.68'
70 MSL to	B	PDT 299/21	N45°56.00' W119°18.00'
60 MSL to	C	PDT 350/22	N46°03.70' W118°54.00'
60 MSL to	D	PDT 047/27	N45°54.90' W118°23.00'
80 MSL to	E	PDT 086/43	N45°34.00' W117°55.50'
90 MSL to	F	PDT 111/33	N45°23.20' W118°18.50'
05 AGL B 90 MSL to	G	IMB 008/7	N44°45.10' W119°38.00'
05 AGL B 90 MSL to	H	IMB 315/43	N45°17.90' W120°08.20'
63 MSL to	I	LTJ 105/34	N45°23.00' W120°27.00'
50 MSL to	J	LTJ 183/9	N45°35.00' W121°11.00'
60 MSL to	K	LTJ 342/17	N45°59.30' W121°04.90'
110 MSL to	L	YKM 204/30	N46°13.00' W120°57.00'
110 MSL to	M	YKM 331/25	N46°59.00' W120°32.00'
110 MSL to	N	EPH 230/27	N47°13.50' W120°03.20'
70 MSL to	O	EPH 002/15	N47°36.30' W119°17.00'
70 MSL to	P	EPH 323/23	N47°45.00' W119°35.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from Point F to H in VFR conditions within published altitude blocks.

ROUTE WIDTH - 4 NM either side of centerline.

Special Operating Procedures:

- (1) Route speeds schedules in 60 knot increments. Average route speed may not exceed 540 knots. Indicate desired speed when scheduling. Advise scheduling agency if MARSA. Route entry times must be within 5 minutes of scheduled time.
- (2) Monitor Seattle ARTCC frequencies: 269.35 from Point A to B, 377.2 from Point B to D (Chinook Approach), 380.2 from Point D to F, 257.75 from Point F to I, 257.6 from Point I to K, 269.35 from Point K to M, 291.6 from Point M to P.
- (3) If radio communications cannot be established on ARTCC monitored frequencies, contact the nearest FSS.

IR ROUTES

- (4) Avoid airports from Point F to H by 2000' or 3 NM. Remain within route structure while avoiding airports.
- (5) CAUTION: Forest fire suppression helicopter activity left of centerline approximately 18.5 NM past Point F at Frazier Helibase (N45-09.25 W118-38.0) during fire season, normally May-Oct.
- (6) Route crosses VR-1352 at Point G.
- (7) Cross the Pendleton VORTAC 050 radial at 7000' MSL or above. Report crossing the Baker VORTAC 297 radial to Seattle ARTCC on 288.1 or to McMinnville Radio on 255.4 for relay to ARTCC. Report passing Point J to McMinnville radio on 255.4 for relay to ARTCC. Report reaching 11,000' MSL prior to Point L to Seattle ARTCC 343.9. Request clearance to descend after passing Point N maintain 11,000' MSL from Point L to Point P unless clearance to descend has been received from Seattle ARTCC.
- (8) CAUTION: Forest fire suppression helicopter activity right of centerline approximately 10 NM past Point L at Ft.Simcoe Helibase (N46-20.45 W120-51.07) during fire season, normally May-Oct.
- (9) Route conflicts with IR-341 between Points A and C.
- (10) Route conflicts with IR-342, IR-344 and IT-346 between Points H and I.

FSS Within 100 NM Radius:

BOI, MMV, SEA

IR-344

ORIGINATING ACTIVITY: Commanding Officer (N32), NAS Whidbey Island, 3730 N. Charles Porter Ave., Oak Harbor, WA 98278-5000 DSN 820-2877, C360-257-2877.

SCHEDULING ACTIVITY: Same as Originating Activity. Scheduling hours 0700-1600 local, Mon-Fri only. Same day scheduling may be accomplished during scheduling hours with 2.5 hrs prior notice.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 170 MSL to or as assigned descend on the HQM 237 deg radial to cross at or above 120 MSL descend to cross	A	HQM VORTAC	N46°56.82' W124°08.96'
at or below 50 MSL descend to cross	B	HQM 240/16	N46°53.80' W124°32.00'
at or below 20 MSL descend to cross	C	HQM 240/36	N46°50.00' W125°00.00'
02 AGL B 20 MSL to	X	HQM 216/28	N46°41.00' W124°42.00'
05 AGL B 40 MSL to	D	HQM 138/28	N46°31.20' W123°53.00'
05 AGL B 40 MSL to	E	OLM 195/29	N46°34.00' W123°18.00'
05 AGL B 40 MSL to	F	OLM 136/31	N46°30.20' W122°35.50'
05 AGL B 70 MSL to	F1	OLM 126/35	N46°29.50' W122°24.50'
05 AGL B 60 MSL to	G	OLM 116/42	N46°28.50' W122°11.50'

05 AGL B 70 MSL to	Q	LTJ 300/50	N46°21.50' W121°51.00'
05 AGL B 70 MSL to	Q1	LTJ 277/25	N45°54.50' W121°38.00'
05 AGL B 60 MSL to	H	LTJ 267/22	N45°49.50' W121°35.50'
05 AGL B 50 MSL to	I	LTJ 250/16	N45°43.00' W121°29.50'
05 AGL B 50 MSL to	J	LTJ 158/32	N45°10.40' W121°05.00'
05 AGL B 60 MSL to	K	LTJ 118/39	N45°13.00' W120°30.00'
05 AGL B 53 MSL to	L	LTJ 103/40	N45°20.00' W120°18.50'
05 AGL B 40 MSL to	M	PDT 259/31	N45°43.50' W119°41.00'

TERRAIN FOLLOWING OPERATIONS: Authorized in VFR conditions from 200' AGL from B to D, and 500' AGL from D to M. Aircraft equipped with terrain following equipment may operate on these segments between 500' AGL and the published route ceilings regardless of weather both day and night.

ROUTE WIDTH - 4 NM either side of centerline.

Special Operating Procedures:

- (1) Route speeds schedules in 60 knot increments. Average route speed may not exceed 540 knots. Indicate desired speed when scheduling. Advise scheduling agency if MARSA. Route entry times must be within 5 minutes of scheduled time.
- (2) Monitor Seattle ARTCC frequencies: 269.0 from Point A to D; 317.6 from Point D to G; 257.6 from Point G to K; 269.35 from Point K to M.
- (3) If radio communications cannot be established on ARTCC-monitored frequencies, contact the nearest FSS.
- (4) Alternate Entry: Point D. Aircraft using alternate entry must cross Point D at 5000' MSL.
- (5) Avoid town of Oysterville, WA located vicinity of N46-33 W124-02 (7 NM West-Northwest of Point D) by 1500' AGL or 2 NM. Noise Sensitive Area.
- (6) Avoid the town of Peell, WA at Point E by 1500' AGL or 2 NM. Noise Sensitive Area.
- (7) Communication antenna (360' AGL) vicinity of Point E N46-32 W123-01. Avoid area by 500' AGL or 1 NM.
- (8) Intensive North-South VFR traffic vicinity of Interstate 5 between Points E and F.
- (9) Alternate Entry: Point F1 for MC-130 aircraft only.
- (10) Avoid airports from F to G by 2000' or 3 NM. Remain within route structure while avoiding airports.
- (11) Remain on or south of centerline from N46-31-54 W122-52 to Point F to avoid Mink Farm at N46-33-00 W122-41-48.
- (12) CAUTION: Forest fire suppression activity left of centerline approximately 5 NM prior to Point Q1 at Wooddruff airstrip (N46-00.2 W121-32.05) during fire season normally May-Oct.
- (13) Avoid town of Trout Lake, WA Northeast of Point H.
- (14) Extensive East-West VFR traffic in the vicinity of the Columbia River Gorge at Points H-I. Exercise extreme caution.
- (15) CAUTION: Intermittent glider activity in the vicinity of and along the ridgelines south of Hood River, Oregon, between Points I and J.

- (16) Avoid town of Hood River, Oregon by 1500' AGL or 1 NM. Noise Sensitive Area at Point I.
- (17) CAUTION: Heavy crop dusting activity (seasonal) below 500' AGL between Points H and M.
- (18) CAUTION: Wind turbines approximately 500' AGL, between Points L and M. Located within MTR airspace crossing and Northwest of the centerline within area coordinates noted: N45-19-11 W120-26-05 to N45-37-52 W119-57-45 to N45-32-46 W119-50-50 to N45-14-04 W120-19-17 to beginning.
- (19) Report crossing Point J to Seattle Center. Avoid city of Maupin, Oregon in vicinity of Point J by 1500' or 2 NM.
- (20) CAUTION: Forest fire suppression helicopter activity vicinity Point J at Maupin helibase (N45-10 W121-04) during fire season, normally May-Oct.
- (21) Route crosses VR-1353 between Points K and M. Route conflicts with IR-342 and IR-343 between Points K and M. Route conflicts with IR-346 between Points J and M.
- (22) Alternate Exit: Point K. Upon reaching K turn right climbing to 16,000' MSL (min 3000' per minute rate of climb) direct to Klickitat VORTAC; maintain 16,000' MSL. Contact Seattle ARTCC on 257.6 for further clearance.

FSS Within 100 NM Radius:

MMV, SEA

IR-346

ORIGINATING ACTIVITY: Commanding Officer (N32), NAS Whidbey Island, 3730 N. Charles Porter Ave., Oak Harbor, WA 98278-5300 DSN 820-2877, C360-257-2877.

SCHEDULING ACTIVITY: Same as Originating Activity. Scheduling hours 0700-1600 local, Mon-Fri only. Same day scheduling may be accomplished during scheduling hours with 2.5 hrs prior notice.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at FL290 to or as assigned descend on the Newport VORTAC 166 deg radial to cross	A	ONP VORTAC	N44°34.52' W124°03.64'
at or above 150 MSL descend to cross	B	ONP 170/34	N44°00.70' W124°08.10'
at or below 50 MSL	C	OTH 317/24	N43°46.50' W124°26.00'
02 AGL B 40 MSL to	D	OTH 340/17	N43°41.50' W124°12.00'
02 AGL B 40 MSL to	Q1	EUG 194/28	N43°42.50' W123°32.50'
02 AGL B 40 MSL to	E	EUG 147/25	N43°43.50' W123°03.00'
02 AGL B 70 MSL to	F	EUG 110/42	N43°43.20' W122°25.50'
02 AGL B 70 MSL to	G	EUG 074/43	N44°07.70' W122°14.30'
02 AGL B 70 MSL to	H	EUG 036/58	N44°43.00' W122°10.10'

02 AGL B 70 MSL to	I	LTJ 199/47	N45°06.80' W121°48.50'
02 AGL B 60 MSL to	Q	LTJ 175/35	N45°09.20' W121°20.00'
05 AGL B 60 MSL to	J	LTJ 118/39	N45°13.00' W120°30.00'
02 AGL B 53 MSL to	K	LTJ 103/40	N45°20.00' W120°18.50'
02 AGL B 40 MSL to	L	PDT 259/31	N45°43.50' W119°41.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from B to L in VFR conditions from 200' AGL day and 800' AGL night. Aircraft equipped with terrain following equipment may operate on these segments between 500' AGL and published route ceilings regardless of weather both day and night. Special attention is directed to numerous mountain peaks between Points E and J.

ROUTE WIDTH - 4 NM either side of centerline.

Special Operating Procedures:

- Route speeds schedules in 60 knot increments. Average route speed may not exceed 540 knots. Indicate desired speed when scheduling. Advise scheduling agency if MARSAs. Route entry times must be within 5 minutes of scheduled time.
- Monitor Seattle ARTCC frequencies: as assigned: Point A to Q1, 291.7 Point F to Q, 257.75 Point Q to K, 269.35 Point K to L.
- If radio communications cannot be established on ARTCC-monitored frequencies, contact the nearest FSS.
- Point A to D; CAUTION, USCG helicopters operate multiple flights daily along coastline 1000' AGL and below. USCG air-to-air: 345.0.
- Avoid airports along the entire route by 2000' or 3 NM. Remain within route structure while avoiding airports.
- Alternate Entry: Point D.
- Avoid city of Reedsport, Oregon in vicinity of Point D by 1500' or 2 NM.
- At Point Q1 aircraft shall contact Eugene Approach Control on 298.9. Upon exiting Eugene Approach Control airspace (vicinity N43-43 W122-45) switch to Point F frequency 291.7.
- CAUTION: 675' power lines in vicinity of Point H.
- CAUTION: Forest fire suppression helicopter activity left of centerline approximately 8 NM prior to Point I at Ripplebrook Heliport (N45-04.9 W122-03.0) during fire season, normally May-Oct.
- CAUTION: Heavy crop dusting activity (seasonal) below 500' AGL between Points I and L.
- CAUTION: Wind turbines approximately 500' AGL, between points K and L. Located within MTR airspace crossing and Northwest of the centerline within area coordinates noted: N45-19-11 W120-26-05 to N45-37-52 W119-57-45 to N45-32-46 W119-50-50 to N45-14-04 W120-19-17 to beginning.
- CAUTION: Forest fire suppression helo activity approximately 11 NM past Point Q at Maupin Helibase (N45-10.0 W121-04.0) during fire season, normally May-Oct.
- Route crosses VR-1353 between Points K and L. Route conflicts with IR-344 between Points J and L. Route conflicts with IR-342 and IR-343 between Points K and L.
- Avoid city of Maupin, Oregon in vicinity of Point J by 1500' or 2 NM.

IR ROUTES

- (16) Alternate Exit: Point J. Upon reaching J turn right climbing to 16,000' MSL (minimum 3000' per minute rate of climb) direct to Klickitat VORTAC; maintain 16,000' MSL. Contact Seattle ARTCC on 257.6 for further clearance.
- (17) IFR Exit procedures: Shuttle climb to 10,000' MSL West of Pendleton VORTAC 254/31; 5 mile legs; left turns within R-5701. Contact Seattle ARTCC or Walla Walla FSS for IFR clearance.

FSS Within 100 NM Radius:

MMV, SEA

IR-348

ORIGINATING ACTIVITY: Commanding Officer (N32), NAS Whidbey Island, 3730 N. Charles Porter Ave., Oak Harbor, WA 98278-5000 DSN 820-2877, C360-257-2877.

SCHEDULING ACTIVITY: Same as Originating Activity. Scheduling hours 0700-1600 local, Mon-Fri only. Same day scheduling may be accomplished during scheduling hours with 2.5 hrs prior notice.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	NUW 061/24	N48°25.78' W122°04.98'
05 AGL B 130 MSL to	B	NUW 074/65	N48°18.08' W121°01.87'
110 MSL to	C	SEA 043/65	N47°55.50' W120°53.60'
05 AGL B 100 MSL to	D	EPH 319/84	N48°42.00' W120°08.00'
05 AGL B 90 MSL to	E	EPH 334/90	N48°52.60' W119°37.10'
15 AGL B 70 MSL to	F	EPH 343/81	N48°43.70' W119°17.90'
05 AGL B 70 MSL to	G	EPH 360/69	N48°27.30' W118°48.00'
05 AGL B 81 MSL to	H	GEG 330/69	N48°40.00' W118°06.80'
05 AGL B 70 MSL to	I	GEG 353/74	N48°47.00' W117°24.90'
05 AGL B 80 MSL to	J	GEG 011/49	N48°17.90' W117°06.80'
05 AGL B 63 MSL to	K	GEG 350/34	N48°07.80' W117°34.20'

TERRAIN FOLLOWING OPERATIONS: Authorized from A to B and C to I in VFR conditions from 500' AGL. Aircraft equipped with terrain following equipment may operate on these segments between 500' AGL and published route ceilings regardless of weather both day and night.
ROUTE WIDTH 4 NM either side of centerline.

Special Operating Procedures:

- (1) Route speeds schedules in 60 knot increments. Average route speed may not exceed 540 knots. Indicate desired speed when scheduling. Advise scheduling agency if MARSAs. Route entry times must be within 5 minutes of scheduled time.

- (2) Monitor Seattle ARTCC frequencies: 270.3 from Point A to C, 291.6 from Point C to K, 282.3 from Point H to K.
- (3) Aircraft on IR-348 are considered MARSAs (Military authority assumes responsibility for separation of aircraft) with aircraft operating in Okanogan and Roosevelt (Military Operations Areas) MOAs. Aircraft transiting through Okanogan and Roosevelt MOAs must make an alert call in the blind prior to Point D on 252.5 and 258.5 Megahertz (MHZ) to inform aircraft operating in Okanogan and Roosevelt MOAs of their presence. The alert call will consist of Call Sign, Route, Speed and estimated time to exit the remain within route structure while avoiding airports, Okanogan MOA and the Roosevelt MOA.
- (4) IR-348 may be scheduled for aircraft to exit at alternate exit points E (Okanogan MOA/Diablo complex) or H (Roosevelt MOA/Hoodoo complex). Aircraft scheduled into the Okanogan MOA must exit IR-348 at point E and call ZSE prior to point E on 126.1 MHZ or 291.6 MHZ for clearance into the Hoodoo complex.
- (5) If radio communications cannot be established on ARTCC-monitored frequencies, contact the nearest FSS.
- (6) Avoid airports along the entire route by 2000' or 3 NM. Remain within route structure while avoiding airports.
- (7) Route crosses VR-1350, VR-1351 and VR-1355 between Points A and D.
- (8) Avoid Winthrop Resort area by 3000' or 5 NM between Points C and D.
- (9) Alternate Exit: Points B, C, E, and H.
- (10) Alternate Entry: Point D.
- (11) Heavy VFR traffic between Point D and E.
- (12) CAUTION: Forest fire suppression air active/PBY air tanker water (Scoop) point at Lake Roosevelt between Points G and K during fire season, normally May-Oct.
- (13) CAUTION: Crop dusting activity (seasonal) below 500' AGL between Points E and F.
- (14) Remain north of the town of Marcus, WA in vicinity of Point H.
- (15) Route conflicts with IR-340 between Points I and K.
- (16) Avoid fishing resort Western side of Deer Lake in vicinity of Point K.
- (17) IFR exit procedures: Shuttle climb East of GEG 343/34 to 10,000' MSL, 5 NM legs, left turns. Contact Seattle ARTCC on 291.6 for further IFR clearance.
- (18) Avoid Holden mines by 1500' or 3 NM between Points C and D. RMK Scheduling Hours 0700- 1600 Local, Mon-Fri only. Same day scheduling may be accomplished during scheduling hours with 2 1/2 hours prior notice.

IR-409

ORIGINATING ACTIVITY: 140th OG/CC Buckley ANGB Aurora, CO 80011-9546 DSN 847-9466, C720-847-9466.

SCHEDULING ACTIVITY: 140th OG/CC Buckley AFB Aurora, CO 80011-9546. Duty Hrs 0700-1700 DSN 847-9472, C720-847-9472.

HOURS OF OPERATION: 0800-1600 local, Tue-Sat

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 100 MSL to or as assigned	A	LAA VOR-DME	N38°11.83' W102°41.26'

100 MSL to or as assigned	B	LAA 157/13	N37°59.00' W102°38.00'
03 AGL B 77 MSL to	C	LAA 161/28	N37°43.50' W102°37.00'
03 AGL B 77 MSL to	D	TBE 092/23	N37°10.00' W103°08.00'
03 AGL B 70 MSL to	E	TBE 125/24	N36°58.00' W103°16.00'
03 AGL B 80 MSL to	F	TBE 302/30	N37°36.00' W104°03.00'
10 AGL B 80 MSL to	G	PUB 194/23	N37°56.00' W104°37.00'
10 AGL B 80 MSL to	H	PUB 250/27	N38°12.00' W104°59.00'

TERRAIN FOLLOWING OPERATIONS: Request to fly 1000' AGL for noise abatement on IR-409 Points G to H.

ROUTE WIDTH - 3 NM either side of centerline from A to C; 5 NM either side of centerline from C to E; 4 NM either side of centerline from E to F; 5 NM either side of centerline from F to G; 3 NM either side of centerline from G to H;

Special Operating Procedures:

- (1) The 140th Wing shall ensure MARSAs through coordinated scheduling. Successive aircraft shall be scheduled to arrive at a common primary or alternate entry fix with no less than a 10 minute interval between aircraft.
- (2) Monitor 296.7 enroute. Monitor 255.4 from Point E to F for possible U.S. Army helicopter traffic in the Pinon Canyon MOA up to 500' AGL.
- (3) This route crosses IR-150, IR-500 and IR-501 between Points C and D; IR-110 between Points C and G; IR-107 at Point E; IR-415 and IR-424 at Point G; IR-177 between Points C and D. Deconfliction scheduling applies. (See and be Seen) is method of MARSAs.
- (4) Deconfliction with IR-107 and IR-110 is accomplished through the 27th FW, Cannon AFB, NM DSN 681-2276/2253.
- (5) All aircraft flying IR-409 will contact Pueblo Approach Control prior to Point F for IFF code assignment on 290.5. Approval to fly IR-409 does not constitute clearance into R-2601. Aircraft not entering R-2601 must exit at Point G. Aircraft entering R-2601 can expect frequency change prior to Point H. Aircraft may be required to hold at Point H for range entry.
- (6) Aircraft exiting at Point G will contact Pueblo Approach Control on 290.5 and climb to 10,000' MSL or as assigned by ATC and proceed to Point H until clearance is received.
- (7) Alternate Entry: Points C, G and H.
- (8) Alternate Exit: Point G.
- (9) Avoid the following environmentally sensitive locations by 1500' AGL from 1 May through 31 July:
 - (a) N37-39.46 W104-15.22;
 - (b) N37-58.35 W104-45.09.

FSS Within 100 NM Radius:

DEN

IR-414

ORIGINATING ACTIVITY: 140th Wing/Airspace Office
Buckley AFB Aurora, CO 80011-9546 DSN 847-9470/9471,
C720-847-9470/9471/9955.

SCHEDULING ACTIVITY: 140th Wing/Airspace Office
Buckley AFB Aurora, CO 80011-9546. Duty Hrs 0700-1700 DSN
847-9470/9472, C720-847-9470/9472. Route is clsd to non-140th
WG acft.

HOURS OF OPERATION: 0800-1600 local, Tue-Sat; OT by
NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 80 MSL to or as assigned	A	PUB 085/32	N38°16.00' W103°45.00'
03 AGL B 80 MSL to	B	LAA 354/36	N38°48.00' W102°36.00'
03 AGL B 110 MSL to	C	GLD 176/18	N39°05.00' W101°45.00'

TERRAIN FOLLOWING OPERATIONS: Authorized
entire route.

ROUTE WIDTH - 3 NM either side of centerline from A to C.

Special Operating Procedures:

- (1) The 140th Wing shall ensure MARSAs through coordinated scheduling. Successive aircraft shall be scheduled to arrive at a common primary or alternate entry fix with no less than a 10 minute intervals between aircraft. In all instances where separation is less than 10 minutes, the 140th Wing scheduling unit shall ensure MARSAs through coordinated scheduling.
- (2) Be vigilant for B-52 and B-1 aircraft between A and B. This route crosses IR-177, IR-500 and IR-501 between A and B. If VMC exists at the crossing point, See and Avoid is method of MARSAs. If IMC is anticipated, climb in VMC to the top of the block for that particular leg.
- (3) Monitor 370.925 entire route.
- (4) Clearance to fly IR-414 does not include clearance into Cheyenne MOA. Contact Denver ARTCC at Point A on 377.175 if Cheyenne MOA is to be used.
- (5) Avoid Sand Arroya Landing Strip by 3 NM/1500' AGL (N38-27.0 W103-32.0).

FSS Within 100 NM Radius:

DEN

IR-415

ORIGINATING ACTIVITY: 140th OG/CC Buckley ANGB
Aurora, CO 80011-9546 DSN 847-9466, C720-847-9466.

SCHEDULING ACTIVITY: 140th OG/CC Buckley AFB
Aurora, CO 80011-9546. Duty Hrs 0700-1700 DSN 847-9472,
C720-847-9472. Route is clsd to non-140th WG acft.

HOURS OF OPERATION: 0800-1600 local, Tue-Sat; OT by
NOTAM

IR ROUTES

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 70 MSL to	A	BKF 095/27	N39°36.50' W104°11.00'
03 AGL B 70 MSL to	B	TXC 169/8	N39°34.00' W103°13.00'
03 AGL B 70 MSL to	C	HGO 062/17	N38°55.00' W103°17.00'
03 AGL B 80 MSL to	D	PUB 085/32	N38°16.00' W103°45.00'
03 AGL B 80 MSL to	E	PUB 194/23	N37°56.00' W104°37.00'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 3 NM either side of centerline.

Special Operating Procedures:

- (1) The 140th Wing shall ensure MARSA through coordinated scheduling. Successive aircraft shall be scheduled to arrive at a common primary or alternate entry fix with no less than a 10 minute intervals between aircraft. In all instances where separation is less than 10 minutes, the 140th Wing scheduling unit shall ensure MARSA through coordinated scheduling.
- (2) Maintain 500' AGL minimum from A to B. Route crosses IR-416 between A and B.
- (3) Monitor 370.925 to D, then 290.5 to E. Aircraft exiting prior to E contact Pueblo Approach on 290.5 prior for clearance. Maintain 10,000' MSL or as assigned.
- (4) Avoid Sand Arroya Landing Strip by 3 NM/1500' AGL (N38-27.0 W103-32.0). Maintain 1000' AGL minimum within a 4 NM radius of Fowler (N38-13.0 W104-02.0).
- (5) Flights transitioning to IR-414 at Point D remain north of Ordway Lake or maintain 1500' AGL during turn. Remain north of Ordway-Sugar City highway during turn.
- (6) Alternate Entry: Point D.
- (7) IR-415 is authorized only for aircraft departing Buckley ANGB.
- (8) Avoid environmentally sensitive location at N37-59.3 W104-29.5 by 1500' AGL from 1 May through 31 July.

FSS Within 100 NM Radius:

DEN

IR-416

ORIGINATING ACTIVITY: 140th Wing/Airspace Office
Buckley AFB Aurora, CO 80011-9546 DSN 847-9470/9471,
C720-847-9470/9471/9955.

SCHEDULING ACTIVITY: 140th Wing/Airspace Office
Buckley AFB Aurora, CO 80011-9546. Duty Hrs 0700-1700 DSN
847-9470/9472, C720-847-9470/9472. Route is clsd to non-140th
WG acft.

HOURS OF OPERATION: 0800-1600 local, Tue-Sat; OT by
NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 120 MSL to or as assigned	A	CYS 212/36	N40°47.00' W105°20.00'
03 AGL B 120 MSL to	B	MBW 175/37	N41°14.00' W106°08.00'
03 AGL B 120 MSL to	C	MBW 197/17	N41°36.00' W106°12.00'
03 AGL B 100 MSL to	D	MBW 165/11	N41°39.50' W106°00.00'
03 AGL B 90 MSL to	E	CYS 332/49	N42°00.00' W105°03.00'
03 AGL B 75 MSL to	F	CYS 033/45	N41°44.00' W104°03.00'
03 AGL B 73 MSL to	G	CYS 098/41	N40°58.00' W103°56.00'
03 AGL B 100 MSL to	H	AKO 295/29	N40°27.00' W103°41.00'
03 AGL B 70 MSL to	I	AKO 304/20	N40°24.00' W103°29.00'
03 AGL B 70 MSL to	J	AKO 218/15	N40°00.00' W103°26.00'
03 AGL B 100 MSL to	K	TXC 283/17	N39°49.00' W103°33.00'
100 MSL to (Contact Denver ART- CC 377.175 prior to L)	L	BKF 099/55	N39°26.00' W103°37.00'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 5 NM either side of centerline from A to H;
3 NM either side of centerline from H to L.

Special Operating Procedures:

- (1) The 140th Wing shall ensure MARSA through coordinated scheduling. Successive aircraft shall be scheduled to arrive at a common primary or alternate entry fix with no less than a 10 minute intervals between aircraft. In all instances where separation is less than 10 minutes, the 140th Wing scheduling unit shall ensure MARSA through coordinated scheduling.
- (2) Monitor 255.4 entire route.
- (3) Contact Denver ARTCC on 377.175 prior to exit Point L for further clearance. Aircraft exiting at Point C contact Denver ARTCC on 284.7 for further clearance.
- (4) 400' tower within 3 NM of Point C. 300' tower at N41-09.0 W104-03.0 (12 NM prior to Point G) and N41-00.0 W104-02.0 (3 NM prior to Point G). Another tower between Point F and G near N40-03.0 W104-02.0, 200' high, approximately 2 NM west of centerline.
- (5) Avoid Centennial WY (4 NM north of B) and avoid N41-50.0 W105-20.0 (14 NM prior to Point E).
- (6) Alternate Entry: Point F.
- (7) Alternate Exit: Point C.

FSS Within 100 NM Radius:

CPR, DEN

IR-418

ORIGINATING ACTIVITY: HQ UTTR/ROS, 6066 Cedar Lane Bldg 1274, Hill AFB, UT 84056-5812 DSN 777-4401, C801-777-4401.

SCHEDULING ACTIVITY: HQ UTTR/ROS, 6066 Cedar Lane Bldg 1274, Hill AFB, UT 84056-5812 DSN 777-4401, C801-777-4401.

HOURS OF OPERATION: 0700-2400 local Mon-Thu, 0700-1800 local Fri, 0800-1700 local Sat

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 80 MSL to or as assigned	A	TCH 290/24	N41°05.00' W112°24.00'
70 MSL B 80 MSL to	B	TCH 300/38	N41°18.00' W112°34.00'
01 AGL B 80 MSL to	C	TCH 303/46	N41°26.00' W112°39.00'
01 AGL B 80 MSL to	D	TCH 292/64	N41°30.00' W113°06.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from Point B to D.

ROUTE WIDTH - 2 NM either side of centerline from A to C; 5 NM either side of centerline from C to D.

Special Operating Procedures:

- (1) IR-418 will not be flown unless scheduled in conjunction with the appropriate Lucian MOA by aircraft departing Hill AFB on the IL-418 departure only.

FSS Within 100 NM Radius:
CDC

IR-420

ORIGINATING ACTIVITY: HQ UTTR/ROS, 6066 Cedar Lane Bldg 1274, Hill AFB, UT 84056-5812 DSN 777-9384, C801-777-4401.

SCHEDULING ACTIVITY: HQ UTTR/ROS, 6066 Cedar Lane Bldg 1274, Hill AFB, UT 84056-5812 DSN 777-9384, C801-777-4401.

HOURS OF OPERATION: 0700-2400 local Mon-Thu, 0700-1800 local Fri, 0800-1700 local Sat

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 80 MSL to or as assigned	A	TCH 290/24	N41°05.00' W112°24.00'
70 MSL B 80 MSL to	B	TCH 271/32	N41°00.00' W112°39.00'
70 MSL B 80 MSL to	C	TCH 241/36	N40°43.00' W112°45.00'
10 AGL B 80 MSL to	D	TCH 229/41	N40°33.00' W112°48.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from Point C to D.

ROUTE WIDTH - 2 NM either side of centerline from A to C; 5 NM either side of centerline from C to D.

Special Operating Procedures:

- (1) IR-420 will not be flown unless scheduled in conjunction with the appropriate Sevier MOA by aircraft departing Hill AFB on the IL-420 departure only.

FSS Within 100 NM Radius:
CDC

IR-424

ORIGINATING ACTIVITY: 140th Wing/Airspace Office Buckley AFB Aurora, CO 80011-9546 DSN 847-9470/9471, C720-847-9470/9471/9955.

SCHEDULING ACTIVITY: 140th Wing/Airspace Office Buckley AFB Aurora, CO 80011-9546. Duty Hrs 0700-1700 DSN 847-9470/9472, C720-847-9470/9472.

HOURS OF OPERATION: 0800-1600 local, Tue-Sat; OT by NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 110 MSL to or as assigned	A	GLD 177/18	N39°05.50' W101°45.00'
03 AGL B 80 MSL to	B	LAA 354/36	N38°48.00' W102°36.00'
03 AGL B 80 MSL to	C	LAA 334/31	N38°42.00' W102°51.00'
03 AGL B 80 MSL to	D	PUB 085/32	N38°16.00' W103°45.00'
03 AGL B 80 MSL to	E	PUB 194/23	N37°56.00' W104°37.00'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 3 NM either side of centerline from A to E.

Special Operating Procedures:

- (1) The 140th Wing shall ensure MARSA through coordinated scheduling. Successive aircraft shall be scheduled to arrive at a common primary or alternate entry fix with no less than a 10 minute intervals between aircraft. In all instances where separation is less than 10 minutes, the 140th Wing scheduling unit shall ensure MARSA through coordinated scheduling.
- (2) Be vigilant for B-52 and B-1 aircraft between Points B and D.
- (3) This route crosses IR-177, IR-501 and IR-500 between B and D. If VMC exists at the crossing point, See and Avoid is method of MARSA. If IMC is anticipated, climb in VMC to the top of the block for that particular leg.
- (4) This route coincides with IR-415 from D to E.
- (5) Monitor 370.925 from A to D. Monitor 290.5 from D to E.
- (6) Contact Pueblo Approach Control at Point E on 290.5 for further clearance.

IR ROUTES

- (7) Alternate Entry: Point D.
- (8) Avoid Sand Arroya Landing Strip by 3 NM/1500' AGL (N38-27.0 W103-32.0). Maintain 1000' AGL minimum within 4 NM radius of Fowler (N38-05.0 W104-02.0).
- (9) Avoid environmentally sensitive location at N37-59.17 W104-29.27 by 1500' AGL from 1 May through 31 July.

FSS Within 100 NM Radius:
DEN

IR-425

ORIGINATING ACTIVITY: Commander 412 TW, 412
OSS/OSOS, 235 S. Flightline Rd., Edwards AFB, CA 93523-6460
DSN 527-2515, C661-277-2515.

SCHEDULING ACTIVITY: Commander 412 TW, 412
OSS/OSOS, 235 S. Flightline Rd., Edwards AFB, CA 93523-6460
DSN 527-4110, C661-277-4110.

HOURS OF OPERATION: SUNRISE-SUNSET

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	DTA 262/44	N39°24.00' W113°27.00'
05 AGL B 105 MSL to	B	DTA 250/53	N39°14.40' W113°38.00'
05 AGL B 120 MSL to	C	ILC 024/56	N38°57.50' W113°38.00'
05 AGL B 120 MSL to	D	ILC 027/32	N38°38.00' W113°55.90'
05 AGL B 120 MSL to	E	ILC 051/24	N38°24.20' W113°55.90'
05 AGL B 120 MSL to	F	ILC 061/18	N38°19.00' W114°02.00'
05 AGL B 120 MSL to	G	ILC 093/21	N38°08.20' W113°58.70'
05 AGL B 120 MSL to	H	ILC 151/38	N37°38.20' W114°12.90'
05 AGL B 115 MSL to	I	ILC 174/48	N37°27.70' W114°34.20'
05 AGL B 120 MSL to	J	ILC 213/51	N37°41.20' W115°12.00'
05 AGL B 115 MSL to	K	ILC 221/49	N37°48.00' W115°15.00'
05 AGL B 115 MSL to	L	TPH 086/70	N37°45.00' W115°36.00'
05 AGL B 115 MSL to	M	TPH 083/54	N37°52.00' W115°54.50'
05 AGL B 110 MSL to	N	TPH 068/46	N38°06.00' W116°04.00'
05 AGL B 110 MSL to	O	TPH 060/30	N38°08.50' W116°25.50'
05 AGL B 110 MSL to	P	TPH 111/13	N37°54.00' W116°49.50'
05 AGL B 110 MSL to	Q	TPH 152/8	N37°54.00' W117°00.00'
05 AGL B 110 MSL to	R	TPH 215/22	N37°48.00' W117°24.00'

05 AGL B 110 MSL to	S	TPH 216/40	N37°37.70' W117°41.70'
05 AGL B 115 MSL to	T	BTY 291/65	N37°26.80' W117°50.50'
05 AGL B 115 MSL to	U	BTY 286/44	N37°11.10' W117°31.20'
05 AGL B 100 MSL to	V	BTY 279/38	N37°04.00' W117°28.50'
05 AGL B 105 MSL to	W	BTY 269/39	N36°58.10' W117°31.90'
30 AGL B 120 MSL to	X	NID 013/45	N36°21.10' W117°15.90'
05 AGL B 110 MSL to	Y	NID 012/38	N36°15.00' W117°21.00'
05 AGL B 75 MSL to	Z	NID 024/30	N36°05.20' W117°18.50'
05 AGL B 95 MSL to	AA	NID 012/12	N35°52.00' W117°35.00'
05 AGL B 85 MSL to	AB	NID 103/10	N35°37.00' W117°31.00'
05 AGL B 85 MSL to	AC	NID 168/17	N35°24.00' W117°42.00'
05 AGL B 85 MSL to	AD	LHS 028/47	N35°15.00' W117°55.50'
05 AGL B 85 MSL to	AE	LHS 016/29	N35°05.70' W118°16.50'
05 AGL B 110 MSL to	AF	LHS 008/23	N35°02.50' W118°23.50'
05 AGL B 100 MSL to	AG	LHS 011/9	N34°48.70' W118°30.00'
05 AGL B 90 MSL to	AH	LHS 091/3	N34°40.10' W118°30.90'
30 AGL B 90 MSL to	AI	LHS 246/5	N34°40.10' W118°41.00'
30 AGL B 100 MSL to	AJ	GVO 020/10	N34°40.20' W119°58.10'
30 AGL B 100 MSL to	AK	GVO 338/14	N34°46.30' W120°07.20'
30 AGL B 60 MSL to	AL	GVO 269/13	N34°35.30' W120°20.60'
30 AGL B 70 MSL to	AM	GVO 189/19	N34°15.00' W120°15.00'

TERRAIN FOLLOWING OPERATIONS: Authorized
entire route.

ROUTE WIDTH - 4 NM either side of centerline from A to E; 10 NM left and 7 NM right of centerline from E to G; 4 NM left and 7 NM right of centerline from G to H; 4 NM either side of centerline from H to T; 7 NM either side of centerline from T to U; 4 NM left and 7 NM right of centerline from U to V; 4 NM either side of centerline from V to AM.

Special Operating Procedures:

- (1) This route shall only be used for Cruise Missile testing as approved by a 412 TW test program.
- (2) Procedures outlined in the Cruise Missile Route Letter of Agreement must be followed by aircrew (obtain from scheduling agency).
- (3) Alternate Entry/Exit Points: C, E, H, I, J, L, M, N, P, Q, U, V, Y, AB, AF and AG. Airspeeds are subsonic.

- (4) Aircrews transiting R-2508 complex airspace are required to see FLIP, Area Planning, AP/1, California, Flight Hazards, R-2508. Upon enter R-2508, maintain VFR (see and avoid) and comply with all R-2508 complex procedures. Contact the R-2508 Central Coordinating Agency (DSN 527-2508, C661-277-2508) to schedule airspace and obtain a complex briefing.
- (5) Segregation of air carrier operations in the Isabella MOA (below 12,000 MSL) may result in denial of MOA airspace between AB and AF.
- (6) Maintain at or above 5300 MSL when within 5 statute miles of Mojave Airport Class D airspace between AD to AF.
- (7) Maintain at or above 1,500 AGL to avoid multiple windmills between AD and AG.
- (8) Obstructions:
 - (a) Four unmanned 250' AGL unlit towers (red and white) - (N34 52.94 W118 30.09; N34 54.30 W118 29.70; N35 45.13 W117 34.57; N35 41.71 W117 30.58).
 - (b) Multiple 200' AGL power lines running along road near AA, AB and Z.
 - (c) Unmarked 150' AGL Flag Pole - (N37 34.27 W114 48.29)
- (9) California Condors (Endangered Species) nesting in the Sespe Sanctuary in flight between the Sisquac and Sespe Sanctuaries and soaring throughout adjacent mountain areas. Pilots are requested to maintain 1 NM south of centerline or 3000' terrain clearance between AI to AJ.
- (10) Aircrew shall adhere to the following radio procedures:
 - (a) Contact Joshua control facility (120.25) for R-2508 status. If active R-2505
 - (b) Point A is located in restricted area R6405. Coordinate for airspace prior to entry IAW AP/1A;
 - (c) Prior to entering the Sevier MOA (points A-D), contact Clover control on 363.5/134.1;
 - (d) Contact Nellis Control 317.52/126.65 prior to entering Desert MOA after Point G;
 - (e) Prior to entering the Reveille MOA (after M) and when advised by Nellis Control contact Salt Lake ARTCC 133.45/397.85;
 - (f) When advised by Salt Lake ARTCC approximately 5NM west of Q, contact Oakland ARTCC 125.75/319.8;
 - (g) Contact Joshua control facility 256.8/291.6/123.95 departing U; inquire about R-2502 status.
 - (h) If R-2502 is active contact China MRU on 301.0/128.28 for clearance to enter.
 - (i) Contact Los Angeles ARTCC 307.1 at AF;
 - (j) Monitor Los Angeles ARTCC 269.6 after AI.
- (11) Deconflict the route as follows: Entire route with IR-200; A to C: R-6405, Sevier A MOA; C to D: VR-209, Sevier C/D MOA; D to E: IR-293, VR-1406; E to F: IR-290/290A; G to H: Desert MOA; I to J: VR-1253, Desert MOA; J to K: VR-1253, Desert MOA; K to L: IR-286, VR-1259, Desert MOA; L to M: VR-1253-1259, Desert MOA; M to N: IR-234-235-237-238-286, VR-1253-1259-1260-1406, Desert and Reveille MOA's; N to O: IR-234-235-237-238-286, VR-1253-1406, Reveille MOA; O to P: If required R-4809; P to Q: If required R-4809-4807A, IR-282; Q to R: IR-206-286, VR-208, if required R-4807A; R to S: IR-206, VR-1252; S to T: VR-1205-1255-1264; T to U: VR-208-1205-1264, Saline MOA; U to V: IR-236, VR-1262, Saline MOA; V to W: VR-1262, Saline-Panamint MOA's; W to X: IR-236, VR-1205, Saline-Panamint MOA's; X to Y: IR-236, VR-1205, Saline-Panamint MOA's; Y to Z: IR-236, VR-1205, R-2505, Panamint-Isabella MOA's; Z to AA: IR-236, VR-1205, R-2505, Panamint-Isabella MOA's; AA to AB: IR-211, R-2505, Isabella MOA; AB to AC: IR-211, Isabella MOA; AC to AD: IR-211, SR-390, Isabella MOA; AD to AE: IR-211-236, VR-1262,

SR-390, Isabella MOA; AE to AF: IR-211, VR-1262-1293, SR-390, Isabella MOA; AF to AG: IR-211, VR-1206-1262-1293, SR-390, Isabella MOA; AG to AH: VR-1206-1257-1265-1266-1293; AI to AJ: IR-211, VR-1265 AL to AM: If required W-537, W-289N.

FSS Within 100 NM Radius:

CDC, HHR, RAL, RNO, SAN

IR-460

ORIGINATING ACTIVITY: 4-160th SOAR (ABN), Mail Stop 23B, 41st Division Rd., Joint Base Lewis McChord, WA 98433. DSN 347-5601, C253-966-5601.

SCHEDULING ACTIVITY: Same as Originating Activity.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
12 MSL B 30 MSL to	A1	TCM 152/9	N46°59.69' W122°25.31'
03 AGL B 40 MSL to Alternate Entry	B	TCM 135/14	N46°56.81' W122°18.27'
03 AGL B 50 MSL to	C	TCM 128/18	N46°54.61' W122°12.93'
03 AGL B 70 MSL to	D	TCM 131/24	N46°49.39' W122°09.08'
03 AGL B 80 MSL to	E	TCM 134/41	N46°33.64' W121°57.53'
03 AGL B 90 MSL to	F	YKM 231/44	N46°20.01' W121°26.90'
03 AGL B 90 MSL to	G	YKM 217/27	N46°19.95' W120°59.54'
03 AGL B 72 MSL to	H	YKM 221/20	N46°25.00' W120°52.04'

TERRAIN FOLLOWING OPERATIONS: Authorized for A1 to H. IMC terrain following/terrain avoidance (TF/TA) operations are authorized IAW command directives within the published altitude blocks from A1 to H. VMC terrain following/terrain avoidance (TF/TA) operations are authorized IAW command directives within the published altitude blocks from A1 to H. 100' CALT is strictly prohibited along this IR route.

ROUTE WIDTH - 3.5 NM left/right of centerline for the entire route.

Special Operating Procedures:

- (1) Tie-in FSS: Seattle (SEA), McMinnville (MMV).
- (2) Primary entry: A1; alternate entry: B; use when conflict with R-6703.
- (3) Primary exit: H.
- (4) Route exit: during flight weather planning the aircrew will determine if they will be VMC or IMC at Point G. If VMC at Point G and the aircrew are reasonably assured that they can continue VMC to Point H, exit at H. If IMC at Point G, contact Chinook Approach 123.8 or 263.15 while climbing to 6700' MSL. Expect further clearance to WIKIK (IAF) then ILS Rwy 27.

IR ROUTES

- (5) Route survey for this route will not be accomplished until it is needed. Training routes will be visually reconnoitered within the lateral limits of the route.
- (6) Participating aircraft separation: route is designed for MARSAs operations established by coordinated scheduling. Primary method of aircraft separation will be based on time; backup method will be air-to-air tactical air navigation (TACAN).
- (7) Route will be flown between 80 and 120 KTAS.
- (8) CAUTION: VR-1355 route crossing: the route crosses VR-1355 3NM west of Point G. Deconflict with NAS Whidbey Island prior to conducting the route VMC/IMC. Scheduling, ensure a minimum 10 minute separation at crossing points.
- (9) Communication requirements: the aircraft shall:
 - (a) On departure contact Seattle App Con 126.5 337.15;
 - (b) Freq change 121.85 at A1;
 - (c) Monitor Seattle Center 126.6 343.6 at D thru G;
 - (d) Contact Chinook App Con 123.8 263.15 at G;
 - (e) Between 2200L and 0600L contact Seattle Center 132.6 or 269.35 at G.
- (10) Lost communication (LC) VMC: squawk 7600 on transponder, continue to clearance limit (H), then continue IAW FAR 91.185.
- (11) Noise sensitive areas (Gifford Pinchot National Forest). The route overflies the National Forest 12NM north of Point E thru Point F. Minimum altitude for these legs is based on aircraft type: MH-47 500' CALT, MH-60 300' CALT.
- (12) Include route entry/exit times in the remarks section of flight plan.
- (13) Make entry time +/- 5 minutes or reschedule. For real time rescheduling, the military assumes responsibility of coordination with Whidbey Island and ensuring 10 minute time separation with aircraft utilizing VR-1355. Unpublished towers found by route surveys 200' AGL and above listed in this SOP.
- (14) Uncharted obstructions: 3 towers at:
 - (a) 200' AGL N46-55.96 W122-19.92;
 - (b) 200' AGL N26-54.21 W122-19.65;
 - (c) 200' AGL N46-44.62 W122-10.05.

IR-461

ORIGINATING ACTIVITY: 4-160th SOAR (ABN), Mail Stop 23B, 41st Division Rd., Joint Base Lewis McChord, WA 98433. DSN 347-5601, C253-966-5601

SCHEDULING ACTIVITY: Same as Originating Activity.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
25 MSL B 72 MSL to	H	YKM 221/20	N46°25.00' W120°52.04'
03 AGL B 72 MSL to	G	YKM 217/27	N46°19.95' W120°59.54'
03 AGL B 90 MSL to	F	YKM 231/44	N46°20.01' W121°26.90'
03 AGL B 90 MSL to	E	TCM 134/41	N46°33.64' W121°57.53'
03 AGL B 80 MSL to	D	TCM 131/24	N46°49.39' W122°09.08'

03 AGL B 70 MSL to	C	TCM 128/18	N46°54.61' W122°12.93'
03 AGL B 50 MSL to	B	TCM 135/14	N46°56.81' W122°18.27'

TERRAIN FOLLOWING OPERATIONS: Authorized for H to B. IMC/VMC terrain following/terrain avoidance (TF/TA) operations are authorized IAW command directives within the published altitude blocks from H to C. VMC terrain following/terrain avoidance (TF/TA) operations are authorized IAW command directives within the published altitude blocks from H to B. 100' CALT is strictly prohibited along this IR route.

ROUTE WIDTH - 3.5 NM left/right of centerline for the entire route.

Special Operating Procedures:

- (1) Tie-in FSS: Seattle (SEA), McMinnville (MMV).
- (2) Primary entry: H.
- (3) Primary exit: B.
- (4) Route exit: during flight weather planning the aircrew will determine if they will be VMC or IMC at Point B. If VMC at Point B and the aircrew are reasonably assured that they can continue VMC exit at B. If IMC while enroute to Point B, contact Seattle Approach 5NM prior to B, cross B at 4000' MSL or as directed.
- (5) Route survey for this route will not be accomplished until it is needed. Training routes will be visually reconnoitered within the lateral limits of the route.
- (6) Participating aircraft separation: route is designed for MARSAs operations established by coordinated scheduling. Primary method of aircraft separation will be based on time; backup method will be air-to-air tactical air navigation (TACAN).
- (7) Route will be flown between 80 and 120 KTAS.
- (8) CAUTION: VR-1355 route crossing: the route crosses VR-1355 3NM west of Point G. Deconflict with NAS Whidbey Island prior to conducting the route VMC/IMC. Scheduling, ensure a minimum 10 minute separation at crossing points.
- (9) Communication requirements: the aircraft shall:
 - (a) On departure contact Chinook App 123.8 263.15 at H;
 - (b) Between 2200L and 0600L contact Seattle Center 132.6 or 269.35 at H;
 - (c) Monitor Seattle Center 126.6 343.6 at G thru B;
 - (d) Contact Seattle App 121.85 at B;
- (10) Noise sensitive areas (Gifford Pinchot National Forest). The route overflies the National Forest 12NM north of Point E thru Point F. Minimum altitude for these legs is based on aircraft type: MH-47 500' CALT, MH-60 300' CALT.
- (11) Include route entry/exit times in the remarks section of flight plan.
- (12) Make entry time +/- 5 minutes or reschedule. For realtime rescheduling, the military assumes responsibility of coordination with Whidbey Island ensuring 10 minute time separation with aircraft utilizing VR-1355. Unpublished towers found by route surveys 200' AGL and above listed in the SOP.
- (13) Uncharted obstructions: 3 towers at:
 - (a) 200' AGL N46-55.96 W122-19.92;
 - (b) 200' AGL N46-54.21 W122-19.65;
 - (c) 200' AGL N46-44.62 W122-10.05;

- (14) Remaining IFR after Point C: if remaining IFR after Point C, climb to cross B at 4000' MSL, advise Seattle Approach Control that you are IFR and request vectors for the ILS or LOC Rwy 15 at Gray AAF.
- (15) Lost communication (LC): If VMC, aircraft must squawk 7600 and continue in accordance with FAR 91.185. If IMC, aircraft must squawk 7600, cross B at 4,000 feet MSL and proceed direct to CIKRI, conduct two (2) turns of holding, then execute the ILS or LOC Rwy 15 approach at KGRF.

