

Operations Plan



62 OSS Low Level Route Surveys

REQ-21-2202

15 November 2020 – 30 September 2021

This Ops Plan example outlines the standard format for all CAP Operations Plans. All sections and subsections outlined in this standard are required, however "N/A" is an acceptable entry if required. The Ops Plan needs to be fully coordinated through CAP-USAF prior to signature and needs to be signed before receiving Air Force Mission Approval in WMIRS, so be sure to coordinate the Ops Plan well enough in advance so as to not delay mission execution.

Table of Contents

Table of Contents1

1. General2

2. Application2

3. Flight Operations.....2

4. Administration3

5. Communications4

6. Cadet Participation.....4

7. Safety5

8. Staff Requirements5

9. Uniform Requirements5

10. Facilities.....5

11. Logistics.....5

12. Military Support Requirements5

13. Public Affairs5

14. Contingencies & Emergency Services Missions6

ACKNOWLEDGEMENTS7

APPENDIX A.....8

APPENDIX B.....9

1. General

- a. 62 Operations Support Squadron (OSS) Low Level Route Survey (LLRS). The WA Wing (WAWG) of the Civil Air Patrol (CAP) will provide aerial surveys of the 62 OSS Low Level Route as specified in this Operation Plan (OPLAN). This Plan is to establish the mission procedures and coordination responsibilities for the flight survey of 8 IFR/VFR Military Training Routes (MTR) to be flown by the Washington Wing Civil Air Patrol as an auxiliary of the United States Air Force.
- b. Incident Command Post. N/A
- c. Primary Dates & Times. The mission will be authorized to open on 15 November 2020 and close on 30 September 2021. Pre-positioning flights will contact the IC for approval prior to movement, only the IC or designee may release a flight for this event.
- d. Alternate Dates. N/A
- e. NHQ Funding. This mission is funded by 62 AW, Joint Base Lewis-McChord, WA. The 62 AW agrees to pay any mission essential costs incurred consistent with the mission requirements. A MIPR will be submitted separately. All reimbursement procedures are handled IAW applicable CAP regulations and directives. See Appendix A for the projected cost summary.
- f. Mission Symbol. A96
- g. Project Officer/Incident Commander
CAP Incident Commander/Program Manager:
Patrick Courtney Lt Col, CAP
Email: patrick.courtney@wawg.cap.gov
Phone: 425-785-9836 (C)
- h. Other Contacts
CAP Alternate IC:
Ralph Black, Maj, CAP
Email: ralphwblack@gmail.com
Phone: 360-739-4160 (C)

2. Application

- a. Qualification Requirements. Attendees shall be active CAP members with a valid CAP ID card in their possession, and present in a correctly worn CAP uniform. All members must have completed General Emergency Services and Basic ORM and have those noted in eServices Operations Qualifications to participate in the event. Any member not having those basic qualifications will not be allowed to sign into the mission and will not be covered under CAP or USAF insurance. All Pilots will arrive with current Form 5 and 91 evaluations good for the duration of their attendance. Personnel participating as aircrew members will either be properly qualified or be a supervised trainee in accordance with CAPR 60-3.
- b. Event Capacity. The IC will determine the personnel needed to support each mission event.
- c. Event Enrollment Procedures. N/A

3. Flight Operations

- a. Aircrew Requirements:
 - i. An aircrew consists of a qualified Mission Pilot (MP) and Mission Observer (MO) and an Aerial Photographer (AP). A 2nd MP may be used in lieu of a MO.
 - ii. On monthly LLRS, local aircrews will be required for operations. Aircrews outside of Washington Wing may be utilized if desired by the Incident Commander.
 - iii. Mission Observer (MO) or Mission Scanner (MS) trainees are authorized to participate on this mission if under the supervision of the Skills Evaluator (SET) in that qualification.
 - iv. MPs must have a minimum of 200 PIC hours and night current.

