

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 PTS 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 PTS standards.
- Executes missed approach procedures
- Correctly executes standard holding pattern

## LOFT 1 - Mission Table

Activity	Task	Reference	Notes
<b>Flight Planning</b>	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	
<b>Departure</b>	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	
<b>Enroute</b>	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	
<b>Approach</b>	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	
<b>Holding</b>	Standard / Non-Standard	AIM 5-3-7	
	Fuel Planning		
	Communication Requirements	AIM 4-4-3	
<b>Emergency</b>	Lost Communications	FAR 91.185	
	Vacuum System	POH	
	Pitot-Static System	POH	
	Electrical	POH	
	Instrument	POH	
	AHRS, ADC, Display	POH	
<b>SRM</b>	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 KMFR 292053Z 0000KT 10SM SCT038 OVC070 11/04 A3026 RMK AO2 SLP254 T01140042 58016

TAF KMFR 291753Z 2918/3018 0000KT 3SM BR SCT004 BKN060  
 FM291900 VRB03KT P6SM SCT060  
 FM300400 0000KT 5SM BR SCT150  
 FM301500 0000KT 1/2SM FZFG OVC002  
 FM301700 0000KT P6SM SCT005

!MFR 11/001 MFR AD SURFACES NOT MONITORED DAILY 0800-1200 1311030800-1403091200  
 !MFR 10/030 MFR OBST MOORED BALLOON IN FREEZING FOG CONDITIONS WITHIN AREA DEFINED AS 2NM  
 RADIUS OF MFR 1810FT (500FT AGL) DAILY 1400-0500 1311031400-1403090500  
 !MFR 11/017 MFR OBST TOWER LGT (ASR 1218717) 422543.30N1225057.70W (3.5NM NNE MFR) 1488FT  
 (170FT AGL) OUT OF SERVICE 1311190701-1312040701  
 !MFR 11/025 MFR COM REMOTE TRANSMITTER/RECEIVER 257.8 OUT OF SERVICE 1311282310-  
 1312042100EST

### Destination Closest Terminal Weather

METAR KOTH 292055Z 24012KT 8SM SCT023 OVC030 12/08 A3027 RMK AO1 57014  
 METAR KOTH 292115Z 23013KT 6SM OVC020 11/08 A3027 RMK AO1

TAF KOTH 291753Z 2918/3018 35006KT P6SM OVC030  
 FM292200 34010KT P6SM SCT015 OVC025  
 FM300200 VRB03KT 4SM BR BKN005 BKN120  
 FM300800 VRB03KT 1SM BR OVC004  
 FM301600 VRB03KT P6SM SCT008 BKN120

!OTH 11/003 OTH AD WINDCONE NOT LGTD 1311062012-1401301500EST  
 !OTH 07/012 OTH NAV TACAN AZM OTS  
 !OTH 11/001 OTH APRON SOUTH HALF OF GENERAL AVIATION APRON CLOSED FOR CONSTRUCTION  
 1311012043-1404300001  
 !OTH 11/002 OTH SVC PCL ALL OUT OF SERVICE 1311062011-1401301500EST

### FA Hazards and Flight Precautions

current report not available

### FA Synopsis and VFR Clouds/Weather

SFOC FA 292045  
 SYNOPSIS AND VFR CLDS/WX  
 SYNOPSIS VALID UNTIL 301500  
 CLDS/WX VALID UNTIL 300900...OTLK VALID 300900-301500  
 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.  
 .

## LOFT 10 - KMFR to KOTH

## STUDENT GUIDE

SYNOPSIS...ALF..LOW OVR SRN CA DURG PD. W OR NWLY FLOW EXTDS FROM  
WA/OR SEWD INTO THE NRN AND CNTRL ROCKIES. LTL CHG EXPCD DURG  
FCST PD. SFC..HIGH PRESSURE OVR ERN WA-NRN ID DURG PD. TROF OVR  
CNTRL CA CSTLN DURG PD.

.  
OR CASCDS WWD  
CSTL SXNS  
CSTLN  
N HLF...BKN010-020 LYRD FL280. VIS 3-5SM BR. OTLK...IFR CIG BR.  
S HLF...BKN CI. BECMG 0003 BKN010 LYRD FL280. VIS 3-5SM BR.  
OTLK...IFR CIG BR.

INLAND  
N HLF...BKN030 LYRD FL280. OCNL VIS 3-5SM BR. OTLK...IFR CIG BR.  
S HLF...SCT-BKN CI. BECMG 0508 BKN030 LYRD FL280. VIS 3-5SM BR.  
OTLK...IFR CIG BR.

