LOFT 2 – KRNT to KFHR Student Guide

Est. AATD Time – 1.0 Hour

Objectives
- Calculate aircraft performance to determine compliance with departure procedure.
- Determine route based on aircraft performance and airspace restrictions.
- Determine alternate requirements.
- Obtain clearance from ATC.
- Fly two instrument approach procedures.
- Perform missed approach.
- Perform standard holds.

Briefing
Arrive to briefing with planning completed using weather and information contained in the Pilot Briefing Packet. Assume the aircraft is full fuel and loaded to max gross weight. Everything is operational unless indicated by instructor. The Mission Table can be used as a guide to review regulatory and advisory source material. The briefing will cover your questions that arose during the planning process as well as quizzing by the instructor to ensure a working knowledge of the IFR system.

LOFT
Line-Oriented Flight Training (LOFT) is designed to focus on critical thinking and decision making skills rather than procedures. It is assumed that you can meet Instrument-Airplane ACS though the LOFT can be used to address areas of deficiency.

To maximize the training impact approach the simulator as if you were really conducting your planned flight single-pilot IFR. Complete all checklists, procedures and communications as if you are in the airplane. Minor difference will exist between the simulator and airplane (ie alt static source) so verbalize what you are doing when such instances occur. The instructor will act as ATC throughout the flight so treat him/her as such. He/She will provide any assistance you could expect from ATC, provided you ask.

The simulator will not fly exactly like the airplane. The performance characteristics are very close but the controls will seem more sensitive than the airplane. This is normal and you must scan your instruments at a higher rate than normally required to maintain the desired flight attitude. While sometimes frustrating it forces you to increase your instrument scan proficiency so that flying the airplane seems easy in comparison.

Use the automation as appropriate to reduce cockpit workload and increase situational awareness. If you think using the autopilot is cheating – that couldn't be more untrue. The autopilot may someday save your life but you must understand its capabilities and limitations.

Completion Standards
- Correctly determines the aircraft can comply with departure procedure performance requirements.
- Completes flight plan with appropriate alternate airport.
- Uses ATC assistance to reduce workload and increase situational awareness.
- Fly two approach procedures to instrument ACS standards.
- Executes missed approach procedures
- Correctly executes standard holding pattern

Activity	Task	Reference	Notes
Flight Planning	Preflight Requirements	FAR 91.103, 91.167, AIM 5-1-1	
	NOTAMs	AIM 5-1-3	
	Aircraft Airworthiness	FAR 91.205	
	VOR/GPS Currency	FAR 91.171	
	Route Selection / Flight Plan	AIM 5-1-4	
	Weather Considerations		
	W&B / Performance	POH	
Departure	Instrument Cockpit Check		
	Takeoff Minimums	AIM 5-2-8	
	Obstacle Departure Procedure	AIM 5-2-8	
	Standard Instrument Dept	AIM 5-2-8	
	Runway Selection		
	Departure Clearances	AIM 5-2-1, 5-2-6	
Enroute	MEA, MOCA, OROCA	AIM 4-4-9	
	GPS Direct	AIM 4-4-9	
	IFR Communications	FAR 91.183, 91.187, AIM 5-3-3	
	Descent Planning		
	Standard Terminal Arrivals	AIM 5-4-1	
Approach	Approach Selection	AIM 5-4-4	
	Transition: Vectors / Feeders	AIM 5-4-5	
	ILS	AIM 1-1-9, 5-4-5	
	Localizer	AIM 1-1-9, 5-4-5	
	GPS: LNAV/VNAV/LPV	AIM 1-1-19,5-1-16	
	VOR	AIM 1-1-3, 5-4-5	
	NDB	AIM 1-1-2, 5-4-5	
	ASR / PAR	AIM 5-4-3, 5-4-11	
	Visual / Contact	AIM 5-4-23 AIM 5-4-25	
	Circling	AIM 5-4-20	
	Visual Descent Point	AIM 5-4-5	
	Transition to VMC	FAR 91.175	
	Missed Approach	AIM 5-4-21	
Holding	Standard / Non-Standard	AIM 5-3-7	
	Fuel Planning		
	Communication Requirements	AIM 4-4-3	
Emergency	Lost Communications	FAR 91.185	
	Vacuum System	POH	
	Pitot-Static System	POH	
	Electrical	POH	
	Instrument	POH	
	AHRS, ADC, Display	POH	
SRM	Task Management		
	Automation Management		
	Aeronautical Decision Making		
	Situational Awareness		
	Controlled Flight into Terrain		