- v. MOs must be current, familiar with G1000 operation, and be able to assist the pilot with documentation of the route survey.
- b. Aircrew Training Requirements: N/A
- c. Additional Requirements
- i. If extended overwater flights are required, each occupant will wear FAA and U.S. Coast Guard or Department of Defense (DoD) approved personal flotation device (PFD). The aircraft will also contain a U.S. Coast Guard or DoD approved inflatable raft(s) of sufficient number and size to accommodate all occupants and will contain at least one pyrotechnic signaling device.
 - ii. If extended overwater flights are conducted, constant wear U.S. Coast Guard or DoD approved anti-exposure or immersion suits will be worn by crew members on any pre-planned overwater flight when the water temperature is or is forecast to be 60F degrees or less. The Incident Commander (IC) may waive the requirement to wear the anti-exposure or immersion suit after reviewing appropriate safety and Risk Management (RM).
- d. Mission-Specific Requirements
- i. The DoD establishes and maintains a number of military training routes in the United States. The rapid proliferation of obstructions, population changes, airspace alteration and environmental considerations require periodic surveys of each route. AFI 13-201, Air Force Airspace Management, states an annual flight evaluation must be flown to validate the accuracy of aeronautical charts and encourages the use of the CAP to perform this important mission.
 - ii. The routes required to be flown are as follows:

<u>Route/MOA</u>	<u>Date Due (Month)</u>
VR-331	Apr
IR-324/325	Jul
IR-326	Jul
IR-327	Aug
IR-329	Jun
IR-330	Aug
 - iii. Minimum altitude for the operation is 1000 feet AGL. Any operation below 1000 feet AGL will only be for an emergency and at no time will the CAP aircraft descend under 500 feet AGL. Any descent below 1000 feet AGL for an emergency is at the discretion of the CAP PIC.
 - iv. Flight crew briefing packets will be provided to the crews for each route needing to be surveyed. The crews will be briefed by the CAP Incident Commander or designee prior to the flight. The flight crew briefing packets will also be uploaded to the sortie files in WMIRS. See Appendix B for a sample flight crew briefing packet.
- e. Basic Operational Elements
- i. The basic concept of operations will be divided into the following areas:
 - Mission preflight planning and briefing
 - Takeoff
 - Route Survey
 - Land
 - Mission debriefing
 - ii. Routes may be divided up in to multiple sections based on the total distance of the route.

4. Administration

a. Sortie Management

- i. All sorties must be released in WMIRS electronically only by the IC or designee. FRO qualifications are required if you are not acting as an IC.

- ii. Sortie close-out data will be entered in WMIRS as soon after landing as practicable. Receipts must be uploaded within 48 hours or the expense will not be paid. IMPROPERLY RELEASED SORTIES WILL NOT BE FUNDED BY THIS EVENT.
- b. Safety Considerations. The IC or designee will cover all safety points upon release of the sortie, including the safe operations by aircrew and flight line personnel in the performance of their flying duties. NO PASSENGERS WILL BE SWAPPED WITH THE AIRCRAFT ENGINE RUNNING.
- c. Mission paperwork
 - i. Crews for both airplanes and vehicles are responsible to ensure fuel receipts, RM sheets, Weight and Balance sheets for airplanes and CAP Form 108 & 109's are provided to the IC for the event. He/she will ensure that fuel receipts, RM sheets, Weight and Balance and CAP Forms, if not on WMIRS, are captured and uploaded for each sortie for inclusion in WMIRS, in a timely manner.
 - ii. Aircraft will be refueled as necessary during the day but at least at the end of each days flying and must be noted on the CAPF104 in WMIRS.
 - iii. Crews will NOT be released for subsequent sorties until all paperwork required for each sortie has been submitted and approved.
 - iv. Pilots are responsible for obtaining fuel receipts and uploading to the corresponding sortie in WMIRS. Failing to do so within 48 hours of sortie completion may result in the pilot being responsible for payment or reimbursement of fuel for any sortie not properly documented and reported to the IC.
- d. SITREPS. SITREPS will be provided by the Incident Commander or designee at the request of CAP-USAF, Civil Air Patrol or the Customer.
- e. Non-CAP Crew Members
 - i. All non-CAP members, other than Military/National Guard, (Title 10 and Title 32) and Federal employees must complete a CAPF 9 prior to boarding the CAP aircraft. The CAPF 9 must be maintained in a safe place, not kept in the aircraft. All passengers must receive a briefing to include emergency procedures. All information for the non-CAP passenger will be listed in WMIRS.
 - ii. USDA personnel assigned to 62 AW/SE are eligible to fly on missions to document potential bird hazards (i.e. landfills, roost locations, large conjugation areas, etc.) as well as conduct bird counts while on the route. This data is used to brief command and change/alternate routes if required.
 - iii. USDA personnel must be submitted by the 62 OSS and listed in WMIRS in sufficient time (normally 5 days prior to mission date) to coordinate for Air Force approval IAW CAPR 70-1 para 9.8.2.