WILLAMETTE VLY...BKN050 LYRD FL280. TIL 23Z OCNL VIS 5SM BR.  
BECMG 0508 BKN025. VIS 3-5SM BR. OTLK...IFR CIG BR.  
SWRN INTR...SCT040 BKN CI. TIL 23Z OCNL VIS 3-5SM BR. 06Z OCNL  
VIS 3-5SM BR. OTLK...IFR CIG BR.

CASCDS  
N HLF...BKN CI. BECMG 0407 BKN050 LYRD FL280. OCNL VIS 3-5SM BR.  
OTLK...MVFR CIG BR BECMG 1113 IFR CIG BR.  
S HLF...BKN CI. BECMG 0003 BKN030 LYRD FL280 VIS 3-5SM BR. OTLK...IFR CIG BR.

.  
OR E OF CASCDS  
CNTRL  
COLUMBIA BASIN...BKN050 LYRD FL280. VIS 3-5SM BR. BECMG 2223  
SCT-BKN CI. OTLK...VFR BECMG 1113 IFR BR.

RMNDR...BKN CI. OTLK...VFR.  
ERN  
NRN 1/4...SCT-BKN CI. OTLK...VFR BECMG 1113 IFR BR.  
RMNDR...SCT-BKN CI. OTLK...VFR.

.  
NRN CA...STS-SAC-TVL LN NWD  
CSTL SXNS  
CSTLN  
FOT NWD...SCT010 BKN CI. BECMG 0407 BKN010 LYRD FL280. VIS 3-5SM  
BR. OTLK...IFR CIG BR.  
S OF FOT...SCT010. OTLK...VFR BECMG 1214 IFR CIG BR.  
INLAND...BKN CI. OTLK...VFR.  
SAC VLY...BKN CI. OTLK...VFR.  
SHASTA-SISKIYOU-S-NERN CA...BKN CI. OTLK...VFR.  
NRN SIERNEV...SKC. 23Z BKN CI. OTLK...VFR.

.  
CNTRL CA  
CSTL SXNS  
CSTLN...SCT010. OTLK...VFR BECMG 1214 IFR CIG BR.  
INLAND...SCT CI. BECMG 2302 BKN CI. OTLK...VFR.  
SAN JOAQUIN VLY...SCT CI. BECMG 0306 VIS 3-5SM BR. OTLK...MVFR BR  
BECMG 1214 IFR BR.  
SRN SIERNEV...BKN CI. BECMG 2201 SCT CI. 04Z BKN CI. OTLK...VFR.

.  
SRN CA..VGB-NID-60NNW BIH LN SWD

## LOFT 10 - KMFR to KOTH

## STUDENT GUIDE

CSTL SXNS...BKN070 LYRD FL250. ISOL -SHRA. BECMG 2302 BKN120.  
ISOL -SHRA. BECMG 0306 SCT120 BKN CI. OTLK...VFR.  
INTR MTNS-MOJAVE-SRN DESERTS...SCT120 BKN CI. OTLK...VFR.  
IMPERIAL-COACHELLA VLYS...SCT120 BKN CI. OTLK...VFR.

CSTL WTRS

WA...BKN010 LYRD FL280. VIS 3-5SM BR. ISOL -SHRA. OTLK...IFR CIG  
SHRA BR.

OR...BKN010 LYRD FL280. VIS 3-5SM BR. OTLK...IFR CIG BR.

CA...

NRN...BKN010 LYRD FL280. VIS 3-5SM BR. OTLK...IFR CIG BR.

CNTRL...SCT010. BECMG 2302 BKN010 TOP 030. VIS 3-5SM BR.

OTLK...IFR CIG BR.

SRN

NEAR SHORE...BKN030 LYRD FL250. OCNL VIS 3-5SM WDLY SCT -SHRA BR.

BECMG 2201 BKN070. ISOL -SHRA. OTLK...VFR.

OFFSHORE...BKN010 LYRD FL250. OCNL VIS 3-5SM WDLY SCT -SHRA BR.

BECMG 0104 VIS 3-5SM BR. ISOL -SHRA. OTLK...IFR CIG SHRA BR.

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FA Turbulence

current report not available

Severe Weather Outlook

SPC AC 291901

DAY 1 CONVECTIVE OUTLOOK

NWS STORM PREDICTION CENTER NORMAN OK

0101 PM CST FRI NOV 29 2013

VALID 292000Z - 301200Z

...NO TSTM AREAS FORECAST...

NO CHANGES TO THE PREVIOUS OUTLOOK.

