

Flight manual to be used for training purposes only.
 of subject to revision.

CAUTION

A descending ground slope of 2 % (2 m per 100 m, or 2 ft per 100 ft) results in an increase in the landing distance of approximately 10 %. The effect on the ground roll can be greater.

WARNING

For a safe landing the available runway length must be at least equal to the landing distance over a 50 ft (15 m) obstacle.

5.3.10 LANDING DISTANCE - FLAPS LDG

- Conditions:
- Throttle IDLE
 - RPM lever HIGH RPM
 - Flaps LDG
 - Approach speed 71 KIAS (1150 kg, 2535 lb)
63 KIAS (1000 kg, 2205 lb)
58 KIAS (850 kg, 1874 lb)
 - Runway level, asphalt surface

values for ISA and MSL, at 1150 kg (2535 lb)

Landing distance over a 50 ft (15 m) obstacle	approx. 638 m (2093 ft)
Ground roll	approx. 352 m (1155 ft)

CAUTION

On grass strips, depending on the characteristics of the surface (particularly moisture), allowance must be made for a ground roll which is up to 50 % longer.

A poorly maintained airplane, deviation from the prescribed procedures and unfavorable external factors (high temperature, rain, unfavorable wind effects, etc.) can considerably increase the landing distance.

5.3.6 TAKE-OFF DISTANCE

- Conditions:
- Throttle MAX PWR
 - RPM lever 2700 RPM
 - Flaps T/O
 - Lift-off speed approx. 59 KIAS
 - Climb-out speed 66 KIAS (1150 kg, 2535 lb)
60 KIAS (1000 kg, 2205 lb)
54 KIAS (850 kg, 1874 lb)
 - Runway level, asphalt surface

WARNING

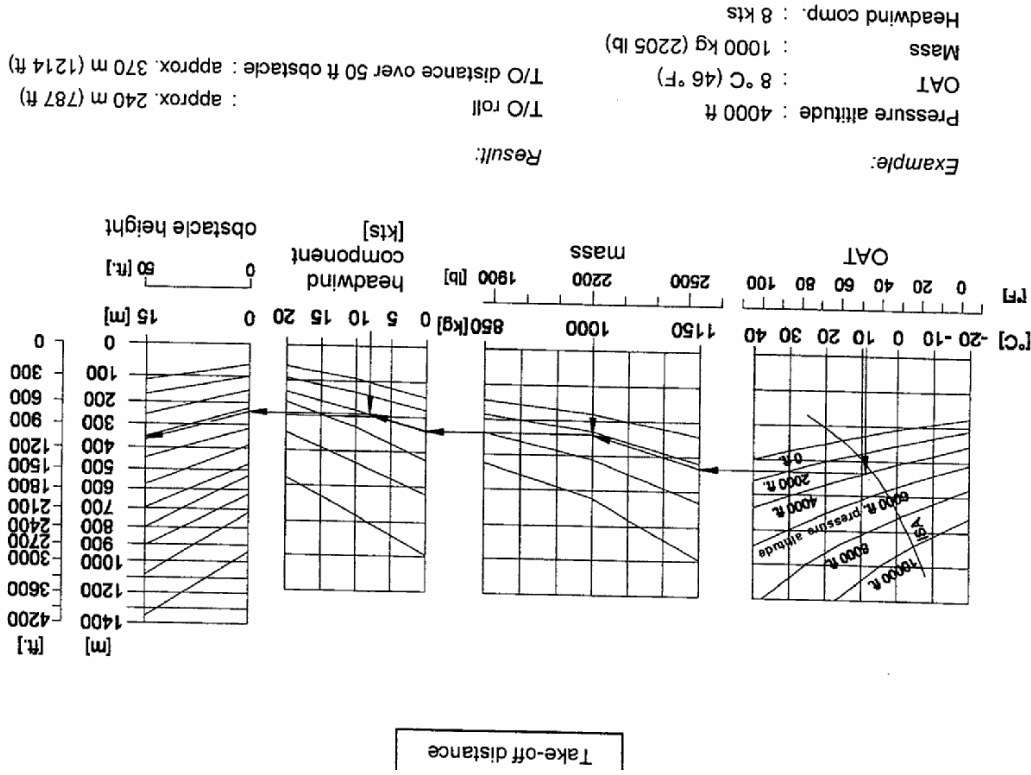
On grass strips, depending on the characteristics of the surface (length of the grass, softness of the ground) allowance must be made for a take-off roll which is at least 20 % longer. The take-off distance values given do not include any kind of safety margin. A poorly maintained airplane, deviation from the prescribed procedures and unfavorable external factors (rain, cross-wind, wind shear, uneven terrain and in particular tufts of grass) can all lead to a considerable increase in the take-off distance.

CAUTION

A ground slope of 2 % (2 m per 100 m, or 2 ft per 100 ft) results in an increase in the take-off distance of approximately 10 %. The effect on the take-off roll can be greater.

WARNING

For a safe take-off the available runway length must be at least equal to the take-off distance over a 50 ft (15 m) obstacle.



Fuel Flow [US gal/h]	Engine power as % of max. take-off power						
	RPM	65 %			75 %		
		2000	2200	2400	2200	2400	2400
Best Economy	7.9	8.2	8.5	9.2	9.5	9.5	
Best Power	-	9.5	9.8	10.7	11	11	
ISA	[°C]	[°F]	Manifold Pressure (MP) [inHg]				
MSL	15	59	26.8	24.9	23.4	27.3	25.8
1000	13	55	26.4	24.5	23.2	26.8	25.5
2000	11	52	26.0	24.2	22.9	26.5	25.2
3000	9	48	25.7	23.8	22.6	26.1	24.8
4000	7	45	25.4	23.5	22.3	-	24.5
5000	5	41	-	23.1	22.0	24.1	24.1
6000	3	38	-	22.8	21.7	-	-
7000	1	34	-	22.4	21.4	-	-
8000	-1	31	-	-	21.0	-	-
9000	-3	27	-	-	20.7	-	-
10000	-5	23	-	-	-	-	-

The areas shaded grey under each RPM heading are the recommended bands.

