

Est. AATD Time – 1.0 Hour

**Description**

After visiting the family farm in Wenatchee you are returning home with a load of fresh fruit. Smoke from nearby forest fires is restricting visibility and a TFR is in effect for fire-fighting activity. As typical in mountainous areas during the summer Convective SIGMETs have been issued. Complete a weight and balance to determine how much fruit you can carry to takeoff at max gross weight.

**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 three 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. 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 three approach procedures to instrument PTS standards.
- Executes missed approach procedures
- Correctly executes standard holding pattern

## LOFT 1 - Mission Table

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

### Airplane Information – Cessna 172SP

BEW: 1696.2

Empty Moment: 66,973.0

Discrepancies: None

### Weather

KEAT 130055Z AUTO 08015KT 2SM FU OVC005 29/09 A2987 RMK AO2 SLP106 T02940089

KEAT 122325Z 1300/1324 11006KT 5SM BKN020

FM130400 31009KT P6SM SKC

KELN 130053Z AUTO 10010KT 6SM FU OVC009 32/03 A2990 RMK AO2 SLP114 T03170033 TSNO

KYKM 130053Z 11010KT 8SM FU FEW020 OVC025 31/09 A2987 RMK AO2 SLP109 T03110089

KYKM 122321Z 1300/1324 11006KT P6SM OVC030

FM130400 12007KT P6SM SKC

FM131000 11005KT P6SM SKC

FM132000 09006KT P6SM SKC

KRNT 130053Z 15010KT 1 3/4SM RA- BR OVC007 20/17 A2998 RMK AO2 SLP158 T01980170

KSEA 130053Z 17008KT 1SM RA- FG OVC004 20/17 A3000 RMK AO2 SLP164 T01960170

KSEA 122321Z 1300/1406 1707KT 2SM OVC008

FM131200 17007KT 4SM OVC012

FM131800 27005KT 5SM SCT015 OVC020

FM140300 32005KT P6SM SCT120 BKN200

KPAE 130053Z 16003KT 4SM RA- OVC010 22/17 A3002 RMK AO2 SLP163 T02220167

KPAE 122321Z 1300/1324 17004KT 4SM OVC011

FM131200 25004KT 5SM OVC012

FM131900 34006KT P6SM BKN0080

WAUS46 KPCI 122045

SFOS WA 122045

AIRMET SIERRA UPDT 4 FOR IFR AND MTN OBSCN VALID UNTIL 130300

AIRMET IFR...OR WA AND CSTL WTRS

FROM 110W PDX TO 40W TOU TO 50N EPH TO 20ESE DLS TO 110W PDX

CIG BLW 010/VIS BLW 3SM BR/FG. CONDS CONTG BYD 03Z THRU 09Z.

OTLK VALID 0300-0900Z

AREA 1...IFR OR WA AND CSTL WTRS

BOUNDED BY PDX-110W TOU-40W HUH-OLM-PDX PDX-110W

CIG BLW 010/VIS BLW 3SM BR/FG. CONDS CONTG THRU 09Z.

AREA 2...MTN OBSCN WA OR

BOUNDED BY EPH-50N DLS-20ESE PDX-OLM-HUH EPH-50N

MTNS OBSC BY CLDS AND SMOKE. CONDS CONTG THRU 09Z.

WAUS46 KPCI 122045

SFOT WA 122045

AIRMET TANGO UPDT 3 FOR TURB VALID UNTIL 130300

BOUNDED BY EPH-50N DLS-20ESE PDX-OLM-HUH EPH-50N

MDT TURB DUE CONVECTIVE ACTVTY. CONDS CONTG THRU 09Z.

WAUS46 KPCI 122045

SFOZ WA 122045

AIRMET ZULU UPDT 3 FOR ICE AND FRZLVL VALID UNTIL 130300

BOUNDED BY EPH-50N DLS-20ESE PDX-OLM-HUH EPH-50N

MDT/SVR ICE IN CLDS AND PRECP DUE CONVECTIVE ACTVTY. CONDS CONTG THRU 09Z.

WSUS31 KPCI 130055

# LOFT 1 - KEAT TO KRNT

# STUDENT GUIDE

SIGE

CONVECTIVE SIGMET 1E

VALID UNTIL 0255Z

OR WA

FROM EPH-50N DLS-20ESE PDX-OLM-HUH EPH-50N

LINE SEV TS 40 NM WIDE MOV FROM 27010KT. TOPS TO FL430.

HAIL TO 1 IN...WIND GUSTS TO 50KT POSS.

OUTLOOK VALID 130255-130655

AREA 1...FROM EPH-50N DLS-20ESE PDX-OLM-HUH EPH-50N

WST ISSUANCES EXPD. REFER TO MOST RECENT ACUS01 KWNS FROM STORM

PREDICTION CENTER FOR SYNOPSIS AND METEOROLOGICAL DETAILS.