..JEWELL.. 11/29/2013

.PREV DISCUSSION... /ISSUED 0937 AM CST FRI NOV 29 2013/

...SYNOPSIS/FORECAST...

ZONAL FLOW WILL CONTINUE OVER THE CNTRL AND ERN U.S. THROUGH  
SAT...DOWNSTREAM FROM SPLIT FLOW PATTERN OVER THE WEST. DRY AIR WILL  
PREVAIL AT LWR LVLS OVER THE CNTRL AND ERN STATES IN WAKE OF  
DEPARTING TROUGH OVER THE CANADIAN MARITIMES...AND IN ZONE OF  
COMPARATIVELY STAGNANT LOW-LVL FLOW BENEATH UPR-LVL SPLIT IN THE  
WEST.

WHILE SOME MID/UPR-LVL CONVECTION LIKELY WILL PERSIST IN ASSOCIATION  
WITH ELONGATING UPR LOW OFF THE SRN CA CST...DEPTH/DEGREE OF  
ELEVATED BUOYANCY EXPECTED TO REMAIN TOO LIMITED FOR  
THUNDER...ESPECIALLY AS THE LOW CONTINUES TO WITHDRAW SWWD OFF THE  
CST.

Severe Weather Warnings

current report not available

SIGMETs

current report not available

Convective SIGMET

MKCW WST 292055

CONVECTIVE SIGMET...NONE

OUTLOOK VALID 292255-300255

TS ARE NOT EXPD TO REQUIRE WST ISSUANCES.

# LOFT 10 - KMFR TO KOTH

# STUDENT GUIDE

Center Weather Advisory  
current report not available

## AIRMETs

SFOS WA 292045

AIRMET SIERRA UPDT 4 FOR IFR AND MTN OBSCN VALID UNTIL 300300

.  
AIRMET MTN OBSCN...WA OR  
FROM 30S YDC TO 20W YKM TO 70SSW YKM TO 30SSE PDX TO 70SW EUG TO  
40S HQM TO TOU TO 20W HUH TO 30S YDC  
MTNS OBSC BY CLDS/PCPN/BR. CONDS CONTG BYD 03Z THRU 09Z.

.  
OTLK VALID 0300-0900Z...IFR CA  
BOUNDED BY 20E SAC-20E CZQ-20E EHF-40S EHF-20ENE OAK-20E SAC  
VIS BLW 3SM BR. CONDS DVLPG 06-09Z. CONDS CONTG THRU 09Z.

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SFOT WA 292045

AIRMET TANGO UPDT 3 FOR TURB VALID UNTIL 300300

.  
OTLK VALID 0300-0900Z...TURB CA WY NV UT CO AZ NM AND CSTL WTRS  
BOUNDED BY 60SSW DDY-BFF-GLD-50W LBL-30ESE TBE-INK-ELP-50S TUS-  
BZA-20S MZB-220SW MZB-120SW PYE-60W BAM-60SSW DDY  
MOD TURB BTN FL250 AND FL370. CONDS CONTG THRU 09Z.

.....

SFOZ WA 292045

AIRMET ZULU UPDT 3 FOR ICE AND FRZLVL VALID UNTIL 300300

.  
OTLK VALID 0300-0900Z...ICE WA OR AND CSTL WTRS  
BOUNDED BY YDC-50E YDC-90WSW YXC-50SSE PDX-100W ONP-140W TOU-YDC  
MOD ICE BTN FRZLVL AND FL180. FRZLVL 050-090. CONDS CONTG THRU  
09Z.

.  
FRZLVL...RANGING FROM SFC-115 ACRS AREA  
MULT FRZLVL BLW 080 BOUNDED BY 50E YDC-70WSW YXC-30ESE GEG-  
20SE EPH-70SSE YDC-50E YDC  
SFC ALG 20E YDC-50NW GEG-30NE GEG  
040 ALG 20E YDC-50SE YDC-50NNW GEG-60NNE GEG  
080 ALG 110W TOU-60SW TOU-40S SEA-40S PDT-40SE BKE