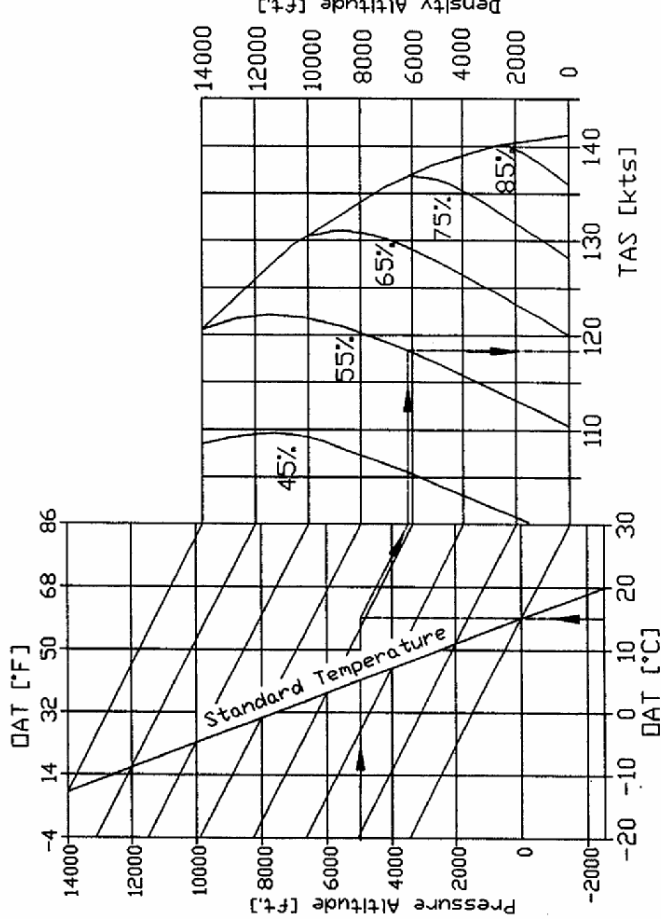
Correcting the table for variation from Standard Temperature

- At ISA + 15 °C (ISA + 27 °F) the performance values fall by approx. 3 % of the power selected according to the above table.
- At ISA - 15 °C (ISA - 27 °F) the performance values rise by approx. 3 % of the power selected according to the above table.

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5.3.9 CRUISING (TRUE AIRSPEED TAS)

Diagram to establish True Airspeed (TAS) at a given power setting.



Example: Pressure altitude 5000 ft
 Temperature 15 °C (59 °F)
 Power setting 55 %

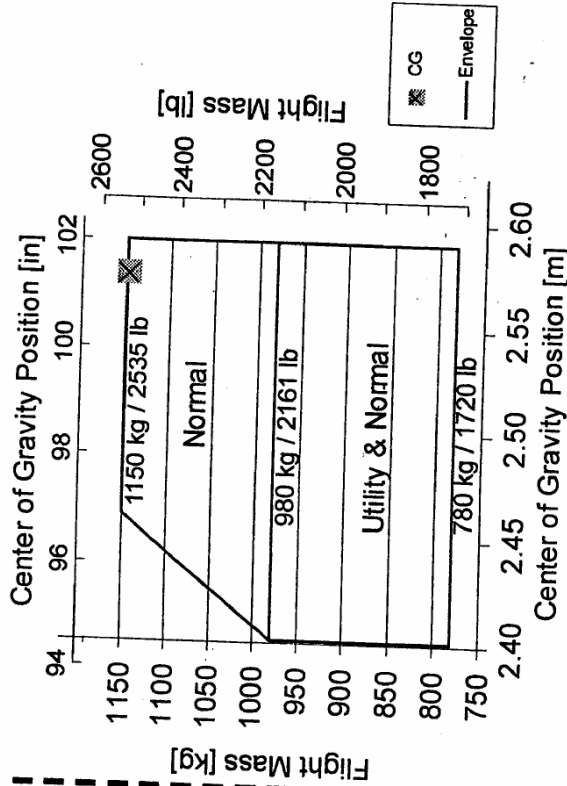
Result: True Airspeed (TAS) 118 kts

CAUTION

In case of operation without wheel fairings the cruising speed reduces by approximately 5 %.

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6.4.4 PERMISSIBLE CENTER OF GRAVITY RANGE



The CG shown in the diagram is that from the example in Table 6.4.3 'CALCULATION OF LOADING CONDITION', towed (pre-take-off condition).

The flight CG position must lie within the following limits:

Most forward flight CG:

2.40 m (94.5 in) aft of Datum Plane at 780 to 980 kg (1720 to 2161 lb)

2.46 m (96.9 in) aft of Datum Plane at 1150 kg (2535 lb)
linear variation between these values

Most rearward flight CG:

2.59 m (102.0 in) aft of Datum Plane

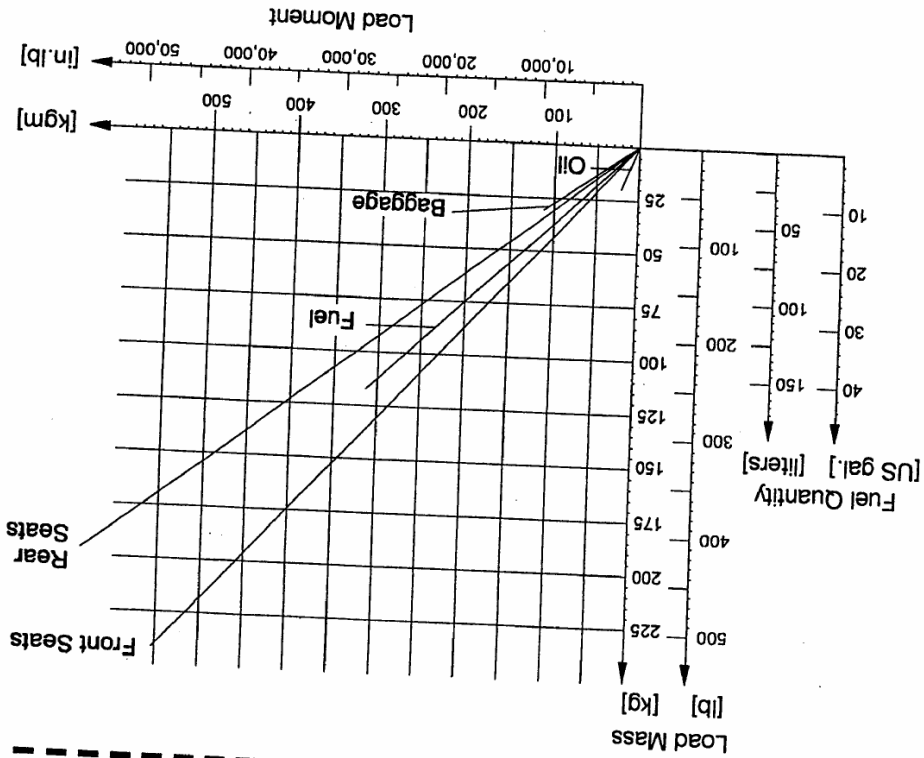
Flight manual to be used for training purposes only.
Not subject to revision.

6.4.3 CALCULATION OF LOADING CONDITION

CALCULATION OF LOADING CONDITION	DA 40 (Example)		Your DA 40	
	Mass [kg] [lb]	Moment [kgm] [in·lb]	Mass [kg] [lb]	Moment [kgm] [in·lb]
1. Empty mass (from Mass and Balance Report)	735 1620	1820 158,000		
2. Oil not added Lever arm: 1.00 m (39.4 in)	-1.7 -3.7	-1.7 -146		
3. Front seats Lever arm: 2.30 m (90.6 in)	150 331	345 29,989		
4. Rear seats Lever arm: 3.25 m (128.0 in)	150 331	487.5 42,368		
5. Baggage Lever arm: 3.65 m (143.7 in)	0 0	0 0		
6. Total mass and total moment with empty fuel tanks (Total of 1.-5.)	1033.3 2278.3	2650.8 230,211		
7. On-board usable fuel (0.72 kg/liter) (6.01 lb/US gal) Lever arm: 2.63 m (103.5 in)	109.4 242	287.7 25,047		
8. Total mass and total moment with full fuel tanks (Total 6. plus 7.)	1142.7 2520.3	2938.5 255,258		
9. The total moments from rows 6 and 8 (2650.8 and 2938.5 kgm) (230,211 and 255,258 in·lb) must be divided by the related total mass (1033.3 and 1142.7 kg respectively) (2278.3 and 2520.3 lb) and then located in Diagram 6.4.4 'PERMISSIBLE CENTER OF GRAVITY RANGE'. As in our example CG positions (2.565 m and 2.572 m respectively) (101.04 and 101.28 in) and masses fall into the permitted area, this loading condition is allowable.				

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6.4.2 LOADING DIAGRAM

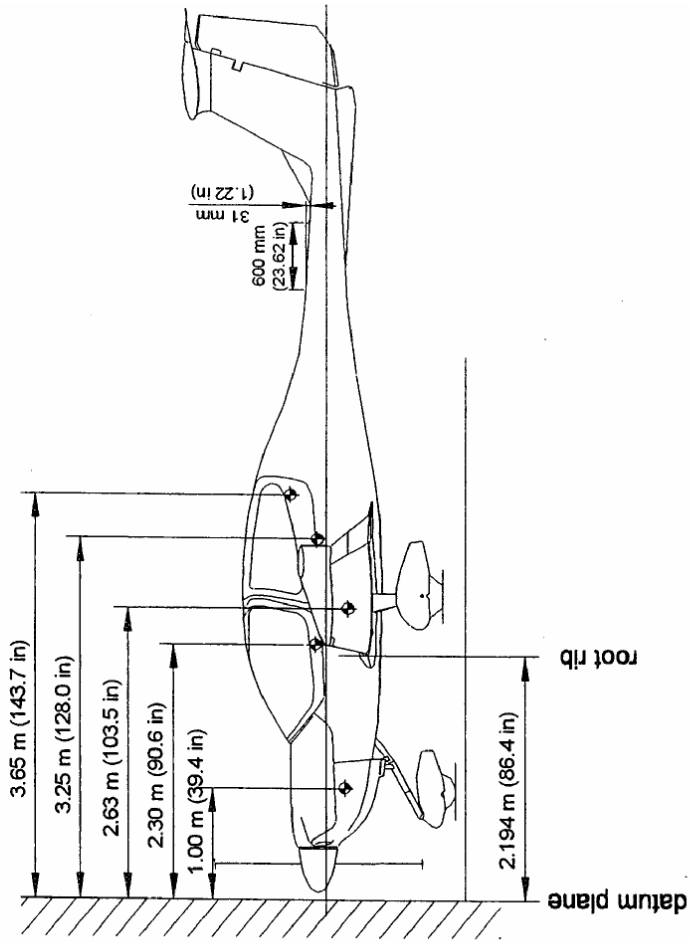


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6.4.1 MOMENT ARMS

The most important lever arms aft of the Datum Plane:

- Oil : 1.00 m 39.4 in
- Front seats : 2.30 m 90.6 in
- Rear seats : 3.25 m 128.0 in
- Wing tank : 2.63 m 103.5 in
- Baggage : 3.65 m 143.7 in



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OREGON

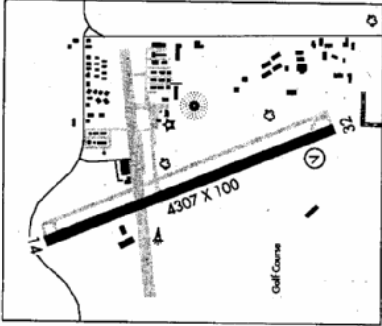
ONTARIO MUNI (ONO) 3 W UTC-7(-8DT) N44°01.23' W117°00.82'