Pilot Briefing Packet

This briefing packet contains a standard DUATS weather briefing for the route/area described for the LOFT. Some information such as NOTAMS are been omitted and can be assumed not applicable for this flight.

METAR KRNT 291453Z 11003KT 10SM SCT022 BKN050 OVC070 06/06 A3020 RMK AO2 RAB1358E20 SLP231 P0000 60001 T00610056 53014
SPECI KRNT 291506Z 00000KT 10SM SCT012 BKN020 OVC075 07/06 A3021 RMK AO2
SPECI KRNT 291519Z 00000KT 10SM BKN012 OVC020 07/06 A3021 RMK AO2

TAF KBFI 291140Z 2912/3012 16006KT P6SM -RA BKN020 OVC050
FM292100 16006KT P6SM SCT028 OVC050
FM300500 16006KT P6SM -RA BKN016 OVC025

!RNT 01/012 RNT TWY A CLSD SOUTH TWY E 1500-0100 WEEKDAYS WEF 1301101500
!RNT 01/023 RNT TWY D CLSD WEF 1301250348-1302020100
!RNT 10/016 RNT APRON B ADJ TWY A WORK IN PROGRESS CONSTRUCTION WEF 1210232317

******** Destination Closest Terminal Weather ********
METAR KFHR 291453Z AUTO 00000KT 10SM OVC060 04/03 A3019 RMK AO2 SLP223 T00440033 51023 $

TAF is not available, refer to the Area Forecast

No Notams available for FHR

******** Alternate Closest Terminal Weather ********
METAR KPAE 291453Z 16005KT 7SM SCT001 BKN017 06/04 A3019 RMK AO2 RAB23E44 SLP226 P0001 60001 T00610044 53017

TAF KPAE 291140Z 2912/3012 VRB03KT P6SM BKN020 OVC035
FM292000 VRB03KT P6SM SCT025 OVC045
FM300500 15008KT P6SM -RA BKN011 OVC020

!PAE 10/067 PAE OBST TOWER UNKN (300 AGL) 5.5 SE (4751N12210W) LGTS OTS

******** FA Hazards and Flight Precautions ********
current report not available

******** FA Synopsis and VFR Clouds/Weather ********
SFOC FA 291145
SYNOPSIS AND VFR CLDS/WX
SYNOPSIS VALID UNTIL 300600
CLDS/WX VALID UNTIL 300000...OTLK VALID 300000-300600
WA OR CA AND CSTL WTRS
.
SEE AIRMET SIERRA FOR IFR CONDS AND MTN OBSCN.
TS IMPLY SEV OR GTR TURB SEV ICE LLWS AND IFR CONDS.
NON MSL HGTS DENOTED BY AGL OR CIG.
.
SYNOPSIS...12Z CDFNT SE BC-NERN WA-SEA-WRN VRISL. HI PRES RDG CNTRL OR-OFSHR NRN CA. TROF 30S FOT-50W SNS-40W RZS-60SW MZB. 18Z CDFNT FM LOW PRES NR GEG-EAT-BLI. HI PRES SE OR-OFSHR NRN CA. 00Z NO SGFNT FNTS. HI PRES OVR AREA. 06Z TROF 30NW RBL-OAK-40W RZS-MZB. TROF NERN WA-NERN OR. HI PRES RMNDR. ALF...12Z TROF NCNTRL MT-SE AZ. HI PRES CNTRD NR N35 W135. NLY JTST NERN WA-WRN AZ. 06Z HI PRES N-S ALG W130. NWLY FLOW ALF.