IR-473

ORIGINATING ACTIVITY: 28 OSS/OSXA, 1956 Scott Dr., Ste. 201, Ellsworth AFB, SD 57706-4710 DSN 675-1230, C605-385-1230.

SCHEDULING ACTIVITY: 28 OSS/OSXS, 1956 Scott Dr., Ste. 201, Ellsworth AFB, SD 57706-4710 DSN 675-4246, C605-385-4246. After hours RAYMOND 33 DSN 675-3800, C605-385-3800 (ask for on-call Wing Airspace Scheduler).

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at FL200 to or as assigned descend direct to	F	TST 291/55	N43°03.50' W104°21.00'
150 MSL B FL200 to (TFR/TA Initiation Point) descend direct to	JA	DDY 075/71	N43°09.00' W104°40.00'
01 AGL B 150 MSL to direct to	JB	DDY 039/32	N43°25.50' W105°43.00'
01 AGL B 70 MSL to direct to	JC	DDY 030/31	N43°28.50' W105°48.00'
01 AGL B 70 MSL to turn left to	JD	DDY 008/38	N43°41.00' W105°59.00'
01 AGL B 70 MSL to climb direct to	JE	CZI 132/20	N43°44.00' W106°10.50'
01 AGL B 80 MSL to turn right and continue climb to	JF	CZI 196/24	N43°39.00' W106°42.00'
01 AGL B 130 MSL to direct to	J	CZI 211/26	N43°41.00' W106°51.50'
01 AGL B 130 MSL to turn left to	K	SHR 184/41	N44°11.00' W107°17.50'
01 AGL B 130 MSL to direct to	L	SHR 192/39	N44°14.00' W107°24.00'
01 AGL B 130 MSL to direct to	M	BOY 358/52	N44°18.50' W108°00.00'
01 AGL B 130 MSL to turn right to	N	BOY 349/52	N44°20.00' W108°11.00'
01 AGL B 130 MSL to descend direct to	O	COD 101/32	N44°23.50' W108°18.00'
01 AGL B 80 MSL to direct to	O1	BOY 336/80	N44°47.00' W108°34.20'
01 AGL B 80 MSL to turn left to	P	BIL 176/43	N45°06.50' W108°48.00'
01 AGL B 80 MSL to direct to	Q	BIL 180/41	N45°09.00' W108°51.50'

01 AGL B 80 MSL to turn right to	R	BIL 226/42	N45°27.00' W109°29.00'
01 AGL B 80 MSL to descend to	S	BIL 238/41	N45°36.00' W109°32.50'
01 AGL B 70 MSL to descend direct to	T	BIL 244/38	N45°40.00' W109°31.00'
01 AGL B 60 MSL to turn right to	U	BIL 311/36	N46°18.00' W109°07.50'
01 AGL B 60 MSL to direct to	V	BIL 325/37	N46°23.00' W108°57.00'
05 AGL B 60 MSL to (End TA/TFR) turn left to	W	BIL 356/35	N46°23.50' W108°29.00'
60 MSL to direct to	X	BIL 001/37	N46°24.50' W108°23.50'
60 MSL to (Begin TA/TFR) direct to	XX	BIL 011/46	N46°30.00' W108°10.00'
01 AGL B 60 MSL to direct to	Y	BIL 015/53	N46°34.50' W108°00.00'
01 AGL B 60 MSL to turn right and descend to	Z	BIL 019/61	N46°39.50' W107°49.50'
01 AGL B 50 MSL to direct to	AA	MLS 273/68	N46°37.00' W107°34.00'
01 AGL B 50 MSL to turn left and climb to	AB	MLS 218/33	N46°00.50' W106°32.00'
01 AGL B 60 MSL to direct to	B1	BIL 069/91	N45°58.50' W106°28.00'
01 AGL B 60 MSL to turn left to	B2	MLS 152/39	N45°46.50' W105°39.00'
01 AGL B 60 MSL to direct to	B3	MLS 146/40	N45°46.50' W105°33.50'
01 AGL B 60 MSL to turn right to	B4	MLS 119/48	N45°53.00' W105°03.00'
01 AGL B 60 MSL to direct to	B5	MLS 120/59	N45°45.50' W104°51.00'
01 AGL B 60 MSL to direct to	B6	MLS 142/82	N45°11.00' W105°00.00'
01 AGL B 60 MSL to turn left to	B7	GCC 018/46	N45°02.00' W105°03.00'
01 AGL B 60 MSL to direct to	AH	GCC 034/45	N44°53.50' W104°50.00'
01 AGL B 60 MSL to direct to	AI	RAP 296/90	N44°54.00' W104°40.00'
01 AGL B 60 MSL to	IL	RAP 313/71	N44°57.50' W103°56.50'
01 AGL B 60 MSL climb direct to cross 60 MSL to (TFR/TA Termination Point) 60 MSL B 100 MSL turn right and climb to cross	AK	RAP 321/67	N44°58.50' W103°42.50'
100 MSL to continue right turn to	EX	RAP 324/56	N44°50.00' W103°31.50'
100 MSL to (Contact Denver ART-CC 338.2) direct to	EL	RAP 318/52	N44°44.00' W103°36.00'

IR ROUTES

100 MSL to EM RAP 298/56 N44°34.50'
100 MSL B 160 MSL W104°00.00'
continue climb to
cross
160 MSL to EN RAP 282/64 N44°25.50'
or as assigned. W104°22.00'

PMSV CONTACTS: Primary Home Station. Alternate
Ellsworth (RCA 375.775).

TERRAIN FOLLOWING OPERATIONS: IMC/VMC

Terrain Following (TF) Visual Contour (VC) and VMC Terrain
Avoidance (TA/VC) operations are authorized IAW Command
Directives within published altitude blocks from JA to W and XX
to AK. When Command Directives preclude TA/TF/VMC
operations aircrews will maintain the IFR altitude for each
segment. Minimum altitudes are established by 28 OSS
Clearance Plane Setting Letter and provide 200' vertical
clearance of all known man-made obstructions within the route
width. Command Directives may require additional obstruction
clearance for TA/TF/VMC operations. The route is designated
mountainous from F to U. The remaining route segments are
designated non-mountainous. Aircrews must comply with
regulations governing operations below 500' AGL. The route
corridor provides airspace for 500' lateral separation from
man-made obstructions. Obstructions under 200' AGL were not
considered in route design.

ROUTE WIDTH - 5 NM left and 7 NM right of right of
centerline from F to JB; 7 NM left and 4 NM right of centerline
from JB to JF; 4 NM either side of centerline from JF to O; 8 NM
left and 4 NM right of centerline from O to O1; 4 NM either side
of centerline from O1 to T; 3 NM left and 4 NM right of centerline
from T to U; 4 NM either side of centerline from U to AA; 4 NM
left and 8 NM right of centerline from AA to AB; 4 NM either side
of centerline from AB to B2; confines of POWDER RIVER MOA
from B2 to B6; 6 NM left and 4 NM right of centerline from B6 to
AI; 4 NM either side of centerline from AI to EN.

Special Operating Procedures:

- (1) USAF bomber route.
- (2) MARSAs operations approved. Established by coordinated
scheduling.
- (3) Lost Communications (LC) altitude: 16,000 MSL.
- (4) Centerline depicted with a 7.5 NM radius arc, except EX to
EL at 6.0 NM.
- (5) Timing tolerance at each turnpoint is +/- 2 1/2 minutes,
excluding B3, B4, and B5.
- (6) See Powder River Training Complex Letter of Agreement.
- (7) Route has the same profile as IR-499 from entry to Point N.
- (8) Monitor Denver ARTCC 363.025 (F-J).
- (9) Do not overfly Manderson, Basin, Otto, Emblem, WY;
Roundup, MT.
- (10) Belle Fourche ESS: 381.1.
- (11) A delay in the Powder River MOAs is not authorized. Other
military activity may be operating above 10,000 MSL within
the MOAs from B2 to IL.
- (12) Route merges with the IR-492 corridor at B6 and continues
to end.
- (13) Required products available from Airspace Management
web page:
<https://afkm.wpafb.af.mil/asps/cop/opencop.asp?filter=OO-OP-AC-81> or via AF Portal at
<https://www.dmy.af.mil/afknprod/asps/cop/opencop.asp?filter=OO-OP-AC-81>

- (a) Briefing Guide;
 - (b) 28 OSS Clearance Plane Setting Letter;
 - (c) 28 OSS Noise Sensitive Area Letter.
- (14) Hazards:
- (a) Entry (Class A): AR-678, Black Hills ATCAA, J17, J158;
 - (b) Enroute: MTR; IR-499, IR-492, IR-485; SUA; Powder River
A/B MOAs. Airfields; Iberlin, Dilts, Hardy, uncharted
(N43-27 W105-45), Taylor, Gosney, Bakers, Worland
(Class E), South Big Horn Co (Class E), Powell (Class E),
North Big Horn (Class E), Bridger, uncharted (N45-17
W109-08), Bangart, uncharted (N45-31 W109-32),
Ryegate, Laving, Roundup, Hysham, Forsyth (Class E),
Colstrip (Class E), Belle Creek, Ridge (N45-03 W105-01),
Morris, dirt strip (N44-48 W104-37), Alzada, Morgan,
Newell, Belle Fourche (Class E), Black Hills (Class E). VFR
Airways: V319, V187, V85, V465, V2-86, V247, V611,
V2-465, V254.
 - (c) Exit: J32, J107, J151, J82, V86, AR-678, Black Hills and
Gateway ATCAAs;
 - (d) Birds. BAM Severe periods: none. Soaring raptors late
morning.
 - (e) Uncharted towers (less than 200'): N43-11 W104-56,
N43-14 W105-16, N45-16 W109-09, N44-12 W107-31,
N45-35 W109-38, N45-30 W109-28, N46-05 W109-16,
N46-31 W108-05, N46-36 W107-52.

FSS Within 100 NM Radius:

CPR, GTF

IR-479

ORIGINATING ACTIVITY: 120 FW/OSAD (ANG) 2800

Airport Ave. B, Great Falls, MT 59404 DSN 791-0192,
C406-791-0192.

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: By NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 160 MSL to or as assigned (TFR Initiation Point) descend direct to	A	LWT 077/98	N46°58.00' W107°14.00'
SFC B 160 MSL to (TA Initiation Point) direct to	B	LWT 066/68	N47°12.50' W107°58.00'
SFC B 80 MSL to direct to	C	LWT 036/42	N47°30.00' W108°48.00'
SFC B 80 MSL to direct to	D	GTF 042/67	N48°01.50' W110°00.00'
SFC B 80 MSL to direct to	E	GTF 039/69	N48°06.50' W110°00.00'
04 AGL B 60 MSL to (Contact Salt Lake City ARTCC 285.4) direct to	F	GTF 014/57	N48°16.50' W110°42.00'

SFC B 60 MSL to	G	GTF 007/53	N48°15.50' W110°53.50'	SFC B 45 MSL to	AB	LWT 001/103	N48°42.50' W108°54.50'
climb direct to				turn left to			
SFC B 70 MSL to	H	GTF 359/46	N48°11.50' W111°07.50'	SFC B 45 MSL to	AC	LWT 003/104	N48°42.00' W108°47.00'
(Start Manuever Area)				direct to			
SFC B 70 MSL to	I	GTF 326/37	N48°02.50' W111°42.00'	SFC B 45 MSL to	AD	LWT 011/115	N48°46.00' W108°21.00'
direct to				turn right to			
SFC B 70 MSL to	J	GTF 292/44	N47°54.00' W112°16.00'	SFC B 45 MSL to	AE	LWT 012/116	N48°46.00' W108°15.50'
(End Manuever Area)				direct to			
turn right and climb to				SFC B 45 MSL to	AF	LWT 026/129	N48°40.00' W107°30.00'
SFC B 90 MSL to	K	CTB 173/36	N47°58.00' W112°30.00'	turn left to			
direct to				SFC B 45 MSL to	AG	LWT 027/131	N48°40.00' W107°25.00'
SFC B 90 MSL to	L	CTB 211/21	N48°20.00' W112°44.00'	direct to cross			
turn right to				45 MSL to	AH	GTF 049/181	N48°40.50' W107°17.50'
SFC B 90 MSL to	M	CTB 218/20	N48°22.50' W112°45.00'	(TA/TFR Termination Point)			
descend direct to				direct to			
SFC B 90 MSL to	N	CTB 260/18	N48°36.00' W112°47.00'	45 MSL to	AI	ISN 274/140	N48°41.00' W107°12.00'
turn right and contin- ue descent to				(Contact Salt Lake City ARTCC 272.75) cross			
SFC B 90 MSL to	O	CTB 277/19	N48°41.50' W112°47.00'	120 MSL B 170 MSL to	AJ	ISN 279/109	N48°44.50' W106°23.50'
direct to				continue climb and turn right to			
SFC B 60 MSL to	P	CTB 313/19	N48°50.50' W112°35.00'	120 MSL B 170 MSL to	AK	ISN 276/98	N48°37.50' W106°08.50'
05 AGL B 60 MSL to	Q	CTB 339/20	N48°53.50' W112°22.50'	continue climb direct to cross			
05 AGL B 60 MSL to	R	CTB 048/28	N48°45.50' W111°42.50'	170 MSL to	AL	GGW 052/22	N48°22.00' W106°07.00'
SFC B 80 MSL to	S	CTB 059/36	N48°42.50' W111°27.50'	or as assigned			
SFC B 80 MSL to	T	GTF 347/76	N48°43.00' W111°19.00'				
direct to							
SFC B 80 MSL to	U	GTF 357/85	N48°49.50' W110°56.00'				
turn right to							
SFC B 80 MSL to	V	GTF 359/86	N48°50.00' W110°52.00'				
(Start Manuever Area)							
direct to							
SFC B 80 MSL to	W	GTF 020/107	N48°53.00' W109°49.50'				
direct to							
SFC B 80 MSL to	X	GTF 024/113	N48°53.00' W109°34.50'				
(End Manuever Area)							
descend direct to							
SFC B 80 MSL to	Y	GTF 025/116	N48°53.50' W109°29.50'				
continue descent and turn right to							
SFC B 80 MSL to	Z	GTF 027/119	N48°52.50' W109°21.00'				
direct to							
SFC B 45 MSL to	AA	GTF 028/119	N48°52.00' W109°19.50'				
direct to							

TERRAIN FOLLOWING OPERATIONS: IMC/VMC

Terrain Following Operations (TF)/Visual Contour (VC) operations are authorized IAW command directives within the published altitude blocks from A to AH. VMC Terrain Avoidance (TA/VC) operations are authorized within the published altitude blocks from A to AH. The route is designated mountainous from B to E, and from K to V. The remainder of the route is designated non-mountainous. Minimum altitudes other than surface, are established to provide 100' vertical separation of known man-made obstructions. Obstructions under 200' AGL were not considered in the route design. The route corridor provides airspace for 500' lateral separation from man-made obstacles. When command directives preclude TA/TF/VC operations, aircrews will maintain the IFR altitude for each leg segment.

ROUTE WIDTH - 4 NM either side of centerline from A to C; Boundaries of Hays MOA from C to D; 4 NM either side of centerline from D to H; 6 NM left and 7 NM right of centerline from H to I; 4 NM either side of centerline from I to J; 3 NM left and 4 NM right of centerline from J to K; 4 NM either side of centerline from K to V; 7 NM either side of centerline from V to W; 4 NM either side of centerline from W to AC; 4 NM left and 3 NM right of centerline from AC to AD; 4 NM either side of centerline from AD to AL.

IR ROUTES

Special Operating Procedures:

- (1) Participating aircraft separation: Route is designated for MARSAs operations with aircraft in the Hays MOA through coordinated scheduling by the 120th FW.
- (2) IR-479 and IR-480 will not be scheduled simultaneously due to their being a reverse route of each other.
- (3) Alternate entry points are K and Q. Alternate exit points are W and AC.
- (4) Aircrews should be alert for VFR helicopter traffic and aerial crop sprayers from SFC to 1500' AGL.
- (5) Report (Call Sign, IR-479, Point D) when exiting Hays MOA westbound to Salt Lake ARTCC on 285.4.
- (6) Aircrews are required to receive 120th FW noise abatement procedures briefing prior to scheduling this route.
- (7) Use CAUTION due to the wind turbine farm along segment Q through R.FSS Within 100 NM Radius: GTF

IR-480

ORIGINATING ACTIVITY: 120 FW/OSAD (ANG) 2800

Airport Ave. B, Great Falls, MT 59404 DSN 791-0192, C406-791-0192.

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: By NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 80 MSL to (Start Maneuver Area) direct to	A	GTF 024/113	N48°53.00' W109°34.50'
SFC B 80 MSL to direct to	B	GTF 020/107	N48°53.00' W109°49.50'
SFC B 80 MSL to (End Maneuver Area) direct to	C	GTF 359/86	N48°50.00' W110°52.00'
SFC B 80 MSL to direct to	D	GTF 357/85	N48°49.50' W110°56.00'
SFC B 80 MSL to direct to	E	GTF 347/77	N48°43.50' W111°19.00'
SFC B 80 MSL to	F	CTB 059/36	N48°42.50' W111°27.50'
05 AGL B 80 MSL to	G	CTB 048/28	N48°45.50' W111°42.50'
05 AGL B 60 MSL to	H	CTB 339/20	N48°53.50' W112°22.50'
SFC B 60 MSL to	I	CTB 313/19	N48°50.50' W112°35.00'
SFC B 60 MSL to direct to	J	CTB 279/18	N48°41.50' W112°44.50'
SFC B 90 MSL to direct to	K	CTB 260/18	N48°36.00' W112°47.00'
SFC B 90 MSL to direct to	L	CTB 218/20	N48°22.50' W112°45.00'
SFC B 90 MSL to direct to	M	CTB 211/21	N48°20.00' W112°44.00'
SFC B 90 MSL to direct to	N	CTB 173/36	N47°58.00' W112°30.00'
SFC B 90 MSL to (Start Maneuver Area) direct to	O	GTF 292/44	N47°54.00' W112°16.00'

SFC B 70 MSL to direct to	P	GTF 326/37	N48°02.50' W111°42.00'
SFC B 70 MSL to (End Maneuver Area) direct to	Q	GTF 359/46	N48°11.50' W111°07.50'
SFC B 70 MSL to direct to	R	GTF 007/53	N48°15.50' W110°53.50'
SFC B 60 MSL to direct to	S	GTF 014/57	N48°16.50' W110°42.00'
04 AGL B 60 MSL to direct to	T	GTF 034/62	N48°06.50' W110°14.50'
SFC B 80 MSL to direct to	U	GTF 042/67	N48°01.50' W110°00.00'
SFC B 80 MSL to direct to	V	LWT 036/42	N47°30.00' W108°48.00'
SFC B 80 MSL to direct to	W	LWT 066/68	N47°12.50' W107°58.00'
SFC B 160 MSL to	X	LWT 077/98	N46°58.00' W107°14.00'

TERRAIN FOLLOWING OPERATIONS: IMC/VMC

Terrain Following operations (TF)/Visual Contour (VC) operations are authorized IAW command directives within the published altitude blocks from A to X. VMC Terrain Avoidance (TA/VC) operations are authorized within the published altitude blocks from A to X. The route is designated mountainous from C to N, and from T to W. The remainder of the route is designated non-mountainous. Minimum altitudes other than surface, are established to provide 100' vertical separation of known man-made obstructions. Obstructions under 200' AGL were not considered in the route design. The route corridor provides airspace for 500' lateral separation from man-made obstacles. When Command Directives preclude TA/TF/VC operations, aircrews will maintain the IFR altitude for each leg segment.

ROUTE WIDTH - 4 NM either side of centerline from A to B; 7 NM either side of centerline from B to C; 4 NM left and 3 NM right of centerline from C to Q; 4 NM either side of centerline from Q to P; 7 NM left and 6 NM right of centerline from P to Q; 4 NM either side of centerline from Q to U; Boundries of the Hays MOA from U to V; 4 NM either side of centerline from V to X.

Special Operating Procedures:

- (1) Participating aircraft separation:Route is designated for MARSAs operations with aircraft in the Hays MOA through coordinated scheduling by the 120th FW.
- (2) IR-479 and IR-480 will not be scheduled simultaneously due to their being a reverse route of each other.
- (3) Alternate entry points are J and N. Alternate exit point is U.
- (4) Aircrews should be alert for VFR helicopter traffic and aerial crop sprayers from SFC-1500' AGL.
- (5) Aircrews are required to receive 120th FW noise abatement procedures briefing prior to scheduling this route.
- (6) Use caution due to the wind turbine farm along segment G through H.

FSS Within 100 NM Radius:

GTF

IR-485

ORIGINATING ACTIVITY: 28 OSS/OSXA, 1956 Scott Dr., Ste. 201, Ellsworth AFB, SD 57706-4710 DSN 675-1230, C605-385-1230.

SCHEDULING ACTIVITY: 28 OSS/OSXS, 1956 Scott Dr., Ste. 201, Ellsworth AFB, SD 57706-4710 DSN 675-4246, C605-385-4246. After hours RAYMOND 33 DSN 675-3800, C605-385-4246, ask for (On-call Wing Airspace Scheduler).

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 120 MSL to or as assigned (TFR Initiation Point) descend direct to	LM	MLS 350/57	N47°19.50' W105°59.00'
01 AGL B 120 MSL to descend direct to	LN	MLS 357/45	N47°08.00' W105°50.00'
01 AGL B 80 MSL to descend direct to	KN	MLS 013/33	N46°53.20' W105°39.00'
01 AGL B 50 MSL to turn left to	LO	MLS 055/25	N46°34.00' W105°24.50'
01 AGL B 50 MSL to direct to	PQ	MLS 066/27	N46°30.00' W105°19.00'
01 AGL B 50 MSL to turn right and climb to	LB	MLS 088/74	N46°13.00' W104°11.00'
01 AGL B 60 MSL to direct to	LC	MLS 095/79	N46°03.00' W104°06.50'
01 AGL B 60 MSL to turn right to	LD	MLS 111/79	N45°43.00' W104°19.00'
01 AGL B 60 MSL to direct to	LE	MLS 113/80	N45°40.50' W104°20.50'
01 AGL B 60 MSL to direct to	LF	MLS 140/85	N45°10.50' W104°55.00'
01 AGL B 60 MSL to turn left to	LG	GCC 018/50	N45°05.50' W105°00.00'
01 AGL B 60 MSL to direct to	AH	GCC 034/45	N44°53.50' W104°50.00'
01 AGL B 60 MSL to direct to	AI	RAP 296/90	N44°54.00' W104°40.00'
01 AGL B 60 MSL to	IL	RAP 313/71	N44°57.50' W103°56.50'
01 AGL B 60 MSL climb direct to cross			
60 MSL to (TA/TFR Termination Point)	AK	RAP 321/67	N44°58.50' W103°42.50'
60 MSL B 100 MSL turn right and climb to cross			
100 MSL to continue right turn to	EX	RAP 324/56	N44°50.00' W103°31.50'
100 MSL to (Contact Denver ART-CC 338.2) direct to	EL	RAP 318/52	N44°44.00' W103°36.00'

100 MSL to	EM	RAP 298/56	N44°34.50'
100 MSL B 160 MSL			W104°00.00'
continue climb to cross			
160 MSL to	EN	RAP 282/64	N44°25.50'
or as assigned.			W104°22.00'

PMSV CONTACTS: Primary Home Station. Alternates Minot (MIB 342.5), Ellsworth (RCA 375.775).

TERRAIN FOLLOWING OPERATIONS: IMC/VMC

Terrain Following (TF) Visual Contour (VC) and VMC Terrain Avoidance (TA/VC) operations are authorized IAW Command Directives within published altitude blocks from LM to AK. When Command Directives preclude TA/TF/VC operations, aircrews will maintain the IFR altitude for each route segment. Minimum altitudes are established by 28 OSS Clearance Plane Setting Letter and provide 200' vertical clearance of all known man-made obstructions within the route width. Command Directives may require additional obstruction clearance for TA/TF/VC operations. The entire route is designated non-mountainous. Aircrews must comply with regulations governing operations below 500' AGL. The route corridor provides airspace for 500' lateral separation from man-made obstacles. Obstructions under 200' AGL were not considered in route design.

ROUTE WIDTH - 4 NM either side of centerline from LM to LD; confines of POWDER RIVER A MOA from LD to LF; 6 NM left and 4 NM right of centerline from LF to AI; 4 NM either side of centerline from AI to EN.

Special Operating Procedures:

- USAF bomber route.
- MARSA operations approved. Established by coordinated scheduling.
- Lost Communications (LC) altitude: 16,000 MSL.
- Centerline between turnpoint is depicted as a 7.5 NM radius arc, except EX to EL at 6.0 NM.
- Timing tolerance at each turnpoint is +/- 2 1/2 minutes.
- Belle Fourche ESS - 381.1.
- A delay in the Powder River MOAs is not authorized. Other military activity may be operating above 10,000 MSL within the MOAs from LD to IL.
- IR-485 is the short version of IR-492.
- Route merges with the IR-492 corridor at LO and the IR-473 corridor at LF and continues to end.
- Required products available from Airspace Management web page:
<https://afkm.wpafb.af.mil/asps/cop/opencop.asp?filter=OO-OP-AC-81> or via AF Portal at
<https://www.dmy.af.mil/afknprod/asps/cop/opencop.asp?filter=OO-OP-AC-81>
 - Briefing Guide;
 - 28 OSS Clearance Plane Setting Letter;
 - 28 OSS Noise Sensitive Area Letter.
- Hazards:
 - Entry (Class G): V254, V465, V545;
 - Enroute: MTR; IR-473, IR-492. SUA; Powder River A/B MOAs. Airfields; Baker (Class E), Gardner, Lanning, Belle Creek, Ridge (N45-03 W105-01), Morris, dirt strip (N44-48 W104-37), Alzada, Morgan, Newell, Belle Fourche (Class E), Black Hills (Class E), VFR Airways; V465, V545, V2, V120;
 - Exit: J32, J107, J151, J82, V86, AR-678, Black Hills and Gateway ATCAAs;

IR ROUTES

- (d) Birds. BAM Severe periods: none. Soaring raptors late morning;
- (e) Uncharted towers (less than 200') N47-03 W105-44, N46-40 W105-30, N46-26 W105-06, N46-14 W104-20, N45-06 W105-01, N44-53 W104-10.

FSS Within 100 NM Radius:
CPR

IR-492

ORIGINATING ACTIVITY: 28 OSS/OSXA, 1956 Scott Dr., Ste. 201, Ellsworth AFB, SD 57706-4710 DSN 675-1230, C605-385-1230.

SCHEDULING ACTIVITY: 28 OSS/OSXS, 1956 Scott Dr., Ste. 201, Ellsworth AFB, SD 57706-4710 DSN 675-4246, C605-385-4246. After hours RAYMOND 33 DSN 675-3800, C605-385-4246, ask for (On-call Wing Airspace Scheduler).

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at FL220 to or as assigned descend direct to	NH	ABR 280/35	N45°35.00' W99°10.00'
FL200 B FL220 to FL220 B FL200 turn left and continue descent to cross	NI	ABR 280/46	N45°38.50' W99°25.00'
FL200 to FL200 B 50 MSL descend direct to cross	NJ	ABR 278/51	N45°38.00' W99°32.50'
50 MSL to direct to	NK	DPR 062/69	N45°25.00' W100°09.50'
50 MSL to (TA/TFR Initiation Point) descend direct to	NL	DPR 063/53	N45°18.00' W100°30.00'
01 AGL B 50 MSL to turn right and descend to	NM	DPR 067/41	N45°14.00' W100°46.50'
01 AGL B 40 MSL to direct to	NN	DPR 050/35	N45°22.00' W101°00.50'
01 AGL B 40 MSL to direct to	NO	DPR 031/48	N45°41.00' W100°58.00'
01 AGL B 40 MSL to turn left to	NP	DPR 024/57	N45°52.00' W100°57.50'
01 AGL B 40 MSL to direct to	NQ	DPR 014/61	N46°00.00' W101°08.00'
01 AGL B 40 MSL to turn right and climb to	NR	DPR 351/56	N46°01.00' W101°41.00'
01 AGL B 50 MSL to direct to	NS	DPR 348/57	N46°02.00' W101°46.00'
01 AGL B 50 MSL to direct to	NT	DPR 341/63	N46°06.50' W101°57.50'
01 AGL B 50 MSL to direct to	NU	DIK 132/51	N46°09.50' W102°05.00'
05 AGL B 50 MSL to direct to	AU	DIK 199/23	N46°32.00' W103°05.00'

01 AGL B 50 MSL to turn right to	AV	DIK 214/25	N46°35.00' W103°13.00'
01 AGL B 50 MSL to direct to	AW	MLS 073/112	N46°36.50' W103°16.50'
01 AGL B 50 MSL to turn left to	AX	MLS 059/96	N46°58.00' W103°48.00'
01 AGL B 50 MSL to direct to	AY	MLS 056/89	N47°00.00' W104°00.00'
01 AGL B 50 MSL to direct to	AZ	MLS 055/82	N46°58.00' W104°09.00'
01 AGL B 50 MSL to turn left to	LA	MLS 043/35	N46°44.50' W105°17.50'
01 AGL B 50 MSL to direct to	PQ	MLS 066/27	N46°30.00' W105°19.00'
01 AGL B 50 MSL to turn right and climb to	LB	MLS 088/74	N46°13.00' W104°11.00'
01 AGL B 60 MSL to direct to	LC	MLS 095/79	N46°03.00' W104°06.50'
01 AGL B 60 MSL to turn right to	LD	MLS 111/79	N45°43.00' W104°19.00'
01 AGL B 60 MSL to direct to	LE	MLS 113/80	N45°40.50' W104°20.50'
01 AGL B 60 MSL to direct to	LF	MLS 140/85	N45°10.50' W104°55.00'
01 AGL B 60 MSL to turn left to	LG	GCC 018/50	N45°05.50' W105°00.00'
01 AGL B 60 MSL to direct to	AH	GCC 034/45	N44°53.50' W104°50.00'
01 AGL B 60 MSL to direct to	AI	RAP 296/90	N44°54.00' W104°40.00'
01 AGL B 60 MSL to	IL	RAP 313/71	N44°57.50' W103°56.50'
01 AGL B 60 MSL climb direct to cross			
60 MSL to (TFR/TA Termination Point)	AK	RAP 321/67	N44°58.50' W103°42.50'
60 MSL B 100 MSL turn right and climb to cross			
100 MSL to continue right turn to	EX	RAP 324/56	N44°50.00' W103°31.50'
100 MSL to (Contact Denver ART-CC 338.2) direct to	EL	RAP 318/52	N44°44.00' W103°36.00'
100 MSL to			
100 MSL B 160 MSL continue climb to cross	EM	RAP 298/56	N44°34.50' W104°00.00'
160 MSL to or as assigned.	EN	RAP 282/64	N44°25.50' W104°22.00'

PMSV CONTACTS: Primary Home Station. Alternates Minot (MIB 342.5), Ellsworth (RCA 375.775).

TERRAIN FOLLOWING OPERATIONS: IMC/VMC Terrain Following (TF) Visual Contour (VC) and VMC Terrain Avoidance (TA/VC) operations are authorized IAW Command Directives within published altitude blocks from NL to AK. When Command Directives preclude TA/TF/VC operations, aircrews will maintain the IFR altitude for each route segment. Minimum altitudes are established by 28 OSS Clearance Plane Setting Letter and provide 200' vertical clearance of all known man-made obstructions within the route width. Command Directives may

require additional obstruction clearance for TA/TF/VC operations. The entire route is designated non-mountainous. Aircrews must comply with regulations governing operations below 500' AGL. The route corridor provides airspace for 500' lateral separation from man-made obstacles. Obstructions under 200' AGL were not considered in route design.

ROUTE WIDTH - 4 NM either side of centerline from NH to NN; 3 NM left and 4 NM right of centerline from NN to NO; 4 NM either side of centerline from NO to NQ; 4 NM left and 8 NM right of centerline from NQ to NT; 8 NM left and 4 NM right of centerline from NT to AU; 4 NM either side of centerline from AU to AW; 4 NM left and 3 NM right of centerline from AW to AX; 3 NM left and 4 NM right of centerline from AX to AZ; 8 NM left and 4 NM right of centerline from AZ to LA; 4 NM left and 3 NM right of centerline from LA to PQ; 4 NM either side of centerline from PQ to LD; confines of Powder River A MOA from LD to LF; 6 NM left and 4 NM right of centerline from LF to AI; 4 NM either side of centerline from AI to EN.

Special Operating Procedures:

- (1) USAF bomber route.
- (2) MARSA operations approved. Established by coordinated scheduling.
- (3) Lost Communications (LC) altitude: 16,000 MSL.
- (4) Centerline between turnpoint is depicted as a 7.5 NM radius arc, except EX to EL at 6.0 NM.
- (5) Timing tolerance at each turnpoint is +/- 2 1/2 minutes.
- (6) Belle Fourche ESS - 381.1.
- (7) A delay in the Powder River MOAs is not authorized. Other military activity may be operating above 10,000 MSL within the MOAs from LD to IL.
- (8) Route Merges with the IR-473 corridor at LF and continues to end.
- (9) IR-492 is closed Oct 0230-1330Z and Nov 0100-1300Z for high bird activity along route.
- (10) Required products available from Airspace Management web page:
<https://afkm.wpafb.af.mil/asps/cop/opencop.asp?filter=OO-OP-AC-81> or via AF Portal at
<https://www.d.mil/afkmprod/asps/cop/opencop.asp?filter=OO-OP-AC-81>
 - (a) Briefing Guide;
 - (b) 28 OSS Clearance Plane Setting Letter;
 - (c) 28 OSS Avoidance Area Letter.
- (11) Hazards:
 - (a) Entry (Class A): AR106L (ABR to MLS), J90, V561;
 - (b) Enroute: MTR; IR-473, IR-485. SUA; Powder River A/B MOAs. Airfields; Fielder, Beaman, Booth Ranch, Lenling, Timber Lake, Cottonwood, McIntosh, Dietz, uncharted (N46-15 W102-18), Lemmon (Class E), Mott, Erickson, Fordahl, Regnet, Kirschman, Dovre, Swenson, Logging Camp (2), Bergquist, Beach, Hollstein, uncharted (N46-51 W104-48), Terry, Baker (Class E), Gardner, Lanning, Belle Creek, ridge (N45-03 W105-01), Morris, dirt strip (N44-48 W104-37), Alzada, Morgan, Newell, Belle Fourche (Class E), Black Hills (Class E). VFR airways; V71, V344, V169, V491, V2, V545, V2, V120;
 - (c) Exit: J32, J107, J151, J82, V86, AR-678, Black Hills and Gateway ATCAAs;
 - (d) Birds. BAM Severe periods: Oct and Nov. Soaring raptors late morning;
 - (e) Uncharted towers (less than 200'): N46-11 W102-13, N46-23 W102-45, N46-48 W105-04, N46-44 W105-22, N46-45 W105-21, N46-40 W105-30, N46-26 W105-06, N46-14 W104-20, N45-06 W105-01, N44-53 W104-10.

FSS Within 100 NM Radius:

CPR, HON

IR-499

ORIGINATING ACTIVITY: 28 OSS/OSXA, 1956 Scott Dr., Ste. 201, Ellsworth AFB, SD 57706-4710 DSN 675-1230, C605-385-1230.

SCHEDULING ACTIVITY: 28 OSS/OSXS, 1956 Scott Dr., Ste. 201, Ellsworth AFB, SD 57706-4710 DSN 675-4246, C605-385-4246. After hours RAYMOND 33 DSN 675-3800, C605-385-3800, ask for (On-call Wing Airspace Scheduler).

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at FL200 to or as assigned descend direct to	F	TST 291/55	N43°03.50' W104°21.00'
150 MSL B FL200 to (TFR/TA Initiation Point) descend direct to	JA	DDY 075/71	N43°09.00' W104°40.00'
01 AGL B 150 MSL to descend direct to	JB	DDY 039/32	N43°25.50' W105°43.00'
01 AGL B 70 MSL to direct to	JC	DDY 030/31	N43°28.50' W105°48.00'
01 AGL B 70 MSL to turn left to	JD	DDY 008/38	N43°41.00' W105°59.00'
01 AGL B 70 MSL to climb direct to	JE	CZI 132/20	N43°44.00' W106°10.50'
01 AGL B 80 MSL to turn right and continue climb to	JF	CZI 196/24	N43°39.00' W106°42.00'
01 AGL B 130 MSL to direct to	J	CZI 211/26	N43°41.00' W106°51.50'
01 AGL B 130 MSL to left to	K	SHR 184/41	N44°11.00' W107°17.50'
01 AGL B 130 MSL to direct to	L	SHR 192/39	N44°14.00' W107°24.00'
01 AGL B 130 MSL to turn left and descend direct to	M1	BOY 354/52	N44°19.25' W108°05.50'
01 AGL B 80 MSL to direct to	SA	BOY 344/44	N44°11.80' W108°17.60'
01 AGL B 80 MSL to turn right to	SB	BOY 344/40	N44°07.50' W108°18.00'
01 AGL B 80 MSL to climb to	SC	BOY 340/35	N44°03.00' W108°21.00'
01 AGL B 90 MSL to direct to	SD	BOY 333/32	N43°59.00' W108°26.00'
01 AGL B 90 MSL to climb to	SE	BOY 309/27	N43°49.50' W108°39.00'
01 AGL B 110 MSL to climb to	SF	BOY 293/26	N43°44.00' W108°46.00'
01 AGL B 120 MSL to direct to	SG	BOY 266/30	N43°34.00' W108°59.00'
01 AGL B 120 MSL to turn right to	SH	BOY 260/35	N43°31.50' W109°06.00'

IR ROUTES

01 AGL B 120 MSL to climb to	SI	BOY 256/56	N43°29.50' W109°34.50'
01 AGL B 130 MSL to direct to	SJ	BOY 255/63	N43°28.50' W109°45.00'
01 AGL B 130 MSL to turn left to	SK	BOY 253/69	N43°25.50' W109°52.50'
01 AGL B 130 MSL to turn right to	SL	BOY 241/84	N43°08.00' W110°09.50'
130 MSL to (TFR/TA Termination Point) direct to	SM	JAC 137/38	N43°04.50' W110°18.00'
130 MSL to climb to (Contact Salt Lake City ARTCC 239.25)	SN	JAC 150/34	N43°04.50' W110°30.00'
130 MSL B 150 MSL climb direct to			
150 MSL to or as assigned	SO	JAC 188/36	N43°04.00' W111°01.00'

PMSV CONTACTS: Primary Home Station. Alternate Ellsworth (RCA 375.775).

TERRAIN FOLLOWING OPERATIONS: IMC/VMC

Terrain Following (TF) Visual Contour (VC) and VMC Terrain Avoidance (TA/VC) operations are authorized IAW Command Directives within published altitude blocks from JA to SM. When Command Directives preclude TA/TF/VMC operations aircrews will maintain the IFR altitude for each segment. Minimum altitudes are established by 28 OSS Clearance Plane Setting Letter and provide 200' vertical clearance of all known man-made obstructions within the route width. Command Directives may require additional obstruction clearance for TA/TF/VMC operations. The route is designated mountainous. Aircrews must comply with regulations governing operations below 500' AGL. The route corridor provides airspace for 500' lateral separation from man-made obstructions. Obstructions under 200' AGL were not considered in route design.

ROUTE WIDTH - 5 NM left and 7 NM right of right of centerline from F to JB; 7 NM left and 4 NM right of centerline from JB to JF; 4 NM either side of centerline from JF to SH; 2 NM left and 3 NM right of centerline from SH to SI; 1 NM left and 3 NM right of centerline from SI to SJ; 2 NM left and 3 NM right of centerline from SJ to SL; 3 NM either side of centerline from SL to SO.

Special Operating Procedures:

- (1) USAF bomber route.
- (2) MARSAs operations approved. Established by coordinated scheduling.
- (3) Lost Communications (LC) altitude: 15,000 MSL.
- (4) Centerline between turnpoint is depicted as a 7.5 NM radius arc.
- (5) Timing tolerance at each turnpoint is +/- 2 1/2 minutes.
- (6) Route has the same profile as IR-473 from entry to Point M1.
- (7) Monitor Denver ARTCC 338.2 (F-J).
- (8) Fly right of centerline from Point L to Point M1 for noise abatement.
- (9) Recommend CPS 2000' over the South Big Horn River prior to Point M1 for noise abatement.
- (10) Do not overfly Manderson and Basin, WY.
- (11) Maintain centerline from Point SI to SJ, otherwise CPS 2000' AGL.

- (12) Do not plan a right turn after route exit (SO) in order to minimize traffic conflicts with Jackson Hole arrivals.
- (13) Required products available from Airspace Management web page at:
<https://ellsworth.eim.acc.af.mil/28BW/28OG/28OSS/OSXA/default.aspx>.
(a) Current IR-499 Briefing Guide.
(b) Current IR-499 Route Chart.
- (14) Hazards:
(a) Entry (Class A): AR-678, Black Hills ATCAA;
(b) Enroute: Conflicting airspace; IR-473. Airports; Bogner 2, Kaan, Iberlin, Dilts, Hardy, uncharted (N43-27 W105-45), Taylor, Gosney, Bakers, Worland (Class E), South Big Horn Co (Class E), Dubois. VFR airways: V169, V89, V254, V26, V235, V298, V247, V19, V324, V319, V187, V85, V298, V330;
(c) Exit: Alpine Airport, V465, V328;
(d) Birds. BAM Severe periods: none. Soaring raptors late morning (especially Point M to SJ).

FSS Within 100 NM Radius:

CPR

IR-500

ORIGINATING ACTIVITY: 27 SOSS/OSA, 201 S Chindit Ave, Bldg 728, RM 112, Cannon AFB, NM 88103
27SOSS.ATC.ORG@US.AF.MIL, DSN 640-6497, C575-904-6497.

SCHEDULING ACTIVITY: 27 SOAOS/DOOS, 301 S Chindit Ave, Bldg 790, RM 111, Cannon AFB, NM 88103
27SOAOS.RMO.GROUND@US.AF.MIL DSN 681-2276/7634, C575-784-2276/7634.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at FL230 to or as assigned	AA	BFF 067/99	N42°10.00' W101°18.50'
FL230 B 60 MSL descend direct to cross			
at or above 60 MSL continue descent to cross	AB	LBF 307/36	N41°30.00' W101°17.00'
50 MSL to (TA/TFR Initiation Point) direct to	AC	LBF 298/31	N41°22.00' W101°16.50'
02 AGL B 50 MSL to direct to	AD	HCT 310/24	N40°45.50' W101°15.00'
02 AGL B 50 MSL to turn right and climb to	AE	HCT 233/19	N40°19.00' W101°17.50'
02 AGL B 60 MSL to (TA/TFR Termination Point) direct to	AF	HCT 225/27	N40°12.00' W101°25.00'
60 MSL to (TA/TFR Initiation Point) direct to	BF	HCT 232/38	N40°10.00' W101°39.00'

02 AGL B 60 MSL to (TA/TFR Termination Point) turn left to	AG	HCT 236/50	N40°07.50' W101°55.00'	110 MSL to or as assigned Re-Entry ALPHA: Cross	SA	TBE 093/58	N37°00.00' W102°26.00'
55 MSL B 60 MSL to (Resume TA/TFR Point) direct to	AH	HCT 231/58	N40°00.00' W102°02.00'	67 MSL to turn right to	N1	TBE 042/52	N37°46.00' W102°43.50'
02 AGL B 60 MSL to turn right and climb to	AI	GLD 303/22	N39°39.00' W102°02.00'	67 MSL to direct to	O1	TBE 054/48	N37°35.00' W102°40.50'
02 AGL B 70 MSL to direct to	AJ	GLD 278/25	N39°31.50' W102°11.50'	67 MSL to (TA/TFR Initiation Point) turn right to	S	TBE 074/36	N37°18.00' W102°51.50'
02 AGL B 70 MSL to turn left to	AK	HGO 035/57	N39°31.00' W102°47.50'	02 AGL B 67 MSL to direct to	I1	LAA 183/60	N37°14.00' W103°00.00'
02 AGL B 70 MSL to direct to	AL	HGO 035/46	N39°23.50' W102°57.50'	02 AGL B 67 MSL to turn right to	J1	LAA 191/63	N37°14.00' W103°11.50'
02 AGL B 70 MSL to descend and turn left to	AM	HGO 054/33	N39°05.00' W103°00.00'	02 AGL B 67 MSL to (Start Maneuver Area)	K1	LAA 200/61	N37°20.50' W103°22.00'
02 AGL B 70 MSL to direct to	AN	HGO 065/32	N38°59.00' W102°58.00'	PMSV CONTACTS: Primary Home Station. Alternates Dyress (DYS 344.6), Ellsworth (RCA 375.775).			
03 AGL B 57 MSL to direct to	AO	HGO 087/43	N38°46.00' W102°43.00'	TERRAIN FOLLOWING OPERATIONS: Authorized entire route IAW major commands/MDS guidance.			
04.5 AGL B 57 MSL to direct to	AP	LAA 089/19	N38°08.00' W102°17.50'	ROUTE WIDTH - 4 NM either side of centerline from AA to AC; 3 NM either side of centerline from AC to AD; 4 NM either side of centerline from AD to AG; 4 NM left and 2 NM right of centerline from AG to AI; 4 NM either side of centerline from AI to J; 3 NM left and 4 NM right of centerline from J to K; 4 NM left and 8 NM right of centerline from K to L; 4 NM either side of centerline from L to SA; 4 NM either side of centerline from N1 to K1 (Re-Entry).			
02 AGL B 57 MSL to	AQ	LAA 099/23	N38°03.50' W102°14.00'	Special Operating Procedures:			
02 AGL B 57 MSL to turn right to	F	LAA 132/55	N37°27.00' W102°00.00'	(1) Route is not available for use. Contact Cannon AFB airspace management for additional information.			
02 AGL B 57 MSL to climb direct to	G	LAA 141/61	N37°17.50' W102°07.00'	(2) Aircraft exiting the route or using the ALPHA re-entry will cross the end maneuver area point at the specified minimum IFR altitude.			
02 AGL B 67 MSL to direct to	H	LAA 178/59	N37°14.00' W102°53.50'	(3) Participating aircraft separation: Route is designated for MARSAs operations established by coordinated scheduling.			
02 AGL B 67 MSL to direct to	I	LAA 183/60	N37°14.00' W103°00.00'	(4) Lost communication (LC) Procedures: Route LC altitude is 11,000 MSL.			
02 AGL B 67 MSL to turn right to	J	LAA 191/63	N37°14.00' W103°11.50'	(5) Route is separated from conflicting routes by coordinated scheduling.			
02 AGL B 67 MSL to (Start Maneuver Area) direct to	K	LAA 200/61	N37°20.50' W103°22.00'	(6) Centerline between turn points will be depicted as a 7.5 NM arc unless otherwise specified.			
02 AGL B 67 MSL to turn right to	L	LAA 224/39	N37°50.00' W103°22.50'	(7) Aircrews should be aware of and avoid the following airfields:			
02 AGL B 67 MSL to direct to	M	LAA 222/26	N37°56.50' W103°08.00'	(a) N41-09.5 W101-17.5;			
02 AGL B 67 MSL to (End Maneuver Area) (TA/TFR Termination Point) turn right to	N	TBE 042/52	N37°46.00' W102°43.50'	(b) N40-55.5 W101-17.5;			
67 MSL to direct to	O	TBE 054/48	N37°35.00' W102°40.50'	(c) N40-23.8 W101-11.8.			
67 MSL B 100 MSL to turn left to	P	TBE 062/41	N37°27.00' W102°46.00'	(8) Crews will fly at IFR altitude between Points AC and AD during the period Oct through May.			
80 MSL B 110 MSL to direct to	Q	TBE 073/41	N37°19.00' W102°45.00'	(9) Route is open all year long.			
90 MSL B 110 MSL to (Contact Albuquerque ARTCC 351.7 passing 100 MSL) 90 MSL B 110 MSL direct to	R	TBE 078/43	N37°15.30' W102°42.00'	(10) Aircrew should be especially vigilant when flying IR-500 in the vicinity of point AO due to possible traffic on IR-414. If VMC exists along the above segments, see and avoid is the method of MARSAs. If IMC exists along the above segments, aircraft will climb to the IFR altitude prior to encountering the IMC; thereby establishing procedural separation. See and avoid is applicable during the VMC climb.			
				(11) Noise Sensitive Areas: (avoid by 1/4 NM or 1000')			

IR ROUTES

- (a) N37-49.2 W103-14.4 Residence;
 (b) N37-20.4 W103-22.9 Residence;
 (c) N37-14.2 W103-14.9 Residence.
- (12) This route effects Cougar MOA and Two Buttes MOA operations which is controlled by Buckley ANG/120FS down to 300' AGL. Advise 120FS; DSN 877-9470 or FAX877-9612, on estimated entry and exit times of the MOA's. In addition, provide estimated times to 120FS at Points AM and AP.
- (13) All aircraft will make an (in-the-blind) call on 370.925 prior to entering E lateral limits of Two Buttes and Cougar MOA's. This call is to alert aircraft operating in the MOA of your presence. This is not intended to be used as a separation tool, only a (heads up call).
- (14) Due to evolving avoidance areas, obstacles, and land beneath the route, all users must have/utilize the current local route brief, 27 SOG Master chum and Master draw files before flying the route. This information can be obtained by request to the scheduling activity.