2193 B S4 FUEL 100LL, JET A
RWY 14-32, H4307X100 (ASPH) S-30 D-50 MRL
RWY 14: Road.
RWY 32: REL. VASI(V2L). Berm.

APRPT REMARKS: Attended 1500-0000Z. Self serve card lock fuel avbl 24 hrs. ACTIVATE MRL Rwy 14-32 and REIL Rwy 32-CTAF.
WEATHER DATA SOURCES: ASOS 135.275 (541) 889-7388.
COMMUNICATIONS: CTAF/UNICOM 122.8

MC MINNVILLE FSS (MMV) TF 1-800-WX-BRIEF. NOTAM FILE ONO.
RCO 122.3 (MC MINNVILLE FSS)

RADIO AIDS TO NAVIGATION: NOTAM FILE BOI.
BOISE (N) VORTACW 113.3 801 Chan 80 N43°33.17' W116°11.53' 291° 45.4 NM to fld. 2876/17E.
NOB (MHW) 305 ONO N44°01.19' W117°00.50' at fld.
NOTAM FILE ONO.



KLAMATH FALLS
L-9A
IIP

OWYHEE RESERVOIR STATE (28U) 25 SW UTC-8(-7DT) N43°25.49' W117°20.73'

2680 TPA-3680(1000)

RWY 13-31: 1840X30 (DIRT)

APRPT REMARKS: Unattended. Rwy 13-31 subject to washouts, rough surface, loose rocks, soft when wet. Owner advises ctc with State Department of Aviation 503-378-4880 prior to use. Remote airport, no ground access. Arpt in canyon, surrounded by high terrain.

COMMUNICATIONS: CTAF 122.9

MC MINNVILLE FSS (MMV) TF 1-800-WX-BRIEF. NOTAM FILE MMV.

PACIFIC CITY STATE (PFC) 1 S UTC-8(-7DT) N45°11.99' W123°57.74'

5 TPA-1005(1000)

RWY 14-32: H1875X30 (ASPH) S-7

RWY 14: Thid dispcl 300'. P-line.

APRPT REMARKS: Unattended. Rwy may be under water during winter high tides. Owner advises ctc with Department of Aviation 503-378-4880 prior to use. Rwy 14-32 NSTD basic markings, markings NSTD size/placement and rwy edge markings.

COMMUNICATIONS: CTAF 122.9

MC MINNVILLE FSS (MMV) TF 1-800-WX-BRIEF. NOTAM FILE MMV.

PAISLEY (22S) 3 NW UTC-8(-7DT) N42°43.08' W120°33.77'

4395 B TPA-5395(1000)

RWY 13-31: 4300X60 (ASPH) LIRL

APRPT REMARKS: Unattended.

COMMUNICATIONS: CTAF 122.9

MC MINNVILLE FSS (MMV) TF 1-800-WX-BRIEF. NOTAM FILE MMV.

RADIO AIDS TO NAVIGATION: NOTAM FILE MMV.
LANEVUE (N) VORTACW 112.0 LKV Chan 57 N42°29.57' W120°30.43' 331° 13.7 NM to fld. 7460/19E.
HIWAS.

PENDLETON N45°41.91' W118°56.32' NOTAM FILE PDT.

(N) VORTACW 114.7 PDT Chan 94 073° 4.1 NM to Eastern Oregon Rgnl at Pendleton.

1559/20E. HIWAS.
RCO 122.2 (MC MINNVILLE FSS)

SEATTLE
H-1B, L-9A

OREGON

MC DERRITT STATE (26U) 0 W UTC-8(-7DT) N42°00.13' W117°43.39'

4478 B TPA-5478(1000)
RWY 16-34: H5900X60 (ASPH) S-12.5 LIRL

APRPT REMARKS: Unattended. P-lines South and East. Vegetation growing in primary sic.

COMMUNICATIONS: CTAF 122.9

MC MINNVILLE FSS (MMV) TF 1-800-WX-BRIEF. NOTAM FILE MMV.

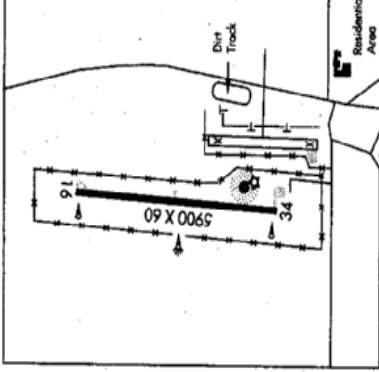
RADIO AIDS TO NAVIGATION: NOTAM FILE REO.

ROME (N) VORTACW 112.5 REO Chan 72 N42°35.43'

W117°52.09' 151° 35.9 NM to fld. 4050/19E.

NOB (MHW) 204 RMD N42°00.69' W117°43.26' at fld.

NOTAM FILE MMV. VFR only.



KLAMATH FALLS
H-3C, L-1

MC KENZIE BRIDGE STATE (00S) 3 E UTC-8(-7DT) N44°10.99' W122°05.32'

1620 TPA-2620(1000)

RWY 06-24: 2600X90 (TURF)

RWY 06: Trees.
RWY 24: Trees.

APRPT REMARKS: Unattended. CAUTION: Elk on and in vicinity of arpt during winter months. Owner advises ctc with Oregon Dept of Aviation 503-378-4880 prior to use. Rwy 6-24 slopes up to the east. Rwy 06-24 rough with numerous dips and ruts particularly on the east half. Land east-tk west. Rwy 06 thid marked with white mats. Rwy edges marked with white panel markers.

COMMUNICATIONS: CTAF 122.9

MC MINNVILLE FSS (MMV) TF 1-800-WX-BRIEF. NOTAM FILE MMV.