.
WA CASCDS WWD
CSTL SXNS...OVC010-015 TOP FL250. VIS 3-5SM -RA BR. 15Z BKN025
TOP 100. 19Z BKN035. OTLK...VFR 04Z MVFR CIG RA.
OLYMPICS...BKN040-050 OVC100 TOP FL250. VIS 3-5SM BR. SCT
-SHRA/-SHSN ABV 030. 19Z BKN040-050 TOP 120. OCNL VIS 3-5SM BR.
WDLY SCT -SHRA/-SHSN ABV 040. OTLK...IFR CIG RA SN BR.
CASCDS...OVC040 TOP FL250. VIS 3SM BR. -RA/-SN ABV 020.
OTLK...IFR CIG RA SN BR.
RMNDR...OVC025 TOP FL250. TIL 16Z OCNL VIS 3-5SM -RA BR. 22Z
BKN030 BKN120 TOP FL250. OTLK...MVFR CIG 04Z SHRA.
.
WA E OF CASCDS
CNTRL WA...BKN090 TOP 130. OTLK...VFR.
ERN WA
NRN...OVC035 TOP 160. VIS 3-5SM BR. ISOL -SHSN. 15Z BKN035 BKN100
TOP 120. 18Z SCT-BKN CI. OTLK...VFR.
SRN...BKN025 OVC050 TOP 140. VIS 3-5SM BR. ISOL -SHSN. 14Z OVC025
TOP 100. 18Z SCT025 BKN080 TOP 120. OTLK...VFR 05Z MVFR CIG SN.
.
CSTL WTRS
WA/OR...OVC010-020 TOP FL220. OCNL VIS 3-5SM -RA BR. 20Z TOP 160.
OTLK...IFR CIG RA BR.
NRN CA...BKN020 TOP 100. ISOL -SHRA. OTLK...IFR CIG.
CNTRL CA...OVC020 TOP 070. OTLK...MVFR CIG.
SRN CA
NRSHR...SCT CI. WND NW G25KT. OTLK...VFR.
OFSHR...OVC010-020 TOP 060. OTLK...MVFR CIG.
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******** FA Turbulence ********
current report not available

******** SIGMETs ********
current report not available

******** Convective SIGMET ********
MKCW WST 291455
CONVECTIVE SIGMET...NONE
OUTLOOK VALID 291655-292055
TS ARE NOT EXPD.

******** Center Weather Advisory ********
current report not available

******** AIRMETs ********
SFOS WA 291445
AIRMET SIERRA UPDT 3 FOR IFR AND MTN OBSCN VALID UNTIL 292100
.
.
.
AIRMET MTN OBSCN...WA OR CA ID MT WY NV UT CO AZ
FROM 60SSW YXH TO 20SE SHR TO 30WSW LAR TO 50SSE OCS TO 20S JNC
TO 50SSE BCE TO 40SW OAL TO 50ENE RBL TO 20SSW FOT TO 70W OED TO
40S HQM TO 20W TOU TO HUH TO 60SSW YXH
MTNS OBSC BY CLDS/PCPN/BR. CONDS CONTG BYD 21Z THRU 03Z.
....

SFOT WA 291445
AIRMET TANGO UPDT 3 FOR TURB VALID UNTIL 292100
.
.
AIRMET TURB...WA OR CA ID NV UT AZ NM AND CSTL WTRS
FROM HUH TO 60SW YXC TO 60SW DVC TO 60NNE TCC TO INK TO ELP TO
50S TUS TO BZA TO 20S MZB TO 40W RZS TO 40SSW FOT TO 70W OED TO
TOU TO HUH
MOD TURB BLW FL180. CONDS CONTG BYD 21Z THRU 03Z.
....