5. Communications

- a. Requirements. Communication between the aircrews, ground personnel and IC will make use of telephone, email, text messaging or radio.
- b. Procedure. The IC or designee will have and maintain communications equipment for use during the entire event. All sorties will remain in contact with the IC or his/her designee.
- c. Required Equipment
 - i. All aircraft must have an operational VHF-FM aircraft radio. Use of an aircraft without an operational VHF-FM radio requires advance approval of the IC.
 - ii. All operational sorties (air or ground) should have at least one cell phone and that number must be available in the IC or designee.

- 6. **Cadet Participation.** No cadets are expected to be participating in this mission unless they are 18 years of age or older and hold an aircrew qualification.

7. Safety

- a. ORM forms will be used at all levels of the event:
 - i. ICP – CAPFs 160 Deliberate Risk Assessment Worksheet, 160HL Hazard Listing Worksheet and/or 160S Real Time Risk Assessment Worksheet, will be completed for the Incident Command Post.
 - ii. Operational Air Sorties – ORM must be completed in WMIRS.
 - iii. Operational Ground Sorties – Hazards will be documented on the sortie briefing section within WMIRS.
- b. All CAP operations involve some degree of risk. Participants must be alert and careful when operating aircraft or ground vehicles.
- c. The IC will continually monitor all operations to ensure safety is not just talked about, but actually done correctly.
- d. Any mishaps that occur on the mission will be reported IAW CAPR 160-2.

8. Staff Requirements

- a. Staff members will be fully qualified or will be supervised by qualified members.
- b. The following Incident Command staff are required:
 - i. Incident Commander (IC)
 - ii. FRO
 - iii. Any additional support staff as required by IC
- c. Standby aircrew and members may perform other duties to assist and may include but not limited to: backfilling in the case of illness, a second instrument pilot for night overwater operations, relieve other crewmembers at the site, crew transport, and general support.

9. Uniform Requirements. All attendees must be in an authorized and complete **CAP** uniform worn in accordance with CAP regulations. Each member's role should dictate the appropriate uniform. Mission Staff may be in a service or utility uniform depending on the level of contact expected with external participants or media.

10. Facilities: N/A

11. Logistics

- a. Billeting. No overnight accommodations are necessary. In the unlikely event a crew does need to remain overnight (RON) the IC must be notified immediately. The IC will then make the request to the NOC for approval.
- b. Medical
 - i. Local medical facilities and by emergency number 911.
 - ii. Ambulatory patients may be transported to facilities by CAP vehicle. All other transport should be arranged by calling 911. Care-flight is available for aero-medical transport.
- c. Police and Fire. Local facilities and by emergency number is 911.
- d. Per Diem. IAW CAPR 173-3 the customer must approve GSA.gov rates in advance or reimbursement will be standard CAP rates.

12. Military Support Requirements: N/A

13. Public Affairs. The Public Information Officer (PIO) for this mission will be assigned by the IC or designee.

14. Contingencies & Emergency Services Missions. Any event may be suspended or terminated and CAP resources reassigned, at the direction of an active Emergency Services Mission Incident Commander, Washington Wing/CC, or Higher Headquarters CAP or CAP-USAF direction; otherwise, the event is expected to continue as planned.

ACKNOWLEDGEMENTS

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Comments:

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2 Feb 21

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Date

Leroy Alvarez

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Comments:

Leroy Alvarez

Mr. Leroy Alvarez, 62 OSS/ Chief Airspace Management

3 Feb 21

Date

APPENDIX A

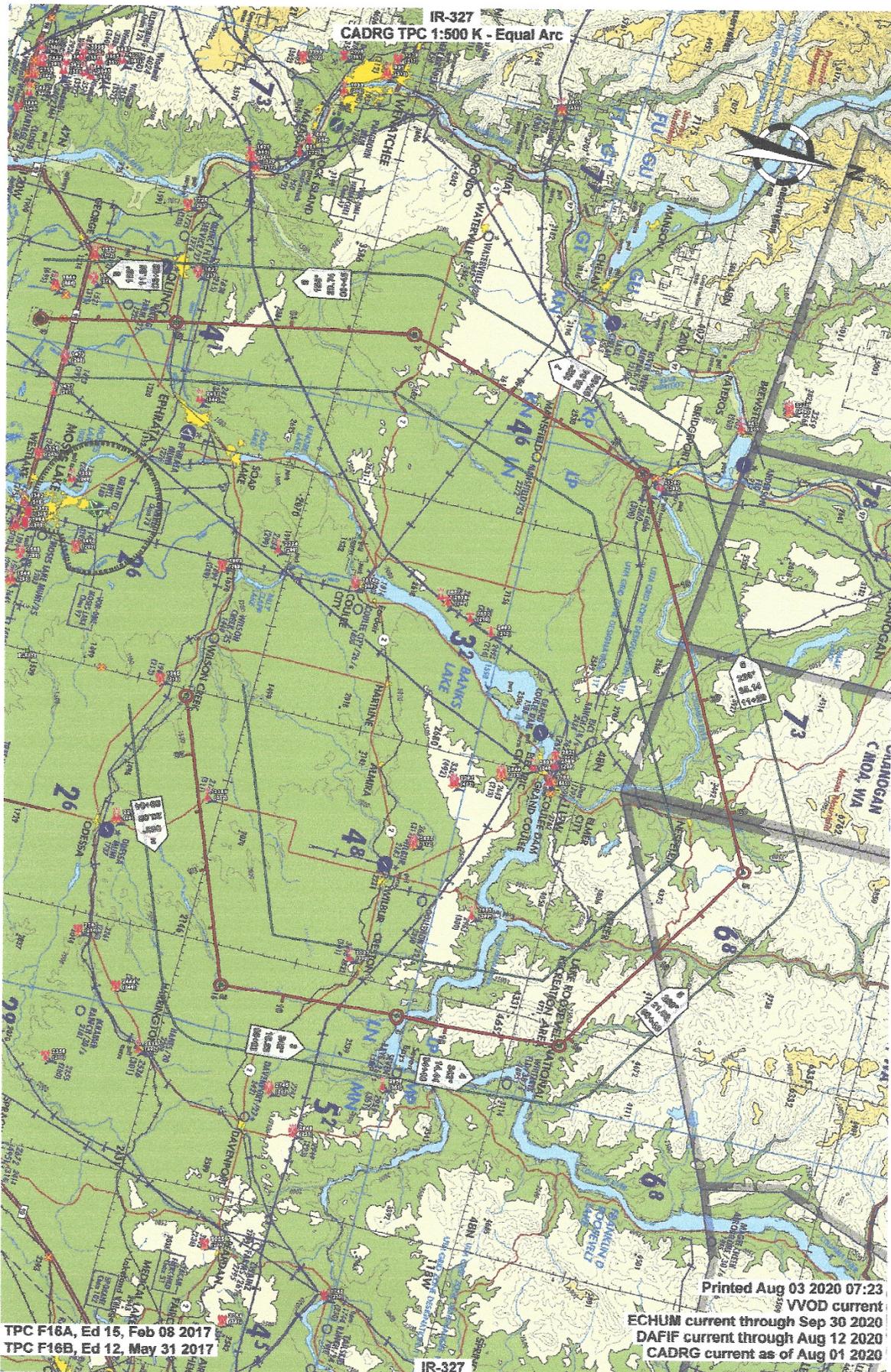
FY2021 62 Airlift Wing Low Level Route Survey Cost Estimate

Aircraft Type	Aircraft Usage Cost/Hour	Estimated Gallons/Hour	Estimated Fuel Cost per Hour @ \$5.45/Gal	Est. Fuel cost & Aircraft Usage/hour	Est. Hours of flight	Sub-Total Flying Hour Costs	Estimated Oil Cost	Lodging Per Diem	Comm/Supplies	Vehicle Costs	Total
C-182	\$96.00	11.9	\$64.86	\$160.86	42.8	\$6,884.81	\$65.19	0.00	0.00	50.00	\$7,000.00
TOTAL ESTIMATED HOURS:					42.8	TOTAL ESTIMATED COST					\$7,000.00
CAPR 173-3 Cessna 182 Dry Rate/Hour \$96.00											
MTR Route	In Route Survey Estimated Hours										
VR 331	5.0										
IR-324/325	4.2										
IR 326	4.6										
IR 327/328	3.2										
IR 329	4.2										
IR 330	3.4										
Total Survey	24.6										
Ferry time to MTR's	18.2										
	42.8										