MC MINNVILLE MUNI (MMV) 3 SE UTC-8(-7DT) N45°11.67' W123°08.16'

163 B S4 FUEL 100LL, JET A OX 1

RWY 04-22: H5420X150 (ASPH) S-40, D-50, DT-80 HIRL

RWY 04: REIL. PAPI(P4L)-GA 3.0° TCH 40'. Trees.

RWY 22: MALSR. PAPI(P4L)-GA 3.0° TCH 55'. Trees.

RWY 17-35: H4676X150 (ASPH) S-40, D-50, DT-80

RWY 17: Tree. RWY 35: Tree.

APRPT REMARKS: Attended 1600Z-dusk. For fuel dusk-dawn contact fixed-base operator 503-472-0558. Military helicopter and parachute ops in area. Scheduled by notam. Rwy 17-35 has extensive cracking and spalling with holes. High pressure bulk oxygen avbl Mon-Sat. Glider ops Rwy 17-35 and within 8 NM blo 8000' during daigt hours Mar-Oct. Twy D clsd until further notice. Evergreen Intl Aviation may be contacted on frequency 122.75.

ACTIVATE MALSR Rwy 22, REIL Rwy 04, and HIRL Rwy 04-22-CTAF.

WEATHER DATA SOURCES: ASOS 135.675 (503) 434-9153.

COMMUNICATIONS: CTAF/UNICOM 123.0

FSS (MMV) on arpt. TF 1-800-WX-BRIEF. LC 434-5508. NOTAM FILE MMV.

PORTLAND APP/DEP CON 126.0 (North)

SEATTLE CENTER APP/DEP CON 125.8 (South)

CLNC DEL 118.35

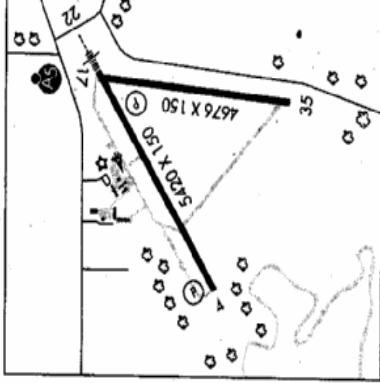
RADIO AIDS TO NAVIGATION: NOTAM FILE MMV.

NEWBERG (N) VORW/DME 117.4 UBG Chan 121 N45°21.19' W122°58.69' 194° 11.6 NM to fld. 1440/21E. HIWAS.

MINNE NOB (LOW) 383 MM N45°14.77' W123°01.78' 216° 5.5 NM to fld.

ILS 110.9 I-MMV Rwy 22 LOM MINNE NDB.

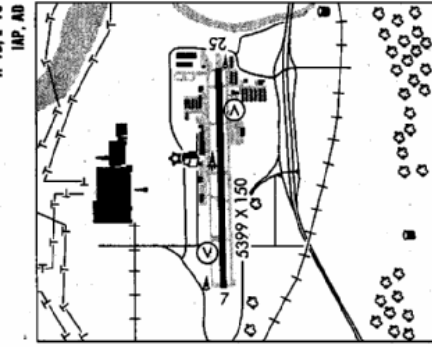
MCNARY FLD (See SALEM)



SEATTLE
H-1A, L-1

PORTLAND-TROUTDALE (TTD) 10 E UTC-8(-7DT) N45°32.96' W122°24.08'

SEATTLE
H-1A, L-1C
IAP, AD



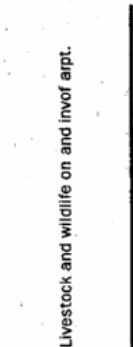
39 B S4 FUEL 100LL, JET A OX 1
RWY 07-25: H5399X150 (ASPH) S-19, D-25 MIRL
RWY 07: REIL, VASI(V4L)—GA 3.0° TCH 50'. Trees.
RWY 25: REIL, VASI(V4L)—GA 3.0° TCH 42'. Trees.
AIRPORT REMARKS: Attended 1500-0600Z. CAUTION: Migratory flocks of waterfowl on and in vicinity of aprt. Portland Intl apt (PDX) Rwy 10L-28R extended centerline crosses aprt. ATCT may issue restrictions due to PDX t/c. Log fee. Commercial act and operators of act with an FAA certified maximum gross ldg weight that exceeds 10,000 lbs are required to pay a ldg fee. ACTIVATE MRL Rwy 07-25—CTAF.

WEATHER DATA SOURCES: ASOS 135.625 (503) 492-2887.
COMMUNICATIONS: CTAF 120.9 UNICOM 122.95
MC MINNVILLE FSS (MMV) TF 1-800-WX-BRIEF, NOTAM FILE TTD.
PORTLAND APP CON 124.35 (280°-099°) 118.1 (100°-279°)
PORTLAND DEP CON 124.35

TROUTDALE TOWER 120.9 (1500-0600Z) GND CON 121.8
AIRSPACE: CLASS D s/c 1500-0600Z other times CLASS G.
RADIO AIDS TO NAVIGATION: NOTAM FILE PDX.
BATTLE GROUND (H) VORTACW 116.6 BTG Chan 113 N45°44.87' W122°35.49' 125° 14.4 NM to fld. 253°/21E.
LAKER HDB (MHW) 332 LBH N45°32.47' W122°27.75' 059° 2.6 NM to fld.
COMM/NAV/WEATHER REMARKS: Freq 121.5 not avbl at tower.

POWERS (6S6) 1 SE UTC-8(-7DT) N42°52.17' W124°03.56'

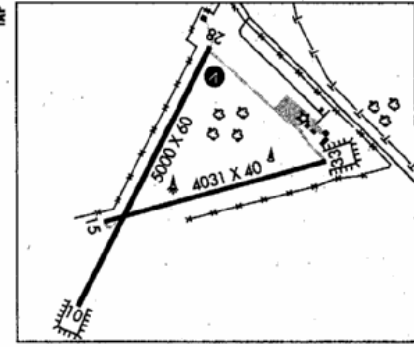
KLAMATH FALLS
H-1B, L-1B
IAP



326 TPA—1326(1000)
RWY 13-31: 2500X60 (TURF)
RWY 13: Trees.
RWY 31: Trees.
AIRPORT REMARKS: Unattended. Aprt in valley surrounded by high terrain. Livestock and wildlife on and in vicinity of aprt.
COMMUNICATIONS: CTAF 122.9
MC MINNVILLE FSS (MMV) TF 1-800-WX-BRIEF, NOTAM FILE MMV.