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## Surface Observations

METAR KMFR 292053Z 00000KT 10SM CLR 09/02 A3026 RMK AO2 SLP254  
T00940022 58016

METAR KSXT 292056Z AUTO VRB03KT 10SM CLR 11/M03 A3024 RMK AO2  
SLP223 T01111033 58005

METAR KRBG 292053Z AUTO 00000KT 4SM BR OVC002 04/04 A3029 RMK AO2  
SLP262 T00440039 58009

METAR KOTH 292055Z 32006KT 10SM CLR 12/08 A3027 RMK AO1 57014

METAR KOTH 292115Z 34005KT 10SM CLR 11/08 A3027 RMK AO1

## Pilot Reports

RBG UA /OV RBG /TM 2109 /FL080 /TP C182 /SK OVC-TOP020 /TA 01 /WV  
04123KT /TB NEG /RM SKC SPOTTER

## Terminal Forecasts

TAF KMFR 291753Z 2918/3018 00000KT 3SM BR SCT004  
FM291900 VRB03KT P6SM SCT200  
FM300400 00000KT 5SM BR SCT150  
FM301500 00000KT 1/2SM FZFG OVC002  
FM301700 00000KT P6SM SCT005  
TAF KRBG 291753Z 2918/3018 00000KT 1/4SM FG VV002  
FM292000 VRB03KT 3SM BR OVC003  
FM292200 36003KT 6SM BR SCT005 BKN200  
FM300200 00000KT 3SM BR OVC003  
FM300400 00000KT 1/2SM FG OVC002  
TAF KOTH 291753Z 2918/3018 35006KT P6SM SKC  
FM292200 34010KT P6SM SCT015 BKN120 BKN200  
FM300200 VRB03KT 4SM BR BKN005 BKN120  
FM300800 VRB03KT 1SM BR OVC004  
FM301600 VRB03KT P6SM SCT008 BKN120

## FD Winds Aloft Forecast

DATA BASED ON 291800Z REQUESTED  
VALID 300000Z FOR USE 2000-0300Z. TEMPS NEG ABV 24000 ALTITUDE  
FT 3000 6000 9000 12000 18000 24000 30000 34000 39000 8000  
SIY 9900+07 3109+02 3111-03 3614-17 3623-29 362645 354555 353463 3206+03  
OTH 0306 3511+07 3517+03 3218-02 3024-17 3125-29 312345 323555 313764 3515+04

## Aerodrome NOTAMs

!SIY 09/002 SIY AD WORK IN PROGRESS FARMING ACTIVITIES  
!MFR 11/001 MFR AD SURFACES NOT MONITORED DAILY 0800-1200  
1311030800-1403091200  
!MMV 10/092 64S AD LGTS OTS  
!MMV 10/093 64S AD CLSD NGT  
!OTH 11/003 OTH AD WINDCONE NOT LGTD 1311062012-1401301500EST

## Obstruction NOTAMs

!SEA 11/202 ZSE OBST WIND FARM WITHIN AREA DEFINED AS 10NM RADIUS OF  
455652N1183535W (14 NM SW ALW) 1611FT (327 FT AGL) NOT LGTD  
1311200053-1312100100EST  
!MFR 10/030 MFR OBST MOORED BALLOON IN FREEZING FOG CONDITIONS WITHIN  
AREA DEFINED AS 2NM RADIUS OF MFR 1810FT (500FT AGL) DAILY 1400-0500  
1311031400-1403090500  
!MFR 11/017 MFR OBST TOWER LGT (ASR 1218717) 422543.30N1225057.70W  
(3.5NM NNE MFR) 1488FT (170FT AGL) OUT OF SERVICE  
1311190701-1312040701

## Navigation NOTAMs

!MFR 11/024 OED NAV VORTAC UNMONITORED 1311280029-1312042359EST  
!OTH 07/012 OTH NAV TACAN AZM OTS

## LOFT 10 - KMFR to KOTH

## STUDENT GUIDE

### Communication NOTAMs

!MFR 11/025 MFR COM REMOTE TRANSMITTER/RECEIVER 257.8 OUT OF SERVICE  
1311282310-1312042100EST

### Ramp/Apron NOTAMs

!OTH 11/001 OTH APRON SOUTH HALF OF GENERAL AVIATION APRON CLOSED FOR  
CONSTRUCTION 1311012043-1404300001

### Service NOTAMs

!SEA 11/268 ZSE SVC KINGSLEY APP CLSD 1311272359-1312022359  
!OTH 11/002 OTH SVC PCL ALL OUT OF SERVICE 1311062011-1401301500EST

### FDC NOTAMs

!FDC 3/4378 MFR IAP ROGUE VALLEY INTL - MEDFORD, MEDFORD, OR.  
ILS OR LOC/DME RWY 14, AMDT 2A...  
VOR/DME RWY 14, AMDT 5A...  
VOR/DME C, AMDT 3A...  
VOR A, AMDT 4...  
LOC/DME BC B, AMDT 7...

ALTERNATE MINIMUMS NA, OED VORTAC UNMONITORED.  
1311280055-1405280055EST