Appendix B

**Low Level Route Survey
Crew Briefing Packet
REQ 21-2202**





IR-327 Survey Waypoint Listing

Route Description: Centerline Turn Points

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 250/32	N47°34.20' W118°25.10'
03 AGL B 50 MSL to	C	GEG 275/37	N47°49.80' W118°26.40'
03 AGL B 70 MSL to	D	GEG 291/45	N48°04.20' W118°27.8 0'
03 AGL B 70 MSL to	E	GEG 001/57	N48°19.80' 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'

Route Width - 5 NM either side of centerline.

IR-327 SURVEY ROUTE LENGTH

A to B	25 NM
B to C	16 NM
C to D	14 NM
D to E	21 NM
E to FA	35 NM
E to F	24 NM
F to G	21 NM
G to H	12 NM

Centerline Total: 168 NM

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. Duty hours 0800-1700 local. 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 250/32	N47°34.20' W118°25.10'
03 AGL B 50 MSL to	C	GEG 275/37	N47°49.80' W118°26.40'
03 AGL B 70 MSL to	D	GEG 291/45	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 and I 300' AGL modified contour will be conducted in VMC. If IMC, route leg altitudes will be 2,000' above highest obstacle within 5 NM of route centerline unless on FAA exemption 4371 between Points

H and I. 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:
 - (h) 7 Bays AFDL (Pvt) N47-51-04 W118-19-49;
 - (i) Mansfield AFDL N47-48-35 W119-38-14;
 - (j) Quincy AFDL N47-12-42 W119-50-23;
 - (k) Grigg AFDL (Pvt) N47-10-24 W119-44-48.
- (11) Sensitive Areas:
 - (l) Minimize overflight of Lake Creek, right of course centerline between Point A and B during summer months (May-Sep);
 - (m) Maintain 2000' AGL or above over FDR Lake between Points B and D.
 - (n) 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-327 ROUTE BRIEFING

This briefing contains information not listed in AP/1B

Users of this route must consult AP/1B for other information pertinent to this route

NOTE: The Chief, Airspace Management shall have the authority to temporarily close this route or portions thereof, IAW FAA Order 7610.4 and shall work with the airspace scheduling office to notify the appropriate agencies and aircrews.

IR-327 ERAA: A-H = 3500' (ERAA's are based on sector OROCA's; calculated 22NM either side of route centerline)

SCHEDULER NOTES: None

LEG	HAZARD	Route survey: Oct 2019	VHF FSS
PT A-B	None		
PT B-D	AVOID:		Seattle CTR
PT C-D	AVOID: 7 Bays AFLD (Pvt) N47-51-04 W118-19-49 by 1500' AGL or 3NM.		126.1
PT D-E	None		
PT E-F	None		
PT F-G	AVOID: Mansfield AFLD N47-48-35 W119-38-14; by 1500' AGL or 3NM.		
PT G-H	AVOID: Quincy AFLD N47-12-42 W119-50-23; by 1500' AGL or 3NM.		
PT H-I	AVOID: Grigg AFLD (Pvt) N47-10-24 W119-44-48; by 1500' AGL or 3NM.		
Notes:	Aircrew are responsible for avoiding airfields IAW published & local guidance. Airfields listed in AP/1B or the Route Brief are IAW ACC & 4 OG Guidance. ACC Guidance: Avoid all airfields in FAA Public Airfield Directory by 1500' AGL or 3NM. 4 OG Guidance: In addition to ACC Guidance, avoid all airfields with six or more permanently stationed aircraft by 1500' AGL or 3NM.		
	* 4 OG BASH RESTRICTIONS		
	Bird strike information for the last 4 years provided in blue to build situational awareness		