SFOZ WA 291445
AIRMET ZULU UPDT 2 FOR ICE AND FRZLVL VALID UNTIL 292100
.
AIRMET ICE...WA OR CA ID MT NV UT AZ AND CSTL WTRS
FROM 40SSE YXC TO 80SSE FCA TO 50SSW LKT TO 40E DBS TO 40ENE SLC
TO 50WSW JNC TO 60ENE TBC TO 30NNW DRK TO 30SW OAL TO 40SSW FMG
TO 40NNW FMG TO 20SSE OED TO 30SW EUG TO TOU TO HUH TO 40SSE YXC
MOD ICE BTN FRZLVL AND FL200. FRZLVL SFC-050. CONDS CONTG BYD 21Z
THRU 03Z.
.
FRZLVL...RANGING FROM SFC-115 ACRS AREA
  MULT FRZLVL 040-100 BOUNDED BY 100WNW ONP-20WNW ONP-30SSW EUG-
    40N RBL-120W FOT-100WNW ONP
  SFC ALG 30WNW HUH-20NNE YKM-30SE YKM-70SSE OED-40E EHF-20S EED
  040 ALG 40NNE TOU-40SSE SEA-50E PDX-20NNW DSD-40SW DSD
  040 ALG 60NW HEC-HEC-40E HEC-50ESE HEC-20S EED
  080 ALG 100W TOU-90W TOU-80SW TOU-80NW ONP-70WNW ONP-150W ONP
  080 ALG 140WSW FOT-50WSW RBL-40ESE SAC-20WSW CZQ-60SSW CZQ-
    20N RZS-60S TRM
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******** Surface Observations ********
METAR KPLU 291455Z AUTO 00000KT 10SM -RA OVC014 06/06 A3021 RMK AO2
METAR KPLU 291515Z AUTO 00000KT 10SM -RA OVC014 06/06 A3021 RMK AO2
METAR KTCM 291458Z AUTO 19005KT 10SM OVC013 06/06 A3021 RMK AO2 RAE1448 SLP236 P0001 60002 T00630061 53017 $
METAR KTIW 291453Z AUTO 21004KT 10SM OVC013 07/05 A3019 RMK AO2 RAE53 SLP227 P0000 60001 T00720050 53016
METAR KSEA 291453Z 14007KT 8SM -RA BKN012 BKN055 OVC075 06/05 A3019 RMK AO2 SLP233 P0000 60002 T00610050 53015
SPECI KSEA 291504Z 14006KT 1 1/2SM -RA BR FEW005 BKN012 OVC060 06/05 A3020 RMK AO2 SFC VIS 4 P0000
METAR KRNT 291453Z 11003KT 10SM SCT022 BKN050 OVC070 06/06 A3020 RMK AO2 RAB1358E20 SLP231 P0000 60001 T00610056 53014
SPECI KRNT 291506Z 00000KT 10SM SCT012 BKN020 OVC075 07/06 A3021 RMK AO2
SPECI KRNT 291519Z 00000KT 10SM BKN012 OVC020 07/06 A3021 RMK AO2
METAR KPWT 291455Z AUTO 00000KT 10SM SCT060 04/02 A3021 RMK AO1 P0001 60003 52017
METAR KPWT 291515Z AUTO 00000KT 10SM FEW005 BKN011 BKN060 04/02 A3022 RMK AO1
METAR KBFI 291453Z 14006KT 10SM -RA FEW008 OVC050 07/05 A3020 RMK AO2 RAB41 SLP226 P0000 60002 T00720050 53015
METAR KPAE 291453Z 16005KT 7SM SCT001 BKN017 06/04 A3019 RMK AO2 RAB23E44 SLP226 P0001 60001 T00610044 53017
METAR KAWO 291455Z 00000KT 10SM OVC010 05/03 A3020 RMK AO1 52014
METAR KAWO 291515Z 00000KT 10SM OVC010 04/03 A3022 RMK AO1
METAR KNUW 291456Z 36003KT 8SM FEW008 BKN014 OVC065 07/05 A3018 RMK AO2 SLP224 T00720050 51022 $
SPECI KNUW 291519Z 00000KT 10SM FEW008 SCT014 OVC050 07/04 A3020 RMK AO2 $