FSS Within 100 NM Radius:

DEN, HON

IR-501

ORIGINATING ACTIVITY: 27 SOSS/OSA, 201 S Chindit Ave, Bldg 728, RM 112, Cannon AFB, NM 88103
 27SOSS.ATC.ORG@us.af.mil, DSN 640-6497, C575-904-6497.

SCHEDULING ACTIVITY: 27 SOAOS/DOOS, 301 S Chindit Ave, Bldg 790, RM 111, Cannon AFB, NM 88103 DSN 681-2276/7634.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at FL230 to or as assigned FL230 B 60 MSL descend direct to cross	A	BFF 067/99	N42°10.00' W101°18.50'
at or above 60 MSL continue descent to cross	BA	LBF 307/36	N41°30.00' W101°17.00'
50 MSL to (TA/TFR Initiation Point) direct to	B	LBF 298/31	N41°22.00' W101°16.50'
02 AGL B 50 MSL to direct to	AZ	HCT 310/24	N40°45.50' W101°15.00'
02 AGL B 50 MSL to turn right and climb to	C	HCT 233/19	N40°19.00' W101°17.50'
02 AGL B 60 MSL to (TA/TFR Termination Point) direct to	D	HCT 225/27	N40°12.00' W101°25.00'
60 MSL to (TA/TFR Initiation Point) direct to	DD	HCT 232/38	N40°10.00' W101°39.00'

02 AGL B 60 MSL to (TA/TFR Termination Point) turn left to	E	HCT 236/50	N40°07.50' W101°55.00'
55 MSL B 60 MSL to (Resume TA/TFR Point) direct to	F	HCT 231/58	N40°00.00' W102°02.00'
02 AGL B 60 MSL to turn right and climb to	G	GLD 303/22	N39°39.00' W102°02.00'
02 AGL B 70 MSL to direct to	H	GLD 278/25	N39°31.50' W102°11.50'
02 AGL B 70 MSL to turn left to	I	HGO 035/57	N39°31.00' W102°47.50'
02 AGL B 70 MSL to direct to	J	HGO 035/46	N39°23.50' W102°57.50'
02 AGL B 70 MSL to direct to	K	LAA 326/42	N38°51.00' W103°02.00'
04 AGL B 70 MSL to direct to	L	LAA 319/36	N38°43.50' W103°03.50'
02 AGL B 70 MSL to descend direct to	M	LAA 313/30	N38°36.50' W103°03.00'
04.5 AGL B 70 MSL to turn right to	N	LAA 296/21	N38°24.50' W103°02.00'
04.5 AGL B 60 MSL to (Start Maneuver Area) direct to	O	LAA 284/19	N38°20.00' W103°03.00'
02 AGL B 60 MSL to turn left to	P	LAA 243/33	N38°03.00' W103°21.00'
02 AGL B 60 MSL to direct to	Q	LAA 227/37	N37°53.00' W103°21.00'
02 AGL B 60 MSL to (End Maneuver Area) (TA/TFR Termination Point) direct to	R	LAA 188/42	N37°32.00' W102°59.00'
60 MSL to	S	TBE 071/40	N37°20.00' W102°46.00'
60 MSL B 110 MSL climb direct to cross at or above 70 MSL	SS	TBE 078/43	N37°15.50' W102°42.00'
70 MSL B 110 MSL continue climb to cross			
110 MSL to or as assigned (Contact Albuquerque ARTCC 351.7 passing 100 MSL) Re-Entry ALPHA: Cross	T	TBE 093/58	N37°00.00' W102°26.00'
60 MSL to (End Maneuver Area) (TA/TFR Termination Point) turn left to	R1	LAA 188/42	N37°32.00' W102°59.00'
60 MSL to direct to	U	LAA 170/31	N37°40.50' W102°42.50'
60 MSL to 60 MSL B 70 MSL climb direct to cross	V	LAA 178/26	N37°46.50' W102°47.00'
70 MSL to direct to	W	LAA 189/21	N37°52.00' W102°51.00'

70 MSL to 60 MSL B 70 MSL turn right and descend to cross	X	LAA 291/37	N38°32.00' W103°21.00'
60 MSL to (TA/TFR Initiation Point) continue right turn to	Y	LAA 306/41	N38°42.50' W103°16.00'
02 AGL B 60 MSL to Thence via published route. Alternate Entry: AI Cross	M1	LAA 313/30	N38°36.50' W103°03.00'
FL190 to or as assigned descend to	AI	HCT 175/32	N39°55.00' W101°00.00'
70 MSL B FL190 to or as assigned turn left and descend to	AJ	GLD 354/35	N39°58.00' W101°37.00'
60 MSL B 70 MSL to 60 MSL B 70 MSL con- tinue descent to cross	AK	GLD 351/35	N39°58.00' W101°39.00'
60 MSL to turn left to	AL	HCT 224/53	N39°56.50' W101°52.00'
60 MSL to Thence via published route. Alternate Entry: M2 (Transition from IR-415) Cross	AM	GLD 317/31	N39°49.50' W102°02.00'
02 AGL B 70 MSL to Thence via published route. Alternate Exit: P1 (Transition to IR-409) Cross	M2	LAA 313/30	N38°36.50' W103°03.00'
02 AGL B 80 MSL to Thence via published transition to IR-409.	P1	LAA 243/33	N38°03.00' W103°21.00'

PMSV CONTACTS: Primary Home Station. Alternates Dyess (DYS 344.6), Ellsworth (RCA 375.775).

TERRAIN FOLLOWING OPERATIONS: Authorized entire route IAW major commands/MDS guidance.

ROUTE WIDTH - 4 NM either side of centerline from A to B; 3 NM either side of centerline from B to AZ; 4 NM either side of centerline from AZ to E; 4 NM left and 2 NM right of centerline from E to G; 4 NM either side of centerline from G to N; 3 NM left and 4 NM right of centerline from N to O; 3 NM either side of centerline from O to P; 6 NM left and 3 NM right of centerline from P to Q; 6 NM left and 5 NM right of centerline from Q to R; 4 NM either side of centerline from R to T; Re-entry: 4 NM left and 3 NM right of centerline from R1 to U; 4 NM either side of centerline from U to W; 4 NM left and 2 NM right of centerline from W to X; 4 NM either side of centerline from X to M1; 4 NM either side of centerline from AI to AL; 4 NM left and 2 NM right of centerline from AL to AM.

Special Operating Procedures:

- (1) Route is not available for use. Contact Cannon AFB airspace management for additional information.

- (2) Participating aircraft separation: Route is designated for MARSA operations established by coordinated scheduling.
- (3) Lost communications (LC) procedures: Route LC altitude is 11,000' MSL. Desired deviation from this procedure must be filed IAW FLIP AP/1B CH 1, and verified by Albuquerque ARTCC prior to route entry.
- (4) Route is separated from conflicting routes by coordinated scheduling.
- (5) Aircraft flying command directed contour/terrain following altitudes may be required to fly at a higher minimum tracking altitude, as listed in applicable regulations, for STR, scored activity. In no case will aircraft fly below command directed contour/terrain following altitudes.
- (6) Aircrews should be aware of and avoid the following airfields:
 - (a) N41-09.5 W101-17.5;
 - (b) N41-04.4 W101-22.0;
 - (c) N40-59.5 W101-26.5;
 - (d) N40-55.5 W101-17.5;
 - (e) N40-23.8 W101-11.8;
 - (f) N40-05.4 W101-34.0;
 - (g) N40-03.9 W101-32.5;
 - (h) N38-51.1 W103-06.7;
 - (i) N38-34.1 W103-25.3;
 - (j) N38-27.0 W103-31.9;
 - (k) N39-36.5 W102-32.7.
- (7) Aircrews using IR-501 Alternate Entry A1 must file IR-501A.
- (8) Centerline between turn points will be depicted as a 7.5 NM arc unless otherwise specified.
- (9) Crews will fly at IFR altitude between Point B and AZ during the period Oct through May.
- (10) Route is open all year long.
- (11) Noise Sensitive Areas: (avoid by 1/4 NM or 1000')
 - (a) N38-03.8 W103-19.1 Residence;
 - (b) N37-49.2 W103-14.4 Residence;
 - (c) N40-01.2 W102-00.3 Ranch;
 - (d) N39-45.0 W102-02.5 Ranch;
 - (e) N38-06.1 W103-14.1 Residence;
 - (f) N40-09.7 W101-33.2 Residence;
 - (g) N40-13.1 W101-23.7 Residence;
 - (h) N40-08.5 W101-33.0 Feedlot;
 - (i) N38-49.6 W103-00.7 Residence;
 - (j) N38-03.3 W103-20.8 Residence;
 - (k) N38-04.3 W103-21.8 Residence;
 - (l) N37-57.0 W103-21.6 Farm;
 - (m) N38-15.6 W103-07.8 Farm;
 - (n) N38-22.2 W102-02.7 Residence.
- (12) This route effects Cougar MOA and Two Buttes MOA operations which is controlled by Buckley ANG/120FS down to 300' AGL. Advise 120FS; DSN 877-9470 or FAX 877-9612, on estimated entry and exit times of the MOA's. In addition, provide estimated times to 120FS at Points J and M.
- (13) All aircraft will make an (in-the-blind) call on 370.925 prior to entering E lateral limits of Two Buttes and Cougar MOA's. This call is to alert aircraft operating in the MOA of your presence. This is not intended to be used as a separation tool, only a (heads up call).
- (14) Due to evolving avoidance areas, obstacles and land beneath the route, all users must have/utilize the current local route brief, 27 SOG Masterchum and Masterdraw files before flying the route. This information can be obtained by request to the scheduling activity.

IR ROUTES

FSS Within 100 NM Radius:

DEN, HON

IR-504

ORIGINATING ACTIVITY: 509 OSS/OSOA, 770 Arnold Ave., Bldg 38, Whiteman AFB, MO 65305 DSN 975-7616/1779/1754, C660-687-7616/1779/1754.

SCHEDULING ACTIVITY: Same as Originating Activity.
After hours contact Command Post C660-687-3778.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 170 MSL to Cross at 170 MSL or as assigned descend direct to cross	A	BUM 169/16	N38°00.00' W94°28.02'
30 MSL to turn right to (Alternate Entry)	B	BUM 228/32	N37°58.00' W95°02.52'
30 MSL to (TA/TFR Initiation Point)	C	BUM 240/37	N38°02.00' W95°12.02'
06 AGL B 30 MSL to	D	BUM 277/48	N38°28.00' W95°28.52'
06 AGL B 30 MSL to (if exiting at Pt F, re- port passing E to KC Cntr (ZKC) 270.25, backup 343.7)	E	BUM 280/55	N38°32.50' W95°36.02'
06 AGL B 30 MSL to (Alternate Exit)	F	TOP 217/44	N38°35.50' W96°10.02'
07 AGL B 30 MSL to	G	TOP 231/43	N38°44.00' W96°18.02'
07 AGL B 30 MSL to (Report passing H to Kansas City Center 343.7, back-up 270.25)	H	TOP 256/32	N39°03.00' W96°13.02'
08 AGL B 30 MSL to (Alternate Exit)	I	TOP 282/31	N39°17.00' W96°11.02'
08 AGL B 30 MSL to	J	TOP 287/32	N39°20.00' W96°11.02'
07 AGL B 30 MSL to	K	TOP 291/40	N39°25.50' W96°19.00'
07 AGL B 30 MSL to	L	SLN 029/49	N39°34.70' W97°00.00'
07 AGL B 31 MSL to	M	SLN 020/42	N39°32.50' W97°12.50'
07 AGL B 31 MSL to	N	SLN 008/31	N39°25.00' W97°27.00'
07 AGL B 30 MSL to (End TA/TFR)	O	SLN 319/20	N39°12.00' W97°51.50'
07 AGL B 30 MSL to (Report passing P to ZKC on 363.2)	P	SLN 301/18	N39°06.50' W97°55.50'
07 AGL B 30 MSL to	Q	SLN 262/22	N38°55.00' W98°05.50'

32 MSL to	R	SLN 247/25	N38°48.33' W98°08.33'
32 MSL B 120 MSL to	S	SLN 230/29	N38°40.00' W98°08.00'

TERRAIN FOLLOWING OPERATIONS: Authorized
from Point C to Point O.

ROUTE WIDTH - 3 NM left and 4 NM right of centerline
from A to C; 3 NM left and 3 NM right of centerline from C to I; 4
NM left and 3 NM right of centerline from I to J; 4 NM left and 4
NM right of centerline from J to L; 3 NM left and 3 NM right of
centerline from L to N; 2 NM left and 4 right of centerline from N
to P; 3 NM left and 3 NM right of centerline from P to S.

Special Operating Procedures:

- (1) Primary Entry: A; Alternate Entry: B.
- (2) Primary Exit: S; Alternate Exits: F, I.
- (3) Contact Kansas City Center (KZKC) on 327.0 for route entry.
- (4) CAUTION: VR-511/512 parallels track between F and J and
crosses between J and K. IR-513/526 crosses at Point R.
There are numerous other MTRs near the route exit.
Contact scheduling activity of potentially conflicting routes
for status.
- (5) CAUTION: Be alert for parachute jumping and ultra-light
activity in the vicinity of Osage City Airport N38-37.9
W095-47.8 (north of track between E and F), Wamego
Airport N39-12.0 W096-15.3 (west of track between H and
I), and Ellsworth Airport N38-45.0 W098-14.0 (west of track
between R and S).
- (6) Numerous private and public airfields in vicinity of route.
Avoid flight within 1500 feet or 3 NM of airports when
practicable.

FSS Within 100 NM Radius:

COU, ICT

IR-505

ORIGINATING ACTIVITY: 114 FW (ANG), Joe Foss Field,
Sioux Falls, SD 57104-0264 DSN 798-7754/46,
C605-988-5745/5746

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: Daylight hours, Mon-Sat, OT By
NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 100 MSL to or as assigned	A	LNK 195/51	N40°09.00' W97°12.00'
40 MSL B 100 MSL to	B	TKO 051/39	N40°07.00' W97°31.00'
01 AGL B 60 MSL to	C	TKO 052/36	N40°05.00' W97°34.00'
01 AGL B 40 MSL to	D	TKO 062/22	N39°55.00' W97°49.00'
01 AGL B 40 MSL to	E	TKO 176/18	N39°30.00' W98°18.00'
01 AGL B 40 MSL to	F	TKO 176/31	N39°18.00' W98°20.00'

01 AGL B 40 MSL to	G	SLN 280/36	N39°06.00' W98°22.00'
01 AGL B 40 MSL to	H	SLN 270/36	N39°00.00' W98°23.00'
01 AGL B 40 MSL to	I	SLN 252/38	N38°48.00' W98°25.00'
01 AGL B 40 MSL to	J	SLN 235/33	N38°40.00' W98°14.00'
01 AGL B 40 MSL to Alternate Entry: C	K	SLN 208/19	N38°40.00' W97°51.00'
80 MSL to or as assigned	C1	TKO 052/36	N40°05.00' W97°34.00'
01 AGL B 40 MSL to Remain within the lat- eral confines of R-3601 and climb to 170 MSL or as as- signed. Alternate Entry Track: E	D1	TKO 062/22	N39°55.00' W97°49.00'
100 MSL to or as assigned	YA	TKO VORTAC	N39°48.38' W98°15.60'
100 MSL to	YB	TKO 176/6	N39°42.00' W98°16.50'
40 MSL B 100 MSL to	E1	TKO 176/18	N39°30.00' W98°18.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from Point B to K.

ROUTE WIDTH - 3 NM either side of centerline from A to C; 8 NM either side of centerline from C to G; 8 NM east and 4 NM west of centerline from G to H; 8 NM either side of centerline from H to J; 7 NM either side of centerline from J to K. Alternate Entry: E - On centerline YA to E1.

Special Operating Procedures:

- (1) All route reservations and briefings including night and weekend flights must be made during workday (normally Tue-Fri 0700-1730 local).
- (2) Route is to be flown only when the user has either a scheduled range period at R-3601, or when R-3601 is inactive. Contact R-3601/Smokey MOA scheduling prior to scheduling IR-505 at DSN 743-7600, C785-827-9611/9612.
- (3) MARSAs are applicable between IR-505 beyond Pt I and Bison/Smokey MOAs through coordinated scheduling and See and Avoid.
- (4) Lost communications procedures; At Pt K climb to 170 MSL while staying within the lateral confines of R-3601. Then via flight plan route.
- (5) Kansas City ARTCC low altitude frequencies are: north end 322.4, south end 363.2.
- (6) Route is surveyed to 200' AGL but obstacle clearance is not guaranteed.
- (7) VR-531 parallels and crosses route from Pt F to K. Numerous VR routes are in the vicinity of R-3601. Route coincides with VR-545 and VR-544.
- (8) Avoid all airports by at least 3 NM or 1500' AGL. Be especially concerned around: Beloit Airport N39-29 W98-08, and Rose Airport at N39-38 W98-22. Note that the route boundaries go around the Lucas Airport at N39-04 W98-32.

- (9) Avoid the following areas by 1500' AGL or 1 NM: N39-18.1 W98-27.3, N39-59.0 W97-39.0, N39-47.4 W97-48.5, N39-00.0 W98-27.0. Pay special attention to and avoid by 1500' AGL and 3 NM: N38-59.3 W98-26.5.
- (10) Uncharted towers located at; N39-53 W98-02, N39-47 W97-49; N38-51 W98-20; N38-51 W98-24; N38-40 W98-30, N38-52 W98-30, N38-51 W98-24, N39-31 W98-20, N38-51 W98-20, N39-37 W98-26.
- (11) Avoid the following Noise Sensitive Areas: N38-44 W97-58, Marquette N38-33 W97-50, Brockville N38-47 W97-52, Kanapolis Dam area N38-37 W97-58.
- (12) Migratory bird flyway in the spring and fall.
- (13) Low altitude air-to-air training (LOWAT), is approved on these segments of IR-505 which underlies the Bison and Smokey MOAs. The subject airspace lies between Pt I and K along the MTR from the surface to 4000' MSL.
- (14) Aircrews filing for Alternate Entry at Pt 3 must file as follows: TKO.IR505A.SLN208019....flight plan route.

FSS Within 100 NM Radius:

ICT, OLU

IR-508

ORIGINATING ACTIVITY: 114 FW (ANG), Joe Foss Field, Sioux Falls, SD 57104-0264 DSN 798-7745, C605-988-5745.

SCHEDULING ACTIVITY: 114 FW (ANG), Joe Foss Field, Sioux Falls, SD 57104-0264 DSN 798-7754/7746, C605-988-5754/5746.

HOURS OF OPERATION: Daylight hours, Mon-Sat, OT by NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 100 MSL to or as assigned descend to cross at or below 50 MSL	A	LNK 332/108	N42°37.00' W97°32.00'
01 AGL B 45 MSL to	B	ONL 070/40	N42°35.00' W97°48.00'
01 AGL B 45 MSL to	C	ONL 069/32	N42°34.00' W97°59.00'
01 AGL B 45 MSL to	D	ONL 352/32	N43°00.00' W98°40.00'
01 AGL B 50 MSL to	E	ONL 283/38	N42°43.00' W99°29.00'
01 AGL B 55 MSL to	F	ONL 242/63	N42°08.00' W100°01.00'
01 AGL B 45 MSL to	G	ONL 217/29	N42°08.00' W99°10.00'
01 AGL B 45 MSL to	H		N41°59.00' W98°56.00'
01 AGL B 45 MSL to then climb to cross 100 MSL to	I		N41°40.00' W98°43.00'
	J		N41°22.90' W98°21.37'
Alternate Entry: D 50 MSL to Thence via published route.	D1	ONL 352/32	N43°00.00' W98°40.00'

IR ROUTES

TERRAIN FOLLOWING OPERATIONS: Authorized from Point C to H.

ROUTE WIDTH - 4 NM either side of centerline from A to C; 8 NM either side of centerline from C to I; 4 NM either side of centerline from I to J.

Special Operating Procedures:

- (1) Route is surveyed to 100' AGL. This altitude will not guarantee obstacle clearance throughout the route.
- (2) Normal operating speed is 480 Kts.
- (3) Route is common with IR-509 from A to E and VR-1521 from C to I.
- (4) When entering at Alternate Entry Point D, aircraft shall be established in the route structure (45 MSL) within 8 NM of Point D.
- (5) When using ONL MOA in conjunction with IR-508, MOA clearance will be attempted prior to entering at Point A.
- (6) Oneill MOA overlaps the route between H and I. If IR-508 is not used in conjunction with Oneill MOA, the user must deconflict Oneill MOA with the 114 FW when scheduling the route.
- (7) Exiting the route cross Point I at 10,000' MSL.
- (8) Migratory birds along rivers and lakes in spring and fall.
- (9) Lost communications altitude is 17,000' MSL.
- (10) Alternate Exit Point is H.
- (11) IR-508 is opposite direction of IR-518 and VR-1520 from C to I. The 114 FW will not schedule opposite and conflicting traffic at the same time.
- (12) Maintain a minimum of 1500' AGL from Point A to C. Remain at least 1.5 NM away from either side of a line from N41-58.0 W98-53.0 to N41-46.0 W98-40.0.
- (13) Avoid the following noise sensitive areas by a minimum of 1500' AGL or 1 NM: ranch N42-19.5 W99-46.5, dairy N42-12.0 W99-42.0, farm N41-48.0 W98-45.0, farm N42-43.5 W99-35.2.
- (14) Avoid Bald Eagle Nesting Area at Karl Mundt National Wildlife Refuge N43-00.9 W98-31.6 by 1 NM or 1500' AGL.
- (15) Avoid Bird Nesting Areas by 1500' or 1 NM March through October: N42-47.0 W99-22.6, N42-43.3 W99-35.7.
- (16) Avoid flight within 1500' AGL or 3 NM of the Rock County Airport.
- (17) Uncharted towers located at N42-06.0 W98-00.0, N42-06.0 W98-05.0, N42-52.0 W98-41.0, N42-32.1 W99-40.1 and N41-48.3 W98-58.0.

FSS Within 100 NM Radius:

FOD, HON, OLU

IR-509

ORIGINATING ACTIVITY: 114 FW (ANG), Joe Foss Field, Sioux Falls, SD 57104-0264 DSN 798-7745, C605-988-5745.

SCHEDULING ACTIVITY: 114 FW (ANG), Joe Foss Field, Sioux Falls, SD 57104-0264 DSN 798-7754/7746, C605-988-5754/5746.

HOURS OF OPERATION: Daylight hours, Tue-Sat, OT by NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 100 MSL to or as assigned descend to cross	A	ONL 070/52	N42°37.00' W97°32.00'
50 MSL to	B	ONL 070/40	N42°35.00' W97°48.00'
01 AGL B 50 MSL to	C	ONL 069/32	N42°34.00' W97°59.00'
01 AGL B 50 MSL to	D	ONL 352/32	N43°00.00' W98°40.00'
01 AGL B 50 MSL to	E	ONL 283/38	N42°43.00' W99°29.00'
01 AGL B 50 MSL to	F	ONL 286/47	N42°49.00' W99°39.00'
01 AGL B 50 MSL to	G	PIR 181/66	N43°19.00' W100°29.00'
01 AGL B 50 MSL to	H	PIR 146/32	N43°54.00' W99°52.00'
01 AGL B 55 MSL to	I	PIR 119/42	N43°56.00' W99°25.00'
01 AGL B 55 MSL to	J	ONL 330/90	N43°53.00' W99°24.00'
01 AGL B 55 MSL to 01 AGL B 90 MSL to cross	K	ONL 330/73	N43°37.00' W99°16.00'
01 AGL B 90 MSL to	L	ONL 344/41	N43°09.00' W98°47.00'
90 MSL to	M	ONL 360/36	N43°04.00' W98°33.00'
90 MSL to climb to cross	N	ONL 026/35	N42°57.00' W98°13.00'
100 MSL to	O	ONL 030/37	N42°56.00' W98°09.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from Point C to L.

ROUTE WIDTH - 4 NM either side of centerline from A to C; 8 NM either side of centerline from C to L; 4 NM either side of centerline from L to O.

Special Operating Procedures:

- (1) Route is common with IR-508 between A to E, VR-510 from I to O, VR-1521 from C to E.
- (2) Route is opposite direction of IR-518 from A to E, and VR-1520 from C to E.
- (3) Route conflicts with VR-510 at Point D, and IR-508, IR-518, VR-1520 and VR-1521 between L to M.
- (4) Route is surveyed to 500' AGL with sections to 100' AGL. These altitudes will not guarantee obstacle clearance throughout the route.
- (5) Migratory birds along the rivers and lakes during spring and fall.
- (6) Lake Andes MOA overlaps the route between K and N from 6.0 MSL and above. If IR-509 is not used in conjunction with Lake Andes MOA, the user must deconflict with the 114 FW when scheduling the route.
- (7) Alternate Entry Points are D, F, H and I. Aircraft shall commence descend from 10.0 MSL or as assigned to be established into the route structure within 8 NM of the designated Alternate Entry Point.
- (8) Alternate Exit Points are D, G, H, I and L.

- (9) Points D and L underlie the Lake Andes MOA. Prior ATC clearance must be received in order to operate in the MOA when exiting at D and L.
- (10) Aircrews should be aware of 1326' AGL tower, 3385' MSL at N43-58.0 W99-35.0.
- (11) Lost communications altitude is 17,000' MSL.
- (12) A minimum of 1500' AGL entire route width from Point A to C.
- (13) A minimum of 1500' AGL over a rectangle beginning and ending at N43-49 W99-10; to N43-49 W99-25; to N43-42 W99-25; to N43-44 W99-06.5.
- (14) Avoid the following noise sensitive areas by a minimum of 1500' AGL or 1 NM: farm N43-01 W98-47; ranch N43-57.3 W99-28.5; ranch N43-23 W99-05; ranch N43-06 W98-56; farm N43-00.5 W99-50.5; ranch N43-18.3 W100-15.4; ranch N43-33.7 W99-14.0.

FSS Within 100 NM Radius:

FOD, HON, OLU

IR-513

ORIGINATING ACTIVITY: DET 1, 184 IW, Smoky Hill ANG Range, 8429 W Farrelly Rd, Salina, KS 67401-9407.
Phone-C785-827-9611 ext 147, DSN 743-7600 ext 147.

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 170 MSL to or as assigned	A	LBL 056/40	N37°18.00' W100°12.00'
170 MSL to (START TA/TFR)	B	LBL 049/42	N37°23.50' W100°13.00'
10 AGL B 170 MSL to	C	DDC 216/17	N37°38.50' W100°15.50'
10 AGL B 170 MSL to	D	DDC 248/13	N37°48.00' W100°16.00'
10 AGL B 170 MSL to	E	GCK 038/23	N38°10.00' W100°21.50'
10 AGL B 40 MSL to	F	GCK 032/30	N38°17.00' W100°18.00'
05 AGL B 40 MSL to	G	GCK 033/54	N38°34.00' W99°55.50'
05 AGL B 40 MSL to ALTERNATE ENTRY	H	GCK 037/61	N38°36.00' W99°45.50'
05 AGL B 40 MSL to	I	GCK 047/75	N38°34.25' W99°22.50'
05 AGL B 40 MSL to Contact KC Center 322.4 Enter BISON MOA	J	HYS 148/19	N38°33.50' W99°07.60'
10 AGL B 40 MSL to Alternate Exit	K	HYS 131/21	N38°34.80' W99°00.00'
10 AGL B 40 MSL to	L	HYS 104/38	N38°34.80' W98°32.00'
10 AGL B 40 MSL to (ENTER SMOKY MOA)	M	SLN 223/38	N38°31.00' W98°14.50'

10 AGL B 40 MSL to (RACETRACK ENTRY)	AA	SLN 200/28	N38°30.00' W97°53.50'
05 AGL B FL180 to	AB	SLN 209/17	N38°42.00' W97°50.00'
SFC B FL180 to TERMINATE TA/TFR	AC	SLN 215/14	N38°45.00' W97°49.50'
10 AGL B FL180 to	AD	SLN 228/12	N38°48.50' W97°50.00'
32 MSL B FL180 to	AE	SLN 251/22	N38°51.00' W98°04.50'
32 MSL B FL180 to	AF	SLN 247/25	N38°48.30' W98°08.30'
32 MSL B FL180 to Start TA/TFR	AG	SLN 237/29	N38°42.50' W98°11.00'
10 AGL B FL180 to	AH	SLN 221/36	N38°31.00' W98°11.50'
10 AGL B FL180 to	AI	SLN 206/36	N38°25.40' W98°02.00'
10 AGL B FL180 to	AA1	SLN 200/28	N38°30.00' W97°53.50'
05 AGL B FL180 to Contact KC Center 363.2	AB1	SLN 209/17	N38°42.00' W97°50.00'
150 MSL to Alternate Entry: H 150 MSL or as assigned to	H1	GCK 037/61	N38°36.00' W99°45.50'
05 AGL B 150 MSL to	I1	GCK 047/75	N38°34.25' W99°22.50'
05 AGL B 40 MSL to Contact KC Center 322.4 thence via published route.	J1	HYS 148/19	N38°33.50' W99°07.80'

TERRAIN FOLLOWING OPERATIONS: Authorized within published altitude blocks from Pt B to Pt AC, and within the Smoky Hill Racetrack from POINTS AG to AC. When command directives preclude TF/TA operation aircrews will maintain the IFR altitude for each route segment. The minimum IFR altitude for Smokey Hill Racetrack is 3200 MSL. Minimum altitudes are established to provide a minimum of 100' vertical clearance of known man made obstacles. Aircrews are advised that route altitudes provide no buffer outside the route limits. Obstructions below 200' AGL were not considered in route design. Command directives may require additional clearance for TF/TA/VMC operations. The entire route is designated non-mountainous. Regulations governing operations below 500' AGL must be complied with. Aircrews must be aware of charted airports within or near the route corridor limits. Avoid flight within 1500' vertical or 3NM horizontal of these airports when practical.

ROUTE WIDTH - 4NM left/4NM right of centerline from Pt A to PT D; 3NM left/4NM right of centerline Pt D to Pt E; 4NM left/4NM right of centerline Pt E to Pt G; 6NM left/4NM right of centerline from Pt G to Pt J. Points J-M corridor widths must remain within the confines of the Bison MOA. Smoky Hill Racetrack: circular track encompassing all airspace inside an area bounded by 3NM right of centerline from AC to AF, within the confines of Smoky MOA and R-3601A from AF to AH, 2NM right of centerline from AH to AC.

IR ROUTES

Special Operating Procedures:

- (1) Participating aircraft separation: Route is designated for MARSAs operations established by coordinated scheduling.
- (2) Centerline between turn points is depicted as a 7.5NM Arc.
- (3) B-1/B-2 aircraft can make an auto TF descent beginning at Point B.
- (4) Aircrews should file the route number, entry time and exit time in the remarks section of the flight plan IAW FLIP AP/1B Chapter 1. This is particularly important for aircraft delaying in the Smoky Hill Racetrack (E.G. IR5131617X1815).
- (5) ARTCC low altitude frequencies are: 269.4 Pt A to Pt J, 322.4 Pt J to Pt M, 363.2 Pt M to PT Al. Smoky Hill Range is 319.9 or 309.9 while in the Smoky MOA.
- (6) Aircrews are cautioned about the following towers located adjacent to the route corridor: 2884 MSL(436'AGL) tower at N38-43.617 W099-53.00 between Pt G and H; 2416 MSL(496'AGL) tower at N38-30.10 W099-10.55 adjacent to Pt J; 2978 MSL(803'AGL) tower at N38-37.067 W098-56.55 left of corridor 3.2NM NE of Pt K; 2234 MSL(496'AGL) towers at N38-21.7 W098-09.33 right of corridor 6.4NM SW of Pt Al. Maintaining aircraft position within the established route widths must be particularly emphasized when flying below IFR altitudes in these areas.
- (7) Route is to be flown only when the user has a scheduled range period at Bison MOA, Smoky MOA and R-3601 A. Contact R-3601/Smoky MOA/Bison MOA scheduling DSN 743-7600 ext 147 for a confirmed range time prior to scheduling IR-513.
- (8) Alternate Exit at Point K requires receipt of clearance for operation in Bison MOA prior to MTR entry. Aircrews should plan to exit at or above 1000' AGL to ensure they are within the confines of the MOA and to ensure vertical clearance from towers located left and right of route corridor including multiple towers 2798 MSL(803'AGL) located 3NM NE of Pt K at N38-37.067 W098-56.55 and multiple towers 2884 MSL (1006 AGL) 14NM SE of Pt K at N38-25.9 W098-46.317.
- (9) Aircrews utilizing alternate Entry H shall schedule and file IR-513H.
- (10) Lost communications altitude after Point AB is 120 MSL. SQUAWK 7600.
- (11) Aircrews will contact Smoky Hill on 316.9 primary or 309.9 secondary prior to entering the R-3601 A/B. (If unable to establish contact, crews will circumnavigate R-3601A to the West, remaining within the Smoky MOA and contact Kansas City Center on 363.2 for further clearance).
- (12) Crews should be aware of moderate civilian/military traffic in the vicinity of the Salina Municipal Airport and Class D airspace located Northeast of R-3601A.
- (13) Re-Entry Racetrack filing procedures: To utilize the Racetrack file the route entry fix, route designator (IR-513) followed immediately by a plus sign, the letter 'R' and a digit indicating the number of re-entries, then the route exit fix; (E.G., IR513+R2SLN209017).
- (14) Re-Entry Racetrack Flight Procedures: Once established in the IR-513 Re-Entry Racetrack there is no inside corridor. A proper number of racetrack re-entries must be scheduled to encompass your entire scheduled range delay. Bison MOA, Smoky MOA, and R-3601A must also be scheduled for the entire duration of the delay. Crews must ensure that their scheduled/filed IR-513 exit timing is met to ensure separation from subsequent route users.
- (15) Separation between successive missions requires aircrews to maintain scheduled timing plus or minus 2.5 minutes at each route point.

- (16) For crews exiting the route at alternate exit 'AB1' file the route entry, route designator (IR-513), Point 'AB1' Radial/DME and then include the amount of delay planned in Smoky Hill MOA/R-3601 as a remark. If planning to depart the range IFR, file a separate IFR Flight Plan from R-3601 to your destination. Contact Kansas City Center on 363.2 and remain within the Smoky Hill MOA/R-3601 until further IFR clearance is received or proceed VFR.
- (17) The following are identified route noise sensitive areas. Refer to the Smoky Hill Range Guide for avoidance criteria.
 - (a) Ellsworth (town) N38-43.9 W98-13.5;
 - (b) Falun (town) N38-40.1 W97-45.5;
 - (c) Geneseo (town) N38-31.0 W98-09.4;
 - (d) Kanapolis (town) N38-42.6 W98-09.2;
 - (e) Marquette (town) N38-33.3 W97-49.9;
 - (f) Kanapolis Dam North N38-37.6 W97-58.2;
 - (g) Kanapolis Dam South N38-36.4 W97-57.9;
 - (h) Farm House N38-41.0 W97-53.4;
 - (i) Farm House N38-48.0 W97-47.5;
 - (j) Feed lot N38-37.7 W97-48.5.

FSS Within 100 NM Radius:

ICT

IR-514

ORIGINATING ACTIVITY: 114 FW (ANG), Joe Foss Field, Sioux Falls, SD 57104-0264 DSN 798-7754/46, C605-988-5745/5746.

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: Daylight hours, Tue-Sat, OT by NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 100 MSL to or as assigned descend direct to cross	A	LBF 016/25	N41°25.00' W100°30.00'
at or below 50 MSL direct to	B	LBF 335/25	N41°27.00' W100°53.00'
01 AGL B 70 MSL to direct to	C	LBF 309/45	N41°37.00' W101°23.00'
01 AGL B 70 MSL to direct to	D	LBF 328/78	N42°15.00' W101°23.00'
01 AGL B 70 MSL to direct to	E	PHP 158/72	N42°53.00' W101°23.00'
01 AGL B 70 MSL to direct to	F	PHP 154/52	N43°13.00' W101°23.00'
01 AGL B 70 MSL to Climb direct to cross	G	PHP 154/41	N43°24.00' W101°26.50'
70 MSL to (Contact Minneapolis ARTCC 269.1) Continue climb direct to	H	PHP 154/17	N43°47.00' W101°34.00'

130 MSL to	I	PIR 221/47	N43°55.00'
Continue climb direct			W101°01.00'
to cross			
FL230 to	J	PIR 191/48	N43°39.00'
			W100°35.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from B to H.

ROUTE WIDTH - 4 NM either side of centerline from A to B; 15 NM right and 4 NM left of centerline from B to C; 13 NM right and 16 NM left of centerline from C to D; 25 NM right and 16 NM left of centerline from D to E; 25 NM right and 10 NM left of centerline from E to G; 6 NM right and 12 NM left of centerline from G to H; 8 NM either side of centerline from H to I; 4 NM either side of centerline from I to J.

Special Operating Procedures:

- (1) Route designed for tactical low level formation, road, reconnaissance, radar low level navigation, ground attack tactics, and aerial defense tactics.
- (2) IR-514 is opposite direction traffic of IR-613. 114 FW will not schedule opposite direction and conflicting traffic at the same time.
- (3) Route is opposite direction of IR-500 from B to D.
- (4) Route is surveyed to 500' AGL with sections to 100' AGL. These altitudes will not guarantee obstacle clearance throughout the route. Give special attention to 1029' AGL tower at N42-40.75 W101-42.75.
- (5) All airports and Lacreek National Wildlife Refuge shall be avoided by 1500' AGL or 3 miles.
- (6) Contact Minneapolis ARTCC on 269.1 after passing H on route climb out.
- (7) Lost communications: After exit at J, if IMC, maintain FL 230 and comply with FAR 91.185 DOD/IFR Supplement.
- (8) Avoid the following Noise Sensitive Areas by a minimum of 1500' AGL or 1 NM: Ranch N42-26 W101-44; St. Francis N43-08 W100-55; Racetrack N43-15 W100-51.

FSS Within 100 NM Radius:

HON, OLU

IR-518

ORIGINATING ACTIVITY: 114 FW (ANG), Joe Foss Field, Sioux Falls, SD 57104-0264 DSN 798-7745, C605-988-5745.

SCHEDULING ACTIVITY: 114 FW (ANG), Joe Foss Field, Sioux Falls, SD 57104-0264 DSN 798-7754/7746, C605-988-5754/5746.

HOURS OF OPERATION: Daylight hours, Mon-Sat, OT by NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 100 MSL to	A		N41°22.90'
			W98°21.37'
100 MSL to	B		N41°40.00'
			W98°43.00'
01 AGL B 45 MSL to	C		N41°59.00'
			W98°56.00'

01 AGL B 45 MSL to	D	ONL 217/29	N42°08.00'
			W99°10.00'
01 AGL B 45 MSL to	E	ONL 242/63	N42°08.00'
(Alternate Exit)			W100°01.00'
01 AGL B 55 MSL to	F	ONL 283/38	N42°43.00'
(Alternate Exit)			W99°29.00'
01 AGL B 50 MSL to	G	ONL 352/32	N43°00.00'
			W98°40.00'
01 AGL B 45 MSL to	H	ONL 069/32	N42°34.00'
Climb to cross			W97°59.00'
at or below 50 MSL	I	ONL 070/40	N42°35.00'
Climb to cross			W97°48.00'
100 MSL to	J	ONL 070/52	N42°37.00'
			W97°32.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from Point B to H.

ROUTE WIDTH - 4 NM either side of centerline from A to B; 8 NM either side of centerline from B to H; 4 NM either side of centerline from H to J.

Special Operating Procedures:

- (1) IR-518 is opposite direction of IR-508 and VR-1521 and common with VR-1520 from B to H, and IR-509 from F to J. The 114 FW will not schedule opposite and conflicting traffic at the same time.
- (2) Route is surveyed to 500' AGL with sections to 100' AGL. These altitudes will not guarantee obstacle clearance though out the route.
- (3) Migratory birds along rivers and lakes during spring and fall.
- (4) Oneill MOA overlaps the route between B and C. If IR-518 is not used in conjunction with Oneill MOA, the user must deconflict Oneill MOA with the 114 FW when scheduling the route.
- (5) Aircraft exiting at Point G to operate in the Lake Andes MOA should get clearance from ATC prior to entering the route.
- (6) Alternate Exit Points are F and G.
- (7) Alternate Entry Point is C (may be used in conjunction with ONL MOA).
- (8) Lost communications altitudes is 100 MSL.
- (9) Maintain a minimum of 1500' AGL from Point H to J. Remain at least 1.5 NM from either side of a line from N41-58.0 W98-53.0 to N41-46.0 W98-40.0.
- (10) Avoid the following noise sensitive areas by a minimum of 1500' AGL or 1 NM: ranch N42-19.5 W99-46.5, dairy N42-12.0 W99-42.0, farm N41-48.0 W98-45.0, farm N42-43.5 W99-35.2.
- (11) Avoid flight within 1500' AGL or 3 NM of the Rock County Airport.
- (12) Uncharted towers at N42-06.0 W98-00.0, N42-06.0 W98-05.0, N42-52.0 W98-41.0, N42-32.1 W99-40.1 and N41-48.3 W98-58.0.
- (13) Avoid Bald Eagle Nesting Area at Karl Mundt National Wildlife Refuge N43-00.9 W98-31.6 by 1 NM or 1500' AGL.
- (14) Avoid Bird Nesting Areas by 1500' or 1 NM March through October: N42-47.0 W99-22.6, N42-43.3 W99-35.7.

FSS Within 100 NM Radius:

FOD, HON, OLU

IR ROUTES

IR-526

ORIGINATING ACTIVITY: DET 1, 184 IW, Smoky Hill ANG Range, 8429 W Farrelly Rd, Salina, KS 67401-9407.
Phone-C785-827-9611 ext 147, DSN 743-7600 ext 147.

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 150 MSL to or as assigned	A	GCK 226/27	N37°40.50' W101°11.50'
Desend within			
05 AGL B 150 MSL to	B	GCK 199/27	N37°32.00' W101°00.50'
05 AGL B 70 MSL to Start TA/TFR	C	LBL 353/25	N37°28.00' W100°56.00'
05 AGL B 50 MSL to	D	LBL 022/18	N37°18.00' W100°46.00'
05 AGL B 50 MSL to	E	LBL 051/18	N37°11.00' W100°39.00'
05 AGL B 40 MSL to (Report passing F to)	F	LBL 072/20	N37°05.00' W100°33.00'
05 AGL B 40 MSL to	G	LBL 078/31	N37°03.00' W100°20.00'
Alternate Entry			
05 AGL B 40 MSL to	H	DDC 155/33	N37°19.50' W99°48.00'
05 AGL B 40 MSL to	I	DDC 122/33	N37°29.50' W99°28.00'
07 AGL B 40 MSL to	J	DDC 117/35	N37°31.00' W99°24.00'
07 AGL B 40 MSL to	K	DDC 106/45	N37°33.00' W99°09.00'
05 AGL B 40 MSL to (Report passing L to Wichita APP on 306.2)	L	ANY 306/35	N37°33.00' W98°42.50'
05 AGL B 40 MSL to	M	ANY 314/33	N37°35.00' W98°36.00'
05 AGL B 40 MSL to	N	HUT 230/28	N37°43.30' W98°24.50'
05 AGL B 40 MSL to	O	HUT 250/23	N37°53.50' W98°23.50'
05 AGL B 40 MSL to	P	HUT 255/23	N37°55.50' W98°25.00'
Terminate TA/TFR Report passing P to Wichita APP on 306.2			
05 AGL B 40 MSL to	Q	HUT 271/23	N38°02.00' W98°25.60'
05 AGL B 40 MSL to	R	HUT 288/23	N38°08.50' W98°23.00'
05 AGL B 40 MSL to	S	HUT 305/28	N38°17.50' W98°23.67'
ENTER BISON MOA			
10 AGL B 40 MSL to Alternate Exit: T	T	HUT 311/31	N38°21.80' W98°24.00'
10 AGL B 40 MSL to	U	SLN 213/37	N38°27.50' W98°07.60'

10 AGL B 40 MSL to Racetrack Entry	AA	SLN 200/28	N38°30.00' W97°53.50'
05 AGL B FL180 to	AB	SLN 209/17	N38°42.00' W97°50.00'
SFC B FL180 to (TERMINATE TA/TFR)	AC	SLN 215/14	N38°45.00' W97°49.50'
10 MSL B FL180 to	AD	SLN 228/12	N38°48.50' W97°50.00'
32 MSL B FL180 to	AE	SLN 251/22	N38°51.00' W98°04.50'
32 MSL B FL180 to	AF	SLN 247/25	N38°48.30' W98°08.30'
32 MSL B FL180 to Start TA/TFR	AG	SLN 237/29	N38°42.50' W98°11.00'
10 AGL B FL180 to	AH	SLN 221/36	N38°31.00' W98°11.50'
10 AGL B FL180 to	AI	SLN 206/36	N38°25.40' W98°02.00'
10 AGL B FL180 to	AA1	SLN 200/28	N38°30.00' W97°53.50'
05 AGL B FL180 to Contact KC Center 363..2	AB1	SLN 209/17	N38°42.00' W97°50.00'
150 MSL to Alternate Entry: G	G1	LBL 078/31	N37°03.00' W100°20.00'
05 AGL B 150 MSL to	H1	DDC 155/33	N37°19.50' W99°48.00'
05 AGL B 40 MSL to Thence via published route.	I1	DDC 122/33	N37°29.50' W99°28.00'

TERRAIN FOLLOWING OPERATIONS: Authorized within published altitude blocks from Point C to Point O, from Point S to U, within Smoky Hill Racetrack from Points AG to AC. When command directives preclude TF/TA operation aircrews will maintain the IFR altitude for each route segment. The minimum IFR altitude for Smoky Hill Racetrack is 3200 MSL. Minimum altitudes are established to provide a minimum of 100' vertical clearance of known man made obstacles, Aircrews are advised that route altitudes provide no buffer outside the route limits. Obstructions below 200' AGL were not considered in route design. Command directives may require additional clearance for TF/TA/VMC operations. The entire route is designated non-mountainous. Regulations governing operations below 500' AGL must be complied with. Aircrews must be aware of charted airports within or near the route corridor limits. Avoid flight within 1500' vertical or 3NM horizontal of these airports when practical.

ROUTE WIDTH - 4NM left/3NM right of centerline from Pt A to Pt B; 4NM left/2NM right of centerline Pt B to Pt E; 4NM left/4NM right of centerline PT E to PT K; 3NM left/6NM right of centerline from Pt K to Pt O; 2NM left/2NM right of centerline from Pt O to Pt S. Points S-U corridor widths must remain within the confines of the Bison and Smoky MOAs. Smoky Hill Racetrack: Circular track encompassing all airspace inside an area bounded by 3NM right of centerline from AC to AF, within the confines of Smoky MOA and R-3601A from AF to AH, 2NM right of centerline from AH to AC.

Special Operating Procedures:

- (1) Participating aircraft separation: route is designated for MARSA operations established by coordinated scheduling.
- (2) Centerline between turn points is depicted as a 7.5NM arc.

- (3) B-1/B-2 aircraft can make an auto TF descent beginning at Point C.
- (4) Do not fly below 800' AGL from 1 Mar through 30 Sep between Points A through F due to heavy crop dusting activity.
- (5) Aircrews should file the route number, entry time and exit time in the remarks section of the flight plan IAW FLIP AP/1B Chapter 1. This is particularly important for aircraft delaying in the Smoky Hill Racetrack (E.G. E5261617X1815).
- (6) ARTCC low altitude frequencies are: 269.4 Pt A to Pt H, 344.8 Pt H to K. Smoky Hill Range is 316.9 or 309.9 while in the Smoky MOA.
- (7) Aircrews are cautioned about the following towers located adjacent to the route corridor. 3381 MSL (496 AGL) tower at N37-19.75 W100-54.333 right of corridor between Pt C and Pt D; 2744 MSL (999 AGL) tower at N37-55.833 W098-19.067 right corridor between Pt O and Pt P; 2240 MSL (496 AGL) tower at N38-27.033 W098-23.400 within corridor. Maintaining aircraft position within the established route widths/altitudes must be particularly emphasized when flying below IFR altitudes in these areas.
- (8) Route is to be flown only when the user has a scheduled range period at Bison MOA, Smoky MOA and R-3601 A. Contact R3601/Smoky MOA/Bison MOA scheduling DSN 743-7600 ext 147 for confirmed range time prior to scheduling IR-526.
- (9) Alternate Exit at Pt T required receipt of clearance for operation in Bison MOA prior to MTR entry. Aircrews should plan to exit at or above 1000' AGL to ensure they are within the confines of the MOA.
- (10) Aircrews utilizing Alternate Entry G shall schedule and file IR-526G.
- (11) Lost communications altitude after Point AB is 120 MSL. Squawk 7600.
- (12) Aircrews will contact Smoky Hill on 316.9 Primary or 309.9 secondary prior to entering the R-3601 A. (If unable to establish contact, crews will circumnavigate R-3601 A to the west, remaining within the Smoky MOA and contact Kansas City Center on 363.2 for further clearance).
- (13) Crews should be aware of moderate civilian/military traffic in the vicinity of the Salina Municipal Airport and Class D airspace located Northeast of R-3601 A.
- (14) Re-Entry Racetrack filing procedures: To utilize the Racetrack file the route Entry fix, route designator (IR-526) followed immediately by a plus sign, the letter 'R' and a digit indicating the number of re-entries, then the route Exit fix; E.G. IR526+R2 SLN209017.
- (15) Aircrews will contact Wichita Approach on 306.2 when passing Pt L and again when passing Pt P.
- (16) Re-entry Racetrack flight procedures: Once established in the re-entry Racetrack there is no inside corridor. A proper number of Racetrack Re-entries must be scheduled to encompass your entire scheduled Range delay. Bison MOA, Smoky MOA and R-3601 A/B must also be scheduled for the entire duration of the delay. Crews must ensure that their scheduled/filed IR-526 exit timing is met to ensure separation from subsequent route users.
- (17) Separation between successive missions requires aircrews to maintain scheduled timing plus or minus 2.5 minutes at each route point.
- (18) For crews exiting the route at Primary Exit AB1, file the route entry, route designator (IR-526), Point 'AB1' radial/DME and then include the amount of delay planned in Smoky MOA/R-3601 as a remark. If planning to depart the range IFR, file a separate IFR flight plan from R-3601 to your

destination. Contact Kansas City Center on 363.2 and remain within the Smoky MOA/R-3601 until further IFR clearance is received or proceed VFR.