PRINEVILLE (S39) 3 SW UTC-8(-7DT) N44°17.22' W120°54.23'

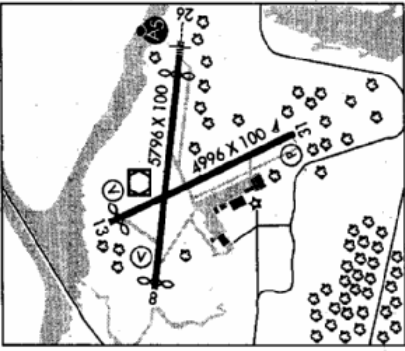
KLAMATH FALLS
H-1B, L-1B
IAP



3250 B S4 FUEL 100LL, JET A
RWY 10-28: H5000X60 (ASPH) S-30 MRL
RWY 10: Trees.
RWY 28: VASI(V2L)—GA 3.0° TCH 34'.
RWY 15-33: H4031X40 (ASPH) S-5 LIRL
RWY 33: Trees.
AIRPORT REMARKS: Attended Oct-Apr 1500-0100Z. May-Sep operator to 5000 lbs max weight. ACTIVATE MRL Rwy 10-28, VASI Rwy 28, and LIRL Rwy 15-33—CTAF.
COMMUNICATIONS: CTAF/UNICOM 122.8
MC MINNVILLE FSS (MMV) TF 1-800-WX-BRIEF, NOTAM FILE MMV.
SEATTLE CENTER APP/DEP CON 128.15
RADIO AIDS TO NAVIGATION: NOTAM FILE RDM.
DESCHUTES (H) VORTACW 117.6 DSD Chan 123 N44°15.17' W121°18.21' 065° 17.4 NM to fld. 4100°/18E. HIWAS.
BODEY HDB (HWZ/DN) 411 RD N44°18.48' W121°01.14' 086° 5.1 NM to fld. NDB unusable 091°-111° byd 25 NM bio 14,000'.

ASTORIA RGML (AST) 3 SW UTC-8(-7DT) N46°09.48' W123°52.72'

SEATTLE
H-1A, L-1C
IAP



15 B S4 FUEL 100LL, JET A ARFF Index LUD
RWY 08-26: H5796X100 (ASPH) S-60, D-76, DT-119 MRL
RWY 08: REIL, VASI(V4L)—GA 3.0° TCH 51'. Thld dispcl 301'. Tree.
RWY 26: MALSR. Thld dispcl 704'. Dike.
RWY 13-31: H4996X100 (ASPH) S-60, D-76, DT-119 MRL
RWY 13: REIL, VASI(V4L)—GA 3.0° TCH 54'. Thld dispcl 329'. Berm.
RWY 31: PAPI(P4L)—GA 4.0° TCH 45'. Trees.

RUNWAY DECLARED DISTANCE INFORMATION
RWY 08: TORA-5796 TODA-5796 ASDA-5196 LDA-4896
RWY 26: TORA-5796 TODA-6096 ASDA-5496 LDA-4762
RWY 31: TORA-4990 TODA-4990 ASDA-4990 LDA-4990
AIRPORT REMARKS: Attended 1600-0100Z. For fuel outside normal working hours ctc fixed-base operator 503-861-1222. Herds of elk on and in vicinity of aprt occasionally. Migratory flocks of waterfowl on and in vicinity of aprt. High concentration helicopter operations in area. ACTIVATE MRL Rwy 08-26 and Rwy 13-31, MALSR Rwy 26 and REIL Rwy 08—CTAF.
WEATHER DATA SOURCES: ASOS 135.375 (503) 861-1371. HIWAS 114.0 AST.

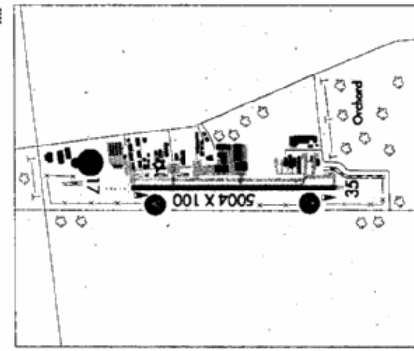
COMMUNICATIONS: CTAF/UNICOM 122.8
MC MINNVILLE FSS (MMV) TF 1-800-WX-BRIEF, NOTAM FILE AST.
RCB 122.3 (Mc MINNVILLE FSS)
SEATTLE CENTER APP/DEP CON 124.2

RADIO AIDS TO NAVIGATION: NOTAM FILE AST.
(L) VOR/DME 114.0 AST Chan 87 N46°09.70' W123°52.82' at fld. 10/19E. HIWAS.
VOR portion unusable:

- 019°-030° beyond 35 NM below 5500'
- 030°-045° beyond 30 NM below 5500'
- 045°-055° beyond 30 NM below 7500'
- 080°-100° beyond 34 NM below 6000'
- 120°-150° beyond 33 NM below 7000'
- 150°-170° beyond 36 NM below 7000'
- 170°-200° beyond 15 NM below 8000'
- DME unusable:
- 075°-088° beyond 35 NM below 7,000'
- 330°-360° beyond 28 NM below 6,300'
- KARPEN HDB (MHW) 201 PEN N46°08.37' W123°35.24' 255° 12.2 NM to fld. NDB unmonitored.
- ILS 109.5 I-AST Rwy 26. Class IE.