METAR KBVS 291455Z AUTO 35003KT 7SM BKN060 04/04 A3019 RMK A01 P000
METAR KBVS 291515Z AUTO 06003KT 10SM OVC060 04/04 A3019 RMK A01 P000
METAR KBVS 291535Z AUTO 00000KT 8SM BKN060 04/04 A3020 RMK A01 P000
METAR KFHR 291453Z AUTO 00000KT 6SM OVC060 04/03 A3019 RMK AO2 SLP223 T00440033 51023 $
METAR KORS 291455Z AUTO 00000KT 5SM FEW028 BKN050 04/04 A3017 RMK AO2
METAR KORS 291515Z AUTO 4SM FEW028 OVC050 04/04 A3017 RMK AO2
METAR KORS 291535Z AUTO 4SM OVC020 04/04 A3017 RMK AO2
METAR CYYJ 291500Z 00000KT 4SM BKN058 OVC170 04/03 A3019 RMK SC6AC2 SLP225

******** Pilot Reports ********
RNT UA /OV SEA088016 /TM 1455 /FL070 /TP SW4 /TA M05 /IC LGT MX 070-090 /RM FM APCH

NUW UA /OV NUW320005/TM 1505/FL170/TP B738/SK TOP229/TA M21/IC LGT RIME/RM DURC 170-195 ..ZSE

******** Terminal Forecasts ********
TAF KTCM 2913/3019 21009KT 9000 -RA OVC014 620307 QNH3016INS
BECMG 3005/3006 18009KT 9000 -RA OVC008 620307 QNH3036INS T08/3011Z T06/2913Z
TAF AMD KSEA 291400Z 2914/3018 12006KT P6SM -RA BKN013 OVC060
TEMPO 2914/2918 SCT013 BKN060
FM291800 18006KT P6SM SCT015 BKN025 OVC045
FM292200 18006KT P6SM SCT025 OVC045
FM300500 18006KT P6SM -RA BKN012 OVC020
TAF KBFI 291140Z 2912/3012 16006KT P6SM -RA BKN020 OVC050
FM292100 16006KT P6SM SCT028 OVC050
FM300500 16006KT P6SM -RA BKN016 OVC025
TAF KPAE 291140Z 2912/3012 VRB03KT P6SM BKN020 OVC035
FM292000 VRB03KT P6SM SCT025 OVC045
FM300500 15008KT P6SM -RA BKN011 OVC020
TAF KNUW 2907/3007 26020G28KT 9999 VCSH FEW012 BKN065 OVC100 650309 651209 652103 550009 550909 551809 532709 QNH2993INS
TEMPO 2907/2912 4800 RA BR BKN012 BKN020 OVC050
BECMG 2914/2916 29017G25KT 8000 -SHRA BR SCT015 SCT030 BKN070 OVC100 650309 651209 652103 550009 550909 551809 532709 QNH2995INS
BECMG 2918/2920 27013KT 9000 BR VCSH SCT015 BKN030 OVC060 650309 651209 652103 550009 550909 551809 532709 QNH2997INS
TEMPO 2919/3001 8000 -SHRA BR BKN010 OVC045
BECMG 3001/3003 15009KT 6000 -SHRA BR SCT008 BKN015 BKN020 OVC045 650309 651209 652103 500000 QNH3001INS T05/2915Z T07/2920Z
TAF CYYJ 291138Z 2912/3012 24005KT P6SM BKN040 OVC080 TEMPO 2912/2916 P6SM -RA BKN040
FM291600 VRB03KT P6SM VCSH FEW008 BKN040
FM292200 12008KT 6SM -RA BR SCT005 OVC015 TEMPO 2922/3006 P6SM NSW SCT015 BKN040
FM300600 23005KT 6SM -DZ BR OVC015 RMK NXT FCST BY 291800Z