- (19) The following are identified route noise sensitive areas. Refer to the Smoky Hill Range Guide for avoidance criteria.
 - (a) Ellsworth (town) N38-43.9 W98-13.5;
 - (b) Falun (town) N38-40.1 W97-45.5;
 - (c) Geneseo (town) N38-31.0 W98-09.4;
 - (d) Kanapolis (town) N38-42.6 W98-09.2;
 - (e) Marquette (town) N38-33.3 W97-49.9;
 - (f) Kanapolis Dam North N38-37.6 W97-58.2;
 - (g) Kanapolis Dam South N38-36.4 W97-57.9;
 - (h) Farm House N38-41.0 W97-53.4;
 - (i) Farm House N38-48.0 W97-47.5;
 - (j) Feed Lot N38-37.7 W97-48.5

FSS Within 100 NM Radius:

ICT

IR-592

ORIGINATING ACTIVITY: 188th Wing-AR ANG, 4850 Leigh Ave., Fort Smith, AR 72903 DSN 778-5502, C479-573-5502.

SCHEDULING ACTIVITY: Same as Originating Activity.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 100 MSL to or as assigned (TA/TFR Initiation Point)	A	FAM 230/16	N37°30.00' W90°30.00'
descend within SFC B 30 MSL to	BA	FAM 206/35	N37°09.50' W90°33.50'
06 AGL B 30 MSL to	B	FAM 205/38	N37°06.50' W90°35.00'
06 AGL B 25 MSL to	C	FAM 210/62	N36°47.00' W90°53.50'
06 AGL B 20 MSL to	D	FAM 210/64	N36°45.00' W90°55.00'
06 AGL B 20 MSL to	E	ARG 316/17	N36°19.50' W91°10.50'
06 AGL B 20 MSL to	F	ARG 308/16	N36°17.50' W91°12.00'
06 AGL B 20 MSL to climb within	G	ARG 261/23	N36°04.50' W91°25.50'
06 AGL B 25 MSL to (Report passing H to Memphis Center on 289.4)	H	ARG 257/31	N36°01.50' W91°35.50'
06 AGL B 25 MSL to climb within	I	RZC 090/99	N36°06.00' W92°05.00'
07 AGL B 30 MSL to climb within	J	RZC 093/92	N36°02.50' W92°15.00'
06 AGL B 40 MSL to	K	LIT 335/59	N35°36.50' W92°35.50'
05 AGL B 40 MSL to	L	LIT 325/69	N35°40.50' W92°53.50'

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05 AGL B 40 MSL to descend within	M	RZC 099/63	N36°00.00' W92°51.50'
05 AGL B 40 MSL to	N	RZC 091/62	N36°09.00' W92°50.50'
05 AGL B 30 MSL to (Report passing O to Memphis Center on 281.55)	O	RZC 068/68	N36°35.50' W92°47.50'
06 AGL B 30 MSL to	P	ARG 290/90	N36°42.50' W92°39.50'
06 AGL B 30 MSL to	Q	ARG 297/78	N36°46.00' W92°20.00'
06 AGL B 30 MSL to	R	ARG 297/70	N36°43.00' W92°12.00'
06 AGL B 30 MSL to	S	ARG 295/63	N36°37.00' W92°05.00'
06 AGL B 30 MSL to	T	ARG 297/55	N36°34.50' W91°56.00'
06 AGL B 30 MSL to	U	ARG 323/38	N36°39.00' W91°23.00'
06 AGL B 30 MSL to	V	ARG 333/42	N36°45.00' W91°17.00'
06 AGL B 30 MSL to	W	ARG 340/52	N36°57.00' W91°15.00'
climb within			
06 AGL B 40 MSL to	X	MAP 137/40	N37°03.50' W91°17.50'
06 AGL B 40 MSL to	Y	MAP 140/34	N37°07.50' W91°23.50'
30 MSL B 40 MSL to (Contact Kansas City Center on 284.67)	Z	MAP 154/17	N37°19.00' W91°40.00'
40 MSL to	AA	MAP 194/11	N37°25.00' W91°52.00'
40 MSL to or as assigned	AB	MAP 222/16	N37°25.00' W92°02.00'
40 MSL to or as assigned	AC	DGD 058/37	N37°20.00' W92°13.00'
90 MSL to or as assigned descend within	H1	ARG 257/31	N36°01.50' W91°35.52'
07 AGL B 30 MSL to	I1	RZC 090/99	N36°06.00' W92°05.02'
07 AGL B 30 MSL to Thence via published route.	J1	RZC 093/92	N36°02.50' W92°15.02'
RE-ENTRY			
06 AGL B 30 MSL to	T1	ARG 297/55	N36°34.50' W91°56.00'
06 AGL B 20 MSL to descend within	TA	ARG 319/39	N36°37.50' W91°26.50'
01 AGL B 20 MSL to	TB	ARG 330/30	N36°34.00' W91°13.50'
06 AGL B 20 MSL to Thence via published route.	E1	ARG 316/17	N36°19.50' W91°10.50'
Alternate Exit: Q			
05 AGL B 40 MSL to	N1	RZC 091/62	N36°09.00' W92°50.50'
05 AGL B 30 MSL to	NA	RZC 072/64	N36°30.00' W92°50.00'

03 AGL B 50 MSL to continue climb within (Report passing OA to Memphis Center on 281.55)	OA	RZC 067/67	N36°36.00' W92°49.00'
50 MSL to	P1	ARG 290/90	N36°42.50' W92°39.50'
50 MSL to or as assigned.	Q1	ARG 297/78	N36°46.00' W92°20.00'

TERRAIN FOLLOWING OPERATIONS: Terrain following IAW command directives. Published minimum altitudes may not guarantee terrain following obstruction clearances.

ROUTE WIDTH - 3 NM left and 1 NM right of centerline from A to B; 3 NM either side of centerline from B to D; 4 NM either side of centerline from D to N; 4 NM left and 3 NM right of centerline from N to Q; 3 NM either side of centerline from Q to T; 3 NM left and 4 NM right of centerline from T to U; 4 NM either side of centerline from U to W; 4 NM left and 2 NM right of centerline from W to Y; 4 NM either side of centerline from Y to AA; 4 NM left and 3 NM right of centerline from AA to AC; RE-ENTRY T - 3 NM left and 4 NM of centerline from T1 to TA; 3 NM either side of centerline from TB to EI; ALTERNATE EXIT Q - remain within established N to Q route corridor as DEFINED above.

Special Operating Procedures:

- (1) Participating aircraft separation: Route is designated for MARSAs operations established by coordinated scheduling.
- (2) MARSAs applies after aircraft enter route until standard separation is provided after exiting route.
- (3) MARSAs applies between IR-174, IR-592, and IR-120.
- (4) Lost communications (LC) procedures: Route LC altitude is 4000' MSL at exit point AC and 5000' MSL at alternate exit point Q1.
- (5) Aircrews should be on the alert for C-130's on numerous SR routes. SR routes cross IR-592 between points D to I and J to M. Aircrews may contact Little Rock Air Force Base DSN 731-7013, C501-987-7013 for active schedule SR routes.
- (6) Point H is designated as an alternate entry.
- (7) CAUTION: Lookout tower N36-05.0 W92-09.6.
- (8) Aircrews utilizing Alternate Exit Q1 must file after point Q1 direct ARG 273/40 (WASUD) then requested route.
- (9) Caution VR-1182 crossing traffic vicinity Points M to N and I to J.
- (10) Caution VR-1102 and IR-120 entry Points 8 NM SW Point L.
- (11) Concurrent scheduling with IR-174 not allowed without prior coordination between users.
- (12) Exit frequency at the alternate exit (point Q1) in Memphis Center on 281.55.

FSS Within 100 NM Radius:

COU, JBR

IR-605

ORIGINATING ACTIVITY: 148 FW (ANG), Duluth Intl., MN 55811 DSN 825-7252, C218-788-7252.

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: Daily 1400-0500Z++, available OT

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 40 MSL to	A	GPZ 311/47	N47°44.00' W94°16.02'
02 AGL B 40 MSL to	B	GPZ 315/43	N47°43.30' W94°10.02'
02 AGL B 40 MSL to	C	GPZ 339/31	N47°40.00' W93°41.02'
02 AGL B 40 MSL to	D	HIB 018/26	N47°43.00' W92°29.02'
Climb to cross			
60 MSL to	E	HIB 047/32	N47°39.00' W92°06.02'
60 MSL to	F	HIB 064/42	N47°35.00' W91°45.02'
60 MSL to	G	DLH 014/19	N47°06.00' W92°03.02'

TERRAIN FOLLOWING OPERATIONS: Authorized from A to D.

ROUTE WIDTH - 5 NM either side of centerline from A to D;
4 NM either side of centerline from D to G.

Special Operating Procedures:

- (1) Contact 148 FW to schedule and deconflict from IR-606. Scheduling available Mon-Fri 0700-1600L or via CSE.
- (2) Route designed for tactical low level formation, visual/radar low level NAV/RECON, ground attack tactics, and low altitude air-to-air training.
- (3) Segment B to D designated a maneuver area. Low altitude air-to-air training will only be accomplished within the maneuver area.
- (4) Participating aircraft shall operate MARSA throughout entire route.
- (5) All aircraft contact Duluth APP CON at Pt E on 285.6.
- (6) Alternate Exit: Pt F.
- (7) Uncharted Obstacles:
 - (a) Cell tower: N47 41.53 W092 01.32, 300ft AGL.

FSS Within 100 NM Radius:

GFK, PNM

IR-606

ORIGINATING ACTIVITY: 148 FW (ANG), Duluth Intl., MN 55811 DSN 825-7252, C218-788-7252.

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: Daily 1400-0500Z++, available OT

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 60 MSL to	A	DLH 014/19	N47°06.00' W92°03.02'
60 MSL to	B	HIB 064/42	N47°35.00' W91°45.02'
60 MSL to	C	HIB 047/32	N47°39.00' W92°06.02'

05 AGL B 60 MSL to	D	HIB 018/26	N47°43.00' W92°29.02'
02 AGL B 40 MSL to	E	GPZ 339/31	N47°40.00' W93°41.02'
02 AGL B 40 MSL to	F	GPZ 315/43	N47°43.30' W94°10.02'
Climb to cross			
40 MSL to	G	GPZ 311/47	N47°44.00' W94°16.02'

TERRAIN FOLLOWING OPERATIONS: Authorized from C to F.

ROUTE WIDTH - 4 NM either side of centerline from A to D;
5 NM either side of centerline from D to G.

Special Operating Procedures:

- (1) Contact 148 FW to schedule and deconflict from IR-605. Scheduling available Mon-Fri 0700-1600L or via CSE.
- (2) Route designed for tactical low level formation, visual/radar low level NAV/RECON, ground attack tactics, and low altitude air-to-air training.
- (3) Segment D to F designated a maneuver area. Low altitude air-to-air training will only be accomplished within the maneuver area.
- (4) Participating aircraft shall operate MARSA throughout entire route.
- (5) All aircraft contact Minneapolis ARTCC at Pt F on 251.1.
- (6) Alternate Exit: Pt C.
- (7) Uncharted obstacles:
 - (a) Cell tower: N47 41.53 W092 01.32, 300ft AGL.

FSS Within 100 NM Radius:

GFK, PNM

IR-608

ORIGINATING ACTIVITY: Training Air Wing Six, Pensacola, FL 32508-5509 DSN 459-2875, C850-452-2875.

SCHEDULING ACTIVITY: NAS Pensacola, Pensacola, FL 32508-5217 DSN 459-2735, C850-452-2735.

HOURS OF OPERATION: 1200-0400Z++ Mon-Fri, weekends by NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 90 MSL to or as assigned	A	JPU 262/34	N39°20.00' W82°06.00'
90 MSL B 100 MSL to	B	JPU 235/17	N39°16.00' W81°40.00'
90 MSL B 100 MSL to	C	EKN 248/32	N38°39.00' W80°42.00'
90 MSL B 100 MSL to	D	PSK 050/61	N37°49.00' W79°49.00'
90 MSL B 100 MSL to	E	PSK 055/38	N37°30.00' W80°07.00'
90 MSL B 100 MSL to	F	PSK 350/15	N37°20.00' W80°48.00'

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90 MSL B 100 MSL to G PSK 251/20 N36°57.00'
W81°05.00'

90 MSL B 100 MSL to H HMMV 069/30 N36°39.00'
W81°34.00'

ROUTE WIDTH - 10 NM either side of centerline.

Special Operating Procedures:

- (1) Scheduling Activity operating hours: 1200-2200Z++ Mon-Fri. To schedule use on Sat, Sun or prior to 1430Z++ on Mon, call prior to 2200Z++ on previous.
- (2) Aircrews shall advise ATC control personnel when beginning and ending radar navigation training and whenever a turn in excess of 20 degrees is required within the route width.
- (3) Scheduling activity shall schedule the use of the IR-MTR to preclude ATC conflicts at common points and/or common route segments other IR-MTR's of the origination activity.
- (4) Conflicts: (De-conflict with the appropriate Scheduling Activity)
 - (a) Opposite direction to IR-080 from Points G to H.
 - (b) Opposite direction to IR-081 from Points G to H.
 - (c) Same direction as IR-723 from Points F to G.

FSS Within 100 NM Radius:

AND, AOO, BNA, CLE, DAY, DCA, EKN, RDU

IR-609

ORIGINATING ACTIVITY: 5 OSS/OSTC, 300 Summit Dr., Minot AFB, ND 58705-5044 DSN 453-2967, C701-723-2967.

SCHEDULING ACTIVITY: 23 BS/DOS, 300 Summit Dr., Minot AFB, ND 58705 DSN 453-2002/3527, C701-723-2002.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 170 MSL to or assigned descend direct to cross	A	GRB 031/44	N45°10.80' W87°38.00'
140 MSL to direct to	B	GRB 010/37	N45°10.00' W88°02.00'
140 MSL to turn right and descend to	C	GRB 351/36	N45°09.00' W88°19.00'
90 MSL B 140 MSL to continue descent to cross	D	IMT 202/40	N45°11.00' W88°26.00'
90 MSL to continue descent to	E	IMT 210/38	N45°15.00' W88°32.00'
38 MSL B 90 MSL to turn right and continue descent to cross	F	IMT 230/37	N45°24.00' W88°46.00'
38 MSL to (TA/TFR Initiation Point) direct to	G	IMT 239/35	N45°30.00' W88°48.50'
04 AGL B 38 MSL to turn left to	H	IMT 292/27	N45°58.00' W88°43.00'

04 AGL B 38 MSL to direct to	I	IMT 296/27	N46°00.00' W88°42.50'
04.5 AGL B 38 MSL to (Point JULIETT) direct to	J	IMT 307/32	N46°07.00' W88°44.00'
04.5 AGL B 38 MSL to turn right to	K	CMX 194/55	N46°16.50' W88°46.00'
05 AGL B 38 MSL to direct to	KK	CMX 194/49	N46°22.50' W88°43.50'
05 AGL B 38 MSL to direct to	II	CMX 180/33	N46°37.00' W88°27.50'
07 AGL B 38 MSL to turn right to	L	CMX 174/29	N46°42.00' W88°23.00'
07 AGL B 38 MSL to direct to	LL	CMX 168/27	N46°44.50' W88°19.50'
02 AGL B 38 MSL to direct to	M	CMX 151/26	N46°48.00' W88°10.00'
02 AGL B 38 MSL to direct to	N	CMX 126/29	N46°54.00' W87°54.00'
02 AGL B 38 MSL to (ALTERNATE ENTRY) turn right and descend to	O	CMX 098/47	N47°05.00' W87°20.00'
02 AGL B 38 MSL to direct to	P	CMX 096/51	N47°06.00' W87°14.00'
02 AGL B 23 MSL to turn right to	Q	CMX 098/67	N47°02.00' W86°52.00'
02 AGL B 23 MSL to direct to	R	CMX 105/74	N46°53.00' W86°44.00'
02 AGL B 23 MSL to climb and turn left to	S	ESC 012/55	N46°37.00' W86°49.00'
02 AGL B 30 MSL to direct to	T	ESC 012/52	N46°34.00' W86°49.50'
02 AGL B 30 MSL to turn left and descend to	U	ESC 028/26	N46°06.50' W86°48.00'
02 AGL B 30 MSL to direct to	V	ESC 039/23	N46°01.00' W86°45.00'
02 AGL B 23 MSL to turn right to	W	ESC 074/26	N45°50.50' W86°30.00'
02 AGL B 23 MSL to direct to	X	ESC 088/27	N45°44.00' W86°27.00'
02 AGL B 23 MSL to (Start Maneuver Area) direct to	Y	ESC 130/30	N45°24.00' W86°33.00'
02 AGL B 23 MSL to (End Maneuver Area) turn left to	Z	TVC 266/66	N44°32.00' W87°05.00'
02 AGL B 23 MSL to direct to	AA	TVC 258/54	N44°26.50' W86°45.50'
02 AGL B 23 MSL to (TA/TF Termination) turn left and climb to	AB	ESC 125/45	N45°17.50' W86°13.50'
23 MSL B 170 MSL to direct to cross	AC	ESC 121/44	N45°20.83' W86°12.00'
at or above 80 MSL	AD	ESC 094/38	N45°40.50' W86°11.50'
80 MSL B 170 MSL continue climb and turn right to cross			
at or above 110 MSL continue climb to cross	AE	ESC 084/42	N45°47.50' W86°05.00'

110 MSL B 170 MSL to continue climb and turn right to	AF	PLN 292/53	N45°52.50' W85°53.00'
110 MSL B 170 MSL to continue climb to cross	AG	PLN 294/47	N45°52.50' W85°44.00'
170 MSL to Re-Entry: direct to	AH	PLN 294/37	N45°49.00' W85°30.00'
02 AGL B 23 MSL to turn left to	Z1	TVC 266/66	N44°32.00' W87°05.00'
02 AGL B 23 MSL to direct to	AI	TVC 258/54	N44°26.50' W86°45.50'
02 AGL B 23 MSL to turn left to	AJ	ESC 125/45	N45°17.50' W86°13.50'
02 AGL B 23 MSL to Alternate Exit: direct to	Y1	ESC 130/30	N45°24.00' W86°33.00'
02 AGL B 23 MSL to turn left to	WI	ESC 074/26	N45°50.50' W86°30.00'
23 MSL B 70 MSL to (TA/TF Termination Point) Contact Minneapolis ARTCC 385.45 23 MSL B 70 MSL climb direct to cross	AU	ESC 078/28	N45°49.00' W86°26.00'
70 MSL to 70 MSL B 130 MSL continue climb direct to cross	AV	ESC 090/46	N45°43.00' W86°00.00'
130 MSL to or as assigned Alternate Entry: Cross	AW	PLN 279/46	N45°40.00' W85°46.00'
38 MSL to thence via published route.	O1	CMX 098/47	N47°05.00' W87°20.00'

PMSV CONTACTS: Primary Home Station. Alternates Minot (MIB 342.5), Whiteman (SZL 344.6).

TERRAIN FOLLOWING OPERATIONS: IFR/VFR

Terrain Following (TF)/Visual Contour (VC) operations are authorized IAW command directives within published altitude blocks from G to AB, and Z1 to Y1 (re-entry), and from W1 to AU (alternate exit). When command directives preclude TF/VC operations, aircrews will maintain IFR altitudes for each TF route segment. Minimum altitudes above 200' AGL are established to provide at least 100' vertical clearance of known manmade obstructions within the route width. Obstructions under 200' AGL were not considered in the route design. The entire route is designated non-mountainous. Regulations governing operations below 600' AGL must be complied with.

ROUTE WIDTH - 4 NM either side of centerline from A to KK; 3 NM left and 4 NM right of centerline from KK to II; 4 NM either side of centerline from II to M; 3 NM left and 4 NM right of centerline from M to N; 4 NM either side of centerline from N to U; 3 NM left and 4 NM right of centerline from U to X; 4 NM either side of centerline from X to AH; 4 NM either side of centerline from WI to AW.

Special Operating Procedures:

- (1) Participating aircraft separation: Route is designated for MARSA operations established by coordinated scheduling.
- (2) Route Lost Communications (LC) altitude is FL 200.
- (3) Aircraft will monitor 379.1 from J to M.
- (4) Due to an environmentally sensitive area in the vicinity of N46-54.0 W87-53.5, aircrews conducting terrain following/visual contour operations will maintain level flight passing N46-53.0, W87-56.0. Aircrews will not begin descent back to minimum TA/TFR altitudes until after crossing the Lake Superior shoreline.
- (5) All turn radii are depicted as a 7.5 NM arc.
- (6) Aircrews will advise Minneapolis ARTCC prior to route entry of number of aircraft and estimate to the exit of Big Bear MOA (Point II): i.e. (Call Sign) flight of (number of aircraft), entering IR-609, estimate Point II at ---- Z. In addition, aircrews with planned delays in Big Bear MOA will file entry IR-609 to IMT 307/32 delay ---- minutes, IR-609 to exit fix.
- (7) Aircrews should be aware of large geese populations during Aug thru Nov and also Apr near the lakes at N46-36.0 W88-35.0 and N46-16.0 W86-51.0. Overflight of these lakes should be avoided during these migratory seasons.
- (8) Aircrews should be aware of fire detection aircraft that could be encountered along the route of flight. Aircraft VFR and normally at 1000' AGL or higher.
- (9) Aircrews will avoid overflight of the lake at N45-54.0 W86-39.0. If in doubt of aircraft location in this area climb to IFR altitude.
- (10) Alternate Exit A: Aircrews may expect early climb out instructions from Minneapolis ARTCC if no conflicting traffic is on IR-609/610.
- (11) Aircrews utilizing the Alternate Exit on IR-609 with or without a planned delay in the Big Bear MOA will file IR-609A.
- (12) Prior to each flight the individual unit must contact the Northeast Air Defense Sector, DSN 587-3700, to insure the Big Bear MOA is scheduled/deconflicted.
- (13) Alternate Entry: Pt 01.
- (14) Aircrew will monitor Minneapolis ARTCC on 322.5 between Pt B and I.
- (15) Uncharted obstructions:
 - (a) Tower 690' AGL 1480' MSL (N46-52.62 W88-08.81);
 - (b) Tower 630' AGL 1280' MSL (N45-48.16 W86-27.40);
 - (c) Tower 260' AGL 1000' MSL (N45-12.82 W87-59.69);
 - (d) Tower 210' AGL 1810' MSL (N45-23.90 W88-38.80).
- (16) Consult sectional chart data prior to flight to determine proximity of Category C, D, and E airspace.

FSS Within 100 NM Radius:

GRB, LAN

IR-610

ORIGINATING ACTIVITY: 5 OSS/OSTC, 300 Summit Dr., Minot AFB, ND 58705-5044 DSN 453-2967, C701-723-2967.

SCHEDULING ACTIVITY: 23 BS/DOS, 300 Summit Dr., Minot AFB, ND 58705 DSN 453-2002/3527, C701-723-2002/3527.

HOURS OF OPERATION: Continuous

IR ROUTES

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long				
Cross at FL210 to or as assigned direct to	A		N46°21.95' W79°25.38'	02 AGL B 23 MSL to direct to	AA	TVC 258/54	N44°26.50' W86°45.50'
FL210 to	B		N46°43.00'	02 AGL B 23 MSL to (TA/TFR Termination Point)	AB	ESC 125/45	N45°17.50' W86°13.50'
FL210 B 100 MSL descend direct to cross			W79°20.00'	turn left and climb to			
100 MSL to	C		N47°07.00'	23 MSL B 170 MSL to direct to cross	AC	ESC 121/44	N45°20.50' W86°12.00'
100 MSL B 60 MSL turn left and descend to cross			W79°14.00'	at or above 80 MSL	AD	ESC 094/38	N45°40.50' W86°11.50'
60 MSL to	D		N47°15.00'	80 MSL B 170 MSL continue climb and turn right to cross			
direct to			W79°25.00'	at or above 110 MSL	AE	ESC 084/42	N45°47.50' W86°05.00'
60 MSL to	E		N47°09.00'	continue climb to cross			
turn right to			W79°56.00'	110 MSL B 170 MSL to	AF	PLN 292/53	N45°52.50' W85°53.00'
60 MSL to	F		N47°09.00'	continue climb and turn right to			
descend direct to			W80°03.00'	110 MSL B 170 MSL to	AG	PLN 294/47	N45°52.50' W85°44.00'
40 MSL B 60 MSL to direct to	G		N47°22.00'	continue climb to cross			
40 MSL to	GG		N47°31.00'	170 MSL to	AH	PLN 294/37	N45°49.00' W85°30.00'
(TA/TFR Initiation Point) direct to			W81°00.00'	Re-Entry: direct to			
04 AGL B 40 MSL to turn left to	H	YTS 230/50	N47°56.00'	02 AGL B 23 MSL to turn left to	Z1	TVC 266/66	N44°32.00' W87°05.00'
02 AGL B 40 MSL to direct to	I	YTS 236/54	W82°10.00'	02 AGL B 23 MSL to direct to	AI	TVC 258/54	N44°26.50' W86°45.50'
02 AGL B 40 MSL to turn right to	J	SSM 037/73	N47°56.00'	02 AGL B 23 MSL to turn left to	AJ	ESC 125/45	N45°17.50' W86°13.50'
02 AGL B 40 MSL to direct to	K	SSM 035/69	N47°25.00'		Y1	ESC 130/30	N45°24.00' W86°33.00'
02 AGL B 40 MSL to direct to			W83°20.00'	thence via published route.			
02 AGL B 40 MSL to (End TA/TFR Point) direct to	LL	SSM 357/60	N47°24.00'	Alternate Exit: direct to			
40 MSL to			W84°30.00'	02 AGL B 23 MSL to turn left to	WI	ESC 074/26	N45°50.50' W86°30.00'
(Start TA/TFR Point) turn left to	L	SSM 342/64	N47°24.00'	02 AGL B 23 MSL to (TA/TFR Termination Point)	AU	ESC 078/28	N45°49.00' W86°26.00'
02 AGL B 40 MSL to direct to	M	SSM 337/65	W84°55.00'	(Contact Minneapolis ARTCC 385.45)			
02 AGL B 40 MSL to turn left and descend to	N		N47°22.50'	23 MSL B 70 MSL climb direct to cross			
02 AGL B 40 MSL to direct to			W85°02.50'	70 MSL to	AV	ESC 090/46	N45°43.00' W86°00.00'
02 AGL B 40 MSL to direct to	T		N46°41.00'	70 MSL B 130 MSL continue climb direct to cross			
02 AGL B 30 MSL to turn left and descend to	U	ESC 028/26	W86°43.00'	130 MSL to	AW	PLN 279/46	N45°40.00' W85°46.00'
02 AGL B 30 MSL to direct to	V	ESC 039/23	N46°01.00'	or as assigned.			
02 AGL B 23 MSL to turn right to	W	ESC 074/26	W86°45.00'				
02 AGL B 23 MSL to direct to	X	ESC 088/27	N45°50.50'				
02 AGL B 23 MSL to (Start Maneuver Area) direct to	Y	ESC 130/30	W86°30.00'				
02 AGL B 23 MSL to (End Maneuver Area) turn left to	Z	TVC 266/66	N45°44.00'				
			W86°27.00'				
			N45°24.00'				
			W86°33.00'				
			N44°32.00'				
			W87°05.00'				

PMSV CONTACTS: Primary Home Station. Alternates Minot (MIB 342.5), Whiteman (SZL 344.6).

TERRAIN FOLLOWING OPERATIONS: IFR/VFR
Terrain Following (TF)/Visual Contour operations are authorized IAW command directives within published altitude blocks from GG to LL and from L to AB. When command directives preclude TF/ Visual Contour Operations, aircrews will maintain IFR altitudes for each TF route segment. Minimum altitudes above 200' AGL are established to provide at least 100' vertical clearance of known manmade obstructions within the route width. Obstructions under 200' AGL were not considered in the route design. The entire route is designated non-mountainous.

Regulations governing operations below 500' AGL must be complied with.

ROUTE WIDTH - 4 NM either side of centerline from A to U; 3 NM left and 4 NM right of centerline from U to X; 4 NM either side of centerline from X to AH. Re-Entry; 4 NM either side of centerline from AB to Y1; 4 NM either side of centerline from WI to AW.

Special Operating Procedures:

- (1) Participating aircraft separation: Route is designed for MARSA operations established by coordinated scheduling.
- (2) Route lost communications altitude is FL 200.
- (3) Aircrews will contact North Bay Terminal Control on 233.4 or 236.6 MHZ upon handoff from Toronto Center.
- (4) Route centerline is depicted as 7.5 NM arc turns.
- (5) Aircrews should be aware of large geese populations during Aug thru Nov and Apr near the lakes at N46-16 W86-51. Avoid overflight of these lakes during the migratory season.
- (6) Aircrews will avoid overflight of the lake at N45-54 W86-39. If in doubt of aircraft location in this area, climb to the IFR altitude.
- (7) Aircrews will notify Toronto ARTCC upon handoff, of any planned delays in Canadian airspace.
- (8) Aircrews will inform Toronto ARTCC of planned exit, Canada time (N47-10-30 W85-32-30) prior to IR-610 entry.
- (9) Prior to route entry, aircrews will pass estimates for crossing (W81-30) to North Bay TCU and exit Canada time to Toronto Center.
- (10) Upon handoff to Toronto Center, aircrews will advise of any planned delays in Canadian airspace.
- (11) Alternate Exit A: Aircrews may expect early climb out instructions from Minneapolis ARTCC if no conflicting traffic is on IR-609/610.

FSS Within 100 NM Radius:

GRB, LAN

IR-613

ORIGINATING ACTIVITY: 114 FW (ANG), Joe Foss Field, Sioux Falls, SD 57104-0264 DSN 798-7754/46, C605-988-57455746.

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: Daylight hours, Tue-Sat, OT by NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 100 MSL to or a assigned descend to cross	A	PIR 221/47	N43°55.00' W101°01.00'
70 MSL to direct to	B	PHP 116/20	N43°51.00' W101°18.00'
70 MSL to direct to	C	PHP 154/17	N43°47.00' W101°34.00'
01 AGL B 70 MSL to direct to	D	PHP 154/41	N43°24.00' W101°26.50'
01 AGL B 70 MSL to direct to	E	PHP 154/52	N43°13.00' W101°23.00'

01 AGL B 70 MSL to direct to	F	PHP 158/72	N42°53.00' W101°23.00'
01 AGL B 70 MSL to direct to	G	LBF 328/78	N42°15.00' W101°23.00'
01 AGL B 70 MSL to direct to	H	LBF 309/45	N41°37.50' W101°23.00'
01 AGL B 70 MSL to climb direct to cross	I	LBF 335/25	N41°27.00' W100°53.00'
110 MSL to or as assigned (Contact Denver ART-CC 226.675 after passing I) Alternate Entry to Point C Cross	J	LBF 016/25	N41°25.00' W100°30.00'
100 MSL to or as assigned direct to	K	PHP 077/1	N44°03.50' W101°39.50'
100 MSL to or as assigned descend direct to cross	L	PHP 154/8	N43°55.50' W101°37.00'
at or below 50 MSL Thence via published route.	C1	PHP 154/17	N43°47.00' W101°34.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from C to I.

ROUTE WIDTH - 8 NM either side of centerline from A to C; 12 NM right and 6 NM left of centerline from C to D; 10 NM right and 25 NM left of centerline from D to F; 16 NM right and 25 NM left of centerline from F to G; 16 NM right and 13 NM left of centerline from G to H; 4 NM right and 15 NM left of centerline from H to I; 4 NM either side of centerline from I to J. Alternate Entry: 4 NM either side of centerline from K to L; 12 NM right and 6 NM left of centerline from L to C.

Special Operating Procedures:

- (1) Route designed for tactical low level formation, road reconnaissance, radar low level navigation, ground attack tactics and aerial defense tactics.
- (2) IR-613 is opposite direction traffic of IR-514. 114 FW will not schedule opposite and conflicting traffic at the same time.
- (3) Route is same direction as IR-500 from G to I.
- (4) Avoid the following noise sensitive areas by a minimum of 1500' AGL or 1 NM; Racetrack N43-15 W100-15; St.Francis N43-08 W100-55; Ranch N42-26 W101-44.
- (5) Route is surveyed to 500' AGL with sections to 100' AGL. These altitudes will not guarantee obstacle clearance throughout the route. Give special attention to a 1029' AGL tower at N42-40.75 W101-52.75.
- (6) All airports and LaCreek National Wildlife Refuge shall be avoided by 1500' AGL or 3 miles.
- (7) Contact Denver ARTCC 269.6 after passing I on route climb out.
- (8) Lost communications: After exit at J, if IMC, climb within 35 miles to FL230 and comply with FAR 91.185 DOD/IFR supplement.

FSS Within 100 NM Radius:

HON, OLU

IR ROUTES

IR-618

ORIGINATING ACTIVITY: JFAC-IN/DET 1, Atterbury ANG Range, Bldg 124, Camp Atterbury, IN 46124 DSN 569-2114, C812-526-1114.

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: Sunrise-Sunset, Tue-Sun, OT by NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	TTH 156/14	N39°16.00' W87°08.00'
05 AGL B 30 MSL to	B	OOM 210/27	N38°45.00' W86°53.00'
05 AGL B 60 MSL to	C	OOM 195/36	N38°33.00' W86°47.00'
05 AGL B 30 MSL to	D	OOM 184/54	N38°15.00' W86°39.00'
05 AGL B 30 MSL to	E	OOM 144/34	N38°42.00' W86°10.00'
05 AGL B 50 MSL to (Contact Indianapolis ARTCC 269.02)	F	OOM 130/25	N38°53.00' W86°11.00'
05 AGL B 50 MSL to (50 MSL if using alter- nate exit G. Contact Indianapolis APP 317.8)	G	SHB 208/36	N39°06.00' W86°12.00'
05 AGL B 50 MSL to (Enter R-3401 only with range control of- ficer clearance)	H	SHB 208/26	N39°15.00' W86°06.00'

TERRAIN FOLLOWING OPERATIONS: Contour flying authorized for entire route in VMC.

ROUTE WIDTH - 3 NM left and 4 NM right of centerline from A to B; 8 NM left and 4 NM right of centerline from B to C; 3 NM left and 4 NM right of centerline from C to D; 3 NM left and 7 NM right of centerline from D to E; 5 NM either side of centerline from E to H.

Special Operating Procedures:

- (1) Clearance to fly the route does not constitute clearance into R-3401; this clearance must be obtained from range control officer.
- (2) Piont G Alternate Exit for aircraft not scheduled into R-3401.
- (3) Point G Alternate Entry for aircraft scheduled into R-3401 that are not flying entire route. Route is MARSA with VR-619, VR-621, VR-613, VR-1679, VR-1631, VR-1640, VR-1641, VR-1617, IR-620. MARSA accomplished by scheduling.
- (4) Prior to entering R-3401, report to Indianapolis ARTCC at point F on 269.02.
- (5) Avoid overflight of cities, towns, and villages to extent possible.
- (6) Upon R-3401 entry, request range control officer that off IR-618 and working VFR on R-3401.
- (7) Use caution for light aircraft operating in the vicinity of an unmarked private airport at Pt E.

- (8) Noise Sensitive Area: Avoid overflight of Freetown, IN, and surrounding area, below 1000' AGL.

FSS Within 100 NM Radius:

BNA, DAY, HUF, IKK, LOU

IR-644

ORIGINATING ACTIVITY: 5 OSS/OSTC, 300 Summit Dr., Minot AFB, ND 58705-5044 DSN 453-2967, C701-723-2967.

SCHEDULING ACTIVITY: 23 BS/DOS, 300 Summit Dr., Minot AFB, ND 58705 DSN 453-2639/3527, C701-723-2639/3527.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 150 MSL to or as assigned direct to	A	MLS 059/92	N46°56.00' W103°53.00'
150 MSL to (TFR Initiation Point) descend direct to	CA	MLS 058/101	N47°01.00' W103°41.50'
02 AGL B 150 MSL to continue descent direct to	CB	MLS 057/108	N47°05.00' W103°32.00'
05 AGL B 120 MSL to direct to	B	MLS 056/126	N47°14.00' W103°09.50'
06 AGL B 40 MSL to climb direct to cross	C	DIK 330/29	N47°19.00' W102°58.00'
40 MSL to (End TFR Point) direct to	CC	DIK 340/31	N47°22.50' W102°51.00'
40 MSL to turn right to	D	DIK 345/32	N47°24.00' W102°47.00'
40 MSL to (Start TA/TFR Point) direct to	E	DIK 352/34	N47°25.00' W102°41.00'
02 AGL B 40 MSL to direct to	F	DIK 008/36	N47°25.00' W102°27.00'
08 AGL B 40 MSL to (TA/TFR Termination Point) direct to	G	BIS 309/49	N47°23.50' W101°25.00'
40 MSL to turn left to	H	BIS 318/43	N47°23.00' W101°12.00'
40 MSL to direct to	I	BIS 326/43	N47°25.50' W101°04.00'
40 MSL to (TA/TFR Initiation Point) descend direct to	J	BIS 338/47	N47°32.00' W100°52.50'
07.5 AGL B 40 MSL to direct to	K	BIS 342/50	N47°35.00' W100°48.00'
07.5 AGL B 30 MSL to turn right to	L	MOT 090/54	N48°03.50' W99°59.00'
07.5 AGL B 30 MSL to direct to	M	MOT 090/67	N47°59.50' W99°40.50'
07.5 AGL B 30 MSL to direct to	N	MOT 103/83	N47°38.50' W99°27.50'

07.5 AGL B 30 MSL to climb direct to	O	JMS 307/43	N47°24.00' W99°28.00'	34 MSL B 60 MSL to climb direct to cross	V1	BIS 308/36	N47°13.00' W101°13.50'
07.5 AGL B 34 MSL to direct to	P	JMS 301/39	N47°18.00' W99°27.00'	60 MSL B 130 MSL to (Contact Minneapolis ARTCC 279.6)	W1	BIS 308/45	N47°20.00' W101°22.00'
07.5 AGL B 34 MSL to turn right to	Q	JMS 291/34	N47°10.00' W99°26.00'	continue climb to cross			
07.5 AGL B 34 MSL to (Contact Bismark APP CON 346.6) direct to	R	JMS 275/39	N47°02.00' W99°37.00'	130 MSL to or as assigned	XX	BIS 308/58	N47°30.00' W101°34.50'
07.5 AGL B 34 MSL to (Start Maneuver Area) direct to	S	JMS 274/47	N47°02.00' W99°49.00'	Thence via the published route.			
07.5 AGL B 34 MSL to (End Maneuver Area) Primary TA/TFR Termination Point turn right to U	T	BIS 316/19	N47°02.00' W100°55.00'				
34 MSL to climb direct to	U	BIS 308/25	N47°05.50' W101°03.00'				
34 MSL B 60 MSL to climb direct to	V	BIS 308/36	N47°13.00' W101°13.50'				
60 MSL B 130 MSL to continue climb and turn left to	W	BIS 308/45	N47°20.00' W101°22.00'				
60 MSL B 130 MSL to continue climb direct to cross	X	BIS 306/50	N47°22.50' W101°29.00'				
130 MSL to direct to	Y	BIS 303/52	N47°22.50' W101°34.00'				
130 MSL to climb and turn left to	Z	DIK 012/35	N47°23.00' W102°24.00'				
130 MSL B FL240 to continue climb direct to	AA	DIK 002/28	N47°18.00' W102°35.00'				
130 MSL B FL240 to (Contact Minneapolis ARTCC 380.3) FL 180 B FL 240 continue climb direct to cross	AB	DIK 003/14	N47°05.00' W102°40.50'				
FL240 to or as assigned	AC	DIK 183/4	N46°48.00' W102°48.00'				
Re-Entry Cross							
34 MSL to (End Maneuver Area) turn right to	T1	BIS 316/19	N47°02.00' W100°55.00'				
34 MSL to climb and continue right turn to	U1	BIS 308/25	N47°04.50' W101°03.00'				
34 MSL B 50 MSL to direct to	RA	BIS 330/33	N47°17.00' W100°55.00'				
50 MSL to descend and turn right to	RB	JMS 295/44	N47°17.00' W99°37.00'				
34 MSL B 50 MSL to continue right turn to	Q1	JMS 291/34	N47°10.00' W99°26.00'				
07.5 AGL B 34 MSL to Alternate Exit: XX Cross	R1	JMS 275/39	N47°02.00' W99°37.00'				
34 MSL to climb direct to	U1	BIS 308/25	N47°04.50' W101°03.00'				

PMSV CONTACTS: Primary Home Station. Alternates Minot (MIB 342.5), Ellsworth (RCA 375.775).

TERRAIN FOLLOWING OPERATIONS: IMC/VMC

Terrain Following (TF)/Visual Contour (VC) operations are authorized IAW Command Directives within the published altitude blocks from CA to CC, E to G, J to T, and Q to T (Re-entry). VMC Terrain Avoidance (TA)/(VC) operations are authorized IAW Command Directives within the published altitude blocks from E to G, J to T, and Q to T (Re-entry). When Command Directives preclude TF/TA/VC operations, aircrews will maintain the IFR altitude for each TF/TA route segment. Minimum altitudes above 200' AGL, are established to provide 100' vertical clearance of known man-made obstructions within the route corridor. Obstructions under 200' AGL were not considered in the route design. Command Directives may require additional obstruction clearance to TF/TA/VC operations. The entire route is nonmountainous.

ROUTE WIDTH - 3 NM left and 2 NM right of centerline from A to CB; 4 NM either side of centerline from CB to N; 4 NM left and 3 NM right of centerline from N to O; 4 NM either side of centerline from O to S; 4 NM left and 6 NM right of centerline from S to T; 4 NM either side of centerline from T to AC; Re-Entry; 4 NM either side of centerline from T to R; 4 NM either side of centerline from U1 to XX.

Special Operating Procedures:

- (1) Participating aircraft separation: Route is designated for MARSA operations established by coordinated scheduling.
- (2) Lost communications (LC) procedures: Route LC altitude is FL 240.
- (3) Centerline between the following points is depicted as a 7.5 NM radius arc: D to E, H to I, L to M, Q to R, T to U, W to X, Z to AA, Re-Entry; T to U to RA, and RB to Q to R.
- (4) Aircrews are advised of VMC helicopter operations from Point O to Point S and Z to AC.
- (5) Aircrews should be aware of numerous migration waterfowl along the route. Special precautions should be taken in the area of the Missouri River.
- (6) Noise Sensitive Areas: Avoid by 1/4 NM or 1000.
 - (a) Fox Farm N47-19.6 W100-33.5.
- (7) Uncharted Obstructions:
 - (a) Crane 260' AGL (N47-21.9 W101-12.6);
 - (b) Tower 200' AGL (N47-27.3 W101-09.0);
 - (c) Tower 300' AGL (N47-25.3 W103-01.1);
 - (d) Smokestack 200' AGL (N47-11.2 W103-06.8);
 - (e) Smokestack 300' AGL (N47-16.4 W101-17.4);
 - (f) Tower 265' AGL (N47-08.4 W100-57.1);
 - (g) Delete Tower 300' AGL (N47-19.5 W099-53.3);
 - (h) Microwave Tower 210' AGL (N46-59.6 W100-07.2);
 - (i) Microwave Tower 220' AGL (N47-08.6 W100-46.2);
 - (j) Microwave Tower 200' AGL (N48-01.5 W99-53.4);

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- (k) Microwave Tower 210' AGL (N47-03.3 W100-41.9);
(l) Radio Tower 200' AGL (N47-21.4 W101-37.7).

FSS Within 100 NM Radius:

GFK

IR-649

ORIGINATING ACTIVITY: 5 OSS/OSTC, 300 Summit Dr.,
Minot AFB, ND 58705-5044 DSN 453-2967, C701-723-2967.

SCHEDULING ACTIVITY: 23 BS/DOS, 300 Summit Dr.,
Minot AFB, ND 58705 DSN 453-2639/3527,
C701-723-2639/3527.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 150 MSL to or as assigned direct to	A	MLS 059/92	N46°56.00' W103°53.00'
150 MSL to (TFR Initiation Point) descend direct to	CA	MLS 058/101	N47°01.00' W103°41.50'
02 AGL B 150 MSL to continue descent direct to	CB	MLS 057/108	N47°05.00' W103°32.00'
05 AGL B 120 MSL to direct to	B	MLS 056/126	N47°14.00' W103°09.50'
06 AGL B 40 MSL to climb direct to cross	C	DIK 330/29	N47°19.00' W102°58.00'
40 MSL to (End TFR Point) direct to	CC	DIK 340/31	N47°22.50' W102°51.00'
40 MSL to turn right to	D	DIK 345/32	N47°24.00' W102°47.00'
40 MSL to (Start TA/TFR Point) direct to	E	DIK 352/34	N47°25.00' W102°41.00'
02 AGL B 40 MSL to direct to	F	DIK 008/36	N47°25.00' W102°27.00'
08 AGL B 40 MSL to (TA/TFR Termination Point) direct to	G	BIS 309/49	N47°23.50' W101°25.00'
40 MSL to turn left to	H	BIS 318/43	N47°23.00' W101°12.00'
40 MSL to direct to	I	BIS 326/43	N47°25.50' W101°04.00'
40 MSL to descend direct to	J	BIS 338/47	N47°32.00' W100°52.50'
07.5 AGL B 40 MSL to direct to	K	BIS 342/50	N47°35.00' W100°48.00'
07.5 AGL B 30 MSL to turn left to	BA	MOT 113/45	N47°49.00' W100°24.00'
30 MSL to (Contact Minot APP CON 363.8) climb direct to cross	BB	MOT 101/38	N48°00.00' W100°25.50'
52 MSL to	BC	MOT 096/23	N48°08.00' W100°45.00'

PMSV CONTACTS: Primary Home Station. Alternates Minot
(MIB 342.5), Ellsworth (RCA 375.775).

TERRAIN FOLLOWING OPERATIONS: IMC/VMC

Terrain Following (TF)/Visual Contour (VC) operations are authorized IAW Command Directives within the published altitude blocks from CA to CC, and E to G, J to BA. VMC Terrain Avoidance (TA/VC) operations are authorized IAW Command Directives within the published altitude blocks from E to G, J to BA. When Command Directives preclude TF/TA/VC operations, aircrews will maintain the IFR altitude for each TF/TA route segment. Minimum altitudes above 200' AGL are established to provide 100' vertical clearance of known man-made obstructions within the route corridor. Obstructions under 200' AGL were not considered in the route design. Command Directives may require additional obstruction clearance to TF/TA/VC operations. The entire route is nonmountainous.

ROUTE WIDTH - 3 NM left and 2 NM right of centerline
from A to CB; 4 NM either side of centerline from CB to BC.

Special Operating Procedures:

- (1) Participating aircraft separation: Route is designated for MARSA operations established by coordinated scheduling.
- (2) Lost communications (LC) procedures: Route LC altitude is FL 240.
- (3) Aircrews should be aware of numerous migrating waterfowl along the route. Special precautions should be taken in the area of the Missouri River.
- (4) Exit procedures: Contact Minot AFB APP CON 363.8. When crossing Point BB and give ETA to KMIB 115 030 with altitude, airspeed and ETA to overhead Minot AFB. Cross Point BC at 250 KIAS.
- (5) Uncharted Obstructions:
 - (a) Crane 260' AGL (N47-21.9 W101-12.6);
 - (b) Tower 200' AGL (N47-27.3 W101-09.0);
 - (c) Tower 300' AGL (N47-25.3 W103-01.1);
 - (d) Smokestack 200' AGL (N47-11.2 W103-06.8);
 - (e) Smokestack 300' AGL (N47-16.4 W101-17.4);
 - (f) Tower 265' AGL (N47-08.4 W100-57.1);
 - (g) Microwave Tower 210' AGL (N46-59.6 W100-07.2);
 - (h) Microwave Tower 220' AGL (N47-08.6 W100-46.2);
 - (i) Microwave Tower 200' AGL (N48-01.5 W99-53.4);
 - (j) Microwave Tower 210' AGL (N47-03.3 W100-41.9);
 - (k) Radio Tower 200' AGL (N47-21.4 W101-37.7).

FSS Within 100 NM Radius:

HON, GFK

IR-678

ORIGINATING ACTIVITY: 5 OSS/A-3C, 300 Summit Dr.,
Minot AFB, ND 58705-5044 DSN 453-2967, C701-723-2967.