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. Duty hours 0800-1700 local. 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 205/30	N47°13.00' W118°09.00'
03 AGL B 50 MSL to	C	GEG 258/26	N47°38.00' W118°15.70'
03 AGL B 60 MSL to	D	GEG 278/32	N47°49.00' W118°19.00'
03 AGL B 60 MSL to	E	GEG 270/42	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. If IMC, route leg altitudes will be 2000' above highest obstacle within 5 NM of route centerline unless on FAA exemption 4371 between Points H and J. 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 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. MARSAs 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 AFD N47-07-30 W118-23-34; (d) Kramer AFD N47-22-54 W118-17-48; (e) Hanes AFD (Pvt) N47-29-30 W118-15-04; (f) Davenport AFD N47-39-15 W118-10-04; (g) 7 Bays AFD (Pvt) N47-51-04 W118-19-49; (h) Gollehon AFD (Pvt) N47-49-13 W118-41-13; (i) Wilbur AFD N47-45-12 W118-44-38; (j) Sheffels Ranch AFD (Pvt) N47-49-02 W118-48-05; (k) Grand Coulee AFD N47-55-30 W119-04-15; (l) Mansfield AFD N47-48-35 W119-38-14; (m) Quincy AFD N47-12-42 W119-50-23; (n) Grigg AFD (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 382-4057, C253-982-3615.

SCHEDULING ACTIVITY: 62 OSS/OSO, 100 Main St., McChord Fld, WA 98438 DSN 382-9925, C253-982-9925. Duty hours 0800-1700 local. 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 278/32	N47°49.00' W118°19.00'
03 AGL B 60 MSL to	F	GEG 258/26	N47°38.00' W118°15.70'
03 AGL B 50 MSL to	G	GEG 205/30	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. If IMC, route leg altitudes will be 2,000' above highest obstacle within 5 NM of route centerline. 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:
 - (f) Contact Grant County Approach Control 126.4 or 385.5 prior to Point A for clearance;
 - (g) Between Points B and F monitor Seattle Center 126.1 or 291.6;
 - (h) Between Points F and G monitor Spokane Approach Control 123.75 or 282.25;
 - (i) Before Point H, advise Grant County Approach of intentions after exit on 126.4 or 385.5;
 - (j) 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;
 - (a) Be alert for crop duster activity while over any agricultural area below 1000' AGL;
 - (b) 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.;
 - (c) When climbing out of the low level near Point H, be alert for small aircraft conducting basic flight training;
 - (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 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 B, towering heights are 453' AGL.
 - (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) Grigg AFLD (Pvt) N47-10-24 W119-44-48; (b) Quincy AFLD N47-12-42 W119-50-23;
 - (c) Mansfield AFLD N47-48-35 W119-38-14;
 - (f) Grand Coulee AFLD N47-55-30 W119-04-15;
 - (g) Sheffels Ranch AFLD (Pvt) N47-49-02 W118-48-05; (f) Wilbur AFLD N47-45-12 W118-44-38;
 - (g) Gollehon AFLD (Pvt) N47-49-13 W118-41-13; (h) 7 Bays AFLD (Pvt) N47-51-04 W118-19-49;
 - (i) Davenport AFLD N47-39-15 W118-10-04; (j) Hanes AFLD (Pvt) N47-29-30 W118-15-04; (k) Kramer AFLD N47-22-54 W118-17-48;
 - (l) Pru AFLD N47-07-30 W118-23-34;
 - (m) Tree Heart AflD N47-08-30 W118-48-04. (n) Franz AflD 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.
 - (a) 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, 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. Duty hours 0800-1700 local. 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 204/29	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 347/19	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. If IMC, route leg altitude will be 2000' above the highest obstacle within 5 NM of route centerline unless on FAA exemption 4371C between Points F and G. 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 exitpoints.
- (5) Route Communications:
 - (k) Contact Grant County Approach Control 126.4 or 385.5 prior to Point A for clearance;
 - (l) For entry at Point D contact Seattle Center on 123.95 or 282.3 for clearance;
 - (m) Between Point C and E monitor Seattle Center on 123.95 or 290.55. Provide progress report to Seattle Center at Point D.
 - (n) Monitor Chinook Approach 128.75 or 377.2 between Points E and F;
 - (o) At Point F, advise Grant County Approach of intentions after exit on 126.4 or 385.5;
 - (p) 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;
- (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, VR-1354, IR-324, IR-325, IR-329, IR-330 and IR-341 with scheduling activity;
 - (h) Be alert for small aircraft conducting spin training 6000' MSL and below midway between Point F and G;
 - (i) Be alert for crop duster activity while over any agricultural area below 1000' AGL;
 - (j) 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;
 - (k) 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;
 - (l) 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.
 - (m) 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;
- (h) Little Goose AFDL N46-35-00 W118-00-04;
- (i) 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-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. Duty hours 0800-1700 local. 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	EEPH 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 291/45	N48°04.20' W118°27.80'
03 AGL B 70 MSL to	F	GEG 275/37	N47°49.80' W118°26.40'
03 AGL B 50 MSL to	G	GEG 250/32	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. If IMC, route leg altitudes will be 2000' above highest obstacle within 5 NM of route centerline. 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. MARSAs 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 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	EEPH 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 291/45	N48°04.20' W118°27.80'
03 AGL B 70 MSL to	F	GEG 275/37	N47°49.80' W118°26.40'
03 AGL B 50 MSL to	G	GEG 250/32	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. If IMC, route leg altitudes will be 2000' above highest obstacle within 5 NM of route centerline. 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:

- (8) 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.
- (9) All turns must remain within route width.
- (10) Authorized aircraft C-17 and C-130.
- (11) Primary Entry: Point A. Alternate Entry: Points B and C.
- (12) Primary Exit: Point H. There are no alternate exit points.
- (13) Coordination is required with Whidbey Island NAS, DSN 820-2877, for transition through Roosevelt and Okanogan MOAs.
- (14) Route Communications:
 - (f) Contact Grant County Approach Control 126.4 or 385.5 prior to Point A;
 - (g) For entry at Point B or C, contact Seattle Center on 126.1 or 291.6 for clearance
 - (h) Monitor Seattle Center 126.1 or 291.6 between Point B and G. Relay progress report at Point F;
 - (i) Contact Grant County Approach Control 126.4 or 385.5 at Point G and advise of intentions after exit;
 - (j) 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.

10. Speed:

- (d) Maintain 250 KCAS or below until route entry;
- (e) Route may be scheduled at 240 or 300 knots ground speed. Indicate desired speed when scheduling. MARSAs established via coordinated scheduling;
- (f) Maximum speed on route: 360 KCAS.

11. Caution:

- (h) 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;
- (i) Be alert for crop duster activity while over any agricultural area below 1000' AGL;
- (j) 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;
- (k) 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;
- (l) 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.
- (m) A wind farm will begin construction in the spring of 2011, this farm is located near Point G, towering heights are 453' AGL.
- (n) Be alert for crop duster aircraft departing a grass strip located at N47-20-28 W119-42-20.

(12) 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).

(13) 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-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. Duty hours 0800-1700 local. 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. If IMC, route leg altitudes will be 2000' above the highest obstacle within 5 NM of route centerline unless on FAA exemption 4371 between Points G and H. 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
- (7) Sensitive Areas:
 - (a) Minimize overflight of Lake Creek, West Southwest of Point C during summer months (May-Sep).
 - (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 AFDL N47-03-01 W118-51-10;
 - (b) Tree Heart AFDL (Pvt) N47-08-30 W118-48-04;
 - (c) Odessa AFDL (Pvt) N47-21-30 W118-40-24;
 - (d) Coulee City AFDL (Pvt) N47-37-00 W119-14-34;
 - (e) Quincy AFDL N47-12-42 W119-50-23;
 - (f) Grigg AFDL (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

VR-331

ORIGINATING ACTIVITY: 62 OSS/OSK, McChord Fld,
1172 Levitow Blvd., WA 98438 DSN 382-3615, C253-982-3615.

SCHEDULING ACTIVITY: 62 OSS/OSO, McChord AFB,
100 Main St., WA 98438 DSN 382-9925, C253-982-2635. Duty hrs
0800-1700 local Mon-Fri only, next day req accepted NLT 1200
local. Other times ctc McChord Command Post DSN 382-2635,
C253-982-2635.