******** FD Winds Aloft Forecast ********
DATA BASED ON 291200Z
VALID 291800Z FOR USE 1400-2100Z. TEMPS NEG ABV 24000
FT 3000 6000 9000 12000 18000 24000 30000 34000 39000 5000
YKM 3214 3236-03 3449-05 3470-08 3473-20 3476-31 347745 348554 347965 3228-01
SEA 3207 3231-03 3461-03 3462-08 3361-19 3460-30 336444 337254 347065 3223-01

******** NOTAMs ********

******** Runway NOTAMs ********
!YKM 01/051 YKM RWY 27 ALS OTS WEF 1301301900-1301302359
!YKM 01/035 YKM RWY 9 REIL HIGH/MED INTST OTS WEF 1301230058
!YKM 01/050 YKM RWY 27 SFL OTS
!PLU 07/009 PLU RWY 16 REIL OTS

!TIW 01/008 TIW RWY 17 ALS OTS WEF 1301291600-1301292300
!SEA 12/070 S36 RWY 15/33 RWY LGTS E SIDE S 1000 OTS
!SEA 01/243 SEA RWY 16C/34C CLSD WEF 1301291530-1301291630
!SEA 01/232 SEA RWY 16L ALS OTS WEF 1301301900-1301302100
!SEA 01/231 SEA RWY 16C ALS OTS WEF 1301301600-1301301800
!SEA 10/395 S43 RWY 15R/33L GRASS RWY CLSD
!AWO 04/001 AWO RWY GRASS STRIP PARL RWY 11/29 1400X100 ADJ NORTH SIDE BTN TWY D2 AND TWY D3 AVBL VMC
!AWO 04/002 AWO RWY GLIDER GRASS STRIP PARL TWY A 4000X145 ADJ WEST SIDE BTN TWY A1 AND TWY A4 AVBL DAY VMC
!SEA 11/307 0S9 RWY 9 PAPI UNUSBL
!BVS 08/018 BVS RWY 4 DISTANCE REMAINING SIGNS MISSING WEF1208061630
!BVS 08/019 BVS RWY 22 DISTANCE REMAINING SIGNS MISSING WEF1208061630
!BVS 10/005 BVS RWY 11 REIL OTS
!BVS 10/006 BVS RWY 29 REIL OTS
!BVS 11/010 BVS RWY 10/28 NOW RWY 11/29 WEF 1211061648
!BVS 11/017 BVS RWY 4 PAPI CMSND GLIDE ANGLE 4.0 DEGREES WEF1211082203
!SEA 07/626 W28 RWY 9L/27R GRASS WEST 1500 CLSD
!SEA 11/192 S31 RWY 16 REIL OTS
!ORS 06/002 ORS RWY 16 VASI GLIDE ANGLE 3.4 DEGREES TCH 35
!ORS 05/001 ORS RWY 34 PAPI OTS