SCHEDULING ACTIVITY: 23 BS/DOS, 300 Summit Dr.,
Minot AFB, ND 58705-5044 DSN 453-2002/3527,
C701-723-2002/3527.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 90 MSL to or as assigned descend direct to	A	ISN 010/31	N48°44.65' W103°30.57'
05 AGL B 90 MSL to turn right to	B	ISN 044/38	N48°38.44' W102°59.89'
07 AGL B 40 MSL to (TA Initiation Point) direct to	C	MOT 273/66	N48°33.50' W102°53.00'
02 AGL B 40 MSL to turn left to	D	MOT 254/56	N48°12.00' W102°41.00'
02 AGL B 40 MSL to direct to	E	MOT 248/51	N48°07.00' W102°33.00'
06 AGL B 40 MSL to direct to	F	MOT 221/30	N47°58.00' W101°53.00'
02 AGL B 40 MSL to turn left to	G	MOT 172/27	N47°49.00' W101°21.00'
06 AGL B 40 MSL to direct to	H	MOT 164/26	N47°49.50' W101°15.00'
06 AGL B 40 MSL to descend direct to	I	MOT 129/28	N47°53.50' W100°52.00'
04.5 AGL B 40 MSL to turn right to	J	MOT 106/38	N47°57.00' W100°28.50'
05 AGL B 30 MSL to direct to	K	MOT 103/42	N47°57.00' W100°21.00'
04 AGL B 30 MSL to direct to	L	JMS 322/52	N47°38.50' W99°24.00'
07 AGL B 30 MSL to direct to	LA	JMS 335/37	N47°30.50' W99°00.00'
06 AGL B 30 MSL to turn left to	M	FAR 288/57	N47°10.50' W98°05.00'
05 MSL B 30 MSL to direct to	N	FAR 302/53	N47°19.50' W97°49.50'
06 AGL B 30 MSL to turn right to	O	MOT 089/135	N47°45.50' W98°01.00'
07 AGL B 30 MSL to direct to	P	GFK 254/31	N47°53.50' W97°57.00'
10 AGL B 30 MSL to turn left to	Q	GFK 272/22	N48°01.50' W97°44.00'
02 AGL B 30 MSL to direct to	R	GFK 293/24	N48°10.00' W97°41.50'
06 AGL B 30 MSL to turn left to	S	GFK 306/38	N48°24.00' W97°52.00'
06 AGL B 30 MSL to direct to	T	JMS 008/99	N48°32.50' W98°10.00'
06 AGL B 30 MSL to direct to	U	JMS 003/103	N48°38.00' W98°22.00'
02 AGL B 30 MSL to turn left to	V	GFK 302/68	N48°41.50' W98°29.00'
02 AGL B 30 MSL to direct to	W	GFK 300/72	N48°42.50' W98°36.00'
06 AGL B 30 MSL to climb direct to	X	MOT 062/84	N48°36.50' W99°15.00'
02 AGL B 50 MSL to direct to	Y	MOT 060/68	N48°35.00' W99°40.00'
02 AGL B 50 MSL to turn left to	Z	MOT 058/57	N48°34.00' W99°56.00'
02 AGL B 50 MSL to direct to	AA	MOT 057/55	N48°33.50' W99°59.50'

02 AGL B 50 MSL to direct to	AB	MOT 057/44	N48°30.00' W100°15.00'
02 AGL B 50 MSL to (End TA Point) turn right and climb to	AC	MOT 059/30	N48°25.00' W100°34.00'
50 MSL B 100 MSL to continue climb to	AD	MOT 046/24	N48°28.00' W100°46.50'
50 MSL B 100 MSL to turn left to	AE	MOT 001/32	N48°46.50' W101°06.00'
100 MSL to direct to cross	AF	MOT 338/30	N48°45.00' W101°24.00'
100 MSL to or as assigned	AG	MOT 282/24	N48°25.50' W101°50.00'

PMSV CONTACTS: Primary Home Station. Alternates Minot (MIB 342.5), Ellsworth (RCA 375.775).

TERRAIN FOLLOWING OPERATIONS: IFR/VFR

Terrain Following (TF)/Visual Contour (VC) operations are authorized IAW Command Directives within the published altitude blocks from C to AC and N to AC (Alternate Entry) and from C to O (Alternate Exit). When Command Directives preclude TF/VC operations, aircrews will maintain the IFR altitude for each TF route segment. Minimum altitudes above 200' AGL are established to provide at least 100' vertical clearance of known man-made obstructions within the route width. Obstructions under 200' AGL were not considered in route design. The entire route is designated non-mountainous. Regulations governing operations below 500' AGL must be complied with.

ROUTE WIDTH - 4 NM either side of centerline from A to B; 3 NM left and 4 NM right of centerline from B to H; 4 NM left and 2 NM right of centerline from H to I; 4 NM left and 7 NM right of centerline from I to K; 9 NM left and 7 NM right of centerline from K to L; 9 NM left and 6 NM right of centerline from L to M; 4 NM either side of centerline from M to Q; 4 NM left and 3 NM right of centerline from Q to R; 6 NM left and 8 NM right of centerline from R to U; 6 NM left and 2 NM right of centerline from U to X; 4 NM left and 2 NM right of centerline from X to Y; 2 NM either side of centerline from Y to AB; 3 NM left and 2 NM right of centerline from AB to AC; 4 NM either side of centerline from AC to AG.

Special Operating Procedures:

- (1) Participating aircraft separation: Route is designed for MARSA operations established by coordinated scheduling.
- (2) Lost communications (LC) procedure: Route LC altitude is 100 MSL.
- (3) Centerline between turn points is depicted as a 7.5NM radius arc unless otherwise specified.
- (4) Aircrews should be aware of numerous migrating waterfowl along the route. Special precautions should be taken in the area of Lake Sakakawea.
- (5) Prior to each flight the individual unit must contact Western Air Defense Sector, DSN 984-4604, to insure the Tiger MOA is scheduled/deconflicted.
- (6) Contact UND Supervisor of flying 24 hours prior to route use at C701-777-7880.
- (7) Point N is designated as an Alternate Entry.
- (8) Aircrews contact Minot APP CON passing AB on 363.8
- (9) Contact Minneapolis ARTCC at W on 269.6 concerning traffic advisories near Rugby, ND airport. If requested by Minneapolis ARTCC crews will climb and maintain 50 MSL from Y to AC then resume climb-out procedures.

IR ROUTES

- (10) When using the Alternate Exit, aircrews will notify Grand Forks APP CON at DSN 362-6544 at least 24 hours prior to use. Crews will pass the following information: aircraft call sign, type aircraft, exit time. Aircrews using the Alternate Exit will end TA/VFR at Point O.
- (11) Aircrews are advised of many small towns located along this route. Compliance with AFI 11-202 Vol 3 is essential.
- (12) Aircrews are advised of a 2000' tower located outside of corridor near Point N (N47-16.5 W97-20.5).
- (13) Point S is designated as an Alternate Exit.
- (14) Aircrews will contact Grand Forks Approach at point N on 294.7 or 318.1.
- (15) Be advised that numerous VFR air operations take place near the route. Review sectional chart data for Category C, D, and E airspace prior to flight.
- (16) Do not accelerate to above 250KIAS until established within the confines of the route unless required by aircraft flight manual to maintain safe maneuverability.
- (17) Uncharted Obstructions:
 - (a) Grain Elevator 250' AGL (N48-37.5 W099-22.62);
 - (b) Tower 411' AGL (N48-37.7 W098-21.7);
 - (c) Tower 250' AGL (N48-37.82 W097-58.56);
 - (d) Multiple Towers 250' AGL (N48-00.43 W097-55.62);
 - (e) Multiple Towers 280' AGL (N47-49.71 W100-45.6);
 - (f) Tower 300' AGL (N48-27.5 W102-46.6);
 - (g) Tower 250' AGL (N47-47.40 W100-00.4);
 - (h) Tower 200' AGL (N47-46.6 W099-54.4);
 - (i) Grain Elevator 250' AGL (N47-39.8 W099-37.7);
 - (j) Grain Elevator 220' AGL (N47-27.5 W099-07.7);
 - (k) Grain Elevator 200' AGL (N47-10.2 W098-27.4);
 - (l) Tower 300' AGL (N48-25.7 W102-53.4);
 - (m) Remove the towers annotations at N48-35.4 W102-52.1 (459' AGL), N48-29.22 W098-05.82 (350' AGL), N48-37.7 W098-21.7 (314' AGL), N48-28.21 W097-58.31 (299' AGL), N47-41.51 W097-54.56 (372' AGL).

FSS Within 100 NM Radius:

GFK, HON

IR-714

ORIGINATING ACTIVITY: COMSTRKFIGHTWINGLANT, Oceana NAS, Virginia Beach, VA 23460 DSN 433-9141, C757-433-9141.

SCHEDULING ACTIVITY: FACSFAC VACAPES, Oceana NAS, Virginia Beach, VA 23460 DSN 433-1228, C757-433-1228. Scheduling hours 0600-1900 local (EST).

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 20 MSL to or 30 MSL as assigned	A	CCV VORTAC	N37°20.85' W75°59.86'
20 MSL to or 30 MSL as assigned	B	HCM 060/17	N37°37.00' W76°26.00'
20 MSL to or 30 MSL as assigned	C	BRV 230/25	N38°01.00' W77°42.00'
30 MSL to or 40 MSL as assigned	D	GVE 013/14	N38°15.00' W78°07.00'

60 MSL to	E	LDN 232/16	N38°40.00' W78°27.00'
60 MSL to	F	ESL 135/17	N39°03.00' W78°43.00'
60 MSL to 12 NM SE of G			
SFC B 60 MSL to	G	ESL 268/11	N39°12.00' W79°13.30'
SFC B 60 MSL to	H	ROA 021/59	N38°17.00' W79°42.30'
60 MSL to	I	GVE 280/58	N38°05.00' W79°23.00'
60 MSL to	J	GVE 196/22	N37°39.00' W78°14.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from 12 NM SE of G to I.

ROUTE WIDTH - 5 NM either side of centerline from A to D; 5 NM left and 3 NM right of centerline from D to F; 5 NM either side of centerline from F to G; 3 NM left and 5 NM right from G to H; 5 NM either side of centerline from H to J.

Special Operating Procedures:

- (1) Route reservations and brief required..
- (2) No alternate Entry or Exit authorized.
- (3) To fly this route all aircraft must have an operable navigation system (INS) or global positioning system (GPS). Aircraft operating from Oceana, NAS must use a stereo flight plan. To conduct terrain following operations under actual IMC or at night, aircraft must be equipped with an operable ground mapping radar or terrain following radar.
- (4) Where two altitudes are indicated, the lower published altitude is the primary route altitude. The higher altitude will be assigned by ATC when required to provide separation from other IFR operations.
- (5) Mandatory reporting points. UHF or VHF radio reports are required when passing:
 - (a) Pt A to Norfolk approach on 372.1;
 - (b) Pt B to Richmond approach on 319.8;
 - (c) 18 NM SE of Pt. E, Pt. F, Pt I and Pt J to Richmond Approach Control on 132.85 or 257.75.
- (6) Return altitude 15,000' MSL. Lost communications altitude 6,000' MSL.
- (7) Hazards:
 - (a) Extensive civilian fish-spotter aircraft from SFC to 5,000' AGL over Chesapeake Bay, between Pt A and Pt B from Apr to Nov;
 - (b) Ultralight activity in the vicinity of Pt B;
 - (c) Evers MOA is active with continuous daytime operations from 1000' AGL to FL 180. Contact 113 OSS/OSA, Joint Base Andrews, MD DSN 857-4183/4194/4171, C240-857-4183/4194/4171 for MOA flight information/deconfliction prior to scheduling.
- (8) Do Not fly over:
 - (a) N38-03.5 W77 47.6, remain 2 NM from Nuclear Power Plant;
 - (b) N37 58.5 W78 54.0, remain 2 NM from Devil's Knob;
 - (c) N37 59.0 W77 31.0, remain at least 1 NM South of Lake Caroline.
- (9) N38 26.2 W79 50.1, Do not transmit on UHF radio within 15 NM of National Radio Astronomy Observatory. Avoid Observatory by 4 NM.
- (10) CAUTION: Severe bird activity along route. Highest concentrations Dec-Mar.

- (11) Due to several windmills under construction between Points F and G, this leg shall be flown no lower than 500' AGL until further notice.

FSS Within 100 NM Radius:

AOO, DCA, EKN, MIV, RDU

IR-715

ORIGINATING ACTIVITY: COMSTRKFIGHTWINGLANT, Oceana NAS, Virginia Beach, VA 23460 DSN 433-9521, C757-433-9521.

SCHEDULING ACTIVITY: FACSAC VACAPES, Oceana NAS, Virginia Beach, VA 23460 DSN 433-1228, C757-433-1228. Scheduling hours 0600-1900 local (EST).

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 30 MSL to	A	CVI 002/19	N36°41.00' W76°55.00'
30 MSL to Passing B begin climb to be at 70 MSL by 4 NM SE of C	B	LVL 165/4	N36°45.00' W77°52.00'
70 MSL to	C	LVL 310/19	N36°59.00' W78°14.00'
70 MSL to	D	SBV 259/19	N36°35.00' W79°24.00'
70 MSL to	E	ROA 125/23	N37°09.00' W79°40.00'
70 MSL to	F	ROA 061/21	N37°32.00' W79°42.00'
80 MSL to	G	BKW 094/33	N37°48.00' W80°26.00'
80 MSL to	H	EKN 216/29	N38°29.00' W80°24.00'
80 MSL to	I	EKN 164/14	N38°42.00' W79°59.00'
80 MSL to	J	EKN 187/42	N38°13.00' W80°06.00'
80 MSL to	K	ROA 020/39	N37°58.00' W79°51.00'
80 MSL to	L	ROA 053/40	N37°47.00' W79°26.00'
80 MSL to	M	GVE 237/36	N37°38.00' W78°44.00'

ROUTE WIDTH - 5 NM either side of centerline from A to L;
3 NM either side of centerline from L to M.

Special Operating Procedures:

- (1) Route reservation and brief required.
- (2) No alternate Entry or Exit authorized.
- (3) To fly this route all aircraft must have an operable inertial navigation system (INS) or global positioning system (GPS). Aircraft operating from Oceana, NAS must use a stereo flight plan.
- (4) Mandatory reporting points. UHF radio reports are required when passing:

- (a) Pt A to Norfolk Approach Control on 249.9;
 - (b) Pt M to Washington ARTCC on 380.3.
- (5) Return altitude 15,000' MSL. Lost communications altitude 8000' MSL.
 - (6) Hazards:
 - (a) Farmville MOA is active from 0930-1430 local and 1600-1700 local, Mon-Fri, from 300' AGL to 5000' MSL. Monitor Washington ARTCC controlling frequency 317.7. Do not check-in. Contact Supervisor of Flying, 1st TFW, Langley VA, DSN 574-2303 for MOA flight information prior to scheduling route;
 - (b) Evers MOA is active with continuous daytime operations from 1000' AGL to FL 180. Contact 113 OSS/OSA, Joint Base Andrews, MD DSN 857-4183/4194/4171, C240-857-4183/4194/4171 for MOA flight information/deconfliction prior to scheduling;
 - (c) Avoid Ostrich Farm between Points A and B at N36-39 W77-41 by 3 NM and 1000' AGL.
 - (7) N38-26.2 W78-50.1, Do Not transmit on UHF radio within 15 NM of National Radio Astronomy Observatory. Avoid observatory by 4 NM.

FSS Within 100 NM Radius:

AOO, DCA, EKN, FLO, RDU

IR-718

ORIGINATING ACTIVITY: COMSTRKFIGHTWINGLANT, Oceana NAS, Virginia Beach, VA 23460 DSN 433-9521, C757-433-9521.

SCHEDULING ACTIVITY: FACSAC VACAPES, Oceana NAS, Virginia Beach, VA 23460 DSN 433-1228, C757-433-1228. Scheduling hours 0600-1900 local (EST).

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 70 MSL to	A	CVI 002/19	N36°41.00' W76°55.00'
70 MSL to	B	TYI 217/18	N35°43.00' W77°54.00'
70 MSL to or 80 MSL as assigned	C	RDU 235/19	N35°39.00' W79°04.00'
70 MSL to or 80 MSL as assigned	D	CLT 094/44	N35°12.00' W80°04.00'
70 MSL to or 80 MSL as assigned	E	CLT 127/23	N34°59.00' W80°33.00'
70 MSL to or 80 MSL as assigned	F	FLO 295/26	N34°24.00' W80°09.00'
70 MSL to or 80 MSL as assigned	G	FLO 195/22	N33°52.00' W79°45.00'
70 MSL to or 80 MSL as assigned	H	ILM 040/2	N34°23.00' W77°51.00'
70 MSL to or 80 MSL as assigned	I	NCA 318/21	N34°56.00' W77°46.00'
70 MSL to or 80 MSL as assigned	J	TYI 109/40	N35°49.00' W76°54.00'

ROUTE WIDTH - 5 NM either side of centerline from A to G;
2 NM either side of centerline from G to 20 NM east of G; 5 NM either side of centerline from 20 NM east of G to J.

IR ROUTES

Special Operating Procedures:

- (1) Route reservation and brief required.
- (2) No alternate Entry or Exit authorized.
- (3) To fly this route all aircraft must have an operable inertial navigation system (INS) or global positioning system (GPS). Aircraft operating from Oceana NAS must use stereo flight plan.
- (4) Where two altitudes are indicated, the lower altitude is the primary route altitude. The higher altitude will be assigned by ATC when required to provide separation from other IFR operations.
- (5) Return altitude 15,000 MSL. Lost communications altitude 7000' MSL.
- (6) Hazards: Exercise caution in the vicinity of R-5314. Numerous MTRs terminate in this area. Military aircraft may be holding VFR over Phelps Lake or at the Alligator River bridge awaiting clearance into Dare bombing range.
- (7) Caution: IR-719 crosses between Points A and B.

FSS Within 100 NM Radius:

AND, DCA, RDU

IR-719

ORIGINATING ACTIVITY: CSFWL, Oceana NAS, Virginia Beach, VA 23460 DSN 433-9696, C757-433-9696.

SCHEDULING ACTIVITY: FACSAC VACAPES, Oceana NAS, Virginia Beach, VA 23460 DSN 433-1228, C757-433-1228. Scheduling hours 0600-1900 local (EST).

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 70 MSL to	A	HPW 263/7	N37°18.02' W77°15.98'
70 MSL to	B	LYH 091/44	N37°18.00' W78°19.00'
70 MSL to Maintain 70 MSL until 23 NM East of C then 60 MSL-80 MSL to	C	LYH 025/5	N37°20.02' W79°11.98'
60 MSL B 80 MSL to	D	ROA 181/34	N36°47.00' W80°01.98'
60 MSL B 80 MSL to	E	GSO 288/44	N36°14.00' W80°50.98'
60 MSL B 80 MSL to	F	GSO 062/2	N36°04.00' W79°55.98'
60 MSL B 80 MSL to Until 29 NM SW OF PT G then 50MSL-80MSL 24NM SW of G	G	SBV 090/6	N36°41.02' W78°53.98'
50 MSL B 80 MSL to	H	LVL 121/18	N36°42.02' W77°33.98'
50 MSL B 80 MSL to	I	TYI 109/32	N35°51.02' W77°03.98'

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Route reservation and brief required.

- (2) No alternate Entry or Exit authorized.
- (3) To fly this route all aircraft must have an operable inertial navigation system (INS) or global positioning system (GPS). Aircraft operating from Oceana NAS must use stereo flight plan.
- (4) Where two altitudes are indicated, the lower altitude is the primary route altitude. The higher altitude will be assigned by ATC when required to provide separation from other IFR operations.
- (5) Return altitude 15,000' MSL. Lost communications altitude 5000' MSL.
- (6) Mandatory reporting point: Report passing 35NM northeast of Pt E to Greensboro Approach on 233.2.
- (7) Hazards:
 - (a) Farmville MOA is active from 0930-1430 local and 1600-1700 local, Monday-Friday, from 300' AGL to 5000' MSL. Monitor Washington ARTCC on 317.7, do not check-in. Contact Supervisor of Flying, 1st TFW, Langley VA, DSN 574-2559/2483 for MOA flight information prior to scheduling route;
 - (b) Exercise caution in the vicinity of R-5314. Numerous MTRs terminate in this area. Military aircraft may be holding VFR over Phelps Lake or at the Alligator River Bridge awaiting clearance into Dare bombing range;
 - (c) Avoid Ostrich Farm in vicinity of Point H on centerline at N36-39 W77-41 by 1 NM or 1000' AGL;
 - (d) Avoid uncharted tower in vicinity of Point D at N36-50.3 W79-55.1 height 310' AGL 1430' MSL;
 - (e) Caution: Multiple IR's cross at Points A-F and H-I.

FSS Within 100 NM Radius:

AND, DCA, EKN, RDU

IR-720

ORIGINATING ACTIVITY: COMSTRKFIGHTWINGLANT, Oceana NAS, Virginia Beach, VA 23460 DSN 433-9141, C757-433-9141.

SCHEDULING ACTIVITY: FACSAC VACAPES, Oceana NAS, Virginia Beach, VA 23460 DSN 433-1228, C757-433-1228. Scheduling hours 0600-1900 local (EST).

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 70 MSL to	A	RIC VORTAC	N37°30.14' W77°19.22'
70 MSL to	B	GVE 355/7	N38°08.00' W78°11.00'
70 MSL to or 80 MSL as assigned	C	CSN 220/11	N38°29.00' W78°00.00'
70 MSL to or 80 MSL as assigned	D	LDN 009/5	N38°56.00' W78°12.00'
70 MSL to or 80 MSL as assigned	E	EKN 091/12	N38°56.00' W79°51.00'
70 MSL to or 80 MSL as assigned	F	GVE 287/45	N38°09.00' W79°05.00'
Descend to 50-60 MSL at F, then maintain			
50 MSL to or 60 MSL as assigned	G	GVE 280/16	N38°02.00' W78°30.00'

50 MSL to H HPW 254/15 N37°14.00'
or 60 MSL as assigned. W77°25.00'
Climb to cross 20 NM
S of H at 60 MSL
60 MSL to I CVI 247/23 N36°10.00'
W77°17.00'

03 AGL B 30 MSL to H GSO 231/27 N35°44.83'
W80°22.83'
03 AGL B 30 MSL to I GSO 180/41 N35°21.60'
W79°56.00'
03 AGL B 30 MSL to J SSC 024/43 N34°39.00'
W80°11.50'
30 MSL to K SSC 024/33 N34°30.00'
W80°15.00'

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Route reservation and brief required.
- (2) No alternate Entry or Exit authorized.
- (3) To fly this route all aircraft must have an operable inertial navigation system (INS) or global positioning system (GPS). Aircraft operating from Oceana NAS must use stereo flight plan.
- (4) Where two altitudes are indicated, the lower altitude is the primary route altitude. The higher altitude will be assigned by ATC when required to provide separation from other IFR operations.
- (5) Return altitude 15,000' MSL. Lost communications altitude 6000' MSL.
- (6) Hazards:
 - (a) Evers MOA is active with continuous daytime operations from 1000' AGL to FL 180. Contact 113 OSS/OSA, Joint Base Andrews, MD DSN 857-4183/4194/4171, C240-857-4183/4194/4171 for MOA flight information/deconfliction prior to scheduling route;
 - (b) N37-47.2 W77-49.5 - Uncharted airport with Ultralight flight activity in the vicinity.
- (7) CAUTION: Severe bird activity along route. Highest concentrations Dec-Mar.

FSS Within 100 NM Radius:

AOO, DCA, EKN, MIV, RDU

IR-721

ORIGINATING ACTIVITY: 437 OSS/OSO, Joint Base Charleston, SC 29404 DSN 673-5554.

SCHEDULING ACTIVITY: Same as originating activity.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
60 MSL B 80 MSL to or as assigned	A	ROA VOR-DME	N37°20.61' W80°04.23'
60 MSL B 80 MSL to or as assigned	B	ROA 181/17	N37°03.50' W80°03.00'
03 AGL B 80 MSL to	C	ROA 195/27	N36°53.80' W80°11.00'
03 AGL B 60 MSL to	D	GSO 336/42	N36°40.00' W80°22.00'
03 AGL B 50 MSL to	E	GSO 326/34	N36°30.00' W80°24.00'
03 AGL B 50 MSL to	F	GSO 297/35	N36°17.00' W80°38.50'
03 AGL B 40 MSL to	G	GSO 248/34	N35°48.50' W80°36.67'

TERRAIN FOLLOWING OPERATIONS: Authorized from B to J. Maintain top of the altitudes between B to J unless Terrain Following Operations are approved with entry clearance from Roanoke approach.

ROUTE WIDTH - 5 NM either side of centerline from A to I; 1 NM left and 9 NM right of centerline from I to J; on centerline from J to K.

Special Operating Procedures:

- (1) Monitor Greensboro Approach 327.075 passing Pt C.
- (2) Monitor Charlotte Approach 307.8 passing Pt H and report Pt J level at 3000' MSL.
- (3) Contact Shaw RAPCON 318.1 passing Pt J.
- (4) CAUTION: VR-042 crosses right to left Pt B to Pt C and left to right Pt C to Pt D (Deconflict with 4 OSS/OSOS DSN 722-2129/2124. C919-722-2129/2124. Non-Duty 4 FW/CP DSN 722-1973, C919-722-1973).
- (5) CAUTION: VR-087 crosses from right to left, Pt I to Pt J (Deconflict with 4 FW at DSN 722-2129).
- (6) Mission permitting, avoid the following environmentally sensitive areas (woodpecker concentrations) by 500' vertically or 1000' horizontally: N32-25.5 W80-01.2 and N35-25.2 W80-02.2.
- (7) CAUTION: Glider activity in vicinity of Mount Airy Airport, NC (N36-27.5 W80-33.1).
- (8) Avoid: Pee Dee National Wildlife Refuge by 2000' AGL (N35-05 W80-03) and the Sandhill National Wildlife Refuge by 2000' AGL (N34-35 W80-13). Charted boundary exceeds 5 NM radius.
- (9) Noise Sensitive Areas: Avoid each by 1000' AGL and 1 NM
 - (a) N36-03 W80-43W;
 - (b) N36-43 W80-18W;
 - (c) N35-40.0 W80-20.5W;
 - (d) N35-47.3 W80-26.0;
 - (e) N35-43.0 W80-25.2;
 - (f) Congressional noise sensitive area (cattle farm) N36-28.8 W80-27.5
- (10) AVOID: Towers
 - (a) 275' AGL (3150' MSL) N36-40.0 W80-23.3;
 - (b) 225' AGL (1000' MSL) N35-23.0 W79-58.6;
 - (c) 225' AGL (810' MSL) N34-59.5 W80-15.9;
 - (d) 300' AGL N35-52.4 W80-33.6;
 - (e) 300' AGL N34-42.2 W80-16.5;
 - (f) 300' AGL N34-59.7 W80-10.6 (just west of a charted tower);
 - (g) 225' AGL N36-42.9 W80-20.1;
 - (h) 200' AGL N36-42.97 W80-19.89;
 - (i) 250' AGL N36-19.38 W80-33.71;
 - (j) 300' AGL N36-16 W80-35;
 - (k) 300' AGL N35-47 W80-21;
 - (l) 200' AGL N35-24.55 W79-57.35;
 - (m) 200' AGL N35-33.4 W80-06;
 - (n) 250' AGL N35-36.49 W80-17.02;

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- (o) 300' AGL N35-14.32 W79-59.69;
(p) 350' AGL N36-20.57 W80-37.77;
(q) 300' AGL N36-58.32 W80-10.43;
(r) 300' AGL N36-20.09 W80-37.20;
(s) 300' AGL N35-58.08 W80-38.19;
(t) 250' AGL N35-31.18 W80-03.61;
(u) 300' AGL N35-22.20 W79-56.70;
(v) 300' AGL N36-31.13 W80-30.50 - 100 yards North of charted antenna 340' AGL;
(w) 200' AGL N37-07.05 W80-01.04;
(x) 300' AGL N36-45.05 W80-19.28;
(y) 300' AGL N36-42.78 W80-19.89;
396' AGL N35-19.56 W79-53.10;
200' AGL N35-33.63 W80-09.36;
200' AGL N35-18.08 W80-03.83;
300' AGL N35-42.18 W80-22.48;
300' AGL N35-48.61 W80-22.63;
200' AGL N35-19.56 W79-53.10;
200' AGL N38-18.19 W80-37.14;
(z) Tower 200' AGL 1 mile east of N35-30.57 W80-04.64;
(aa) Tower 200' AGL 0.5 mile west of N35-33.97 W80-8.98;
(ab) Cell tower 200' AGL 1 mile east of N35-37.72 W80-13.04;
(ac) Tower 200' AGL 1 mile west of N35-40.50 W80-16.03;
(ad) Tower 200' AGL 0.25 mile north of N36-20.09 W80-34.13.
- (11) Avoid uncharted private grass strips by 1000' AGL and 2 NM:
(a) N36-03.51 W80-39.67, possible grass strip 1600' runway;
- (12) Include route entry/exit times in the remarks section of the flight plan. Make entry times plus or minus 5 minutes or reschedule.
- (13) VR-1721 may be flown, weather permitting, if the controlling agency delays or refuses clearance to fly IR-721. Check FLIP AP/1B guidance for specifics on VR-1721.
- (14) AVOID: Peregrine Falcon nesting area (endangered species): N36-20.4 W80-28.5. Avoid by 1500' above cliff/tree height and 1 NM (15 Feb through 15 Jul).
- (15) Unpublished towers found by route surveys 200' AGL and above are listed in this SOP.
- (16) CAUTION: Bird activity: 3 landfills at N35-00.38 W80-09.78; N35-45.25 W80-33.62; N35-20.52 W79-58.55.
- (17) AVOID: Class D airspace at Stanly Co Airport (N35-24.9 W80-09.1), sfc to and including 3100' MSL within a 5.8 NM radius with a 3 NM 'key-hole' 1.5 NM either side of centerline for Rwy 22L out to 7.8 NM; contact tower on 291.9/126.275 passing Pt H and Pt I (Twr hrs 0800-2200L Tues-Sat). Pt. India is a new required reporting point.

FSS Within 100 NM Radius:

AND, EKN, RDU

IR-723

ORIGINATING ACTIVITY: Training Air Wing Six, Pensacola, FL 32508-5509 DSN 459-2875, C850-452-2875.

SCHEDULING ACTIVITY: NAS Pensacola, Pensacola, FL 32508-5217 DSN 459-2735, C850-452-2735.

HOURS OF OPERATION: 1200-0400Z++ Mon-Fri, occasionally weekends

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 90 MSL to or as assigned	A		N38°55.00' W81°49.00'
90 MSL to or as assigned	B	BKW 357/23	N38°10.00' W81°12.00'
90 MSL to or as assigned	C	BKW 134/14	N37°38.00' W80°53.00'
90 MSL to or as assigned	D	PSK 350/15	N37°20.00' W80°48.00'
90 MSL to or as assigned	E	PSK 251/20	N36°57.00' W81°05.00'
90 MSL to or as assigned	F	PSK 218/20	N36°48.00' W80°56.00'
90 MSL to or as assigned	G	HMV 091/31	N36°28.00' W81°29.00'
90 MSL to or as assigned	H	HMV 118/47	N36°07.00' W81°15.00'
100 MSL to or as assigned	I	SUG 048/30	N35°45.00' W81°50.00'
100 MSL to or as assigned	J	SUG 051/6	N35°28.00' W82°11.00'

ROUTE WIDTH - 10 NM either side of centerline.

Special Operating Procedures:

- (1) Scheduling Activity operating hours: 1200-2200Z++ Mon-Fri. To schedule use on Sat, Sun or prior to 1430Z++ on Mon, call prior to 2200Z++ on previous Friday.
- (2) Conflicts: (De-conflict with appropriate Scheduling Activity)
- (a) Opposite direction IR-080 from Point A to E.
- (b) Crosses IR-081 at Point E, opposite direction from Point G to I.
- (c) Crosses IR-082 at Point I.
- (d) Opposite direction to IR-083 from Points H to I.
- (e) Same direction as IR-608 from Point D to F.

FSS Within 100 NM Radius:

AND, CLE, DAY, EKN, RDU

IR-726

ORIGINATING ACTIVITY: 4 OSS/OSOR, Seymour Johnson AFB, NC 27531-5004 DSN 722-2672, C919-722-2672.

SCHEDULING ACTIVITY: 4 OSS/OSOS, Seymour Johnson AFB, NC 27531-5004 Duty hrs DSN 722-2129/2124, C919-722-2129/2124. Non-duty hrs 4 FW/CP DSN 722-1973, C919-722-1973.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	PSK 263/23	N37°00.00' W81°11.00'
03 AGL B 60 MSL to	B	PSK VORTAC	N37°05.26' W80°42.77'
03 AGL B 60 MSL to	C	PSK 187/19	N36°46.00' W80°43.00'

03 AGL B 60 MSL to	D	PSK 218/31	N36°39.00' W81°03.00'
03 AGL B 70 MSL to	E	PSK 229/44	N36°33.00' W81°20.00'
01 AGL B 70 MSL to	F	HMV 111/38	N36°15.00' W81°23.00'
01 AGL B 70 MSL to	G	HMV 125/36	N36°08.00' W81°30.00'
01 AGL B 70 MSL to	H	SPA 007/45	N35°47.40' W81°51.00'
100 MSL to	I	SPA 347/46	N35°47.00' W82°10.00'

TERRAIN FOLLOWING OPERATIONS: Authorized for entire route except terminate low level to cross Point I at 10,000' MSL.

ROUTE WIDTH - 5 NM either side of centerline from A to B; 10 NM either side of centerline from B to C; 5 NM left and 15 NM right of centerline from C to D; 10 NM either side of centerline from D to E; On centerline to 10 NM right of centerline from E to F; 1 NM left and 10 NM right of centerline from F to G; 5 NM left and 10 NM right of centerline from G to H; 5 NM either side of centerline from H to I.

Special Operating Procedures:

- (1) Users must contact 4 OSS/OSOS (DSN 722-2129/2124) for additional avoidance areas.
- (2) Alternate Entry: G
- (3) Users must make their scheduled entry time plus or minus 5 minutes or reschedule.
- (4) Avoid towns and populated areas by 1 NM or overfly 1000' AGL; avoid airports by 3 NM or overfly 1500' AGL. Over sparsely populated areas, aircraft may not be operated closer than 500' to any person, vessel, vehicle, or structure.
- (5) A-B:
 - (a) CROSSING: VR-042 same direction A to C;
 - (b) CROSSING: IR-080 left to right entire leg;
 - (c) CROSSING: IR-081 same direction entire leg;
 - (d) CROSSING: IR-608 opposite direction entire leg;
 - (e) CROSSING: IR-723 left to right entire leg;
 - (f) CAUTION: Uncharted Tower 250' AGL at N37 01.40 W080 10.28;
 - (g) CAUTION: Uncharted Tower 200' AGL at N37 02.05 W080 57.30;
 - (h) CAUTION: Uncharted Tower 300' AGL at N36 59.09 W080 49.20;
 - (i) CAUTION: Uncharted Tower 200' AGL at N37 03.50 W080 46.80;
 - (j) CAUTION: Uncharted Tower 300' AGL at N37 04.76 W080 43.46;
 - (k) CAUTION: Uncharted Tower 250' AGL at N37 01.40 W081 10.28.
- (6) B-C:
 - (a) CROSSING: VR-042 right to left 16NM prior to C;
 - (b) CROSSING: VR-043 left to right at B;
 - (c) CROSSING: IR-080 opposite direction B to F;
 - (d) CROSSING: IR-081 opposite direction B to H;
 - (e) CROSSING: IR-608 same direction B to 15NM prior to F;
 - (f) CROSSING: IR-723 merges and same direction until I;
 - (g) CAUTION: Uncharted Towers (2x), 250 AGL at N37 01.16 W080 44.70;
 - (h) AVOID: FAA Designated UAS Test Site at Virginia Tech at N37 12.01 W080 35.09 by 1200' or 1NM;

- (i) CAUTION: Uncharted Tower 250' AGL at N37 05.70 W080 32.60;
 - (j) CAUTION: Uncharted Tower, 250 AGL at N36 58.20 W080 36.40;
 - (k) CAUTION: Uncharted Tower, 250 AGL at N36 57.54 W080 37.36;
 - (l) CAUTION: Uncharted Tower, 250 AGL at N36 55.97 W080 41.41;
 - (m) CAUTION: Uncharted Quarry at N36 53.04 W080 45.99;
 - (n) CAUTION: Uncharted Tower, 250 AGL at N36 52.95 W080 36.58;
 - (o) CAUTION: Uncharted Tower, 300 AGL at N36 51.70 W080 35.90;
 - (p) CAUTION: Uncharted Tower, 250 AGL at N36 50.03 W080 31.35;
 - (q) CAUTION: Uncharted Tower 250' AGL at N36 49.70 W080 34.30;
 - (r) CAUTION: Uncharted Tower 207' AGL at N36 48.70 W080 42.30;
 - (s) CAUTION: Uncharted Tower, 250 AGL at N36 45.81 W080 39.66;
 - (t) CAUTION: Check NOTAMs for model rocket firings; New River Valley Rocketry. Sat/Sun only launches of unmanned Class II rockets in the vicinity of N37 11 51.70 W80 34 42.61, within a 1 NM radius not to exceed 10,000' AGL or 11,800' MSL. Sunrise to sunset. Approx Pulaski VORTAC (PSK) 050R009.2NM.
- (7) C-D:
 - (a) CROSSING: VR-042 same direction at C;
 - (b) CROSSING: IR-080 opposite direction B to F;
 - (c) CROSSING: IR-081 opposite direction B to H;
 - (d) CROSSING: IR-608 same direction B to 15NM prior to F;
 - (e) CROSSING: IR-723 same direction until I;
 - (f) CAUTION: Uncharted Tower, 200 AGL at N36 40.80 W080 52.90;
 - (g) CAUTION: Uncharted Tower, 250 AGL at N36 40.04 W080 56.11;
 - (h) CAUTION: Uncharted Tower 250' AGL at N36 42.70 W080 58.70;
 - (i) CAUTION: Uncharted Tower, 250 AGL at N36 39.60 W080 57.40;
 - (j) CAUTION: Uncharted Tower, 250 AGL at N36 40.16 W080 58.23.
 - (8) D-E:
 - (a) CROSSING: VR-042 left to right at E;
 - (b) CROSSING: VR-093 left to right entire leg;
 - (c) CROSSING: IR-080 opposite direction B to F;
 - (d) CROSSING: IR-081 opposite direction B to H;
 - (e) CROSSING: IR-608 same direction B to 15NM prior to F;
 - (f) CROSSING: IR-723 same direction until I;
 - (g) CAUTION: Uncharted Tower, 300 AGL at N36 37.75 W081 04.77;
 - (h) CAUTION: Uncharted Tower, 250 AGL at N36 31.00 W081 02.20;
 - (i) CAUTION: Uncharted Tower, 300 AGL at N36 37.60 W081 07.20;
 - (j) CAUTION: Uncharted Tower, 250 AGL at N36 40.10 W081 09.54;
 - (k) CAUTION: Uncharted Tower 200' AGL at N36 36.80 W081 08.20;
 - (l) CAUTION: Uncharted Tower 200' AGL at N36 29.20 W081 05.80;
 - (m) CAUTION: Uncharted Tower 200' AGL at N36 31.80 W081 08.40;

IR ROUTES

- (n) CAUTION: Uncharted Cell Tower, 250 AGL at N36 33.10 W081 18.80.
- (9) E-F:
- (a) Monitor Atlanta Center on 263.0 at F;
 - (b) CAUTION: Rapidly rising terrain. MEA and top of route structure can be as little as 1000';
 - (c) CROSSING: IR-022 right to left 6NM prior to F;
 - (d) CROSSING: IR-080 opposite direction B to F;
 - (e) CROSSING: IR-081 opposite direction B to H;
 - (f) CROSSING: IR-608 same direction B to 15NM prior to F;
 - (g) CROSSING: IR-723 same direction until I;
 - (h) CAUTION: Uncharted Tower 250' AGL at N36 29.35 W081 10.60;
 - (i) AVOID: Horse training facility at N36 34.60 W081 22.40 by 1000' AGL or 1 NM;
 - (j) CAUTION: Multiple Uncharted Towers 200' AGL at N36 28.00 W081 12.90;
 - (k) AVOID: Horse training facility at N36 30.30 W081 17.80 by 1000' AGL or 1 NM;
 - (l) CAUTION: Uncharted Tower 200' AGL at N36 32.43 W081 28.35;
 - (m) CAUTION: Uncharted Tower, 250 AGL at N36 30.22 W081 22.16;
 - (n) CAUTION: Uncharted Tower, 250 AGL at N36 28.00 W081 21.15;
 - (o) CAUTION: Uncharted Tower Cluster, 250 AGL at N36 27.91 W081 29.30;
 - (p) CAUTION: Uncharted Quarry at N36 26.48 W081 29.28;
 - (q) CAUTION: Uncharted Tower, 250 AGL at N36 17.54 W081 19.79.
- (10) F-G:
- (a) CROSSING: IR-022 right to left entire leg;
 - (b) CROSSING: IR-081 opposite direction B to H;
 - (c) CROSSING: IR-083 merges and same direction at F to I;
 - (d) CROSSING: IR-723 same direction until I;
 - (e) CAUTION: Uncharted Tower, 250' AGL at N36 12.60 W081 28.10.
- (11) G-H:
- (a) CROSSING: IR-022 right to left;
 - (b) CROSSING: IR-081 opposite direction B to H;
 - (c) CROSSING: IR-082 same direction entire leg;
 - (d) CROSSING: IR-083 same direction F to I;
 - (e) CROSSING: IR-723 same direction until I;
 - (f) CAUTION: Uncharted Tower, 300 AGL at N36 02.92 W081 28.28;
 - (g) CAUTION: Uncharted Cell Tower, 250 AGL at N36 05.73 N081 37.66;
 - (h) CAUTION: Uncharted Tower, 300 AGL at N35 56.56 W081 34.58;
 - (i) CAUTION: Uncharted Cell Tower, 250 AGL at N35 55.83 N081 37.32;
 - (j) CAUTION: Uncharted Water Tower, 250 AGL at N35 49.73 N081 43.73;
 - (k) CAUTION: Uncharted Cell Tower, 350 AGL at N35 51.09 N081 45.81;
 - (l) CAUTION: Uncharted Water Tower, 250 AGL at N35 42.17 N081 48.20;
 - (m) Contact Atlanta Center 263.0 primary or 353.62 secondary at H.
- (12) H-I:
- (a) CROSSING: IR-082 parallel right to left 9NM prior to H;
 - (b) CROSSING: IR-083 same direction F to I;
 - (c) CROSSING: IR-723 same direction until I;

- (d) CAUTION: Uncharted Tower, 250 AGL, N35 49.34 W081 56.67;
 - (e) CAUTION: Uncharted Tower, 250 AGL, N35 48.20 W081 57.18;
 - (f) CAUTION: Uncharted Quarry, N36 46.90 W082 02.21;
 - (g) CAUTION: Uncharted Cell Tower Cluster, 250 AGL, N35 52.68 W082 06.49;
 - (h) CAUTION: Uncharted Cell Tower, 250 AGL, N35 51.84 W082 09.40;
 - (i) Cross I level at 10,000' MSL.
- (13) Crossing Route Information:
- (a) VR-041: Seymour Johnson AFB (DSN 722-2129);
 - (b) VR-042: Seymour Johnson AFB (DSN 722-2129);
 - (c) VR-093: Seymour Johnson AFB (DSN 722-2129);
 - (d) IR-022: Pensacola NAS (DSN 459-2735, C850-452-2735);
 - (e) IR-080: Pensacola NAS (DSN 459-2735, C850-452-2735);
 - (f) IR-081: Pensacola NAS (DSN 459-2735, C850-452-2735);
 - (g) IR-082: Pensacola NAS (DSN 459-2735, C850-452-2735);
 - (h) IR-083: Pensacola NAS (DSN 459-2735, C850-452-2735);
 - (i) IR-608: Pensacola NAS (DSN 459-2735, C850-452-2735);
 - (j) IR-723: Pensacola NAS (DSN 459-2735, C850-452-2735).

FSS Within 100 NM Radius:

AND, EKN, RDU

IR-743

ORIGINATING ACTIVITY: COMSTRKFIGHTWINGLANT, Oceana NAS, Virginia Beach, VA 23460 DSN 433-9141, C 757-433-9141.

SCHEDULING ACTIVITY: FACSFAC VACAPES, Oceana NAS, Virginia Beach, VA 23460 DSN 433-1228, C757-433-1228. Scheduling Hours 0600-1900L (EST)

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 70 MSL to maintain	A	HMV 054/49	N36°58.00' W81°21.00'
01 AGL B 70 MSL to	B	HMV 023/26	N36°51.00' W81°57.00'
01 AGL B 70 MSL to	C	GZG VOR-DME	N36°49.51' W82°04.74'
01 AGL B 60 MSL to	D	HMV 302/34	N36°42.00' W82°45.00'
01 AGL B 60 MSL to	E	HMV 289/34	N36°35.00' W82°49.00'
03 AGL B 50 MSL to	F	VXV 071/44	N36°11.00' W83°03.00'
03 AGL B 60 MSL to	G	VXV 085/36	N35°59.00' W83°10.00'
03 AGL B 90 MSL to	H	VXV 097/32	N35°52.00' W83°14.00'
03 AGL B 90 MSL to	I	VXV 115/37	N35°40.00' W83°11.50'
03 AGL B 90 MSL to	J	VXV 124/41	N35°33.00' W83°10.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from A to J. Terminate terrain following so as to pass 'J' at 9000' MSL.

ROUTE WIDTH - 5 NM either side of centerline for entire route.

Special Operating Procedures:

- (1) Route reservation and brief required.
- (2) Monitor Tri-City Approach Control on 317.5 at C.
- (3) Contact Atlanta ARTCC on 379.95 passing H, if no contact try Ashville App cont on 351.8 or 124.65 for further IFR clearance.
- (4) CAUTION: Heavy helicopter traffic from Pt A to D. weather permitting helicopter traffic around 4500' MSL. Hospital helicopter traffic to/from Lebanon, VA (N36-54.1 W82-04.5).
- (5) CAUTION: Local weather phenomenon from Pt C to D causes fog bank north of Clinch Mt. Ridge. Helicopters may be just below fog bank.
- (6) Towers:
 - (a) 250' AGL (3779' MSL) cluster centered at N35-54.0 W83-18.2;
 - (b) 200' AGL (2100' MSL) N36-26.8 W82-56.6;
 - (c) 250' AGL (1400' MSL) N36-00.25 W083-06.29.
- (7) CAUTION: Numerous powerlines above 100' AGL throughout the route.
- (8) CAUTION: Heavy civil IFR traffic crossing on V16, V185 and V136 immediately above route altitude block Pt. D to H. NOTE: Knoxville Approach Control has very good radar coverage in this area (frequency 360.8/353.6).
- (9) CAUTION: Hang gliding activity N35-54.5 W83-17.8.
- (10) Congressional Noise Sensitive Areas: Glade Spring, VA (N36-47 W81-47). Farm area (N36-13.3 W83-00.8). Avoid by 1000' AGL and 1 NM.
- (11) VR-1743 coincides with entire route, dual scheduling authorized. If dual scheduled, VR-1743 may be flown, weather permitting, if controlling agency delays or refuses clearance to fly IR-743. Check FLIP AP/1B for guidance for specifics on VR-1743.
- (12) CAUTION: Conflicting routes: IR-002 same direction F to J, IR-761 same direction points A to B, VR-041 same direction points A to B, VR-093 crosses between points A to B and D to E.
- (13) Avoid: Uncharted uncontrolled public airport Hawkins, Co. (N36-27.7 W83-53.2) by 1500' AGL/3 NM.
- (14) Make entry times plus or minus 5 minutes or reschedule. Include route entry/exit times in the remarks section of the flight plan. Unpublished towers 200' AGL and above are listed in this SOP.

FSS Within 100 NM Radius:

AND, EKN, RDU

IR-760

ORIGINATING ACTIVITY: COMSTRKFIGHTWINGLANT, Oceana NAS, Virginia Beach, VA 23460 DSN 433-9141, C757-433-9141.

SCHEDULING ACTIVITY: FACSFAC VACAPES, Oceana NAS, Virginia Beach, VA 23460 DSN 433-1228, C757-433-1228. Scheduling hours 0600-1900 local (EST).

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
20 MSL B 30 MSL to	A	CCV VORTAC	N37°20.85' W75°59.86'
20 MSL B 30 MSL to	B	HCM 054/15	N37°37.00' W76°29.00'
20 MSL B 30 MSL to	C	BRV 230/25	N38°01.00' W77°42.00'
20 MSL B 30 MSL to 20 MSL B 30 MSL until 10 NM SE of D then climb to	D	GVE 330/22	N38°19.00' W78°26.00'
50 MSL B 60 MSL to	E	CSN 275/35	N38°38.00' W78°37.00'
60 MSL to	F	ESL 057/7	N39°18.20' W78°52.00'
05 AGL B 60 MSL to	G	ESL 261/25	N39°07.00' W79°31.00'
SFC B 60 MSL to	H	EKN 165/47	N38°11.00' W79°44.00'
SFC B 60 MSL to climb to cross	I	ROA 031/50	N38°05.00' W79°36.00'
60 MSL to	J	LYH 352/44	N37°58.00' W79°27.00'
60 MSL to	K	GVE 236/31	N37°41.00' W78°39.00'
60 MSL to	L	GVE 196/22	N37°39.00' W78°14.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from F to J. (IFR lost communications altitude during terrain following is 60 MSL).

ROUTE WIDTH - 3 NM either side of centerline entire route.

Special Operating Procedures:

- (1) Route reservation and brief required.
- (2) No alternate Entry or Exit authorized.
- (3) To fly this route all aircraft must have an operable inertial navigation system (INS) or global positioning system (GPS). Aircraft operating from Oceana NAS must use stereo flight plan. To conduct terrain following operations under actual IMC or at night, aircraft must be equipped with an operable ground mapping radar or terrain following radar.
- (4) Where two altitudes are indicated, the lower is the primary route altitude. The higher altitude will be assigned by ATC when required to provide separation from other IFR operations.
- (5) Mandatory reporting points: VHF or UHF radio reports are required when passing:
 - (a) Pt A to Norfolk Approach Control on 372.1;
 - (b) Pt B to Richmond Approach Control on 319.8;
 - (c) Pt D, Pt F and Pt K to Richmond Approach Control on 132.85 or 257.8.
- (6) Return altitude 15,000' MSL. Lost communications altitude 6000' MSL.
- (7) Hazards:
 - (a) Caution: IR-720, IR-761 and IR-762 cross at multiple points;
 - (b) Extensive civilian fish-spotter aircraft from SFC to 5000' AGL over Chesapeake Bay, between Pt A and Pt B from Apr to Nov;
 - (c) Ultralight activity in the vicinity of Pt B;

IR ROUTES

- (d) Extensive helicopter operations between Pt D and Pt J;
- (e) Evers MOA is active with continuous daytime operations from 1000' AGL to FL 180. Contact 113 OSS/OSA, Joint Base Andrews, MD DSN 857-4183/4194/4171, C240-857-4183/4194/4171 for MOA flight information/deconfliction prior to scheduling;
- (8) Avoid: N39-19.9 W78-55.1 - Elementary school.
- (9) N38-26.6 W79-50.1 - Do Not transmit on UHF radio within 15 NM of National Radio Astronomy Observatory. Avoid Observatory by 4 NM.
- (10) Do not fly over: N37-59.0 W77-31.0W - Remain at least 1 NM South of Lake Caroline.
- (11) Due to several windmills under construction between Points F and G, this leg shall be flown no lower than 500' AGL until further notice.
- (12) CAUTION: Severe bird activity along route. Highest concentrations Dec-Mar.