FT	3000	6000	9000	12000	18000	24000	30000	34000	39000
BIH		9900	1506+19	9900+11	2115-03	2021-17	232234	232942	223154
BLH	1909	1909+22	1308+15	1411+09	1114-05	1212-16	181832	202640	203052
FAT	3206	0105+23	3605+16	2407+09	2219-04	2122-18	222033	212743	213555
FOT	3518	2807+17	2408+12	2608+06	2112-07	2126-19	223437	224346	225956
ONT	2608	1605+23	1407+16	0906+10	1407-03	1311-16	141233	162142	203152
RBL	1707	9900+20	9900+13	9900+06	2214-05	2123-18	223436	224245	226054
SAC	2606	9900+20	2607+14	2514+07	2220-05	2226-17	223634	224243	225254
SAN	1610	1410+22	1308+15	1206+08	0608-04	1013-17	161732	192241	203052
SBA	9900	0709+22	1110+17	9900+11	3005-05	1707-17	171633	190943	202053
SFO	9900	3211+21	2913+14	2623+07	2319-05	2325-17	223734	214443	225054
SIY		2808+20	2507+11	1914+05	2215-07	2124-20	224137	224846	236955
WJF		2307+24	9900+17	9900+11	1407-04	1510-17	171133	181543	202952
AST	3309	2205+09	2119+07	2221+03	2433-10	2347-24	246039	246848	236857
IMB			9900+11	2015+03	2426-07	2435-21	255238	245347	256556
LKV			2107+15	2108+06	2221-07	2322-20	244437	234946	246955
OTH	3413	2206+13	2116+09	2214+05	2526-07	2339-21	225239	235447	236257
PDX	3209	2108+13	2122+08	2125+03	2428-09	2344-23	245938	246747	246757
RDM		3507+19	9900+11	1918+03	2429-07	2435-21	245338	235447	246256
GEG		9900+16	1907+08	2119+03	2422-11	2532-24	265438	266648	267258
SEA	9900	2111+12	1919+06	2122+01	2332-11	2347-24	246039	246948	246756
YKM	9900	9900+15	2315+09	2220+03	2329-10	2439-23	255738	256747	256857

FAUS46 KKCI 121945

FA6W

SFOC FA 121945

SYNOPSIS AND VFR CLDS/WX

SYNOPSIS VALID UNTIL 131400

CLDS/WX VALID UNTIL 130800...OTLK VALID 130800-131400

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...ALF...TROF JUST W OF WA AND NRN OR CSTL WTRS THRU PD.

SFC...TROF N CNTRL WA INTO CNTRL OR. TROF NWRN CA THRU CNTRL CA

VLYS. 14Z TROF N CNTRL CA INTO CNTRL CA VLYS.

WA CASCDS WWD

CSTL SXNS...OVC010 TOP 040. 21Z SCT CI. OTLK...MVFR CIG.

CASCDS...OVC020 TOP 090. OTLK...MVFR BECMG 12Z VFR.

RMNDR.... OTLK...IFR BECMG 12Z MVFR CIG.

WA E OF CASCDS

OVC030 TOP 090. 21Z BKN CI. OTLK...VFR.

**TFR / NOTAMs**

FDC 1/2936 ZOA CA.. FLIGHT RESTRICTIONS WENATCHEE, WA.  
EFFECTIVE IMMEDIATELY UNTIL FURTHER NOTICE PURSUANT TO  
14 CFR SECTION 91.137(A) (2) TEMPORARY FLIGHT RESTRICTIONS  
ARE IN EFFECT WITHIN A 5 NAUTICAL MILE RADIUS OF  
475233N/1204742W OR THE EAT VORTAC 285 DEGREE  
RADIAL AT 13.0 NAUTICAL MILES AT AND BELOW 17000 FEET MSL  
TO PROVIDE A SAFE ENVIRONMENT FOR FIRE FIGHTING AIRCRAFT  
OPERATIONS. US FOREST SERVICE TELEPHONE 775-782-1401  
OR FREQ 132.125/CASHMERE FIRE IS IN CHARGE OF THE  
OPERATION. SEATTLE ARTCC /ZOA/ TELEPHONE 206-745-3331  
IS THE FAA COORDINATION FACILITY.

!EAT 03/001 EAT NAV ILS RWY 12 LLZ UNUSBL BYD 15 BLW 5700

!EAT 02/004 EAT NAV ILS RWY 12 DME UNMONITORED

!FDC 1/6820 EAT FI/T ODP PANGBORN MEMORIAL, WENATCHEE, WA.

TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES AMDT 3...

TAKEOFF MINIMUMS:

RWY 7, 12, NA-OBSTACLES.

RWY 25, 30 CATS A/B 1600-2 OR STANDARD WITH A MINIMUM CLIMB OF  
415 FEET PER NM TO 3100 FEET.

CATS C/D 5500-3 OR STANDARD WITH A MINIMUM CLIMB OF 570 FEET  
PER NM TO 7200 FEET.

DEPARTURE PROCEDURE: RWY 12, NA.

ALL OTHER DATA REMAINS AS PUBLISHED.

!ELN 08/001 ELN AD ABN OTS

!YKM 02/021 YKM OBST CRANE 1347 (180 AGL) 1.8 NW LGTS OTS