HOURS OF OPERATION: Continuous

ROUTE DESCRIPTION:

Altitude Data	Pt	Fac/Rad/Dist.	Lat/Long
Cross at 60 MSL to or as assigned.	A	HQM VORTAC	N46°56.82' W124°08.96'
60 MSL to or as assigned	B	HQM 240/16	N46°53.80' W124°32.00'
02 AGL B 46 MSL to	C	HQM 240/36	N46°50.00' W125°00.00'
02 AGL B 46 MSL to	X	HQM 216/28	N46°41.00' W124°42.00'
02 AGL B 46 MSL to	D	HQM 138/28	N46°31.20' W123°53.00'
05 AGL B 46 MSL to	E	OLM 195/29	N46°34.00' W123°18.00'
05 AGL B 46 MSL to	F	OLM 136/31	N46°30.20' W122°35.40'
03 AGL B 46 MSL to	G	OLM 099/20	N46°49.00' W122°29.00'
03 AGL B 25 AGL to	H	TCM 162/8	N47°01.00' W122°28.00'
03 AGL B 25 MSL to	HH	TCM 163/6	N47°02.39' W122°28.09'
03 AGL B 15 AGL to	I	TCM TACAN	N47°08.86' W122°28.50'

TERRAIN FOLLOWING OPERATIONS: 300' AGL
modified contour will be conducted in VMC only. After crossing
Point B, descend to 300' AGL can be initiated. All structures on the
route will be avoided by a minimum of 500' horizontally.

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

Special Operating Procedures:

- (1) All radius must fall within route width.
- (2) Authorized aircraft C-17 and C-130.
- (3) Primary Entry Point A. Alternate Entry Points D and G.
- (4) Primary Exit Point I. Alternate Exit Point HH.
- (5) Route Communications:
 - (a) Contact Seattle Center 128.3 or 269.0 prior to Point A for clearance.
 - (b) Between Points A and D, monitor Seattle Center 128.3or 269.0.
 - (c) Between Points D and F, monitor Seattle Center 124.2 or 317.6.
 - (d) Between Points F and I, monitor Seattle Center 126.5 or 391.9.
 - (e) Prior to Point G contact McChord Tower on 124.8 or 259.3 and give 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 IR-344 with scheduling activity.
 - (b) Remain on or North of centerline for 5NM either side of Point D. Avoid Oysterville, WA (N46-33.0 W124-02.0) by 2000'AGL or 2NM.
 - (c) Avoid the town of Pe Ell, WA (Point E) by 2NM.
 - (d) Avoid communications antenna 360'AGL (N46-32.0 W123-01.0) by 500' or 1NM.
 - (e) Intense North/South VFR traffic in the vicinity of Interstate 5 between Points E and F.
 - (f) Be alert for parachuting in the vicinity of Toledo-Winlock AFLD.
 - (g) Avoid Mink farm at (N46-33.0 W122-41.8) by 2000'AGL or 2NM.
 - (h) Remain West of Mayfield Lake just East of Point F.
 - (i) Be alert for UAS activity at or below 400' AGL within 2 NM radius (N46-51.538 W122-21.031).
 - (j) Be alert for ultra-light activity within 2 miles of (N46-56.593 W122-27.323).
 - (k) Point H is located on Rogers Drop Zone. Crews will check Gray AAF NOTAMs to deconflict with this DZ.
- (8) When practicable avoid by 1500'AGL or 3NM:
- (a) Martin AFLD (Pvt) (N46-31-09 W124-01-57)
 - (b) Curtis AFLD (Pvt) (N46-35-25 W123-06-16)
 - (c) Fantasy AFLD (Pvt) (N46-35-16 W122-51-57)
 - (d) Harris AFLD (Pvt) (N46-30-53 W122-47-31)
 - (e) Kadwell AFLD (Pvt) (N46-32-15 W122-43-04)
 - (f) Toledo-Winlock AFLD (N46-28-38 W122-48-25)
 - (g) Burnt Ridge AFLD (Pvt) (N46-35-07 W122-37-34)
 - (h) Bear Canyon AFLD (Pvt) (N46-35-56 W122-29-01)
 - (i) Cougar Mtn AFLD (Pvt) (N46-50-49 W122-31-19)
 - (j) Flying B AFLD (Pvt) (N46-52-39 W122-36-04)
 - (k) Western AFLD (Pvt) (N46-55-30 W122-33-14)
 - (l) Asplund AFLD (Pvt) (N46-53-30 W122-22-50)
 - (m) Shady Acres AFLD (N47-04-13 W122-22-16)
- (9) Crews should forward any observes hazard to aviation or concerns to the 62d AW Airspace Manager at DSN 382-4057 or C253-982-4057.