FSS Within 100 NM Radius:

AOO, DCA, EKN, IPT, MIV, RDU

IR-761

ORIGINATING ACTIVITY: COMSTRKFIGHTWINGLANT, Oceana NAS, Virginia Beach, VA 23460 DSN 433-9141, C757-433-9141.

SCHEDULING ACTIVITY: FACSFAC VACAPES, Oceana NAS, Virginia Beach, VA 23460 DSN 433-1228, C757-433-1228. Scheduling hours 0600-1900 local (EST).

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 70 MSL to	A	LYH 026/29	N37°42.00' W79°01.00'
70 MSL to	B	LYH 345/18	N37°32.00' W79°22.00'
70 MSL to	C	ROA 052/22	N37°35.00' W79°44.00'
70 MSL to	D	ROA 334/14	N37°33.00' W80°13.20'
SFC B 60 MSL to	E	BKW 163/17	N37°31.00' W80°59.00'
SFC B 60 MSL to	F	BKW 221/20	N37°30.50' W81°21.60'
SFC B 60 MSL to	G	GZG 060/16	N36°58.00' W81°48.00'
SFC B 60 MSL to	H	GZG 334/28	N37°14.00' W82°21.00'
SFC B 60 MSL to	I	HVQ 225/43	N37°49.00' W82°22.50'
60 MSL to or 70 MSL as assigned	J	HVQ 251/31	N38°09.00' W82°23.00'
60 MSL to or 70 MSL as assigned	K	BKW 359/22	N38°09.00' W81°11.00'
60 MSL to or 70 MSL as assigned	L	BKW 053/34	N38°10.00' W80°36.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from D to I. (IFR lost communications altitude during terrain following is 60 MSL).

ROUTE WIDTH - 5 NM either side of centerline from A to D; 3 NM either side of centerline from D to F; 3 NM left and 5 NM right of centerline from F to G; 5 NM either side of centerline from G to L.

Special Operating Procedures:

- (1) Route reservation and brief required.
- (2) No alternate Entry or Exit authorized
- (3) To fly this route all aircraft must have an operable inertial navigation system (INS) or global positioning system (GPS). Aircraft operating from Oceana NAS must use stereo flight plan. To conduct terrain following operations under actual IMC or at night, aircraft must be equipped with an operable ground mapping radar or terrain following radar.
- (4) Where two altitudes are indicated, the lower published altitude is the primary route altitude. The higher altitude will be assigned by ATC only when required to provide separation from other IFR operations.
- (5) Mandatory reporting points. UHF radio reports are required when passing:
 - (a) Pt A to Washington ARTCC on 263.1;
 - (b) Pt D, report 'Going Terrain Following' to Washington ARTCC on 353.9;
 - (c) 10 NM East of Pt. E to Indianapolis ARTCC on 257.85;
 - (d) Pt G to Atlanta ARTCC on 269.3;
 - (e) Pt H to Indianapolis ARTCC on 257.85;
 - (f) Pt. J to Charleston Approach Control (CRW) on 269.125;
 - (g) Pt. L to Washington ARTCC on 353.9.
- (6) Return altitude 15,000' MSL. Lost communications altitude 6000' MSL.
- (7) Hazard: There are numerous uncontrolled airports from Pt D to Pt I.
- (8) Avoid uncharted tower between Points E and F at N37-06.9 W082-04.1. Height 259' AGL 2432' MSL.

FSS Within 100 NM Radius:

DAY, DCA, EKN, RDU

IR-762

ORIGINATING ACTIVITY: COMSTRKFIGHTWINGLANT, Oceana NAS, Virginia Beach, VA 23460 DSN 433-9141, C757-433-9141.

SCHEDULING ACTIVITY: FACSFAC VACAPES, Oceana NAS, Virginia Beach, VA 23460 DSN 433-1228, C757-433-1228. Scheduling hours 0600-1900 local (EST).

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	LYH 048/20	N37°30.00' W78°57.00'
70 MSL to	B	LYH 342/46	N37°58.00' W79°37.00'
70 MSL to	C	EKN 229/21	N38°39.00' W80°24.00'

60 MSL to	D	MGW 214/16	N39°19.00' W80°02.00'
60 MSL to	E	MGW 118/11	N39°29.00' W79°38.00'
60 MSL to	F	ESL 079/22	N39°20.00' W78°32.00'
SFC B 50 MSL to SFC B 50 MSL to 15 NM NE of H, then climb to cross 12 NM NE of H at 70 MSL, then climb to cross H at 90 MSL	G	ESL 185/19	N38°55.00' W78°59.00'
90 MSL to	H	ROA 031/50	N38°05.00' W79°36.00'
90 MSL to	I	ROA 031/30	N37°47.00' W79°47.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from Pt F to 15 NM NE of Pt H.

ROUTE WIDTH - 5 NM either side of centerline from A to C; 5 NM right and 2 NM left of centerline from C to E; 5 NM either side of centerline from E to I.

Special Operating Procedures:

- (1) Route reservation and brief required.
- (2) No alternate Entry or Exit authorized.
- (3) To fly this route all aircraft must have an operable inertial navigation system (INS) or global positioning system (GPS). Aircraft operating from Oceana NAS must use stereo flight plan. To conduct terrain following operations under actual IMC or at night, aircraft must be equipped with an operable ground mapping radar or terrain following radar.
- (4) Remain North of route centerline between Pt E and Pt F.
- (5) Descend to 5000' MSL or below by 5 NM SSW of Pt F.
- (6) Mandatory reporting points. UHF radio reports are required when passing:
 - (a) Pt A to Washington ARTCC on 263.1;
 - (b) Pt C to Clarkburg Approach Control on 280.1;
 - (c) Pt F to Washington ARTCC on 285.6;
 - (d) Pt H to Washington ARTCC on 317.7.
- (7) Return altitude 15,000' MSL. Lost communications altitude 9000' MSL.
- (8) Caution:
 - (a) IR-714, IR-715, IR-720 and IR-761 cross at several points;
 - (b) Evers MOA is active with continuous daytime operations from 1000' AGL to FL 180. Contact 113 OSS/OSA, Joint Base Andrews, MD DSN 857-4183/4194/4171, C240-857-4183/4194/4171 for MOA flight information/deconfliction prior to scheduling route.
- (9) CAUTION: Severe bird activity along route. Highest concentrations Dec-Mar.

FSS Within 100 NM Radius:

AOO, DCA, EKN, IPT, RDU

IR-800

ORIGINATING ACTIVITY: Eastern Air Defense (EADS)
DSN 587-6247/6313.

SCHEDULING ACTIVITY: Same as Originating Activity

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 170 MSL to or as assigned direct to	A	BGR 142/52	N44°22.00' W67°52.00'
170 MSL to turn right to	B	BGR 112/40	N44°48.00' W67°56.00'
170 MSL to Then descend direct to	C	BGR 104/45	N44°54.00' W67°49.00'
100 MSL B 170 MSL to then turn right and continue descent to cross	D	BGR 102/52	N44°56.00' W67°40.00'
at or above 100 MSL then continue descent direct to cross	E	BGR 103/57	N44°56.00' W67°32.00'
30 MSL to (Primary TA/TFR Initiation Point) turn right to	F	BGR 114/73	N44°44.00' W67°11.00'
30 MSL to direct to	G	BGR 122/74	N44°33.00' W67°12.00'
30 MSL to turn right to	H	BGR 132/60	N44°27.00' W67°35.00'
30 MSL to direct to	I	BGR 129/49	N44°33.00' W67°48.00'
30 MSL to direct to	J	BGR 117/45	N44°44.00' W67°50.00'
02 AGL B 30 MSL to (Start TA/TFR Point, Point Alpha contact Boston ARTCC 290.5 and advise changing to enroute freq passing Point Alpha.) direct to	K	BGR 091/44	N45°04.00' W67°54.00'
02 AGL B 30 MSL to direct to	L	MLT 156/36	N45°09.00' W67°55.00'
02 AGL B 30 MSL to turn left to	M	MLT 072/30	N45°53.50' W67°57.50'
02 AGL B 30 MSL to climb direct to	N	MLT 062/31	N45°58.50' W68°01.00'
02 AGL B 40 MSL to turn right to	O	MLT 048/32	N46°03.00' W68°09.50'
02 AGL B 40 MSL to (Pt Bravo. Start Maneuver Area) direct to	P	MLT 042/33	N46°05.50' W68°13.00'
05 AGL B 40 MSL to (End Maneuver Area) turn left to	Q	PQI 288/20	N46°45.50' W68°35.00'
02 AGL B 40 MSL to direct to	R	PQI 294/22	N46°47.50' W68°37.50'
02 AGL B 40 MSL to turn left to	S	PQI 317/38	N47°03.00' W68°55.00'
02 AGL B 40 MSL to direct to	T	PQI 315/47	N47°05.00' W69°08.50'
02 AGL B 40 MSL to direct to	U	PQI 298/60	N46°53.00' W69°32.50'

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02 AGL B 40 MSL to turn left and climb to	V	PQI 289/73	N46°42.50' W69°51.00'	01 AGL B 40 MSL to (Start Maneuver Area)	P1	MLT 044/32	N46°04.50' W68°12.00'
02 AGL B 53 MSL to direct to	W	PQI 285/76	N46°38.00' W69°55.00'	Thence via published route.			
02 AGL B 53 MSL to climb direct to cross	X	MLT 299/66	N45°45.00' W70°04.00'	Alternate Exit : BR Cross			
02 AGL B 57 MSL to turn right to	Y	MLT 294/66	N45°39.00' W70°05.00'	40 MSL to	T1	PQI 315/47	N47°05.00' W69°08.50'
02 AGL B 57 MSL to direct to	Z	MLT 290/68	N45°35.00' W70°08.00'	40 MSL B 150 MSL climb to cross			
02 AGL B 57 MSL to (Reporting 70 deg 30 min W to Boston ART-CC 346.4 primary or 290.5 secondary.)	AA	BGR 298/90	N45°03.00' W70°58.00'	at or above 120 MSL (Contact Boston ART-CC on 346.4)	U1	PQI 298/60	N46°53.00' W69°32.50'
turn right to				continue climb and turn left to			
02 AGL B 57 MSL to climb direct to	AB	BGR 296/93	N45°01.00' W71°03.00'	120 MSL B 150 MSL to	BQ	PQI 285/59	N46°40.00' W69°31.50'
02 AGL B 80 MSL to	AC	BGR 295/102	N44°59.00' W71°15.00'	120 MSL B 150 MSL continue climb direct to cross			
02 AGL B 80 MSL continue climb and turn left to cross				150 MSL to	BR	PQI 277/49	N46°34.00' W69°14.00'
80 MSL to (End TA/TFR) direct to	AD	BGR 293/106	N44°57.00' W71°21.00'	or as assigned Alternate Entry: AX Cross			
80 MSL to (Point Charlie) (Report passing Point Charlie to Boston ARTCC 282.2)	AE	BGR 291/112	N44°52.00' W71°30.00'	60 MSL to	AX	BGR 162/63	N44°00.00' W68°00.00'
direct to				or as assigned direct to			
80 MSL to	AF	BGR 287/123	N44°43.60' W71°45.00'	60 MSL to	AY	BGR 147/56	N44°16.00' W67°51.00'
80 MSL B 120 MSL or as assigned then within 80 MSL B 120 MSL climb direct to cross				40 MSL B 60 MSL descend direct to cross			
120 MSL to or as assigned	AG	BGR 285/133	N44°38.00' W71°58.00'	40 MSL to direct to	AZ	BGR 138/52	N44°25.00' W67°49.00'
Re-Entry: Ashland Maneuver Area (End Maneuver Area)				40 MSL to	I1	BGR 129/49	N44°33.00' W67°48.00'
turn left to				40 MSL B 30 MSL descend direct to cross			
02 AGL B 40 MSL to direct to	R1	PQI 294/22	N46°47.50' W68°37.50'	30 MSL to	J1	BGR 117/45	N44°44.00' W67°50.00'
02 AGL B 40 MSL to turn left and climb to	S1	PQI 317/38	N47°03.00' W68°55.00'	thence via published route.			
02 AGL B 50 MSL to direct to	BF	PQI 303/47	N46°56.00' W69°12.00'				
10 AGL B 50 MSL to direct to	BG	PQI 266/36	N46°31.00' W68°53.00'				
10 AGL B 50 MSL to descend direct to	BH	MLT 009/28	N46°03.00' W68°39.00'				
10 AGL B 50 MSL to turn left to	BI	MLT 011/22	N45°57.00' W68°36.00'				
10 AGL B 40 MSL to direct to	BJ	MLT 037/19	N45°53.00' W68°23.00'				
10 AGL B 40 MSL to turn left to	BK	MLT 046/23	N45°56.00' W68°16.50'				

PMSV CONTACTS: Primary Home Station. Alternates Minot (MIB 342.5), Whiteman (SZL 344.6).

TERRAIN FOLLOWING OPERATIONS: IFR/VFR

Terrain Following (TF)/Visual Contour (VC) operations are authorized IAW command directive within published altitude blocks from K to AD and from S to P (re-entry). When command directives preclude TF/VC operations, aircrews will maintain IFR altitude for each TF route segment. Minimum altitudes above 200' AGL, are established to provide at least 100' vertical clearance of known manmade obstructions within the route width. Obstructions under 200' AGL were not considered in the route design. The route is designated mountainous from W to AE and S1 to BJ on the re-entry. The remainder of the route in designated non-mountainous. Regulations governing operations below 500' AGL must be complied with.

ROUTE WIDTH - 4 NM either side of centerline from A to M; 2 NM either side of centerline from M to P; 8 NM left and 4 NM right of centerline from P to N46-43.5 W68-34.0; 8 NM left and 3 NM right of centerline from N46-43.5 W68-34.0 to Q; 4 NM either side of centerline from Q to X; 3 NM left and 4 NM right of centerline from X to Z; 4 NM either side of centerline from Z to AG; 4 NM either side of centerline from T1 to BR; 4 NM either side of centerline from AX to J1; 4 NM either side of centerline from R1 to P1.

Special Operating Procedures:

- (1) Participating aircraft separation: Route is designated for MARSA operations established by coordinated scheduling.
- (2) Lost communication (LC) procedures: Route LC altitude is 12,000' MSL. Desired deviation from this procedure must be filed IAW FLIP AP/1B, and verified with Boston ARTCC prior to route entry.
- (3) Route designated for SN missions.
- (4) Tactical Descent: (This procedure applies to all aircraft scheduled to conduct auto TF letdown and will require a specific ATC clearance, which specifies that the auto TF letdown is approved. Cross A at 170 MSL or as assigned, then maintain 170 MSL thru E, then within SFC B 170 MSL begin auto TF letdown, cross F within SFC B 30 MSL; thence via published route.
- (5) Bangor, ME VORTAC entry: ATC shall advise aircrews upon entry request into IR-800 when Houston/Princeton, ME IFR procedures are in effect. Upon receipt of such an advisory, aircraft shall cross point ALPHA (N45-04-00 W67-54-00) at 4000' MSL and maintain 4000' MSL until passing point BRAVO (N46-05-30 W68-13-00). After passing point BRAVO then resume normal procedures. IFR/VFR terrain following and visual contour operations between these two points are prohibited.
- (6) Re-Entry procedures: Aircraft scheduled for maneuver area re-entry shall, in all cases, advise ATC at the entry point of the number of re-entries at the maneuver area.
- (7) Centerline between all turn points is a 7.5 NM radius arc unless specified otherwise.
- (8) Aircraft flying command directed contour terrain following altitudes may be required to fly higher minimum tracking altitude as listed in 99 ECRG 50-3 for TTR scored activity. In no case will aircraft fly below command directed contour/terrain following altitude.
- (9) ATC shall advise aircrews upon entry request into IR-800 when Machias, ME IFR procedures are in effect. Upon receipt of such an advisory, aircraft shall descend to cross E at or above 100 MSL, cross F at 40 MSL and maintain 40 MSL until K. Descend to cross L at 30 MSL, then resume normal procedures. Auto TF letdown will not be authorized when this procedure is in effect. IFR/VFR terrain following and visual contour operations from A thru K are prohibited.
- (10) Alternate Entry: ATC shall advise aircrews upon alternate entry request into IR-800 when Machias, ME, IFR procedures are in effect. Upon receipt of such an advisory, aircraft shall descend to cross point I1 (N44-33-00 W67-48-00) at 4000' MSL and maintain 4000' MSL until point K (N45-04-00 W67-54-00). Descend to cross L (N45-09-00 W67-55-00) at 3000' MSL, then resume normal procedures. IFR/VFR terrain following and visual contour operations from AX through K are prohibited.
- (11) Noise Sensitive Areas:
 - (a) Residence at N46-35.6 W68-26.8;
 - (b) Residence at N46-36.6 W68-27.1;
 - (c) Residence at N46-35.0 W68-26.5;
 - (d) Residence at N45-10.8 W67-53.8;
 - (e) Residence at N46-25.2 W68-27.5;
 - (f) Residence at N45-45.0 W67-56.6;
 - (g) Residence at N46-24.4 W67-56.8.

FSS Within 100 NM Radius:

BGR, BTV

IR-801

ORIGINATING ACTIVITY: Det 1, 174 ATKW, PO Box 320, Antwerp, NY 13608, DSN 772-2835/5990, C315-772-2835/5990.

SCHEDULING ACTIVITY: EADS/DOS 224 Air Def Sqdn, Eastern Air Defense Sector, 366 Otis St, Rome, NY 13441, DSN 587-6247, C315-334-6247. Primary method of scheduling is via CSE.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
Cross at 80 MSL to or as assigned direct to	A	BTV 116/39	N44°16.00' W72°18.00'
80 MSL to direct to	B	BTV 117/38	N44°16.00' W72°19.00'
80 MSL to direct to	C	BTV 166/31	N43°57.00' W72°50.00'
80 MSL to (Request Saranac Lake IFR traffic advisory from Boston ARTCC) 70 MSL B 80 MSL Cross	D	BTV 187/37	N43°47.00' W73°04.00'
70 MSL to	E	MPV 255/38	N43°45.00' W73°12.00'
70 MSL to direct to	F	MPV 262/41	N43°48.00' W73°19.00'
70 MSL to direct to	G	BTV 264/22	N44°16.00' W73°39.00'
02 AGL B 70 MSL to direct to	H	BTV 288/24	N44°25.00' W73°45.00'
02 AGL B 70 MSL to direct to	I	BTV 296/27	N44°29.00' W73°48.00'
07 AGL B 60 MSL to	J	BTV 313/37	N44°41.00' W73°56.00'
07 AGL B 60 MSL to	K	MSS 127/28	N44°44.00' W74°07.00'
02 AGL B 60 MSL to	L	MSS 139/24	N44°41.00' W74°16.00'
02 AGL B 60 MSL to Descend to cross	M	MSS 172/21	N44°35.00' W74°32.00'
02 AGL B 35 MSL to (Start Maneuver Area)	N	MSS 192/28	N44°27.00' W74°42.00'
35 MSL to	O	ART 084/45	N44°11.00' W75°05.00'
02 AGL B 35 MSL to	P	ART 098/26	N43°59.00' W75°28.00'
02 AGL B 35 MSL to (End Maneuver Area)	Q	ART 111/20	N43°54.00' W75°37.00'
35 MSL to Cross	R	ART 119/17	N43°52.00' W75°41.00'
60 MSL to (Point Jerry) (Report passing Point Jerry to Wheeler Sack APP Primary 347.7 or Secondary 299.85)	S	ART 154/13	N43°47.00' W75°53.00'

IR ROUTES

60 MSL to Cross	T	ART 232/19	N43°42.50' W76°20.50'
70 MSL to 60 MSL B 70 MSL Cross	U	ART 255/22	N43°47.00' W76°31.00'
at or below 140 MSL	V	ART 278/15	N43°56.00' W76°25.00'
70 MSL B 140 MSL to Cross	W	ART 281/9	N43°57.00' W76°17.00'
170 MSL to	X	ART 270/5	N43°56.00' W76°11.00'
170 MSL to	Y	ART 236/4	N43°54.00' W76°08.00'
170 MSL to Re-Entry: A Cross	Z	ART 170/25	N43°34.00' W75°51.00'
35 MSL to climb direct to cross	R1	ART 119/17	N43°52.00' W75°41.00'
60 MSL to (Point Jerry) turn right to	S1	ART 154/13	N43°47.00' W75°53.00'
60 MSL to direct to	AA	ART 196/1	N43°56.00' W76°04.00'
60 MSL to direct to	AB	ART 052/14	N44°08.00' W75°51.00'
60 MSL to direct to	AC	MSS 240/44	N44°24.00' W75°27.00'
60 MSL to turn right to	AD	MSS 218/18	N44°38.00' W74°54.00'
60 MSL to 35 MSL B 60 MSL turn right and descend to cross	AE	MSS 191/18	N44°37.00' W74°42.00'
35 MSL to (Start Maneuver Area) then via published route.	N1	MSS 192/28	N44°27.00' W74°42.00'
Re-entry B: climb direct to cross			
60 MSL to (Point Jerry) (Contact Wheeler Sack APP Primary 347.7 or Secondary 299.85 and report Point Jerry) turn right to	S2	ART 154/13	N43°47.00' W75°53.00'
60 MSL to direct to	BA	ART 196/1	N43°56.00' W76°04.00'
60 MSL to turn right to	BB	ART 036/26	N44°21.00' W75°49.00'
60 MSL to turn right to cross	BC	ART 045/33	N44°24.50' W75°39.00'
30 MSL B 60 MSL to descend direct to cross	BD	ART 055/33	N44°21.50' W75°32.50'
02 AGL B 30 MSL to direct to	BE	ART 064/31	N44°16.00' W75°30.00'
02 AGL B 30 MSL to turn left to	BF	ART 074/29	N44°11.00' W75°28.00'

02 AGL B 30 MSL to turn right and climb to cross	BG	ART 081/30	N44°08.00' W75°25.00'
02 AGL B 35 MSL to Thence via the pub- lished route.	P1	ART 098/26	N43°59.00' W75°28.00'

PMSV CONTACTS: Primary Home Station. Alternate Minot (MIB 342.5).

TERRAIN FOLLOWING OPERATIONS: IFR/VFR

Terrain Following (TF)/Visual Contour (VC) operations are authorized IAW command directives with published altitude blocks from G to Q. When command directives preclude TF/VC operations, aircrews will maintain the IFR altitude for each TF route segment. Minimum altitudes above 200' AGL are established to provide 100' vertical clearance of known man-made obstructions within the route width. Obstructions under 200' AGL were not considered in the route design. The route is designated mountainous from B to N and non-mountainous from N to Q. Regulations governing operations below 500' AGL must be complied with.

ROUTE WIDTH - 4 NM either side of centerline from A to N; 4 NM left and 3 NM right of centerline from N to O; 5 NM left and 3 NM right of centerline from O to P; 4 NM left and 3 NM right of centerline from P to R; 4 NM either side of centerline from R to Z. Re-Entry A: Entire segment is 4 NM either side of centerline. Re-Entry B: 4 NM either side of centerline from S to BA; 3 NM left and 4 NM right of centerline from BA to BD; 2 NM either side of centerline from BD to BE; 6 NM left and 2 NM right of centerline from BE to BF; 6 NM left and 3 NM right of centerline from BF to BG; 4 NM left and 3 NM right of centerline from BD to P.

Special Operating Procedures:

- (1) Participating Aircraft Separation: Route is designated for MARSAs operations established by coordinated scheduling.
- (2) Lost communications (LC) procedures: Route LC altitude is 17,000' MSL. Desired deviation from this procedure must be filed IAW FLIP AP/1B, Chapter 1, and verified with Boston ARTCC prior to route entry.
- (3) Route designated for SN missions.
- (4) ATC will advise aircrews flying IR-801 of traffic in the Saranac Lake ILS pattern upon request for a Saranac Lake ILS advisory. If unable to obtain a Saranac Lake ILS advisory or when advised by ATC of Saranac Lake ILS traffic, aircrews will maintain 7000' MSL from G to H then descend to cross I at 6000' MSL and maintain 6000' MSL to L.
- (5) Crews conducting operations below the minimum IFR altitude in the Fort Drum Maneuver Area should make special note of towers at the following locations: N44-14.0 W75-07.5 (205' AGL), N43-59.5 W75-35.3 (300' AGL), N43-52.2 W75-44.2 (943' AGL), N43-50.5 W75-45.1 (300' AGL), and N43-52.5 W75-43.1 (1000' AGL).
- (6) Re-entry procedures: Aircraft scheduled for Maneuver Area Re-entries shall in all cases advise ATC at the entry point of the number of re-entries desired.
- (7) Aircrews should be especially vigilant for aircraft transiting to and from R-5201. Aircrews will monitor 255.4 from points A to N, for aircraft call crossing the IR route. Aircrews will also make an 'IP-INBOUND' call on this frequency. Aircraft with additional activity will again monitor this frequency while on the re-entry to Point S and continue IP call-in procedures.

- (8) For Re-entry B: Aircrews will monitor Wheeler Sack Approach on primary 347.7 or secondary 299.85 and will report Point Jerry (S) on every re-entry. If no contact with Wheeler Sack by Point BA, maintain highest IFR altitude until re-establishing contact with Wheeler Sack Approach and when cleared published routing by Wheeler Sack Approach or when the aircrew is established on the published route exit.
- (9) For Re-entry B: Following initial pass on weapons range, aircrews will climb to IFR altitudes for subsequent re-entries. Aircrews will maintain IFR altitudes for all subsequent re-entries until Point BD. Provided clearance is received from Wheeler Sack Approach and contact is again made with the range, aircrews are cleared for TA altitudes at Point BD through Point BG.
- (10) Aircrews will report their final progress of Point Jerry to Boston ARTCC on primary 377.1 or secondary 323.0.
- (11) Aircraft will remain 1.5 NM right of centerline from G to N to avoid environmentally sensitive areas.
- (12) Noise Sensitive Areas:
 (a) Village at N43-55.8 W75-35.5;
 (b) Farm at N44-10.6 W75-04.0.

FSS Within 100 NM Radius:

BTV, BUF, IPT

IR-850

ORIGINATING ACTIVITY: Commander, NAWCWD, 1 Administration Circle, Mail Stop 1002, China Lake, CA 93555-6100 DSN 437-2201, C760-939-2201.

SCHEDULING ACTIVITY: Commander, FACSAC VACAPES, 601 Oceana Blvd, Virginia Beach, VA 23460-2283 DSN 433-1218/1220, C757-433-1225.

HOURS OF OPERATION: Sunrise-Sunset by NOTAM

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
40 MSL B 60 MSL to	A	BGR 134/52	N44°28.50' W67°47.00'
40 MSL B 60 MSL to	B	BGR 099/36	N44°56.30' W68°03.00'
40 MSL B 60 MSL to	C	BGR 078/37	N45°09.30' W68°08.10'
15 AGL B 50 MSL to	D	MLT 160/21	N45°19.00' W68°12.00'
15 AGL B 50 MSL to	E	MLT 022/23	N45°58.00' W68°30.00'
20 AGL B 60 MSL to	F	MLT 014/39	N46°13.50' W68°37.00'
20 AGL B 60 MSL to	G	MLT 012/44	N46°18.50' W68°39.50'
20 AGL B 60 MSL to	H	MLT 003/49	N46°22.00' W68°51.00'
20 AGL B 60 MSL to	I	MLT 357/40	N46°12.00' W68°53.00'
20 AGL B 60 MSL to	J	MLT 360/36	N46°09.00' W68°49.00'
20 AGL B 60 MSL to	K	MLT 002/23	N45°57.00' W68°41.00'

20 AGL B 60 MSL to	L	MLT 305/21	N45°40.50' W69°00.00'
15 AGL B 60 MSL to	M	MLT 272/34	N45°24.50' W69°16.50'
15 AGL B 60 MSL to	N	BGR 338/37	N45°18.00' W69°27.00'
05 AGL B 60 MSL to	O	BGR 326/37	N45°12.50' W69°34.00'
05 AGL B 60 MSL to	P	AUG 026/46	N45°05.00' W69°38.50'
05 AGL B 60 MSL to	Q	AUG 024/39	N44°58.00' W69°42.00'
05 AGL B 60 MSL to	R	AUG 016/37	N44°56.50' W69°49.50'
05 AGL B 60 MSL to	S	AUG 010/35	N44°53.50' W69°54.50'
05 AGL B 60 MSL to	T	AUG 005/33	N44°51.50' W69°58.20'
SFC B 60 MSL to	U	AUG 352/34	N44°50.00' W70°09.00'
SFC B 60 MSL to	V	AUG 352/41	N44°56.00' W70°13.00'
SFC B 60 MSL to	W	AUG 345/49	N45°00.00' W70°25.00'
15 MSL B 60 MSL to	X	AUG 340/53	N45°01.00' W70°33.80'
15 MSL B 60 MSL to	Y	AUG 332/46	N44°51.00' W70°35.00'
15 AGL B 60 MSL to	Z	AUG 342/43	N44°53.50' W70°23.00'
SFC B 60 MSL to For second loop begin at Point M then	W1	AUG 345/49	N45°00.00' W70°25.00'
15 AGL B 50 MSL to	A1	MLT 236/28	N45°12.50' W68°54.50'
15 AGL B 40 MSL to At re-enter at Point D	A2	MLT 179/23	N45°13.50' W68°19.20'
15 AGL B 50 MSL to	D1	MLT 160/21	N45°19.00' W68°12.00'

TERRAIN FOLLOWING OPERATIONS: Authorized from Point T to W.

ROUTE WIDTH - 5 NM either side of centerline from A to O; 5 NM left and 4 NM right of centerline from O to Q; 3 NM either side of centerline from Q to U; 5 NM left and 3 NM right of centerline from U to V; 5 NM either side of centerline from V to W1.

Special Operating Procedures:

- (1) For use in VMC only.
- (2) Route continuation from M to A1 authorized.
- (3) Route continuation from A2 to D authorized.
- (4) Route continuation from Z to W authorized.
- (5) Points A, B, D, M, W, Alternate Entry/Exit.
- (6) Remain east of centerline from Points I through L to avoid overflight of Baxter State Park.
- (7) Maintain altitude B in W, X, Y, Z pattern until in receipt of IFR clearance.

FSS Within 100 NM Radius:

BGR, BTV

IR ROUTES

IR-851

ORIGINATING ACTIVITY: Commander, NAWCWD, 1
Administration Circle, Mail Stop 1002, China Lake, CA
93555-6100 DSN 437-2201, C760-939-2201.

SCHEDULING ACTIVITY: Commander, FACSFAC
VACAPES, 601 Oceana Blvd, Virginia Beach, VA 23460-2283 DSN
433-1218/1220, C757-433-1225.

HOURS OF OPERATION: Daily Sunrise-Sunset

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
40 MSL B 60 MSL to	A	BGR 134/52	N44°28.50' W67°47.00'
40 MSL B 60 MSL to	B	BGR 099/36	N44°56.30' W68°03.00'
40 MSL B 60 MSL to	C	BGR 078/37	N45°09.30' W68°08.10'
15 AGL B 40 MSL to	D	MLT 179/23	N45°13.50' W68°19.20'
15 AGL B 40 MSL to	E	MLT 236/28	N45°12.50' W68°54.50'
15 AGL B 50 MSL to	F	MLT 272/34	N45°24.50' W69°16.50'
15 AGL B 50 MSL to	G	MLT 305/21	N45°40.50' W69°00.00'
20 AGL B 60 MSL to	H	MLT 002/23	N45°57.00' W68°41.00'
20 AGL B 50 MSL to	I	MLT 360/36	N46°09.00' W68°49.00'
20 AGL B 50 MSL to	J	MLT 357/40	N46°12.00' W68°53.00'
20 AGL B 50 MSL to	K	MLT 003/49	N46°22.00' W68°51.00'
20 AGL B 50 MSL to	L	MLT 012/44	N46°18.50' W68°39.50'
20 AGL B 50 MSL to	M	MLT 014/39	N46°13.50' W68°37.00'
20 AGL B 50 MSL to	N	MLT 022/23	N45°58.00' W68°30.00'
15 AGL B 50 MSL to	O	MLT 160/21	N45°19.00' W68°12.00'
15 AGL B 40 MSL to	D1	MLT 179/23	N45°13.50' W68°19.20'
15 AGL B 40 MSL to	E1	MLT 236/28	N45°12.50' W68°54.50'
15 AGL B 50 MSL to	F1	MLT 272/34	N45°24.50' W69°16.50'
15 AGL B 60 MSL to	P	BGR 338/37	N45°18.00' W69°27.00'
05 AGL B 60 MSL to	Q	BGR 326/37	N45°12.50' W69°34.00'
05 AGL B 60 MSL to	R	AUG 026/46	N45°05.00' W69°38.50'
05 AGL B 60 MSL to	S	AUG 024/39	N44°58.00' W69°42.00'
05 AGL B 60 MSL to	T	AUG 016/37	N44°56.50' W69°49.50'

05 AGL B 60 MSL to	U	AUG 010/35	N44°53.50' W69°54.50'
05 AGL B 60 MSL to	V	AUG 005/33	N44°51.50' W69°58.20'
SFC B 60 MSL to	W	AUG 352/34	N44°50.00' W70°09.00'
SFC B 60 MSL to	X	AUG 352/41	N44°56.00' W70°13.00'
SFC B 60 MSL to	Y	AUG 345/49	N45°00.00' W70°25.00'
15 AGL B 60 MSL to	Z	AUG 340/53	N45°01.00' W70°33.80'
15 AGL B 60 MSL to	A1	AUG 332/46	N44°51.00' W70°35.00'
15 AGL B 60 MSL to	A2	AUG 342/43	N44°53.50' W70°23.00'
SFC B 60 MSL to	Y1	AUG 345/49	N45°00.00' W70°25.00'

TERRAIN FOLLOWING OPERATIONS: Authorized
from Point V to Y.

ROUTE WIDTH - 5 NM either side of centerline from A to Q;
5 NM left and 4 NM right of centerline from Q to S; 3 NM either
side of centerline from S to W; 5 NM left and 3 NM right of
centerline from W to X. 5 NM either side of centerline from X to
Y1.

Special Operating Procedures:

- (1) For use in VMC conditions only.
- (2) Route continuation from Point O to D authorized.
- (3) Route continuation from Point F to P authorized.
- (4) Route continuation from Point A2 to Y authorized.
- (5) Alternate Entry/Exit Points: A, B, D, F, Y.
- (6) Remain east of centerline from Points G through J to avoid
overflight of Baxter State Park.
- (7) Maintain altitude block in Y, Z, A1, A2 pattern until in
receipt of IFR clearance.

FSS Within 100 NM Radius:

BGR, BTW

IR-852

ORIGINATING ACTIVITY: Commander, NAWCWD, 1
Administration Circle, Mail Stop 1002, China Lake, CA
93555-6100 DSN 437-2201, C760-939-2201.

SCHEDULING ACTIVITY: Commander, FACSFAC
VACAPES, 601 Oceana Blvd, Virginia Beach, VA 23460-2283 DSN
433-1218/1220, C757-433-1225.

HOURS OF OPERATION: Sunrise-Sunset

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
40 MSL B 60 MSL to	A	BGR 134/52	N44°28.50' W67°47.00'
40 MSL B 60 MSL to	B	BGR 099/36	N44°56.30' W68°03.00'

40 MSL B 60 MSL to	C	BGR 078/37	N45°09.30' W68°08.10'
15 AGL B 40 MSL to	D	MLT 179/23	N45°13.50' W68°19.20'
15 AGL B 40 MSL to	E	MLT 236/28	N45°12.50' W68°54.50'
15 AGL B 50 MSL to	F	MLT 272/34	N45°24.50' W69°16.50'
15 AGL B 60 MSL to	G	BGR 338/37	N45°18.00' W69°27.00'
05 AGL B 60 MSL to	H	BGR 326/37	N45°12.50' W69°34.00'
05 AGL B 60 MSL to	I	AUG 026/46	N45°05.00' W69°38.50'
05 AGL B 60 MSL to	J	AUG 024/39	N44°58.00' W69°42.00'
05 AGL B 60 MSL to	K	AUG 016/37	N44°56.50' W69°49.50'
05 AGL B 60 MSL to	L	AUG 010/35	N44°53.50' W69°54.50'
05 AGL B 60 MSL to	M	AUG 005/33	N44°51.50' W69°58.20'
SFC B 60 MSL to	N	AUG 352/34	N44°50.00' W70°09.00'
SFC B 60 MSL to	O	AUG 352/41	N44°56.00' W70°13.00'
SFC B 60 MSL to	P	AUG 345/49	N45°00.00' W70°25.00'
15 AGL B 60 MSL to	Q	AUG 340/53	N45°01.00' W70°33.80'
15 AGL B 60 MSL to	R	AUG 332/46	N44°51.00' W70°35.00'
15 AGL B 60 MSL to	S	AUG 342/43	N44°53.50' W70°23.00'
SFC B 60 MSL to	P1	AUG 345/49	N45°00.00' W70°25.00'

TERRAIN FOLLOWING OPERATIONS: Terrain following authorized from L to P.

ROUTE WIDTH - 5 NM either side of centerline except from H to J where it is 4 NM right (west) of centerline; J to N where it is 3 NM either side of centerline, and, from N to O where it is 5 NM left (southwest) and right (northeast) of centerline.

Special Operating Procedures:

- (1) For use in VMC only.
- (2) Route continuation from S to P authorized.
- (3) Alternate Entry/Exit points: A, B, D, F, P.
- (4) Maintain altitude B in P, Q, R, S pattern until in receipt of IFR clearance.

FSS Within 100 NM Radius:

BGR, BTV

IR-900

ORIGINATING ACTIVITY: 354 RANS/RSA, 354 Broadway St, Suite 288, Eielson AFB, AK 99702 DSN 317-377-5921/5922, C907-377-5921/5922

SCHEDULING ACTIVITY: 354 OSS/OSO, 2835 Flightline Ave, Eielson AFB, AK 99702 DSN 317-377-2725/2684/3125, C907-377-2725/2684/3125.

HOURS OF OPERATION: Normal use 0800-2000 local Mon-Fri, Not available 2200-0700 local

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	TAL 149/56	N64°16.00' W151°44.00'
01 AGL B 76 MSL to	B	BIG 252/100	N64°05.17' W149°31.27'
01 AGL B 80 MSL to	C	BIG 254/74	N64°08.12' W148°31.55'
01 AGL B 108 MSL to	D	BIG 255/39	N64°05.00' W147°10.00'
01 AGL B 83 MSL to	E	BIG 269/48	N64°17.12' W147°24.97'
Alternate exit track D1-EA			
01 AGL B 108 MSL to	D1	BIG 255/39	N64°05.00' W147°10.00'
01 AGL B 100 MSL to	EA	EIL 088/37	N64°28.00' W145°45.00'
Alternate exit track D2-EB			
01 AGL B 108 MSL to	D2	BIG 255/39	N64°05.00' W147°10.00'
01 AGL B 103 MSL to	EB	BIG 234/22	N63°55.13' W146°31.40'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Route transitions through EIELSON Military Operations Areas (MOA). Primary exit enters RESTRICTED AREA R-2211; EA alternate exit transitions RESTRICTED AREA R-2202, DELTA 2 and YUKON 1 MOA; EB alternate exit enters RESTRICTED AREA R-2202. Contact Scheduling Activity (SA) for de-confliction prior to use.
- (2) Prior scheduling with Scheduling Activity (SA) of R-2211 or R-2202 is required if entering this restricted airspace. This step is required to ensure RA will be cold, unless you will be performing hazardous activities which require an active RA (i.e. dropping bombs). Primary exit point E will only be utilized if you also have R-2211 scheduled for use, if not utilize alternate exit point D within Eielson MOA. Alternate exit points EA and EB will only be scheduled when Eielson Range Control is open or if you are working directly with the Army within R-2202. If the MOAs are scheduled by other users, the SA will require you to contact the scheduled users to coordinate altitude separation.
- (3) Early contact with Air Traffic Control (ATC) before route entry will increase mission effectiveness. Request ATC clearance at least five minutes prior to route entry. Expect ATC to give route and MOA clearance prior to route entry/initial descent. ATC may ask if you are a participant in the Special Use Airspace. This means you have coordinated with the SA for the use of MOAs and/or RAs.

IR ROUTES

- (4) ATC clearance into MTR is not clearance to enter active RA. When Eielson Range Control (ERC) is open, you are required to contact ERC prior to entering active RAs and/or MOAs. Radio contact with ERC may be difficult. If no contact, call IN THE BLIND, then proceed on route through the MOA (but NOT into active/hot RA) and continue periodic reattempts.
- (5) ERC is not a 24 hr. facility. When ERC is open (generally 0900-1900 M-F, hours shift to cover the fighter flying window) all aircraft will contact ERC on UHF primary 229.4, secondary 244.55, or VHF 125.3 and receive clearance into restricted area PRIOR TO ENTRY.
- (6) When ERC is closed (generally nights/weekends): Confirm RA status (hot/cold) with ATC controller prior to MTR entry. If hot and 354 OSS Scheduling has not specifically scheduled the RA for you, stay clear of RA - DO NOT ENTER HOT RA. If cold, RA becomes Class G/E airspace - no clearance required. Eielson MOA and R-2211 are cold/inactive when ERC is closed. A recorded message on 125.3 MHz indicates ERC is closed.
- (7) R2202 is subdivided. R2202A can be hot while R2202B and C are cold. If R2202B and C are cold, alternate exits EA and EB may be flown, but stay clear of any hot sub-sections.
- (8) Pass post MTR intentions through ERC or to ATC five minutes prior to exit. ATC cannot issue follow-on clearance while you are within an active MOA or RA.
- (9) Low Altitude Air-to-Air Training (LOWAT) operations are approved on route segments that fall within the confines of a MOA. If scheduling LOWAT operations, user must schedule overlying MOA in addition to MTR.
- (10) Route approved for Military Assumes Responsibility for Separation of Aircraft (MARSA) operations. User must coordinate MARSA operations with the SA prior to use.
- (11) Primary Entry: Point A. Alternate Entry: Point B, C and D.
- (12) Primary Exit: Point E. Alternate Exit: Points D, EA, and EB.
- (13) All route points are collocated with IR-916, VR-1900 and VR-1916.
- (14) Use CAUTION for multiple Airways, including low altitude RNAV routes near Points A to C and multiple MTR crossings throughout the entire route.
- (15) Use CAUTION for float plane activity at Mucha Lake (N64 13.00 W150 53.00) on segment A to B in the Kantishna River valley.
- (16) Use CAUTION on segment B to C. In IMC conditions, maintain 1,000' AGL minimum to avoid multiple isolated cabins, light-aircraft emergency airstrips, and numerous wind turbines within 3NM of route centerline.
- (17) Use CAUTION for VFR traffic in the vicinity of the Nenana River on Segment B to C for light aircraft transiting to/from Windy Pass and Denali Park.
- (18) Use CAUTION for uncharted Newman Creek Airstrip (N63 58.60 W147 15.60) 6NM southwest of Point D. Avoid by 1 NM below 1,500' AGL.
- (19) Remain clear of hunting cabins in vicinity of Gold King Creek Airstrip (N64 11.47 W147 55.57) 4NM north of segment C to D. Remain clear by 1,500' AGL or 3 NM, continuous.
- (20) Remain clear of two uncharted airstrips: (N64 07.10 W148 00.00) directly on segment C to D crossing Gold King creek; and (N64 06.50 W147 33.20) 0.5NM north of segment C to D crossing Wood River. Remain clear by 1,500' AGL or 3 NM, continuous.
- (21) Remain clear of Shaw Creek Youth Camp and Clear Creek Cabins on Delta River east of alternate exit route segment D1 to EA by 1,500' AGL or 1 NM, continuous.

- (22) Remain clear of Birch Lake State Recreation Site on Delta River west of alternate exit route segment D1 to EA by 2,000' AGL or 1 NM from 15 May-30.
- (23) ATC contact: Route entry/exit A through E: Anchorage Center (319.2/120.9). Alternate exit points EA and EB: Anchorage Center (322.5/135.3).
- (24) Local weather forecast information can be obtained at DSN 317-552-4903/4397. Weather related planning products and day-of forecasts are available 24/7.
- (25) Heavy migratory bird activity on route from 10 Apr to 20 May and 1 Aug to 1 Nov. Alaska Bird Avoidance Model data is available at <http://www.usahas.com>.

FSS Within 100 NM Radius:

FAI, MCG, ORT, TKA

IR-901

ORIGINATING ACTIVITY: 354 RANS/RSA, 354 Broadway St, Suite 288, Eielson AFB, AK 99702 DSN 317-377-5921/5922, C907-377-5921/5922.

SCHEDULING ACTIVITY: 3 OSS/OSO, 8364 Kuter Ave, JBER, AK 99506 DSN 317-552-0410/2406, C907-552-0410/2406. After duty hours C907-201-3301.

HOURS OF OPERATION: Normal use 0800-2000 local Mon-Fri, Not available 2200-0700 local

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	SQA 220/38	N60°45.88' W156°43.17'
01 AGL B 72 MSL to	B	SQA 157/39	N60°27.63' W155°31.82'
01 AGL B 72 MSL to	C	AKN 360/80	N59°59.85' W156°01.07'
01 AGL B 72 MSL to	D	AKN 039/54	N59°13.77' W155°19.55'
01 AGL B 72 MSL to	E	AKN 051/88	N59°16.82' W154°07.30'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 5 NM either side of centerline from segments A to D; Segments D to E: 5 NM North to 1 NM South of direct line between D and E.

Special Operating Procedures:

- (1) Route transitions through STONY and NAKNEK Military Operations Areas (MOA). Contact scheduling activity (SA) for de-confliction prior to use.
- (2) Route approved for Military Assumes Responsibility for Separation of Aircraft (MARSA) operations, user must coordinate MARSA operations with SA prior to use. Expect ATC to give route and MOA clearance prior to route entry/initial descent. ATC may ask if you are a participant in the special use airspace (SUA). This query is confirming you have coordinated MARSA ops within the MOA with other scheduled users, respond appropriately.

- (3) Low altitude air-to-air training (LOWAT) operations are approved on route segments that fall within the confines of a MOA. If scheduling LOWAT operations, user must schedule overlying MOA in addition to MTR with the SA.
- (4) Early contact with Air Traffic Control (ATC) before route entry will increase the mission effectiveness. Request ATC clearance at least five minutes prior to route entry.
- (5) Approaching entry/exit points and periodically throughout the route, advise civil traffic with geographic position reports on area-specific and/or airfield specific CTAF. The Alaska-unique area CTAF is commonly 122.9.
- (6) Primary Entry: Point A.
- (7) Primary Exit: Point E.
- (8) All route points are collocated with IR-911, VR-931, and VR-932.
- (9) Use CAUTION for IR-903, IR-913, VR-933, and VR-934 crossing at Point A.
- (10) Use CAUTION for multiple airways, including low altitude RNAV routes, on segments C to E.
- (11) Remain clear of lodge located on the Mulchatna River (N60-24.00 W155-54.00) southwest of Point B, by 1500' AGL or 1 NM from 1 May to 30 Sep.
- (12) Remain above 2000' AGL starting from 23 NM past Point C (2 NM north of Lake Iliamna shoreline) until Point D from 1 Jun to 15 Sep.
- (13) Remain clear of the Moraine Creek drainage area immediately south of Point D by 3 NM, from 1 May to 30 Sep. This area is used for bear viewing and fishing from Kukaklek Lake to Spectacle Lake 10 NM east, and resides within Katmai National Park and Preserve. Additionally, remain clear of this area for bear hunting in odd years from 1 to 21 Oct and even years from 10 to 25 May.
- (14) ATC Contact: Route Entry: Anchorage Center (379.9/128.5), Primary Exit: Anchorage Center (354.0/124.8).
- (15) Local weather forecast information can be obtained at DSN 317-552-4903/4397. Weather related planning products and day-of forecasts are available 24/7.
- (16) Heavy migratory bird activity on route from 10 Apr - 20 May and 1 Aug - 1 Nov. Alaska Bird Avoidance Model data is available at <http://www.usahas.com>.

IR-902

ORIGINATING ACTIVITY: 354 RANS/RSA, 354 Broadway St, Suite 288, Eielson AFB, AK 99702 DSN 317-377-5921/5922, C907-377-5921/5922.

SCHEDULING ACTIVITY: 3 OSS/OSO, 8364 Kuter Ave, JBER, AK 99506 DSN 317-552-0410/2406, C907-552-0410/2406. After duty hours C907-201-3301.