******** Aerodrome NOTAMs ********
!OKH 01/001 OKH AD ABN OTS

******** Obstruction NOTAMs ********
!PLU 01/005 PLU OBST TOWER 670 (130 AGL) 0.5 SW LGTS OTS (ASR 1059506) TIL 1302012124
!TIW 01/009 TIW OBST TOWER 577 (190 AGL) 4.9 ESE LGTS OTS (ASR 1031999) TIL 1302130122
!TIW 01/007 TIW OBST TOWER 444 (160 AGL) 1.6 WNW LGTS OTS (ASR 1221299) TIL 1302050514
!SEA 01/242 S50 OBST TOWER 174 (152 AGL) 8.7 SSW LGTS OTS WEF 1301282157-1302122155
!SEA 01/235 S50 OBST TOWER 524 (104 AGL) 3.0 NNE LGTS OTS (ASR 1002452) TIL 1302120821
!SEA 01/154 S50 OBST TOWER 662 (158 AGL) 1.5 WSW LGTS OTS (ASR 1033165) WEF 1301190620-1302030620
!RNT 01/024 W36 OBST TOWER 320 (90 AGL) 1.4 NE LGTS OTS (ASR 1055156) TIL 1302121247
!RNT 01/017 W36 OBST TOWER 473 (133 AGL) 2.5 N LGTS OTS (ASR 1045321) TIL 1302070241
!BFI 03/023 BFI OBST CRANE UNKN (180 AGL) .37 NW AER 31L WEF 1203161900
!BFI 08/127 BFI OBST CRANE UNKN (150 AGL) .75 SW AER 13R
!SEA 01/224 0W0 OBST TOWER 1004 (594 AGL) 1.2 SE LGTS OTS (ASR 1032916) TIL 1302100533
!SEA 01/206 S86 OBST TOWER 804 (325 AGL) 2.5 NNW LGTS OTS (ASR 1239488) TIL 1302081718
!SEA 01/132 W16 OBST TOWER 864 (179 AGL) 2.7 WSW LGTS OTS (ASR 1224450) TIL 1301302203
!PAE 10/067 PAE OBST TOWER UNKN (300 AGL) 5.5 SE (4751N12210W) LGTS OTS
!AWO 01/003 AWO OBST TOWER 618 (170 AGL) 2.3 ESE LGTS OTS (ASR 1030619) TIL 1301311719
!SEA 01/211 0S9 OBST TOWER 924 (203 AGL) 8.3 SSW LGTS OTS (ASR 1235620) TIL 1302082227
!OKH 01/002 OKH OBST TOWER 439 (146 AGL) 4.1 NE LGTS OTS (ASR 1228009) TIL 1302130831

******** Navigation NOTAMs ********
!GPS 01/086 ZSE NAV GPS IS UNRELIABLE AND MAY BE UNAVAILABLE WITHIN A RADIUS OF 374NM AND CENTERED AT N373036W1163257 OR THE LOCATION ALSO KNOWN AS THE BEATTY, NV VOR (BTY) 013 RADIAL AT 44NM AT FL400 AND ABOVE; DECREASING IN AREA WITH A DECREASE IN ALTITUDE TO A RADIUS OF 314NM AT FL250; A RADIUS OF 243NM AT 10,000FT MSL; A RADIUS OF 213NM AT 4,000FT AGL; AND A RADIUS OF 171NM AT 50FT AGL WEF 1301300300-1301300600
!SEA 12/055 TCM NAV VOR UNUSBL 300-075 BYD 10 BLW 8000/300-340 BYD 12/340-026 BYD 19/026-036 BYD 12 BLW 8500/036-056 BYD 12/056-069 BYD 19/069-075 BYD 19 BLW 8000/069-075 BYD 24 BLW 10000/135-146 BYD 12/146-156 BYD 12 BLW 5800/200-270 BYD 12 WEF 1212052252

******** Taxiway NOTAMs ********
!RNT 01/012 RNT TWY A CLSD SOUTH TWY E 1500-0100 WEEKDAYS WEF 1301101500
!RNT 01/023 RNT TWY D CLSD WEF 1301250348-1302020100

******** Ramp/Apron NOTAMs ********
!RNT 10/016 RNT APRON B ADJ TWY A WORK IN PROGRESS CONSTRUCTION WEF 1210232317

******** Service NOTAMs ********
!SEA 01/237 ZSE SVC MAKAH SECONDARY SURVEILLANCE RADAR OTS WEF 1301301900-1301302300
!SEA 07/820 SEA SVC STAMPEDE PASS ASOS OTS