AURORA STATE (UAO) 1 NW UTC-8(-7DT) N45°14.83' W122°46.20'

SEATTLE
H-1B, L-1C
IAP



200 B S4 FUEL 80, 100LL, JET A OX 1 TPA-1200(1000)
RWY 17-35: H5004X100 (ASPH-GRVD) S-30 MRL
RWY 17: ODALS, VASI(V4R)—GA 3.5° TCH 40'. Tree.
RWY 35: VASI(V4L)—GA 3.0° TCH 40'. Tree.

AIRPORT REMARKS: Attended 1500-0600Z. Rwy 17 +30' p-line 2100' from thld, marked by balls. Parallel twy 40' wide, marked by reflectors on both sides. Rwy 17-35 has 150' blast pad at south end. Rwy 35 straight out departure north prohibited, make left turns only. Rwy 17 calm wind rwy. ACTIVATE VASI Rwy 17 and Rwy 35 and ODALS Rwy 17—CTAF.

WEATHER DATA SOURCES: ASOS 118.525 (503) 678-3011.
COMMUNICATIONS: CTAF/UNICOM 122.7
MC MINNVILLE FSS (MMV) TF 1-800-WX-BRIEF, NOTAM FILE UAO.
PORTLAND APP/DEP CON 126.0 CLNC DEL 119.95

RADIO AIDS TO NAVIGATION: NOTAM FILE MMV.
NEWBERG (H) VOR/DME 117.4 URG Chan 121 N45°21.19' W122°58.69' 105° 10.9 NM to fld. 1440°/21E. HIWAS.
ILS/DME 111.15 I-UAO Chan 48(Y) Rwy 17. Class IA.
Loc only. DME unusable byd 15.2 NM bio 2500'.

!FDC 5/9066 ZSE WA.. FLIGHT RESTRICTIONS MT. ST. HELENS VOLCANO.
EFFECTIVE IMMEDIATELY AND UNTIL FURTHER NOTICE. PURSUANT TO 14
CFR SECTION 91.137(A)(2) TEMPORARY FLIGHT RESTRICTIONS ARE IN
EFFECT WITHIN A 1.5 NAUTICAL MILE RADIUS OF 461151N/1221118W OR
THE BATTLE GROUND /BTG/ VORTAC 11 DEGREE RADIAL AT 31.8 NAUTICAL
MILES AT AND BELOW 9000 FEET MSL TO PROVIDE A SAFE ENVIRONMENT
FOR VOLCANIC ACTIVITY. U.S.F.S., TELEPHONE 360-891-5140 OR FREQ
132.125, IS IN CHARGE OF THE OPERATION. SEATTLE /SEA/ THE SYSTEM
OPERATIONS SUPPORT CENTER/SOSC, PHONE 202-267-3333, IS THE FAA
COORDINATION FACILITY.

!FDC 4/3131 ZSE WA.. VOLCANIC ACTIVITY FOR MT. SAINT HELENS
VOLCANO, WA 461200N/1221048W OR THE BATTLE GROUND /BTG/
VORTAC 011 DEGREE RADIAL 032 NAUTICAL MILES. CONTINUED VOLCANIC
ACTIVITY REPORTED FOR MT. SAINT HELENS VOLCANO, WA. USGS /ALERT
LEVEL 2/ AVIATION ALERT COLOR ORANGE IN EFFECT. AIRCRAFT
REQUEST TO EXERCISE CAUTION UNTIL FURTHER NOTICE AND MAINTAIN
WATCH FOR TEMPORARY FLIGHT RESTRICTIONS NOTAM/SIGMET FOR AREA.
UPDATES TO ST. HELENS VOLCANO ALERTS ARE AVAILABLE FROM THE
USGS ON THE WORLD WIDE WEB AT
[HTTP://VULCAN.WR.USGS.GOV.](http://vulcan.wr.usgs.gov)
CONTACT SEATTLE ARTCC 253-351-3529 FOR ADDITIONAL INFORMATION.

METAR KUAO 311453Z AUTO 34005KT 10SM CLR 14/10 A3004 RMK AO2 SLP172
T01390100 50000

***** Pilot Reports *****

HIO UA /OV HIO /TM 1449 /FL 065 /TP HXB /SK SKC /RM THIN CLDS E
SIDE VLY

***** Terminal Forecasts *****

TAF AMD KAST 311317Z 311312 VRB04KT P6SM FEW025 SCT035 TEMPO 1317
2SM BR SCT005
FM1800 31006KT P6SM FEW035 SCT045
FM2000 31012KT P6SM SCT060
FM0000 32009KT P6SM SKC
FM0800 VRB04KT P6SM BKN025

TAF AMD KPDY 311421Z 311412 VRB03KT P6SM SCT015 TEMPO 1517 BKN012
FM1800 32005KT P6SM SKC
FM2100 33010KT P6SM SCT060
FM0400 32005KT P6SM SCT060

TAF AMD KTTD 311408Z 311412 VRB04KT P6SM SCT012 SCT050 TEMPO 1416
BKN012
FM1800 27005KT P6SM SKC
FM2100 28009KT P6SM SCT070
FM0400 VRB04KT P6SM SKC

***** FD Winds Aloft Forecast *****

VALID	311200Z	FOR USE	1200-2200Z.	TEMPS	NEG	ABV	24000	ALTITUDE	
FT	3000	6000	9000	12000	18000	24000	30000	34000	39000
OTH	0214	0110+06	3505+07	2605+01	2917-12	3026-22	273037	294640	285347
AST	3522	3117+07	2915+02	2522-01	2818-14	2826-24	253139	263947	287147
IMB			2407+06	2317-01	2518-14	3020-25	332937	313347	305747
SEA	0110	3208+07	2807+02	2510-03	2619-15	2720-24	262839	253149	274251
PDX	3511	3308+08	2705+04	2514+00	2619-14	3021-23	262739	263247	296947
YKM	3211	2506+09	2508+03	2513-02	2620-15	3017-24	292638	282648	294350
RDM		9900+10	2210+05	2314-01	2616-14	3121-22	282837	283545	307246