HOURS OF OPERATION: Normal use 0800-2000 local
Mon-Fri, Not available 2200-0700 local

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	MCG 134/44	N62°17.58' W154°54.47'
01 AGL B 75 MSL to	B	MCG 211/20	N62°44.00' W156°10.00'
01 AGL B 75 MSL to	C	MCG 258/68	N63°04.00' W158°04.00'

01 AGL B 75 MSL to	D	UNK 085/45	N63°45.00' W159°02.00'
01 AGL B 50 MSL to	E	UNK 067/67	N64°02.00' W158°11.00'

Alternate exit track D1 to EA

01 AGL B 75 MSL to	D1	UNK 085/45	N63°45.00' W159°02.00'
01 AGL B 62 MSL to	EA	UNK 194/18	N63°37.33' W161°00.90'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Route transitions through STONY Military Operations Area (MOA). Contact scheduling activity (SA) for de-confliction prior to use.
- (2) Route approved for Military Assumes Responsibility for Separation of Aircraft (MARSA) operations. User must coordinate MARSA operations with the SA prior to use. Expect ATC to give route and MOA clearance prior to route entry/initial descent. ATC may ask if you are a participant in the special use airspace (SUA). This query is confirming you have coordinated within the MOA with other scheduled users, respond appropriately.
- (3) Low altitude air-to-air training (LOWAT) operations are approved on route segments that fall within the confines of a MOA. If scheduling LOWAT operations, user must schedule overlying MOA in addition to MTR with the SA.
- (4) Early contact with Air Traffic Control (ATC) before route entry will increase mission effectiveness. Request ATC clearance at least five minutes prior to route entry.
- (5) Approaching entry/exit points and periodically throughout the route, advise civil traffic with geographic position reports on area-specific and/or airfield specific CTAF. The Alaska-unique area CTAF is commonly 122.9.
- (6) Primary Entry: Point A.
- (7) Primary Exit: Point E, Alternate Exit: Point EA.
- (8) All route points are collocated with IR-912, VR-1902, and VR-1912.
- (9) Use CAUTION for IR-905, IR-915, VR-1905, and VR-1915 crossing at Point A.
- (10) Use CAUTION for McGrath Airport Class E airspace, north of segment A to B.
- (11) Use CAUTION for multiple airways, including low altitude RNAV routes, on segments B to D and on alternate exit route D1 to EA.
- (12) During the Iditarod Sled Dog Race (Approx 1-15 March), on odd number years, the minimum altitude on segments B to E is 1500' AGL and must remain at least 1 NM east of the Yukon River shore on segments C to E.
- (13) Remain clear of Peregrine Falcon Nests on segment D to E. Remain 1 NM E of the Yukon River shore or 2000' AGL, (15 Apr-31 Aug).
- (14) Remain above 1500' AGL on segments C through E during moose hunting season, (27 Aug-30 Sep).
- (15) Segments B to E and alternate exit routing are flown over Innoko National Wildlife Refuge and Wilderness Areas. Remain clear of human activity by at least 1/2 NM. (1 May-30 Sep).
- (16) Avoid direct overflight of hunting camp located on segment C to D on the Iditarod River at N63-10.90 W158-18.00.

IR ROUTES

- (17) ATC Contact: Route Entry: Anchorage Center (353.8/128.1), Primary Exit:(290.2/127.0), and Alternate Exit (335.5/135.7).
- (18) Local Weather forecast information can be obtained at DSN 317-552-4903/4397. Weather related planning products and day-of-forecasts are available 24/7.
- (19) Heavy migratory bird activity on route from 10 Apr to 20 May and 1 Aug to 1 Nov. Alaska Bird Avoidance Model data is available at <http://www.usahas.com>.

FSS Within 100 NM Radius:

MCG, TKA

IR-903

ORIGINATING ACTIVITY: 354 RANS/RSA, 354 Broadway St, Suite 288, Eielson AFB, AK 99702 DSN 317-377-5921/5922, C907-377-5921/5922.

SCHEDULING ACTIVITY: 3 OSS/OSO, 8364 Kuter Ave, JBER, AK 99506 DSN 317-552-0410/2406, C907-552-0410/2406. After duty hours C907-201-3301.

HOURS OF OPERATION: Normal use 0800-2000 local Mon-Fri, Not available 2200-0700 local

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	SQA 035/61	N61°42.08' W153°55.17'
01 AGL B 142 MSL to	B	SQA 044/40	N61°24.62' W154°24.62'
01 AGL B 142 MSL to	C	SQA 318/7	N61°12.43' W155°43.97'
01 AGL B 91 MSL to	D	SQA 220/38	N60°45.88' W156°43.17'
01 AGL B 65 MSL to	E	SQA 213/82	N60°13.67' W157°46.65'
01 AGL B 65 MSL to	F	AKN 323/76	N59°54.00' W157°38.00'
01 AGL B 65 MSL to	G	AKN 311/70	N59°42.00' W158°00.00'
01 AGL B 100 MSL to	H	AKN 310/60	N59°32.23' W157°51.17'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Route transitions through STONY and NAKNEK Military Operations Areas (MOA). Contact scheduling activity (SA) for de-confliction prior to use.
- (2) Route approved for Military Assumes Responsibility for Separation of Aircraft (MARSA) operations. User must coordinate MARSA operations with the SA prior to use. Expect ATC to give route and MOA clearance prior to route entry/initial descent. ATC may ask if you are a participant in the special use airspace (SUA). This query is confirming you have coordinated MARSA ops within the MOA with other scheduled users, respond appropriately.

- (3) Low altitude air-to-air training (LOWAT) operations are approved on route segments that fall within the confines of a MOA. If scheduling LOWAT operations, user must schedule overlying MOA in addition to MTR with the SA.
- (4) Early contact with Air Traffic Control (ATC) before route entry will increase mission effectiveness. Request ATC clearance at least five minutes prior to route entry.
- (5) Approaching entry/exit points and periodically throughout the route, advise civil traffic with geographic position reports on area-specific and/or airfield specific CTAF. The Alaska-unique area CTAF is commonly 122.9.
- (6) Primary Entry: Point A. Alternate Entry: Point D.
- (7) Primary Exit: Point H. Alternate Exit: Point D.
- (8) All route points are collocated with IR-913, VR-933, and VR-934.
- (9) Use CAUTION for IR-905, IR-915, VR-1905, and VR-1915 crossing at Point A.
- (10) Use CAUTION for IR-901, IR-911, VR-931, and VR-932 crossing at Point D.
- (11) Use CAUTION for multiple airways, including low altitude RNAV routes, on segments C through D.
- (12) Use CAUTION for rapidly rising terrain from segment A to B in the Revelation Mountain Range.
- (13) On segment A to B remain clear of Lake Clark National Park approximately 12 NM Southeast of route corridor.
- (14) ATC contact: Route Primary Entry: Anchorage Center (273.45/123.9), Primary Exit: (282.35/132.75), Alternate Entry/Exit Point D: (379.9/128.5).
- (15) Local weather forecast information can be obtained at DSN 317-552-4903/4397. Weather related planning products and day-of forecasts are available 24/7.
- (16) Heavy migratory bird activity on route from 10 Apr to 20 May and 1 Aug to 1 Nov. Alaska bird avoidance model data is available at <http://www.usahas.com>.

FSS Within 100 NM Radius:

ENA, ILI, MCG, HOM, DLG

IR-905

ORIGINATING ACTIVITY: 354 RANS/RSA, 354 Broadway St, Suite 288, Eielson AFB, AK 99702 DSN 317-377-5921/5922, C907-377-5921/5922.

SCHEDULING ACTIVITY: 3 OSS/OSO, 8364 Kuter Ave, JBER, AK 99506 DSN 317-552-0410/2406, C907-552-0410/2406. After duty hours C907-201-3301.

HOURS OF OPERATION: Normal use 0800-2000 local Mon-Fri, Not available 2200-0700 local

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	TKA 209/49	N61°44.43' W151°23.48'
01 AGL B 142 MSL to Seasonal Alternate Entry	B	TKA 229/58	N61°55.73' W151°59.55'
01 AGL B 142 MSL to	C	TKA 224/82	N61°39.53' W152°40.88'
01 AGL B 148 MSL to	D	SQA 035/61	N61°42.08' W153°55.17'

01 AGL B 148 MSL to	E	MCG 134/44	N62°17.58' W154°54.47'
01 AGL B 90 MSL to	F	MCG 069/49	N62°58.00' W153°50.00'
01 AGL B 69 MSL to	G	MCG 026/66	N63°42.53' W153°51.83'
01 AGL B 69 MSL to	H	MCG 023/101	N64°10.43' W153°03.03'
01 AGL B 69 MSL to	I	MCG 032/131	N64°16.00' W151°44.00'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Route transitions through STONY and GALENA Military Operations Areas (MOAs). Contact scheduling activity (SA) for de-confliction prior to use.
- (2) Route approved for military assumes responsibility for separation of aircraft (MARSA) operations. User must coordinate MARSA operations with the SA prior to use. Expect ATC to give route and MOA clearance prior to route entry/initial descent. ATC may ask if you are a participant in the special use airspace (SUA). This query is confirming you have coordinated MARSA ops within the MOA with other scheduled users, respond appropriately.
- (3) Low altitude air-to-air training (LOWAT) operations are approved on route segments that fall within the confines of a MOA. If scheduling LOWAT operations, user must schedule overlying MOA in addition to MTR with the SA.
- (4) Early contact with air traffic control (ATC) before route entry will increase mission effectiveness. Request ATC clearance at least five minutes prior to route entry.
- (5) Approaching entry/exit points and periodically throughout the route, advise civil traffic with position reports on 122.9.
- (6) Primary entry: Point A (Seasonal 1 Jun to 15 Aug entry: Point B, enter at an AS ASSIGNED TO alternate entry altitude.) Alternate entry: Points B, D, and E.
- (7) Primary exit: Point I. Alternate exit: Points D or E.
- (8) Route segment A to B will be deactivated from 1 Jun - 15 Aug during the fishing season due to numerous light aircraft near rivers/lakes. During this time, the entry point for IR-905 will be Point B.
- (9) All route points are collocated with IR-915, VR-1905, and VR-1915.
- (10) Use CAUTION for multiple airways, including low altitude RNAV routes, on segments A to G.
- (11) Use CAUTION for IR-903, IR-913, VR-933, and VR-934 at Point D as well as IR-901, IR-912, VR-1902, VR-1912 at Point E and IR-900, IR-916, VR-1900, and VR-1916 at Point I.
- (12) Use CAUTION for low VFR traffic especially in the summer between Point McKenzie, Mt Spurr, and approximately 20 NM around Point A.
- (13) Use CAUTION for sling load helicopter ops from the surface to 3000' AGL between Points B to C from 1 Jun to 1 Oct.
- (14) Use CAUTION for light aircraft operating in the vicinity of an uncharted airstrip (N61 54.63 W154 22.19) on segments D to E approximately 18 NM past Point D, just left of route centerline.
- (15) Heavy mining operations with numerous helicopter sling-load and light fixed wing aircraft operating in the vicinity of segments B to C. Remain clear of multiple uncharted airstrips (Whiskey Bravo at N61 57.50 W152

36.00 and unknown at N61 43.00 W152 47.00) within the Whistler Mine mandatory communication area located immediately north of Point C and along segment B to C from June - October. Self-announce position and intentions on 122.9. Whiskey Bravo airstrip may respond with traffic advisories.

- (16) Remain clear of Lake Clark National Park approximately 4 NM south of route corridor on segment C to D.
- (17) During the Iditarod sled dog race (approximately 1-15 March) maintain minimum altitude of 1500' AGL over the south fork of the Kuskokwim River on segment E to F. Numerous light aircraft support the race.
- (18) ATC contact: Route entry: Anchorage Center (125.55/254.3), primary exit (120.9/319.2), alternate exit (353.8/128.1).
- (19) Local weather forecast information can be obtained at DSN 317-552-4903/4397. Weather related planning products and day-of forecasts are available 24/7.
- (20) Heavy migratory bird activity on route from 10 Apr to 20 May and 1 Aug to 1 Nov. Alaska bird avoidance model data is available at <http://www.usahas.com>.

FSS Within 100 NM Radius:

ENA, PAQ, ILI, MCG, HOM, TKA, FAI

IR-909

ORIGINATING ACTIVITY: 354 RANS/RSA, 354 Broadway St, Suite 288, Eielson AFB, AK 99702 DSN 317-377-5921/5922, C907-377-5921/5922.

SCHEDULING ACTIVITY: 354 OSS/OSO, 2835 Flightline Ave, Eielson AFB, AK 99702 DSN 317-377-2725/2684/3125, C907-377-2725/2684/3125.

HOURS OF OPERATION: Normal use 0800-2000 local Mon-Fri, Not available 2200-0700 local

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	BIG 076/39	N63°54.00' W144°16.00'
01 AGL B 106 MSL to	B	BIG 050/52	N64°15.00' W143°50.00'
01 AGL B 106 MSL to	C	BIG 335/28	N64°28.00' W145°45.00'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Route transitions through DELTA 4, BUFFALO, and YUKON 1 Military Operations Areas (MOA). Contact Scheduling Activity (SA) for de-confliction prior to use.
- (2) Early contact with Air Traffic Control (ATC) before route entry will increase mission effectiveness. Request ATC clearance at least five minutes prior to route entry. Expect ATC to give route and MOA clearance prior to route entry/initial descent. ATC may ask if you are a participant in the Special Use Airspace. This means you have coordinated with the SA for the use of MOAs and/or RAs.

IR ROUTES

- (3) When ERC is open, you are required to contact them on UHF primary 229.4, secondary 244.55, or VHF 125.3 prior to entering active MOAs. Radio contact with ERC may be difficult. If no contact, call IN THE BLIND, then proceed on route through the MOA and continue periodic reattempts.
- (4) When ERC is closed, approaching entry/exit points and periodically throughout the route, advise civil traffic with geographic position reports on area-specific and/or airfield-specific CTAF. The Alaska-unique area CTAF is commonly 122.9.
- (5) Pass post MTR intentions through ERC or to ATC five minutes prior to exit. ATC cannot issue follow-on clearance while you are within an active MOA or RA.
- (6) Low Altitude Air-to-Air Training (LOWAT) operations are approved on route segments that fall within the confines of a MOA. If scheduling LOWAT operations, user must schedule overlying MOA in addition to MTR.
- (7) Route approved for Military Assumes Responsibility for Separation of Aircraft (MARSA) operations. User must coordinate MARSA operations with the SA prior to use.
- (8) Primary Entry: Point A. Alternate Entry: Point B.
- (9) Primary Exit: Point C. Alternate Exit: Point B.
- (10) All route points are collocated with IR-939, VR-1909 and VR-1939.
- (11) Use CAUTION for multiple Airways, including low altitude RNAV routes near Point C and multiple MTR crossings throughout the route.
- (12) Use CAUTION for aviation related gold mine activity along entire route. Most traffic is helicopters and small fixed wing aircraft. One known camp is located at N64 17.00 W144 16.00, south of segment B to C, which uses helicopters for re-supply.
- (13) Use CAUTION for Pogo Mine and Pogo Mine Airstrip adjacent to route at Points B and C. Avoid mine center point (N64 27.12 W144 54.19) in Goodpaster River valley by 3NM and 1000' AGL (15 May-15 Jul). Airstrip has high density air activity with helicopters (150'-500' cable long-lines) and fixed wing activity.
- (14) Prior to entry, remain clear of the native village of Healy Lake around N63 59.00 W144 45.00 by 3NM or 6,000' MSL continuously; and Lake George around N63 47.00 W144 32.00 by 2NM and 1,500' AGL continuously.
- (15) Seasonal Fortymile caribou sensitive areas entire route from approximately 1 May-30 June. Up to four 6NM wide circles, updated every three days, will be avoided by 2,000' AGL. See local OGV FCIF for details and locations.
- (16) ATC contact: Anchorage Center; Route Entry: (322.5/135.3), Primary Exit: (319.2/120.9).
- (17) Local weather forecast information can be obtained at DSN 317-552-4903/4397. Weather related planning products and day-of forecasts are available 24/7.
- (18) Heavy migratory bird activity on route from 10 Apr to 20 May and 1 Aug to 1 Nov. Alaska Bird Avoidance Model data is available at <http://www.usahas.com>.

FSS Within 100 NM Radius:

FAI, ORT (1 Mar-30 Sep, other times contact FAI FSS) See Alaska Supplement.

IR-911

ORIGINATING ACTIVITY: 354 RANS/RSA, 354 Broadway St, Suite 288, Eielson AFB, AK 99702 DSN 317-377-5921/5922, C907-377-5921/5922.

SCHEDULING ACTIVITY: 3 OSS/OSO, 8364 Kuter Ave, JBER, AK 99506 DSN 317-552-0410/2406, C907-552-0410/2406. After duty hours C907-201-3301.

HOURS OF OPERATION: Normal use 0800-2000 local Mon-Fri, Not available 2200-0700 local

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	AKN 051/88	N59°16.82' W154°07.30'
01 AGL B 72 MSL to	B	AKN 039/54	N59°13.77' W155°19.55'
01 AGL B 72 MSL to	C	AKN 360/80	N59°59.85' W156°01.07'
01 AGL B 72 MSL to	D	SQA 157/39	N60°27.63' W155°31.82'
01 AGL B 72 MSL to	E	SQA 220/38	N60°45.88' W156°43.17'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - Segment A to B: 5 NM North and 1 NM South of route centerline, remainder of route B to E: 5 NM either side of route centerline.

Special Operating Procedures:

- (1) Route transitions through NAKNEK Military Operations Area (MOA), contact Scheduling Agency (SA) for deconfliction prior to use.
- (2) Route approved for Military Assumes Responsibility for Separation of Aircraft (MARSA) operations. User must coordinate MARSA operations with the SA prior to use. Expect ATC to give route and MOA clearance prior to route entry/initial descent. ATC may ask if you are a participant in the special use airspace (SUA). This query is confirming you have coordinated MARSA ops within the MOA with other scheduled users, respond appropriately.
- (3) Low altitude air-to-air training (LOWAT) operations are approved on route segments that fall within the confines of a MOA. If scheduling LOWAT operations, user must schedule overlying MOA in addition to MTR with the SA.
- (4) Early contact with Air Traffic Control (ATC) before route entry will increase mission effectiveness. Request ATC clearance at least five minutes prior to route entry.
- (5) Approaching entry/exit points and periodically throughout the route, advise civil traffic with geographic position reports on area-specific and/or airfield-specific CTAF. This Alaska-unique area CTAF is commonly 122.9.
- (6) Primary entry: Point A.
- (7) Primary exit: Point E.
- (8) All route points are collocated with IR-901, VR-931, and VR-932.
- (9) Use CAUTION for multiple airways, including low altitude RNAV routes, on segments A to C.
- (10) Use CAUTION for IR-903, IR-913, VR-933 and VR-934 crossing at Point E.
- (11) Remain clear of the Moraine Creek drainage area immediately south of Point B by 3 NM from 1 May to 30 Sep. This area is used for bear viewing and fishing from Kukaklek Lake to Spectacle Lake 10 NM east, and resides

within Katmai National Park and Preserve. Additionally, remain clear of this area for bear hunting in odd years from 1 to 21 Oct and during even years from 10 to 25 May.

- (12) Remain above 2,000' AGL starting from Point B to 28 NM past Point B (2 NM north of the Lake Iliamna shoreline) from 1 Jun to 15 Sep.
- (13) Remain clear of lodge located on the Mulchatna River (N60-24.00 W155-54.00) southwest of Point D, by 1500' AGL or 1 NM from 1 May to 15 Sep.
- (14) ATC contact: Route entry: Anchorage Center (354.0/124.8), Primary exit: Anchorage Center (379.9/128.5).
- (15) Local weather forecast information can be obtained at DSN 317-552-4903/4397. Weather related planning products and day-of forecasts are available 24/7.
- (16) Heavy migratory bird activity on route from 10 Apr - 20 May and 1 Aug - 1 Nov. Alaska Bird Avoidance model data is available at <http://www.usahas.com>.

FSS Within 100 NM Radius:

ENA, ILI, MCG, HOM, DLG

IR-912

ORIGINATING ACTIVITY: 354 RANS/RSA, 354 Broadway St, Suite 288, Eielson AFB, AK 99702 DSN 317-377-5921/5922, C907-377-5921/5922.

SCHEDULING ACTIVITY: 3 OSS/OSO, 8364 Kuter Ave, JBER, AK 99506 DSN 317-552-0410/2406, C907-552-0410/2406. After duty hours C907-201-3301.

HOURS OF OPERATION: Normal use 0800-2000 local Mon-Fri, Not available 2200-0700 local

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	UNK 067/67	N64°02.00' W158°11.00'
01 AGL B 50 MSL to	B	UNK 085/45	N63°45.00' W159°02.00'
01 AGL B 75 MSL to	C	MCG 258/68	N63°04.00' W158°04.00'
01 AGL B 75 MSL to	D	MCG 211/20	N62°44.00' W156°10.00'
01 AGL B 75 MSL to	E	MCG 134/44	N62°17.58' W154°54.47'
Alternate entry AA to B1			
as assigned to	AA	UNK 194/18	N63°37.33' W161°00.90'
01 AGL B 62 MSL to Thence along remainder of route	B1	UNK 085/45	N63°45.00' W159°02.00'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Route transitions through STONY Military Operations Area (MOA). Contact Scheduling Activity (SA) for de-confliction prior to use.

- (2) Route approved for Military Assumes Responsibility for Separation of Aircraft (MARSA) operations. User must coordinate MARSA operations with the SA prior to use. Expect ATC to give route and MOA clearance prior to route entry/initial descent. ATC may ask if you are a participant in the Special Use Airspace (SUA). This query is attempting to confirm you have coordinated with the SA for use of the SUA, respond appropriately.
- (3) Low Altitude Air-to-Air Training (LOWAT) operations are approved on route segments that fall within the confines of a MOA. If scheduling LOWAT operations, user must schedule overlying MOA in addition to MTR with the SA.
- (4) Early contact with Air Traffic Control (ATC) before route entry will increase mission effectiveness. Request ATC clearance at least five minutes prior to route entry.
- (5) Approaching entry/exit points and periodically throughout the route, advise civil traffic with geographic position reports on area-specific and/or airfield-specific CTAF. This Alaska-unique area CTAF is commonly 122.9.
- (6) Primary Entry: Point A. Alternate Entry: Point AA.
- (7) Primary Exit: Point E.
- (8) All route points are collocated with IR-902, VR-1902 and VR-1912.
- (9) Use CAUTION for multiple Airways, including low altitude RNAV routes, on segments B to D and on alternate entry route from AA to B1.
- (10) Use CAUTION for McGrath Airport Class E Airspace, north of segment D to E.
- (11) Use CAUTION for IR-905, IR-915, VR-1905 and VR-1915 crossing at Point E.
- (12) During the Iditarod Sled Dog Race (approximately 1-15 March), on odd number years, the minimum altitude on segments C to D is 1500' AGL and must remain at least 1 NM east of the Yukon River shore on segments A to C.
- (13) Remain clear of Peregrine Falcon Nests on segment A to B. Remain 1 NM E of the Yukon River shore or 2000' AGL, (15 Apr-31 Aug).
- (14) Remain above 1500' AGL on segments A through C during moose hunting season, (27 Aug-30 Sep).
- (15) Segments A to D and alternate entry routing are flown over Innoko National Wildlife Refuge and Wilderness Area. Remain clear of human activity by at least 1/2 NM. (1 May-30 Sep).
- (16) Avoid direct overflight of hunting camp located on segment B to C on the Iditarod River at (N63 10.90, W158 18.00).
- (17) ATC contact: Route Entry: Anchorage Center (290.2/127.0), Alternate Entry: (335.5/135.7), Primary Exit: (353.8/128.1).
- (18) Local weather forecast information can be obtained at DSN 317-552-4903/4397. Weather related planning products and day-of forecasts are available 24/7.
- (19) Heavy migratory bird activity on route from 10 Apr to 20 May and 1 Aug to 1 Nov. Alaska Bird Avoidance Model data is available at <http://www.usahas.com>.

FSS Within 100 NM Radius:

MCG, TKA

IR-913

ORIGINATING ACTIVITY: 354 RANS/RSA, 354 Broadway St, Suite 288, Eielson AFB, AK 99702 DSN 317-377-5921/5922, C907-377-5921/5922.

IR ROUTES

SCHEDULING ACTIVITY: 3 OSS/OSO, 8364 Kuter Ave, JBER, AK 99506 DSN 317-552-0410/2406, C907-552-0410/2406. After duty hours C907-201-3301.

HOURS OF OPERATION: Normal use 0800-2000 local Mon-Fri, Not available 2200-0700 local

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	AKN 310/60	N59°32.23' W157°51.17'
01 AGL B 100 MSL to	B	AKN 311/70	N59°42.00' W158°00.00'
01 AGL B 65 MSL to	C	AKN 323/76	N59°54.00' W157°38.00'
01 AGL B 65 MSL to	D	SQA 213/82	N60°13.67' W157°46.65'
01 AGL B 65 MSL to	E	SQA 220/38	N60°45.88' W156°43.17'
01 AGL B 91 MSL to	F	SQA 318/7	N61°12.43' W155°43.97'
01 AGL B 142 MSL to	G	SQA 044/40	N61°24.62' W154°24.62'
01 AGL B 142 MSL to	H	SQA 035/61	N61°42.08' W153°55.17'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Route transitions through STONY and NAKNEK military operations areas (MOA). Contact scheduling activity (SA) for de-confliction prior to use.
- (2) Route approved for military assumes responsibility for separation of aircraft (MARSA) operations. User must coordinate MARSA operations with the SA prior to use. Expect ATC to give route and MOA clearance prior to route entry/initial descent. ATC may ask if you are a participant in the special use airspace (SUA). This query is confirming you have coordinated MARSA ops within the MOA with other scheduled users, respond appropriately.
- (3) Low altitude air-to-air training (LOWAT) operations are approved on route segments that fall within the confines of a MOA. If scheduling LOWAT operations, user must schedule overlying MOA in addition to MTR with the SA.
- (4) Early contact with air traffic control (ATC) before route entry will increase mission effectiveness. Request ATC clearance at least five minutes prior to route entry.
- (5) Approaching entry/exit points and periodically throughout the route, advise civil traffic with geographic position reports on area-specific and/or airfield-specific CTAF. This Alaska-specific area CTAF is commonly 122.9.
- (6) Primary Entry: Point A. Alternate Entry: Point E.
- (7) Primary Exit: Point H. Alternate Exit: Point E.
- (8) All route points are collocated with IR-903, VR-933, and VR-934.
- (9) Use CAUTION for IR-901, IR-911, VR-931, and VR-932 crossing at Point E.
- (10) Use CAUTION for multiple airways, including low altitude RNAV routes, on segments E to F.
- (11) Use CAUTION for rapidly rising terrain from segment G to H in the Revelation Mountain Range.

- (12) On segment G to H remain clear of Lake Clark National Park approximately 12 NM southeast of route corridor.
- (13) Use CAUTION for IR-905, IR-915, VR-1905, and VR-1915 crossing at Point H.
- (14) ATC Contact: Route Primary Entry: Anchorage Center (282.35/132.75), Primary Exit: (273.45/123.9), Alternate Entry/Exit Point E: (379.9/128.5).
- (15) Local weather forecast information can be obtained at DSN 317-552-4903/4397. Weather related planning products and day-of forecasts are available 24/7.
- (16) Heavy migratory bird activity on route from 10 Apr to 20 May and 1 Aug to 1 Nov. Alaska Bird Avoidance Model data is available at, <http://www.usahas.com>

FSS Within 100 NM Radius:

ENA, ILI, MCG, HOM, DLG

IR-915

ORIGINATING ACTIVITY: 354 RANS/RSA, 354 Broadway St, Suite 288, Eielson AFB, AK 99702 DSN 317-377-5921/5922, C907-377-5921/5922.

SCHEDULING ACTIVITY: 3 OSS/OSO, 8364 Kuter Ave, JBER, AK 99506 DSN 317-552-0410/2406, C907-552-0410/2406. After duty hours C907-201-3301.

HOURS OF OPERATION: Normal use 0800-2000 local Mon-Fri, Not available 2200-0700 local

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	MCG 032/131	N64°16.00' W151°44.00'
01 AGL B 69 MSL to	B	MCG 023/101	N64°10.43' W153°03.03'
01 AGL B 69 MSL to	C	MCG 026/66	N63°42.53' W153°51.83'
01 AGL B 69 MSL to	D	MCG 069/49	N62°58.00' W153°50.00'
01 AGL B 90 MSL to	E	MCG 134/44	N62°17.58' W154°54.47'
01 AGL B 148 MSL to	F	SQA 035/61	N61°42.08' W153°55.17'
01 AGL B 148 MSL to	G	TKA 224/82	N61°39.53' W152°40.88'
01 AGL B 142 MSL to	H	TKA 229/58	N61°55.73' W151°59.55'
01 AGL B 142 MSL to	I	TKA 209/49	N61°44.43' W151°23.48'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Route transitions through STONY and GALENA Military Operations Areas (MOAs). Contact Scheduling Activity (SA) for de-confliction prior to use.

- (2) Route approved for Military Assumes Responsibility for Separation of Aircraft (MARSA) operations. User must coordinate MARSA operations with the SA prior to use. Expect ATC to give route and MOA clearance prior to route entry/initial descent. ATC may ask if you are a participant in the Special Use Airspace (SUA). This query is attempting to confirm you have coordinated with the SA for use of the SUA, respond appropriately.
- (3) Low Altitude Air-to-Air Training (LOWAT) operations are approved on route segments that fall within the confines of a MOA. If scheduling LOWAT operations, user must schedule overlying MOA in addition to MTR with the SA.
- (4) Early contact with Air Traffic Control (ATC) before route entry will increase mission effectiveness. Request ATC clearance at least five minutes prior to route entry.
- (5) Approaching entry/exit points and periodically throughout the route, advise civil traffic with position reports on 122.9.
- (6) Primary Entry: Point A. Alternate Entry: Points E or F.
- (7) Primary Exit: Point I. 1 Jun to 15 Aug point I is closed, seasonal exit: Point H. Alternate Exit: Points E, F, and H.
- (8) Route segment H to I will be deactivated from 1 Jun - 15 Aug during the fishing season due to numerous light aircraft near rivers/lakes. During this time, the exit point for IR-915 will be Point H.
- (9) All route points are collocated with IR-905, VR-1905 and VR-1915.
- (10) Use CAUTION for multiple Airways, including low altitude RNAV routes, on segments C to I.
- (11) Use Caution for IR-900, IR-916, VR1900 and VR-1916 at Point A as well as IR-901, IR-912, VR-1902, VR-1912 at Point E and IR-903, IR 913, VR-933 and VR-934 at Point F.
- (12) Use CAUTION for light aircraft operating in the vicinity of an uncharted airstrip (N61 54.63, W 154 22.19) on segments E to F, approximately 28NM past Point E, just right of route centerline.
- (13) Use CAUTION for sling load helicopter ops from the SFC to 3000' AGL between Points G to H from 1 Jun - 1 Oct.
- (14) Use CAUTION for low VFR traffic especially in the summer between Point McKenzie, Mt Spurr, and approximately 20 NM around Point I.
- (15) During the Iditarod Sled Dog Race (approximately 1-15 March) maintain minimum altitude of 1500' AGL over the South Fork of the Kuskokwim River on segment D to E. Numerous light aircraft support the race.
- (16) Remain clear of Lake Clark National Park approximately 4 NM south of route corridor on segment F to G.
- (17) Heavy mining operations with numerous helicopter sling-load and light fixed wing aircraft operating in the vicinity of segment G to H. Remain Clear of multiple uncharted airstrips (Whiskey Bravo at N61 57.50, W 152 36.00 and unknown at N61 43.00, W 152 47.00) within the Whistler Mine mandatory communication area located immediately north of Point G and along segment G to H (approximately Jun-Oct). Self-announce position and intentions on 122.9. Whiskey Bravo airstrip personnel may respond with traffic advisories.
- (18) ATC contact: Route Entry: Anchorage Center (319.2/120.9), Primary Exit: (254.3/125.55), and Alternate Exit (353.8/128.1).
- (19) Local weather forecast information can be obtained at DSN 317-552-4903/4397. Weather related planning products and day-of forecasts are available 24/7.
- (20) Heavy migratory bird activity on route from 10 Apr to 20 May and 1 Aug to 1 Nov. Alaska Bird Avoidance Model data is available at <http://www.usahas.com>.

FSS Within 100 NM Radius:

ENA, PAQ, ILI, MCG, HOM, TKA, FAI

IR-916

ORIGINATING ACTIVITY: 354 RANS/RSA, 354 Broadway St, Suite 288, Eielson AFB, AK 99702 DSN 317-377-5921/5922, C907-377-5921/5922

SCHEDULING ACTIVITY: 354 OSS/OSO, 2835 Flightline Ave, Eielson AFB, AK 99702 DSN 317-377-2725/2684/3125, C907-377-2725/2684/3125.

HOURS OF OPERATION: Normal use 0800-2000 local
Mon-Fri, Not available 2200-0700 local

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	BIG 269/48	N64°17.12' W147°24.97'
01 AGL B 83 MSL to	B	BIG 255/39	N64°05.00' W147°10.00'
01 AGL B 108 MSL to	C	BIG 254/74	N64°08.12' W148°31.55'
01 AGL B 80 MSL to	D	BIG 252/100	N64°05.17' W149°31.27'
01 AGL B 76 MSL to	E	TAL 149/56	N64°16.00' W151°44.00'
Alternate entry track AA-B1			
as assigned to	AA	EIL 088/37	N64°28.00' W145°45.00'
01 AGL B 100 MSL to Thence along remain- der of route	B1	BIG 255/39	N64°05.00' W147°10.00'
Alternate entry track AB-B2			
as assigned to	AB	BIG 234/22	N63°55.13' W146°31.40'
01 AGL B 103 MSL to Thence along remain- der of route	B2	BIG 255/39	N64°05.00' W147°10.00'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Primary route entry is in RESTRICTED AREA R-2211, remainder of route transitions through EIELSON Military Operations Areas (MOA); AA Alternate Entry transitions through RESTRICTED AREA R-2202, YUKON 1 and DELTA 2 MOA; AB Alternate entry is in RESTRICTED AREA R-2202. Contact Scheduling Activity (SA) for de-confliction prior to use.
- (2) Prior scheduling with Scheduling Activity (SA) of R-2211 or R-2202 is required if entering this restricted airspace. This step is required to ensure RA will be cold, unless you will be performing hazardous activities which require an active RA (i.e. dropping bombs). Primary entry point A will only be utilized if you also have R-2211 scheduled for use, if not

IR ROUTES

- utilize alternate entry point B within Eielson MOA. Alternate entry points AA and AB will only be scheduled when Eielson Range Control is open or if you are working directly with the Army within R-2202. If the MOAs are scheduled by other users, the SA will require you to contact the scheduled users to coordinate altitude separation.
- (3) Early contact with Air Traffic Control (ATC) before route entry will increase mission effectiveness. Request ATC clearance at least five minutes prior to route entry. Expect ATC to give route and MOA clearance prior to route entry/initial descent. ATC may ask if you are a participant in the Special Use Airspace. This means you have coordinated with the SA for the use of MOAs and/or RAs.
 - (4) ATC clearance into MTR is not clearance to enter active RA. When Eielson Range Control (ERC) is open, you are required to contact ERC prior to entering active RAs and/or MOAs. Radio contact with ERC may be difficult. If no contact, call IN THE BLIND, then proceed on route through the MOA (but NOT into active/hot RA) and continue periodic reattempts.
 - (5) ERC is not a 24 hr. facility. When ERC is open (generally 0900-1900 M-F, hours shift to cover the fighter flying window) all aircraft will contact ERC on UHF primary 229.4, secondary 244.55, or VHF 125.3 and receive clearance into restricted area PRIOR TO ENTRY.
 - (6) When ERC is closed (generally nights/weekends): Confirm RA status (hot/cold) with ATC controller prior to MTR entry. If hot and 354 OSS Scheduling has not specifically scheduled the RA for you, stay clear of RA - DO NOT ENTER HOT RA. If cold, RA becomes Class G/E airspace - no clearance required. Eielson MOA and R-2211 are cold/inactive when ERC is closed. A recorded message on 125.3 MHz indicates ERC is closed.
 - (7) R2202 is subdivided. R2202A can be hot while R2202B and C are cold. If R2202B and C are cold, alternate entries AA and AB may be flown, but stay clear of any hot sub-sections.
 - (8) Pass post MTR intentions through ERC or to ATC five minutes prior to exit. ATC cannot issue follow-on clearance while you are within an active MOA or RA.
 - (9) Low Altitude Air-to-Air Training (LOWAT) operations are approved on route segments that fall within the confines of a MOA. If scheduling LOWAT operations, user must schedule overlying MOA in addition to MTR.
 - (10) Route approved for Military Assumes Responsibility for Separation of Aircraft (MARSA) operations. User must coordinate MARSA operations with the SA prior to use.
 - (11) Primary Entry: Point A. Alternate Entry: Points B, AA and AB.
 - (12) Primary Exit: Point E. Alternate Exit: Point B, C and D.
 - (13) All route points are collocated with IR-900, VR-1900 and VR-1916.
 - (14) Use CAUTION for multiple Airways, including low altitude RNAV routes near Points C to E and multiple MTR crossings throughout the entire route.
 - (15) Use CAUTION for uncharted Newman Creek Airstrip (N63 58.60 W147 15.60) 6NM southwest of Point B. Avoid by 1 NM below 1,500' AGL.
 - (16) Use CAUTION on segment C to D. In IMC conditions, maintain 1,000' AGL minimum to avoid multiple isolated cabins, light-aircraft emergency airstrips, and numerous wind turbines within 3NM of route centerline.
 - (17) Use CAUTION for VFR traffic in the vicinity of the Nenana River on Segment C to D for light aircraft transiting to/from Windy Pass and Denali Park.
 - (18) Use CAUTION for float plane activity at Mucha Lake (N64 13.00 W150 53.00) on segment D to E in the Kantishna River valley.

- (19) Remain clear of Birch Lake State Recreation Site on Delta River west of alternate entry route segment AA to B1 by 2,000' AGL or 1 NM from 15 May-30.
- (20) Remain clear of Shaw Creek Youth Camp and Clear Creek Cabins on Delta River east of alternate entry route segment AA to B1 by 1,500' AGL or 1 NM, continuous.
- (21) Remain clear of hunting cabins in vicinity of Gold King Creek Airstrip (N64 11.47 W147 55.57) 4NM north of segment B to C. Remain clear by 1,500' AGL or 3 NM, continuous.
- (22) Remain clear of two uncharted airstrips: (N64 07.10 W148 00.00) directly on segment B to C crossing Gold King creek; and (N64 06.50 W147 33.20) 0.5NM north of segment B to C crossing Wood River. Remain clear by 1,500' AGL or 3 NM, continuous.
- (23) ATC contact: Route entry/exit A through E: Anchorage Center (319.2/120.9). Alternate entry points AA and AB: Anchorage Center (322.5/135.3).
- (24) Local weather forecast information can be obtained at DSN 317-552-4903/4397. Weather related planning products and day-of forecasts are available 24/7.
- (25) Heavy migratory bird activity on route from 10 Apr to 20 May and 1 Aug to 1 Nov. Alaska Bird Avoidance Model data is available at <http://www.usahas.com>.

FSS Within 100 NM Radius:

FAI, MCG, ORT, TKA

IR-917

ORIGINATING ACTIVITY: 354 RANS/RSA, 354 Broadway St, Suite 288, Eielson AFB, AK 99702 DSN 317-377-5921/5922, C907-377-5921/5922.

SCHEDULING ACTIVITY: 354 OSS/OSO, 2835 Flightline Ave, Eielson AFB, AK 99702 DSN 317-377-2725/2684/3125, C907-377-2725/2684/3125.

HOURS OF OPERATION: Normal use 0800-2000 local Mon-Fri, Not available 2200-0700 local

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	BIG 033/70	N64°38.00' W143°27.00'
01 AGL B 106 MSL to	B	BIG 041/112	N64°46.00' W141°47.00'
01 AGL B 106 MSL to	C	BIG 050/112	N64°29.22' W141°35.65'
01 AGL B 106 MSL to	D	BIG 055/70	N64°13.00' W143°05.00'
01 AGL B 106 MSL to	E	BIG 048/54	N64°17.53' W143°45.37'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Route transitions through YUKON 1 and YUKON 3 Military Operations Areas (MOAs). Contact Scheduling Activity (SA) for de-confliction prior to use.

- (2) Early contact with Air Traffic Control (ATC) before route entry will increase mission effectiveness. Request ATC clearance at least five minutes prior to route entry. Expect ATC to give route and MOA clearance prior to route entry/initial descent. ATC may ask if you are a participant in the Special Use Airspace. This means you have coordinated with the SA for the use of overlying MOAs.
- (3) When Eielson Range Control (ERC) is open, you are required to contact ERC prior to entering active MOAs. Radio contact with ERC may be difficult. If no contact, call in the blind, then proceed on route through the MOA and continue periodic reattempts.
- (4) ERC is not a 24 hr. facility. When ERC is open (generally 0900-1900 M-F, hours shift to cover the fighter flying window) all aircraft will contact ERC on UHF primary 229.4, secondary 244.55, or VHF 125.3.
- (5) When ERC is closed (generally nights/weekends) the MOAs will be inactive and a recorded message will be broadcast on 125.3.
- (6) When ERC is closed, approaching entry/exit points and periodically throughout the route, advise civil traffic with geographic position reports on area-specific and/or airfield-specific CTAF. The Alaska-unique area CTAF is commonly 122.9.
- (7) Pass post MTR intentions through ERC or to ATC five minutes prior to exit. ATC cannot issue follow-on clearance while you are within an active MOA.
- (8) Low Altitude Air-to-Air Training (LOWAT) operations are approved on route segments that fall within the confines of a MOA. If scheduling LOWAT operations, user must schedule overlying MOA in addition to MTR.
- (9) Route approved for Military Assumes Responsibility for Separation of Aircraft (MARSA) operations. User must coordinate MARSA operations with the SA prior to use.
- (10) Primary Entry: Point A. Alternate Entry Point: B.
- (11) Primary Exit: Point E. Alternate Exit Point: D.
- (12) All route points are collocated with IR-918, VR-935 and VR-936.
- (13) Use CAUTION for an overlapping MTR at Points D and E.
- (14) Use CAUTION for aviation related gold mine activity along entire route. Most traffic is helicopters and small fixed wing aircraft. Helicopters frequently use 150'-500' cables strung below for carrying cargo.
- (15) Seasonal Fortymile caribou calving sensitive areas entire route from approximately 1 May-30 June. Up to four 6NM wide circles, updated every three days, will be avoided by 2,000' AGL. See local OGV FCIF for details and locations.
- (16) Contact agencies: Route Entry/Exit: Anchorage Center (322.5/135.3).
- (17) Local weather forecast information can be obtained at DSN 317-552-4903/4397. Weather related planning products and day-of forecasts are available 24/7.
- (18) Heavy migratory bird activity on route from 10 Apr to 20 May and 1 Aug to 1 Nov. Alaska Bird Avoidance Model data is available at <http://www.usahas.com>.

FSS Within 100 NM Radius:

FAI, ORT (1 Mar-30 Sep, other times contact FAI FSS) See Alaska Supplement

IR-918

ORIGINATING ACTIVITY: 354 RANS/RSA, 354 Broadway St, Suite 288, Eielson AFB, AK 99702 DSN 317-377-5921/5922, C907-377-5921/5922.

SCHEDULING ACTIVITY: 354 OSS/OSO, 2835 Flightline Ave, Eielson AFB, AK 99702 DSN 317-377-2725/2684/3125, C907-377-2725/2684/3125.

HOURS OF OPERATION: Normal use 0800-2000 local Mon-Fri, Not available 2200-0700 local

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	BIG 048/54	N64°17.53' W143°45.37'
01 AGL B 106 MSL to	B	BIG 055/70	N64°13.00' W143°05.00'
01 AGL B 106 MSL to	C	BIG 050/112	N64°29.22' W141°35.65'
01 AGL B 106 MSL to	D	BIG 041/112	N64°46.00' W141°47.00'
01 AGL B 106 MSL to	E	BIG 033/70	N64°38.00' W143°27.00'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Route transitions through YUKON 1 and YUKON 3 Military Operations Areas (MOAs). Contact Scheduling Activity (SA) for de-confliction prior to use.
- (2) Early contact with Air Traffic Control (ATC) before route entry will increase mission effectiveness. Request ATC clearance at least five minutes prior to route entry. Expect ATC to give route and MOA clearance prior to route entry/initial descent. ATC may ask if you are a participant in the Special Use Airspace. This means you have coordinated with the SA for the use of overlying MOAs.
- (3) When Eielson Range Control (ERC) is open, you are required to contact ERC prior to entering active MOAs. Radio contact with ERC may be difficult. If no contact, call IN THE BLIND, then proceed on route through the MOA and continue periodic reattempts.
- (4) ERC is not a 24 hr. facility. When ERC is open (generally 0900-1900 M-F, hours shift to cover the fighter flying window) all aircraft will contact ERC on UHF primary 229.4, secondary 244.55, or VHF 125.3.
- (5) When ERC is closed (generally nights/weekends) the MOAs will be inactive and a recorded message will be broadcast on 125.3.
- (6) When ERC is closed, approaching entry/exit points and periodically throughout the route, advise civil traffic with geographic position reports on area-specific and/or airfield-specific CTAF. The Alaska-unique area CTAF is commonly 122.9.
- (7) Pass post MTR intentions through ERC or to ATC five minutes prior to exit. ATC cannot issue follow-on clearance while you are within an active MOA.
- (8) Low Altitude Air-to-Air Training (LOWAT) operations are approved on route segments that fall within the confines of a MOA. If scheduling LOWAT operations, user must schedule overlying MOA in addition to MTR.
- (9) Route approved for Military Assumes Responsibility for Separation of Aircraft (MARSA) operations. User must coordinate MARSA operations with the SA prior to use.
- (10) Primary Entry: Point A. Alternate Entry Point: B.

IR ROUTES

- (11) Primary Exit: Point E. Alternate Exit Point: D.
- (12) All route points are collocated with IR-917, VR-935 and VR-936.
- (13) Use CAUTION for overlapping MTR near points A and B.
- (14) Use CAUTION for aviation related gold mine activity along entire route. Most traffic is helicopters and small fixed wing aircraft. Helicopters frequently use 150'-500' cables strung below for carrying cargo.
- (15) Seasonal Fortymile caribou calving sensitive areas entire route from approximately 1 May-30 June. Up to four 6NM wide circles, updated every three days, will be avoided by 2,000' AGL. See local OGV FCIF for details and locations.
- (16) Contact agencies: Route Entry/Exit: Anchorage Center (322.5/135.3).
- (17) Local weather forecast information can be obtained at DSN 317-552-4903/4397. Weather related planning products and day-of forecasts are available 24/7.
- (18) Heavy migratory bird activity on route from 10 Apr to 20 May and 1 Aug to 1 Nov. Alaska Bird Avoidance Model data is available at <http://www.usahas.com>.

FSS Within 100 NM Radius:

FAI, ORT (1 Mar-30 Sep, other times contact FAI FSS)

IR-919

ORIGINATING ACTIVITY: 354 RANS/RSA, 354 Broadway St, Suite 288, Eielson AFB, AK 99702 DSN 317-377-5921/5922, C907-377-5921/5922.

SCHEDULING ACTIVITY: 354 OSS/OSO, 2835 Flightline Ave, Eielson AFB, AK 99702 DSN 317-377-2725/2684/3125, C907-377-2725/2684/3125.

HOURS OF OPERATION: Normal use 0800-2000 local Mon-Fri, Not available 2200-0700 local

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	TKA 072/89	N62°13.77' W146°55.48'
01 AGL B 110 MSL to	B	TKA 049/78	N62°45.57' W147°29.82'
01 AGL B 111 MSL to	C	TKA 047/107	N62°58.37' W146°31.83'
01 AGL B 135 MSL to	D	TKA 035/108	N63°18.82' W146°51.22'
01 AGL B 147 MSL to	E	TKA 022/96	N63°29.87' W147°46.60'
01 AGL B 147 MSL to	F	BIG 233/51	N63°47.07' W147°33.32'
01 AGL B 147 MSL to	G	BIG 239/34	N63°55.12' W146°58.65'
01 AGL B 129 MSL to	H	BIG 255/39	N64°05.00' W147°10.00'
01 AGL B 80 MSL to	I	FAI 132/35	N64°17.12' W147°24.97'
Alternate entry track AC to C1			
as assigned to	AC	BIG 144/69	N62°53.23' W145°09.07'

01 AGL B 110 MSL to	C1	TKA 047/107	N62°58.37' W146°31.83'
Thence along published route			
Alternate exit track G1 to HA			
01 AGL B 147 MSL to	G1	BIG 239/34	N63°55.12' W146°58.65'
01 AGL B 129 MSL to	HA	BIG 234/22	N63°55.13' W146°31.40'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Route transitions through FOX 3, FOX 1, and EIELSON Military Operations Areas (MOAs). Primary exit point I borders R-2211 and alternate exit point HA, is within R-2202. Operations are restricted in and around active Restricted Areas (RAs) and MOAs.
- (2) Prior scheduling with Scheduling Activity (SA) of R-2211 or R-2202 is required if entering this restricted airspace. This step is required to ensure RA will be cold, unless you will be performing hazardous activities which require an active RA (i.e. dropping bombs). Alternate exit HA will only be scheduled when Eielson Range Control is open or if you are working directly with the Army within R-2202. If the MOAs are scheduled by other users, the SA will require you to contact the scheduled users to coordinate altitude separation.
- (3) Early contact with Air Traffic Control (ATC) before route entry will increase mission effectiveness. Request ATC clearance at least five minutes prior to route entry. Expect ATC to give route and MOA clearance prior to route entry/initial descent. ATC may ask if you are a participant in the Special Use Airspace. This means you have coordinated with the SA for the use of MOAs and/or RAs.
- (4) ATC clearance into MTR is not clearance to enter active RA. When Eielson Range Control (ERC) is open, you are required to contact ERC prior to entering active RAs and/or MOAs. Radio contact with ERC may be difficult. If no contact, call IN THE BLIND, then proceed on route through the MOA (but NOT into active/hot RA) and continue periodic reattempts.
- (5) ERC is not a 24 hr. facility. When ERC is open (generally 0900-1900 M-F, hours shift to cover the fighter flying window) all aircraft will contact ERC on UHF primary 229.4, secondary 244.55, or VHF 125.3 and receive clearance into restricted area PRIOR TO ENTRY.
- (6) When ERC is closed (generally nights/weekends): Confirm RA status (hot/cold) with ATC controller prior to MTR entry. If hot and 354 OSS Scheduling has not specifically scheduled the RA for YOU, stay clear of RA - DO NOT ENTER HOT RA. If cold, RA becomes Class G/E airspace - no clearance required. Eielson MOA and R-2211 are cold/inactive when ERC is closed. A recorded message on 125.3 MHz indicates ERC is closed.
- (7) R2202 is subdivided. R2202A can be hot while R2202B and C are cold. If R2202B and C are cold, alternate exit G1 to HA may be flown, but stay clear of any hot sub-sections.
- (8) Low Altitude Air-to-Air Training (LOWAT) operations are approved on route segments that fall within the confines of a MOA. If scheduling LOWAT operations, user must schedule overlying MOA in addition to MTR.

- (9) Route approved for Military Assumes Responsibility for Separation of Aircraft (MARSA) operations. User must coordinate MARSA operations with the SA prior to use.
- (10) This MTR must be flown in contact with ERC as stated above. When ERC is closed, approaching entry/exit points and periodically throughout the route, advise civil traffic with geographic position reports on area-specific and/or airfield-specific CTAF. This Alaska-unique area CTAF is commonly 122.9.
- (11) Pass post MTR intentions thru ERC or to ATC five minutes prior to exit. ATC cannot issue follow-on clearance while you are within an active MOA or RA.
- (12) Primary Entry: Point A. Alternate Entry: Points B, C, D, E, and AC.
- (13) Primary Exit: Point I. Alternate Exit: Points AC, E, F, G, H, and HA.
- (14) All route points collocated with IR-921, VR-937 and VR-938. Route has shared points with multiple MTRs at points G, H, and I.
- (15) Use CAUTION for multiple Airways, including low altitude RNAV routes, on alternate entry segment AC to C1.
- (16) Use CAUTION near point G. Route corridor overlaps with R-2202. If not cleared into R-2202, remain clear.
- (17) Use CAUTION for uncharted Newman Creek Airstrip (N63 58.60 W147 15.60) west of segment G to H. Avoid by 1 NM below 1,500' AGL.
- (18) Minimum altitude on segments A to E, including alternate entry route AC to C1, is 1000' AGL from 15 Mar - 30 Sep to comply with the Bald and Golden Eagle Protection Act.
- (19) Alternate Entry leg AC to C1 has 5,000' MSL minimum altitude 15 May to 30 Sept due to Gulkana National Wild and Scenic River area. Restriction begins 5 NM west of AC and ends 5 NM east of C1.
- (20) Remain clear of caribou hunting area by 1,000' AGL from 1 Aug - 30 Sep. Area is bounded by 5 NM either side of the line from (N62 51.00, W147 09.00) to (N62 59.00, W145 54.00) on segments B to C and AC to C1. Additionally, avoid the Delta caribou herd calving area below 2,000' AGL 15 May - 15 Jun from the halfway point between points D and E until point E.
- (21) Remain clear of Maclaren Lodge and Airstrip east of segment C to D on the Denali Highway (N63 07.00 W146 32.00) by 2 NM and 1,500' AGL.
- (22) Remain above 5,000' AGL over sheep lambing area on segments E thru G from 15 May - 15 Jun and 15 Nov - 15 Dec. Area bounded by (N64 00.00 W148 00.00) to (N63 34.00 W148 00.00) to (N63 34.00 W146 24.00) to (N63 40.00 W146 58.00) to (N63 55.00 W147 15.00) to (N63 58.45 W147 13.20) to (N64 00.00 W147 15.00) to point of beginning.
- (23) During September maintain at least 1,000' AGL on all segments within Eielson MOA and R-2202. This is a Mid-Air Collision Avoidance safety issue due to high density General Aviation flight operations during the fall hunting season.
- (24) Contact Agencies - Primary Route Entry: Anchorage Center (119.5/317.5), Primary Route Exit: Fairbanks Approach (126.5/381.4), AC Entry: Anchorage Center (119.5/317.5), HA Exit: Anchorage Center (135.3/322.5).
- (25) Local weather forecast information can be obtained at DSN 317-552-4903/4397. Weather related planning products and day-of forecasts are available 24/7.
- (26) Heavy migratory bird activity on route from 10 Apr to 20 May and 1 Aug to 1 Nov. Alaska Bird Avoidance Model data is available at <http://www.usahas.com>.

FSS Within 100 NM Radius:

ENA, FAI, ORT, PAQ, TKA

IR-921

ORIGINATING ACTIVITY: 354 RANS/RSA, 354 Broadway St, Suite 288, Eielson AFB, AK 99702 DSN 317-377-5921/5922, C907-377-5921/5922.

SCHEDULING ACTIVITY: 354 OSS/OSO, 2835 Flightline Ave, Eielson AFB, AK 99702 DSN 317-377-2725/2684/3125, C907-377-2725/2684/3125.

HOURS OF OPERATION: Normal use 0800-2000 local
Mon-Fri, Not available 2200-0700 local

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	FAI 132/35	N64°17.12' W147°24.97'
01 AGL B 80 MSL to	B	BIG 255/39	N64°05.00' W147°10.00'
01 AGL B 129 MSL to	C	BIG 239/34	N63°55.12' W146°58.65'
01 AGL B 147 MSL to	D	BIG 233/51	N63°47.07' W147°33.32'
01 AGL B 147 MSL to	E	TKA 022/96	N63°29.87' W147°46.60'
01 AGL B 147 MSL to	F	TKA 035/108	N63°18.82' W146°51.22'
01 AGL B 135 MSL to	G	TKA 047/107	N62°58.37' W146°31.83'
01 AGL B 111 MSL to	H	TKA 049/78	N62°45.57' W147°29.82'
01 AGL B 110 MSL to	I	TKA 072/89	N62°13.77' W146°55.48'
Alternate entry track AC to C1			
as assigned to	AC	BIG 234/22	N63°55.13' W146°31.40'
01 AGL B 129 MSL to Thence along published route	C1	BIG 239/34	N63°55.12' W146°58.65'
Alternate exit track G1 to HA			
01 AGL B 135 MSL to	G1	TKA 047/107	N62°58.37' W146°31.83'
01 AGL B 110 MSL to	HA	BIG 144/69	N62°53.23' W145°09.07'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Route transitions through EIELSON, FOX 1 and FOX 3 Military Operations Areas (MOAs). Primary entry point A borders R-2211 and alternate entry point AC is within R-2202. Operations are restricted in and around active Restricted Areas (RAs) and MOAs.

IR ROUTES

- (2) Prior scheduling with Scheduling Activity (SA) of R-2211 or R-2202 is required if entering this restricted airspace. This step is required to ensure RA will be cold, unless you will be performing hazardous activities which require an active RA (i.e. dropping bombs). Alternate Entry AC will only be scheduled when Eielson Range Control is open or if you are working directly with the Army within R-2202. If the MOAs are scheduled by other users, the SA will require you to contact the scheduled users to coordinate altitude separation.
- (3) Early contact with Air Traffic Control (ATC) before route entry will increase mission effectiveness. Request ATC clearance at least five minutes prior to route entry. Expect ATC to give route and MOA clearance prior to route entry/initial descent. ATC may ask if you are a participant in the Special Use Airspace. This means you have coordinated with the SA for the use of MOAs and/or RAs.
- (4) ATC clearance into MTR is not clearance to enter active RA. When Eielson Range Control (ERC) is open, you are required to contact ERC prior to entering active RAs and/or MOAs. Radio contact with ERC may be difficult. If no contact, call IN THE BLIND, then proceed on route through the MOA (but NOT into active/hot RA) and continue periodic reattempts.
- (5) ERC is not a 24 hr. facility. When ERC is open (generally 0900-1900 M-F, hours shift to cover the fighter flying window) all aircraft will contact ERC on UHF primary 229.4, secondary 244.55, or VHF 125.3 and receive clearance into restricted area PRIOR TO ENTRY.
- (6) When ERC is closed (generally nights/weekends): Confirm RA status (hot/cold) with ATC controller prior to MTR entry. If hot and 354 OSS Scheduling has not specifically scheduled the RA for YOU, stay clear of RA - DO NOT ENTER HOT RA. If cold, RA becomes Class G/E airspace - no clearance required. Eielson MOA and R-2211 are cold/inactive when ERC is closed. A recorded message on 125.3 MHz indicates ERC is closed.
- (7) R2202 is subdivided. R2202A can be hot while R2202B and C are cold. If R2202B and C are cold, alternate entry AC to C1 may be flown, but stay clear of any hot sub-sections.
- (8) Low Altitude Air-to-Air Training (LOWAT) operations are approved on route segments that fall within the confines of a MOA. If scheduling LOWAT operations, user must schedule overlying MOA in addition to MTR.
- (9) Route approved for Military Assumes Responsibility for Separation of Aircraft (MARSA) operations. User must coordinate MARSA operations with the SA prior to use.
- (10) This MTR must be flown in contact with ERC as stated above. When ERC is closed, approaching entry/exit points and periodically throughout the route, advise civil traffic with geographic position reports on area-specific and/or airfield-specific CTAF. This Alaska-unique area CTAF is commonly 122.9.
- (11) Pass post MTR intentions thru ERC or to ATC five minutes prior to exit. ATC cannot issue follow-on clearance while you are within an active MOA or RA.
- (12) Primary Entry: Point A. Alternate Entry: Points B, C, D, E, and AC.
- (13) Primary Exit: Point I. Alternate Exit: Points E, F, G, H, and HA.
- (14) All route points collocated with IR-919, VR-937 and VR-938. Route has shared points with multiple MTRs at points A, B, and C.
- (15) Use CAUTION for multiple Airways, including low altitude RNAV routes, on alternate exit segment G1 to HA.
- (16) Use CAUTION near point C. Route corridor overlaps with R-2202. If not cleared into R-2202, remain clear.
- (17) Use CAUTION for uncharted Newman Creek Airstrip (N63 58.60 W147 15.60) west of segments B to C. Avoid by 1 NM below 1,500' AGL.
- (18) During September maintain at least 1,000' AGL on all segments within Eielson MOA and R-2202. This is a Mid-Air Collision Avoidance safety issue due to high density General Aviation flight operations during the fall hunting season.
- (19) Remain above 5,000' AGL over sheep lambing area on segments C thru E from 15 May - 15 Jun and 15 Nov - 15 Dec. Area bounded by (N64 00.00 W148 00.00) to (N63 34.00 W148 00.00) to (N63 34.00 W146 24.00) to (N63 40.00 W146 58.00) to (N63 55.00 W147 15.00) to (N63 58.45 W147 13.20) to (N64 00.00 W147 15.00) to point of beginning.
- (20) Minimum altitude on segments E to I, including alternate exit route G1 to HA, is 1000' AGL from 15 Mar to 30 Sep to comply with the Bald and Golden Eagle Protection Act.
- (21) Remain clear of Maclaren Lodge and Airstrip east of segment F to G on the Denali Highway (N63 07.00 W146 32.00) by 2 NM and 1,500' AGL.
- (22) Remain clear of caribou hunting area by 1,000' AGL from 1 Aug - 30 Sep. Area is bounded by 5 NM either side of the line from (N62 51.00, W147 09.00) to (N62 59.00, W145 54.00) on segments G to H and G1 to HA. Additionally, avoid the Delta caribou herd calving area below 2,000' AGL 15 May - 15 Jun from point E to the halfway point between E and F.
- (23) Alternate Exit leg G1 to HA has 5,000' MSL minimum altitude 15 May to 30 Sept due to Gulkana National Wild and Scenic River area. Restriction begins 5 NM east of G1 and ends 5 NM west of HA.
- (24) Contact Agencies - Primary Route Entry: Fairbanks Approach (126.5/381.4), Primary Route Exit: Anchorage Center (119.5/317.5), AC Entry: Anchorage Center (135.3/322.5), HA Exit: Anchorage Center (119.5/317.5).
- (25) Local weather forecast information can be obtained at DSN 317-552-4903/4397. Weather related planning products and day-of forecasts are available 24/7.
- (26) Heavy migratory bird activity on route from 10 Apr to 20 May and 1 Aug to 1 Nov. Alaska Bird Avoidance Model data is available at <http://www.usahas.com>.

FSS Within 100 NM Radius:

FAI, ORT, ENA, PAQ, TKA

IR-922

ORIGINATING ACTIVITY: 354 RANS/RSA, 354 Broadway St, Suite 288, Eielson AFB, AK 99702 DSN 317-377-5921/5922, C907-377-5921/5922.

SCHEDULING ACTIVITY: 354 OSS/OSO, 2835 Flightline Ave, Eielson AFB, AK 99702 DSN 317-377-2725/2684/3125, C907-377-2725/2684/3125.

HOURS OF OPERATION: Normal use 0800-2000 local Mon-Fri, Not available 2200-0700 local

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	BIG 144/69	N62°53.23' W145°09.07'
01 AGL B 143 MSL to	B	BIG 135/46	N63°17.35' W145°05.05'

01 MSL B 143 MSL to	C	BIG 097/59	N63°29.65' W143°48.32'
01 AGL B 143 MSL to	D	BIG 079/68	N63°44.28' W143°13.18'
01 AGL B 97 MSL to	E	BIG 055/70	N64°13.00' W143°05.00'
01 AGL B 135 MSL to	F	BIG 095/29	N63°46.30' W144°45.00'
01 AGL B 140 MSL to	G	BIG 137/26	N63°35.92' W145°22.82'
01 AGL B 154 MSL to	H	BIG 154/24	N63°36.23' W145°40.07'
01 AGL B 162 MSL to	I	BIG 210/28	N63°43.23' W146°34.23'
01 AGL B 154 MSL to	J	BIG 239/34	N63°55.12' W146°58.65'

Alternate exit track

I1-JA

01 AGL B 162 MSL to	I1	BIG 210/28	N63°43.23' W146°34.23'
01 AGL B 162 MSL to	JA	BIG 223/21	N63°51.55' W146°27.10'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 5 NM either side of the route on segments A-H, 5 NM south of route and 1 NM north of route on segments H-J. 5 NM either side of alternate exit I1-JA if R-2202 is utilized.

Special Operating Procedures:

- Route transitions through PAXON, BUFFALO, YUKON 3, FOX 2, FOX 1, and EIELSON Military Operations Areas (MOAs) and through DELTA 4 MOA during Major Flying Exercises. Route transitions immediately south of R-2202 on segments H to J. Alternate exit JA enters R-2202. Contact Scheduling Activity (SA) for MOA de-confliction prior to use.
- Prior scheduling with SA of R-2202 is required if entering restricted airspace. This step is required to ensure RA will be cold, unless you will be performing hazardous activities which require an active RA (i.e. dropping bombs). Alternate exit JA will only be scheduled when Eielson Range Control is open or if you are working directly with the Army within R-2202.
- Early contact with Air Traffic Control (ATC) before route entry will increase mission effectiveness. Request ATC clearance at least five minutes prior to route entry. Expect ATC to give route and MOA clearance prior to route entry/initial descent. ATC may ask if you are a participant in the Special Use Airspace. This means you have coordinated with the SA for the use of MOAs and/or RAs.
- ATC clearance into MTR is not clearance to enter active RA. When Eielson Range Control (ERC) is open, you are required to contact ERC prior to entering active RAs and/or MOAs. Radio contact with ERC may be difficult. If no contact, call IN THE BLIND, then proceed on route through the MOA but NOT into active/hot RA and continue periodic reattempts.
- ERC is not a 24 hr. facility. When ERC is open (generally 0900-1900 M-F) all aircraft will contact ERC on UHF primary 229.4, secondary 244.55, or VHF 125.3 and receive clearance into restricted area PRIOR TO ENTRY.
- When ERC is closed (nights/weekends): Confirm RA status (hot/cold) with ATC controller prior to MTR entry. If hot and 354 OSS Scheduling has not specifically scheduled the RA

for YOU, stay clear of RA - DO NOT ENTER HOT RA. If cold, RA becomes Class G/E airspace - no clearance required. A recorded message on 125.3 MHz indicates ERC is closed.

- R-2202 is subdivided. R-2202A can be hot while R-2202B and C are cold. If R-2202B and C are cold, alternate exit JA may be flown, but stay clear of any hot sub-sections.
- Low Altitude Air-to-Air Training (LOWAT) operations are approved on route segments that fall within the confines of a MOA. If scheduling LOWAT operations, user must schedule overlying MOA in addition to MTR.
- Route approved for Military Assumes Responsibility for Separation of Aircraft (MARSA) operations. User must coordinate MARSA operations with the SA prior to use.
- This MTR must be flown in contact with ERC as stated above. When ERC is closed, approaching entry/exit points and periodically throughout the route, advise civil traffic with geographic position reports on area-specific and/or airfield-specific CTAF. The Alaska-unique area CTAF is commonly 122.9.
- Pass post-MTR intentions thru ERC or to ATC five minutes prior to exit. ATC cannot issue follow-on clearance while you are within an active MOA or RA.
- Primary entry: Point A. Alternate entry: Point B, E and G.
- Primary exit: Point J. Alternate exit: Point E, G and JA (within R-2202).
- All route points are collocated with IR-923, VR-940 and VR-941.
- Use CAUTION for multiple Airways, including low altitude RNAV routes, on segments A to H.
- Use CAUTION for IR-919, IR-921, VR-937 and VR-938 alt entry/exit crossings at points A, J and JA; as well as IR-917, IR-918, VR-935 and VR-936 overlapping segments E to F; and IR-909, IR-939, VR-1909, and VR-1939 at Point F.
- Use CAUTION for aviation related gold mine activity along entire route. Most traffic is helicopters and small fixed wing aircraft. Helicopters frequently use 150'-500' cables strung below for carrying cargo.
- Seasonal Fortymile caribou sensitive areas entire route from approximately 1 May-30 June. Up to four 6NM wide circles will be avoided by 2,000' AGL. See local OGV FCIF for details and locations.
- Minimum altitude on segments A to 12 NM prior to C and 2 NM prior to G to H is 1,000' AGL from 15 Mar to 30 Sep to comply with the Bald and Golden Eagle Protection Act. Additionally, minimum altitude on segments 5 NM prior to B to C and F to I is 10,000' MSL from 15 May to 15 Jun to avoid sheep lambing areas.
- Remain clear of sheep lambing area under entire segment B to C by 1,000' AGL from 1 May to 30 June. Area bounded by (N63 21.00, W145 05.00) to (N63 33.00, W144 05.00) to (N63 22.00, W144 05.00) to (N63 10.00, W145 05.00) to point of beginning.
- Maintain 1,500' AGL minimum when within 10 NM of Point C for annual moose hunting season (approximately 1 to 20 Sep).
- Remain clear of numerous cabins and fishing camps in the vicinity of Point C on the Alaska Highway
- Numerous noise sensitive areas near Alaska and Richardson Hwy VFR corridors within BUFFALO MOA on segment F to G, remain at/above 4,000' MSL, reference local PFPs draw files and IFR Enroute Low Altitude Chart L3 for exact dimensions.
- Remain clear of the Native village of Healy Lake (N63 59.00, W144 45.00), 10 NM west of Point F, by 3 NM radius or 6,000 MSL continuously.

IR ROUTES

- (25) Remain clear of Lake George (N63 47.00, W144 32.00) on segment F to G by 2 NM and 1,500 AGL continuously.
- (26) Remain clear of Gulkana and Delta National Wild and Scenic River areas by 5,000' MSL from 15 May to 30 Sep. The restriction runs from point H to the mid-point of FOX 2 MOA, over the Delta River.
- (27) Remain clear of Donnelly Creek State Recreation Site (N63 39.40, W145 53.00) on segment H to I by 1 NM radius and 2000' AGL from 15 May to 30 Sep.
- (28) Remain clear of Black Rapids Airport (N63 32.10, W145 51.65), 5NM southwest of Point H, by 3 NM radius and 1500' AGL continuously.
- (29) ATC contact: Anchorage Center primary and alternate entry: (317.5/119.5); primary and alternate exit: (322.5/135.3).
- (30) Local weather forecast information can be obtained at DSN 317-552-4903/4397. Weather related planning products and day-of forecasts are available 24/7.
- (31) Heavy migratory bird activity on route from 10 Apr to 20 May and 1 Aug to 1 Nov. Alaska Bird Avoidance Model data is available at <http://www.usahas.com>.

FSS Within 100 NM Radius:

FAI, ORT (1 Mar-30 Sep, other times contact FAI FSS), PAQ, TKA.
See Alaska Supplement

IR-923

ORIGINATING ACTIVITY: 354 RANS/RSA, 354 Broadway St, Suite 288, Eielson AFB, AK 99702 DSN 317-377-5921/5922, C907-377-5921/5922.

SCHEDULING ACTIVITY: 354 OSS/OSO, 2835 Flightline Ave, Eielson AFB, AK 99702 DSN 317-377-2725/2684/3125, C907-377-2725/2684/3125.

HOURS OF OPERATION: Normal use 0800-2000 local
Mon-Fri, Not available 2200-0700 local

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	BIG 239/34	N63°55.12' W146°58.65'
01 AGL B 154 MSL to	B	BIG 210/28	N63°43.23' W146°34.23'
01 AGL B 162 MSL to	C	BIG 154/24	N63°36.23' W145°40.07'
01 AGL B 154 MSL to	D	BIG 137/26	N63°35.92' W145°22.82'
01 AGL B 140 MSL to	E	BIG 095/29	N63°46.30' W144°45.00'
01 AGL B 135 MSL to	F	BIG 055/70	N64°13.00' W143°05.00'
01 AGL B 97 MSL to	G	BIG 079/68	N63°44.28' W143°13.18'
01 AGL B 143 MSL to	H	BIG 097/59	N63°29.65' W143°48.32'
01 AGL B 143 MSL to	I	BIG 135/46	N63°17.35' W145°05.05'
01 AGL B 143 MSL to	J	BIG 144/69	N62°53.23' W145°09.07'

Alternate entry AB to
B1

as assigned to	AB	BIG 226/24	N63°51.55' W146°27.10'
01 AGL B 162 MSL to	B1	BIG 210/28	N63°43.23' W146°34.23'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 5 NM south of route and 1 NM north of route on segments A-C. 5 NM either side on route segments C-J. 5 NM either side of alternate entry AB-B1 if R-2202 is utilized.

Special Operating Procedures:

- (1) Route transitions through EIELSON, FOX 1, FOX 2, BUFFALO, YUKON 3, and PAXON Military Operations Areas (MOAs) and through DELTA 4 MOA during Major Flying Exercises. Route transitions immediately south of R-2202 on segments A to C. Alternate exit AB enters R-2202. Contact Scheduling Activity (SA) for MOA de-confliction prior to use.
- (2) Prior scheduling with SA of R-2202 is required if entering restricted airspace. This step is required to ensure RA will be cold, unless you will be performing hazardous activities which require an active RA (i.e. dropping bombs). Alternate entry AB will only be scheduled when Eielson Range Control is open or if you are working directly with the Army within R-2202.
- (3) Early contact with Air Traffic Control (ATC) before route entry will increase mission effectiveness. Request ATC clearance at least five minutes prior to route entry. Expect ATC to give route and MOA clearance prior to route entry/initial descent. ATC may ask if you are a participant in the Special Use Airspace. This means you have coordinated with the SA for the use of MOAs and/or RAs.
- (4) ATC clearance into MTR is not clearance to enter active RA. When Eielson Range Control (ERC) is open, you are required to contact ERC prior to entering active RAs and/or MOAs. Radio contact with ERC may be difficult. If no contact, call IN THE BLIND, then proceed on route through the MOA but NOT into active/hot RA and continue periodic reattempts.
- (5) ERC is not a 24 hr. facility. When ERC is open (generally 0900-1900 M-F) all aircraft will contact ERC on UHF primary 229.4, secondary 244.55, or VHF 125.3 and receive clearance into restricted area PRIOR TO ENTRY.
- (6) When ERC is closed (nights/weekends): Confirm RA status (hot/cold) with ATC controller prior to MTR entry. If hot and 354 OSS Scheduling has not specifically scheduled the RA for YOU, stay clear of RA - DO NOT ENTER HOT RA. If cold, RA becomes Class G/E airspace - no clearance required. A recorded message on 125.3 MHz indicates ERC is closed.
- (7) R-2202 is subdivided. R-2202A can be hot while R-2202B and C are cold. If R-2202B and C are cold, alternate entry AB may be flown, but stay clear of any hot sub-sections.
- (8) Low Altitude Air-to-Air Training (LOWAT) operations are approved on route segments that fall within the confines of a MOA. If scheduling LOWAT operations, user must schedule overlying MOA in addition to MTR.
- (9) Route approved for Military Assumes Responsibility for Separation of Aircraft (MARSA) operations. User must coordinate MARSA operations with the SA prior to use.
- (10) This MTR must be flown in contact with ERC as stated above. When ERC is closed, approaching entry/exit points and periodically throughout the route, advise civil traffic

with geographic position reports on area-specific and/or airfield-specific CTAF. The Alaska-unique area CTAF is commonly 122.9.

- (11) Pass post-MTR intentions thru ERC or to ATC five minutes prior to exit. ATC cannot issue follow-on clearance while you are within an active MOA or RA.
- (12) Primary entry: Point A. Alternate entry: Point AB (within R-2202), D and F.
- (13) Primary exit: Point J. Alternate exit: D, F and I.
- (14) All route points are collocated with IR-922, VR-940 and VR-941.
- (15) Use CAUTION for multiple Airways, including low altitude RNAV routes, on segments C to J.
- (16) Use CAUTION for IR-919, IR-921, VR-937, and VR-938 crossing at points A, AB and J; as well as IR-909, IR-939, VR-1909, and VR-1939 at Point E; and IR-917, IR-918, VR-935 and VR-936 overlapping segments E to F.
- (17) Use CAUTION for aviation related gold mine activity along entire route. Most traffic is helicopters and small fixed wing aircraft. Helicopters frequently use 150'-500' cables strung below for carrying cargo.
- (18) Seasonal Fortymile caribou sensitive areas entire route from approximately 1 May-30 June. Up to four 6NM wide circles will be avoided by 2,000' AGL. See local OGV FCIF for details and locations.
- (19) Remain clear of Donnelly Creek State Recreation Site (N63 39.40, W145 53.00) on segment B to C by 1 NM radius and 2000' AGL from 15 May to 30 Sep.
- (20) Remain clear of Black Rapids Airport (N63 32.10, W145 51.65), 5NM southwest of Point C, by 3 NM radius and 1500' AGL continuously
- (21) Remain clear of Gulkana and Delta National Wild and Scenic River areas by 5,000' MSL from 15 May to 30 Sep. The restriction runs from the mid-point of FOX 2 MOA to point C, over the Delta River.
- (22) Numerous noise sensitive areas near Alaska and Richardson Hwy VFR corridors within BUFFALO MOA on segment D to E, remain at/above 4000 MSL, reference local PFPS draw files and IFR Enroute Low Altitude Chart L3 for exact dimensions.
- (23) Remain clear of Lake George (N63 47.00, W144 32.00) on segment D to E by 2 NM and 1,500 AGL continuously.
- (24) Remain clear of the Native village of Healy Lake (N63 59.00, W144 45.00), 10 NM west of Point E, by 3 NM radius or 6,000 MSL continuously.
- (25) Maintain 1,500' AGL minimum when within 10 NM of Point H for annual moose hunting season (approximately 1 to 20 Sep).
- (26) Remain clear of numerous cabins and fishing camps in the vicinity of Point H on the Alaska Highway.
- (27) Remain clear of sheep lambing area under entire segment H to I by 1,000' AGL from 1 May to 30 June. Area bounded by (N63 21.00, W145 05.00) to (N63 33.00, W144 05.00) to (N63 22.00, W144 05.00) to (N63 10.00, W145 05.00) to point of beginning.
- (28) Minimum altitude on segments C to 2 NM past D and 23 NM prior to I to J is 1000' AGL from 15 Mar to 30 Sep to comply with the Bald and Golden Eagle Protection Act. Additionally, minimum altitude on segments B to E and H to 17 NM prior to J is 10,000' MSL from 15 May to 15 Jun to avoid sheep lambing areas.
- (29) ATC contact: Anchorage Center primary and alternate entry: (322.5/135.3), primary and alternate exit: (317.5/119.5).

- (30) Local weather forecast information can be obtained at DSN 317-552-4903/4397. Weather related planning products and day-of forecasts are available 24/7.
- (31) Heavy migratory bird activity on route from 10 Apr to 20 May and 1 Aug to 1 Nov. Alaska Bird Avoidance Model data is available at <http://www.usahas.com>.

FSS Within 100 NM Radius:

FAI, ORT (1 Mar-30 Sep, other times contact FAI FSS), PAQ, TKA. See Alaska Supplement

IR-939

ORIGINATING ACTIVITY: 354 RANS/RSA, 354 Broadway St, Suite 288, Eielson AFB, AK 99702 DSN 317-377-5921/5922, C907-377-5921/5922.

SCHEDULING ACTIVITY: 354 OSS/OSO, 2835 Flightline Ave, Eielson AFB, AK 99702 DSN 317-377-2725/2684/3125, C907-377-2725/2684/3125.

HOURS OF OPERATION: Normal use 0800-2000 local Mon-Fri, Not available 2200-0700 local

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	BIG 335/28	N64°28.00' W145°45.00'
01 AGL B 106 MSL to	B	BIG 050/52	N64°15.00' W143°50.00'
01 AGL B 106 MSL to	C	BIG 076/39	N63°54.00' W144°16.00'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Route transitions through YUKON 1, BUFFALO, and DELTA 4 Military Operations Areas (MOA). Contact Scheduling Activity (SA) for de-confliction prior to use.
- (2) Early contact with Air Traffic Control (ATC) before route entry will increase mission effectiveness. Request ATC clearance at least five minutes prior to route entry. Expect ATC to give route and MOA clearance prior to route entry/initial descent. ATC may ask if you are a participant in the Special Use Airspace. This means you have coordinated with the SA for the use of MOAs and/or RAs.
- (3) When ERC is open, you are required to contact them on UHF primary 229.4, secondary 244.55, or VHF 125.3 prior to entering active MOAs. Radio contact with ERC may be difficult. If no contact, call IN THE BLIND, then proceed on route through the MOA and continue periodic reattempts.
- (4) When ERC is closed, approaching entry/exit points and periodically throughout the route, advise civil traffic with geographic position reports on area-specific and/or airfield-specific CTAF. The Alaska-unique area CTAF is commonly 122.9.
- (5) Pass post MTR intentions through ERC or to ATC five minutes prior to exit. ATC cannot issue follow-on clearance while you are within an active MOA or RA.

IR ROUTES

- (6) Low Altitude Air-to-Air Training (LOWAT) operations are approved on route segments that fall within the confines of a MOA. If scheduling LOWAT operations, user must schedule overlying MOA in addition to MTR.
- (7) Route approved for Military Assumes Responsibility for Separation of Aircraft (MARSA) operations. User must coordinate MARSA operations with the SA prior to use.
- (8) Primary Entry: Point A. Alternate Entry: Point B.
- (9) Primary Exit: Point C. Alternate Exit: Point B.
- (10) All route points are collocated with IR-909, VR-1909 and VR-1939.
- (11) Use CAUTION for multiple Airways, including low altitude RNAV routes near Point A and multiple MTR crossings throughout the route.
- (12) Use CAUTION for aviation related gold mine activity along entire route. Most traffic is helicopters and small fixed wing aircraft. One known camp is located at N64 17.00 W144 16.00, south of segment A to B, which uses helicopters for re-supply.
- (13) Use CAUTION for Pogo Mine and Pogo Mine Airstrip adjacent to route at Points B and C. Avoid mine center point (N64 27.12 W144 54.19) in Goodpaster River valley by 3NM and 1000' AGL (15 May-15 Jul). Airstrip has high density air activity with helicopters (150'-500' cable long-lines) and fixed wing activity.
- (14) Upon exit, remain clear of the native village of Healy Lake around N63 59.00 W144 45.00 by 3NM or 6,000' MSL continuously; and Lake George around N63 47.00 W144 32.00 by 2NM and 1,500' AGL continuously.
- (15) Seasonal Fortymile caribou sensitive areas entire route from approximately 1 May-30 June. Up to four 6NM wide circles, updated every three days, will be avoided by 2,000' AGL. See local OGV FCIF for details and locations.
- (16) ATC contact: Anchorage Center; Route Entry: (319.2/120.9) Primary Exit: (322.5/135.3).
- (17) Local weather forecast information can be obtained at DSN 317-552-4903/4397. Weather related planning products and day-of forecasts are available 24/7.
- (18) Heavy migratory bird activity on route from 10 Apr to 20 May and 1 Aug to 1 Nov. Alaska Bird Avoidance Model data is available at <http://www.usahas.com>.

FSS Within 100 NM Radius:

FAI, ORT (1 Mar-30 Sep, other times contact FAI FSS) See Alaska Supplement.

IR-952

ORIGINATING ACTIVITY: 354 RANS/RSA, 354 Broadway St, Suite 288, Eielson AFB, AK 99702 DSN 317-377-5921/5922, C907-377-5921/5922.

SCHEDULING ACTIVITY: 354 OSS/OSO, 2835 Flightline Ave, Eielson AFB, AK 99702 DSN 317-377-2725/2684/3125, C907-377-2725/2684/3125.

HOURS OF OPERATION: Normal use 0800-2000 local Mon-Fri, Not available 2200-0700 local

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	BIG 041/112	N64°46.00' W141°47.00'

01 AGL B 170 MSL to	B	BIG 034/116	N65°00.00' W141°54.00'
01 AGL B 170 MSL to	C	FYU 106/106	N65°30.00' W141°51.00'
01 AGL B 90 MSL to	D	FYU 104/101	N65°36.00' W141°56.00'
01 AGL B 90 MSL to	E	FYU 100/73	N65°57.00' W142°42.00'
01 AGL B 90 MSL to	F	FYU 107/64	N65°55.00' W143°12.00'
01 AGL B 90 MSL to	G	FYU 126/74	N65°33.00' W143°38.00'
01 AGL B 110 MSL to	H	FYU 134/81	N65°22.00' W143°52.00'
01 AGL B 110 MSL to	I	BIG 010/66	N64°55.00' W144°20.00'
01 AGL B 110 MSL to	J	BIG 009/63	N64°53.00' W144°25.00'
01 AGL B 110 MSL to	K	BIG 004/39	N64°35.00' W145°02.00'
01 AGL B 110 MSL to	L	BIG 352/33	N64°32.00' W145°23.00'
01 AGL B 110 MSL to	M	EIL 059/14	N64°42.00' W146°34.00'
01 AGL B 110 MSL to	N	EIL 033/13	N64°47.00' W146°42.00'
01 AGL B 110 MSL to	O	EIL 017/17	N64°53.00' W146°42.00'
01 AGL B 110 MSL to	P	FYU 176/80	N65°18.00' W146°09.00'
01 AGL B 110 MSL to	Q	FYU 173/79	N65°18.00' W146°00.00'
01 AGL B 110 MSL to	N1	EIL 033/13	N64°47.00' W146°42.00'
01 AGL B 170 MSL to	AO	FYU 175/102	N64°56.00' W146°20.00'
01 AGL B 170 MSL to	AP	BIG 355/48	N64°46.00' W145°08.00'
01 AGL B 170 MSL to	L1	BIG 352/33	N64°32.00' W145°23.00'
01 AGL B 110 MSL to	M1	EIL 059/14	N64°42.00' W146°34.00'
01 AGL B 110 MSL to	N2	EIL 033/13	N64°47.00' W146°42.00'

Thence along published route or alternate exit point

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Route transitions through YUKON 3 HIGH/3A LOW, YUKON 4, YUKON 2, and YUKON 1 Military Operations Areas (MOA). Route transitions through RESTRICTED AREA 2205 on multiple segments. Contact Scheduling Activity (SA) for de-confliction prior to use.
- (2) Prior scheduling with SA of R-2205 is required if entering this restricted airspace. This step is required to ensure Restricted Area (RA) will be cold, unless you will be performing hazardous activities which require an active RA

- (i.e. dropping bombs). Primary route segments L through N will only be scheduled when Eielson Range Control (ERC) is open or if you are working directly with the Army within R-2205; if not, utilize alternate entry/exit points.
- (3) Early contact with Air Traffic Control (ATC) before route entry will increase mission effectiveness. Request ATC clearance at least five minutes prior to route entry. Expect ATC to give route and MOA clearance prior to route entry/initial descent. ATC may ask if you are a participant in the Special Use Airspace. This means you have coordinated with the SA for the use of MOAs and/or RAs.
 - (4) ATC clearance into MTR is not clearance to enter active RA. When ERC is open, you are required to contact them prior to entering active RAs and/or MOAs. Radio contact with ERC may be difficult. If no contact, call IN THE BLIND, then proceed on route through the MOA (but NOT into active/hot RA) and continue periodic reattempts.
 - (5) ERC is not a 24 hr. facility. When ERC is open (generally 0900-1900 M-F, hours shift to cover the fighter flying window) all aircraft will contact ERC on UHF primary 229.4, secondary 244.55, or VHF 125.3 and receive clearance into restricted area PRIOR TO ENTRY.
 - (6) When ERC is closed (generally nights/weekends): Confirm RA status (hot/cold) with ATC controller prior to MTR entry. If hot and 354 OSS Scheduling has not specifically scheduled the RA for you, stay clear of RA - DO NOT ENTER HOT RA. If cold, RA becomes Class G/E airspace. A recorded message on 125.3 MHz indicates ERC is closed.
 - (7) When ERC is closed, approaching entry/exit points and periodically throughout the route, advise civil traffic with geographic position reports on area-specific and/or airfield-specific CTAF. The Alaska-unique area CTAF is commonly 122.9.
 - (8) Pass post MTR intentions through ERC or to ATC five minutes prior to exit. ATC cannot issue follow-on clearance while you are within an active MOA or RA.
 - (9) Low Altitude Air-to-Air Training (LOWAT) operations are approved on route segments that fall within the confines of a MOA. If scheduling LOWAT operations, user must schedule overlying MOA in addition to MTR.
 - (10) Route approved for Military Assumes Responsibility for Separation of Aircraft (MARSA) operations. User must coordinate MARSA operations with the SA prior to use.
 - (11) Primary entry: Point A. Alternate entry: Points D, F, J, K and L. Alternate R-2205 Racetrack entry at Point N.
 - (12) Primary exit: Point Q. Alternate exit: Points F, J, K, N, O and P. Alternate R-2205 Racetrack Exit: Points N1, AO, AP, L1 and M1.
 - (13) All route points (excluding R-2205 Racetrack pattern) are collocated with IR-953, VR-954, and VR-955.
 - (14) Use CAUTION for multiple Airways, including low altitude RNAV routes, on terminal segments of the route from L to Q, including multiple crossing points on the alternate R-2205 Racetrack pattern. Additionally, multiple MTR crossings at point A and points L to N within R-2205.
 - (15) Use CAUTION for Pogo Mine and Pogo Mine Airstrip adjacent to route at Points K and L. Avoid mine center point (N64 27.12 W144 54.19) in Goodpaster River valley by 3NM and 1000' AGL (15 May-15 Jul). Airstrip has high density air activity with helicopters (150'-500' cable long-lines) and fixed wing activity.
 - (16) Use CAUTION: After weapons release in R-2205, start an immediate turn away from Eielson AFB to preclude flying into Fairbanks Approach Control's Airspace.
 - (17) Use CAUTION: Ft. Wainwright AAF Class E airspace less than 1 NM outside the route, Segment M to O. Eielson AFB Class D and E airspace 2 NM outside the route, Segment N to O.
 - (18) Routine/daily training sorties: remain at/above 2000' AGL and 2NM either side of Yukon, Charley, and Kandik River centerlines to avoid Peregrine Falcon Corridor (15 Apr- 15 Sep). Segments B to D and F to H.
 - (19) Major Flying Exercise (Red Flag, Northern Edge, etc.) sorties: remain at/above 2000' AGL and 2NM either side of Yukon river and at/above 5000' MSL and 2NM either side of Charley and Kandik River centerlines to avoid Peregrine Falcon Corridor (15 Apr- 15 Sep). Segments B to D and F to H.
 - (20) Remain clear of Salcha River Area 3, on segments K to M, by 2NM either side of Salcha River in the vicinity of Salcha Split VFR waypoint. 1-20 Sep, maintain at/above 5000' MSL for fighter aircraft and at/above 1000' AGL for all other aircraft.
 - (21) Remain clear of Salcha River Area 2 on segment L to M. Maintain at/above 5000' MSL for fighter aircraft (1-20 Sep). Maintain at/above 1000' AGL for all other aircraft (continuous).
 - (22) Remain clear of Chena River State Recreation Site at/above 1,500' AGL, (1 May-30 Sep), segments M to P.
 - (23) Remain clear of Pleasant Valley Subdivision west of segment N to O at 6,000' MSL. Flight above 6000' MSL is restricted to non-maneuvering, non-afterburning, navigational flight only.
 - (24) Seasonal Fortymile caribou sensitive areas entire route from approximately 1 May-30 June. Up to four 6NM wide circles, updated every three days, will be avoided by 2,000' AGL. See local OGV FCIF for details and locations.
 - (25) ATC contact: Anchorage Center. Primary entry/exit at points A, D and F: (284.7/135.0); backup (225.4/132.7). Primary entry/exit at points J through Q including racetrack: (319.2/120.9); backup (285.4/133.1).
 - (26) Local weather forecast information can be obtained at DSN 317-552-4903/4397. Weather related planning products and day-of forecasts are available 24/7.
 - (27) Heavy migratory bird activity on route from 10 Apr to 20 May and 1 Aug to 1 Nov. Alaska Bird Avoidance Model data is available at <http://www.usahas.com>.

FSS Within 100 NM Radius:

FAI, ORT (1 Mar-30 Sep, other times contact FAI FSS). See Alaska Supplement

IR-953

ORIGINATING ACTIVITY: 354 RANS/RSA, 354 Broadway St, Suite 288, Eielson AFB, AK 99702 DSN 317-377-5921/5922, C907-377-5921/5922.

SCHEDULING ACTIVITY: 354 OSS/OSO, 2835 Flightline Ave, Eielson AFB, AK 99702 DSN 317-377-2725/2684/3125, C907-377-2725/2684/3125.

HOURS OF OPERATION: Normal use 0800-2000 local Mon-Fri, Not available 2200-0700 local

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist	Lat/Long
As assigned to	A	FYU 173/79	N65°18.00' W146°00.00'

IR ROUTES

01 AGL B 110 MSL to	B	FYU 176/80	N65°18.00' W146°09.00'
01 AGL B 110 MSL to	C	EIL 017/17	N64°53.00' W146°42.00'
01 AGL B 110 MSL to	D	EIL 033/13	N64°47.00' W146°42.00'
01 AGL B 110 MSL to	E	EIL 059/14	N64°42.00' W146°34.00'
01 AGL B 110 MSL to	F	BIG 352/33	N64°32.00' W145°23.00'
01 AGL B 110 MSL to	G	BIG 004/39	N64°35.00' W145°02.00'
01 AGL B 110 MSL to	H	BIG 009/63	N64°53.00' W144°25.00'
01 AGL B 110 MSL to	I	BIG 010/66	N64°55.00' W144°20.00'
01 AGL B 110 MSL to	J	FYU 134/81	N65°22.00' W143°52.00'
01 AGL B 110 MSL to	K	FYU 126/74	N65°33.00' W143°38.00'
01 AGL B 90 MSL to	L	FYU 107/64	N65°55.00' W143°12.00'
01 AGL B 90 MSL to	M	FYU 100/73	N65°57.00' W142°42.00'
01 AGL B 90 MSL to	N	FYU 104/101	N65°36.00' W141°56.00'
01 AGL B 90 MSL to	O	FYU 106/106	N65°30.00' W141°51.00'
01 AGL B 170 MSL to	P	BIG 034/116	N65°00.00' W141°54.00'
01 AGL B 170 MSL to	Q	BIG 041/112	N64°46.00' W141°47.00'

TERRAIN FOLLOWING OPERATIONS: Authorized entire route.

ROUTE WIDTH - 5 NM either side of centerline.

Special Operating Procedures:

- (1) Route transitions through YUKON 2, YUKON 1, YUKON 4, and YUKON 3 HIGH/3A LOW Military Operations Areas (MOA). Route transitions through RESTRICTED AREA 2205 on multiple segments. Contact Scheduling Activity (SA) for de-confliction prior to use.
- (2) Prior scheduling with SA of R-2205 is required if entering this restricted airspace. This step is required to ensure Restricted Area (RA) will be cold, unless you will be performing hazardous activities which require an active RA (i.e. dropping bombs). Primary route segments D through F will only be scheduled when Eielson Range Control (ERC) is open or if you are working directly with the Army within R-2205; if not, utilize alternate entry/exit points.
- (3) Early contact with Air Traffic Control (ATC) before route entry will increase mission effectiveness. Request ATC clearance at least five minutes prior to route entry. Expect ATC to give route and MOA clearance prior to route entry/initial descent. ATC may ask if you are a participant in the Special Use Airspace. This means you have coordinated with the SA for the use of MOAs and/or RAs.
- (4) ATC clearance into MTR is not clearance to enter active RA. When ERC is open, you are required to contact them prior to entering active RAs and/or MOAs. Radio contact with

- ERC may be difficult. If no contact, call IN THE BLIND, then proceed on route through the MOA (but NOT into active/hot RA) and continue periodic reattempts.
- (5) ERC is not a 24 hr. facility. When ERC is open (generally 0900-1900 M-F, hours shift to cover the fighter flying window) all aircraft will contact ERC on UHF primary 229.4, secondary 244.55, or VHF 125.3 and receive clearance into restricted area PRIOR TO ENTRY.
 - (6) When ERC is closed (generally nights/weekends): Confirm RA status (hot/cold) with ATC controller prior to MTR entry. If hot and 354 OSS Scheduling has not specifically scheduled the RA for you, stay clear of RA - DO NOT ENTER HOT RA. If cold, RA becomes Class G/E airspace. A recorded message on 125.3 MHz indicates ERC is closed.
 - (7) When ERC is closed, approaching entry/exit points and periodically throughout the route, advise civil traffic with geographic position reports on area-specific and/or airfield-specific CTAF. The Alaska-unique area CTAF is commonly 122.9.
 - (8) Pass post MTR intentions through ERC or to ATC five minutes prior to exit. ATC cannot issue follow-on clearance while you are within an active MOA or RA.
 - (9) Low Altitude Air-to-Air Training (LOWAT) operations are approved on route segments that fall within the confines of a MOA. If scheduling LOWAT operations, user must schedule overlying MOA in addition to MTR.
 - (10) Route approved for Military Assumes Responsibility for Separation of Aircraft (MARSA) operations. User must coordinate MARSA operations with the SA prior to use.
 - (11) Primary entry: Point A. Alternate entry: Points C, E, F, H and L.
 - (12) Primary exit: Point Q. Alternate exit: Points E, F, H, L, and N.
 - (13) All route points (excluding R-2205 Racetrack pattern) are collocated with IR-952, VR-954, and VR-955.
 - (14) Use CAUTION for multiple Airways, including low altitude RNAV routes, on segments E to F. Additionally, multiple MTR crossings between points D to F within R-2205 and point Q.
 - (15) Use CAUTION for Pogo Mine and Pogo Mine Airstrip adjacent to route at Points F and G. Avoid mine center point (N64 27.12 W144 54.19) in Goodpaster River valley by 3NM and 1000' AGL (15 May-15 Jul). Airstrip has high density air activity with helicopters (150'-500' cable long-lines) and fixed wing activity.
 - (16) Use CAUTION: After weapons release in R-2205, start an immediate turn away from Eielson AFB to preclude flying into Fairbanks Approach Control's Airspace.
 - (17) Use CAUTION: Ft. Wainwright AAF Class E airspace less than 1 NM outside the route, Segment C to E. Eielson AFB Class D and E airspace 2 NM outside the route, Segment D to E.
 - (18) Remain clear of Chena River State Recreation Site at/above 1,500'AGL, (1 May-30 Sep), segments B to E.
 - (19) Remain clear of Pleasant Valley Subdivision west of segments C to D at 6,000' MSL. Flight above 6000' MSL is restricted to non-maneuvering, non-afterburning, navigational flight only.
 - (20) Remain clear of Salcha River Area 2 on segment E to F. Maintain at/above 5000' MSL for fighter aircraft (1-20 Sep). Maintain at/above 1000'AGL for all other aircraft (continuous).
 - (21) Remain clear of Salcha River Area 3, on segments E to G, by 2NM either side of Salcha River in the vicinity of Salcha Split VFR waypoint. 1-20 Sep, maintain at/above 5000' MSL for fighter aircraft and at/above 1000'AGL for all other aircraft.

- (22) Routine/daily training sorties: remain at/above 2000' AGL and 2NM either side of Yukon, Charley, and Kandik River centerlines to avoid Peregrine Falcon Corridor (15 Apr- 15 Sep). Segments J to L and N to P.
- (23) Major Flying Exercise (Red Flag, Northern Edge, etc.) sorties: remain at/above 2000' AGL and 2NM either side of Yukon river and at/above 5000' MSL and 2NM either side of Charley and Kandik River centerlines to avoid Peregrine Falcon Corridor (15 Apr- 15 Sep). Segments J to L and N to P.
- (24) Seasonal Fortymile caribou sensitive areas entire route from approximately 1 May-30 June. Up to four 6NM wide circles, updated every three days, will be avoided by 2,000' AGL. See local OGV FCIF for details and locations.
- (25) ATC contact: Anchorage Center. Primary entry/exit at points A through H: (319.2/120.9); backup (285.4/133.1). Primary entry/exit at points L through Q: (284.7/135.0); backup (225.4/132.7).
- (26) Local weather forecast information can be obtained at DSN 317-552-4903/4397. Weather related planning products and day-of forecasts are available 24/7.
- (27) Heavy migratory bird activity on route from 10 Apr to 20 May and 1 Aug to 1 Nov. Alaska Bird Avoidance Model data is available at <http://www.usahas.com>.

FSS Within 100 NM Radius:

FAI, ORT (1 Mar-30 Sep, other times contact FAI FSS). See Alaska Supplement