***** NOTAMs *****

!SLE 07/003 SLE TOWER 565 (152 AGL) 2.07 SSW LGTS OTS (ASR 1005649)
TIL 0608031203
!SLE 07/002 SLE 31 TURNO NDB/ILS LO UNMNT
!MMV 07/066 PFC TOWER 690 (256 AGL) 11.43 SE LGTS OTS (ASR 1231556)
TIL 0608051717
!KLS 10/002 KLS SEE FDC 5/9066 ZSE 91.137 (A)(2)
!SPB 07/004 SPB TOWER 213 (170 AGL) 1.5 S LGTS OTS (ASR 1226739)
TIL 0608090307
!VUO 07/003 VUO TOWER 220 (150 AGL) 4 E LGTS OTS (ASR UNKN) TIL
0608030556
!PDX 07/064 PDX 3/21 CLSD 1530-2330 DLY WEF 0608011530-0608022330
!PDX 12/038 PDX 10R ILS MM DCMSND
!PDX 03/033 PDX 10R/28L CLSD 2200-2220 TUE TIL 0612262220
!PDX 03/032 PDX 10L/28R CLSD 2200-2220 WED TIL 0612272220
!SEA 07/073 59S AP CLSD PERM
!TTD 07/001 TTD TOWER 173 (104 AGL) 0.45 SSW LGTS OTS (ASR 1025023)
TIL 0608082056
!UAO 07/007 UAO TOWER 335 (145 AGL) 1.57 SW LGTS OTS (ASR 1056064)
TIL 0608151001
!UAR 07/005 PDX MOXEE SIX ARRIVAL EXPECT TO CROSS VANTZ
TURBO-PROPS AT 10000 FT; TURBO-JETS AT 12000 FT WEF 0507070901

CSTL WTRS. BY 05Z TROF CNTRL WA-CNTRL OR-NERN CA-CNTRL CA CSTL WTRS.

..SFC..RIDGE NRN CSTL WTRS OF OR-SERN WA. LTL CHG THRU 05Z.
..HENDERSON..

OR CASCDS WWD
CSTL SXNS

NRN 2/3...SKC. OTLK...VFR.
SRN 1/3...SCT CI. 20Z FEW040 FEW-SCT CI. OTLK...VFR.
INLAND/WILLAMETTE VLY...SKC..OCNL SCT CI S. OTLK...VFR.
SWRN INTR...SCT CI. 21Z SCT120 SCT CI. OTLK...VFR.

OR E OF CASCDS

NRN HLF...SKC OCNL SCT CI. OCNL FU ALF. OTLK...VFR.
SRN HLF...SKC OCNL SCT CI. OCNL FU ALF THRU 23Z. 18Z SCT120 SCT CI. AFT 20Z ISOL -TSRA. CB TOP FL350. OTLK...VFR TSRA.

CSTL WTRS

WA...SCT020..OCNL BKN020 TOP 050 NRN PTNS. OTLK...VFR.
OR...FEW-SCT020..OCNL SCT CI S. OTLK...VFR.
NRN CA...SCT CI..OVC010/TOP 020 NR CSTLN FOT NWD TIL 20Z.
OTLK...VFR.

***** AIRMETs *****

SFOT WA 311345
AIRMET TANGO UPDT 2 FOR TURB VALID UNTIL 312000

NO SGFNT TURB EXP OUTSIDE OF CNVTV ACT.

....

SFOZ WA 311345

AIRMET ZULU UPDT 2 FOR ICE AND FRZLVL VALID UNTIL 312000

NO SGFNT ICE EXP OUTSIDE OF CNVTV ACT.

FRZLVL...WA...080-110.

OR...095-125 SLPG NW-SE.

NRN CA...105-130.

CNTRL CA...130-150.

SRN CA...150-170.

***** Surface Observations *****

METAR KMMV 311453Z AUTO 0000KT 10SM CLR 12/08 A3005 RMK AO2 SLP174
T01220083 51001

no reports available for S47

METAR KAST 311455Z AUTO 13003KT 10SM CLR 11/10 A3005 RMK AO2 PK
WND 33026/1411 SLP177 T01110100 53004

METAR KKLS 311455Z 0000KT 10SM OVC018 12/09 A3004 RMK AO1 52003

METAR KSPB 311453Z AUTO 35005KT 10SM CLR 14/11 A3003 RMK AO2 SLP170
T01390106 51001

METAR KHIO 311453Z 0000KT 10SM CLR 13/09 A3004 RMK AO2 SLP170
T01280089 56000

METAR KVUO 311453Z AUTO 0000KT 10SM CLR 14/10 A3003 RMK AO2 SLP170
T01390100 57000

METAR KPDx 311455Z 02003KT 10SM FEW014 14/10 A3004 RMK AO2 SLP172
T01390100 53001

METAR KTTD 311453Z 0000KT 10SM BKN012 12/08 A3003 RMK AO2 SLP168
T01170083 53000

METAR KPFC 311445Z 0000KT 10SM SCT100 12/10 RMK SLP057 NOSPECI
CLD HGT VISUALLY ESTMD

Performance

You climb at 73 KTAS which gives you a 551 fpm climb rate while burning 12.0 gph.

You cruise at 75% best power at 2400 rpm.

You descend at 130 KTAS which gives you a 717 fpm descent rate while burning 4.8 gph.

You start the trip with full tanks.

You use 8lbs of fuel for taxi and runup.

Interpolate the Portland, OR (PDX) winds for legs 1 and 4. Use Astoria, OR (AST) winds for legs 2 and 3. Use your interpolated cruise wind for all segment computations.

Your aircraft is equipped with wheel fairings.

Use 18°E variation for the entire flight.

Use departure altimeter for each leg.

For weight and balance purposes: Aircraft Basic Empty Weight is 1620lbs at 97.53 inches. Anne weighs 130lbs and you have 45lbs of baggage that you will leave in the baggage compartment for the entire flight. Assume the oil has been added.

Sunsets in McMinnville, OR at 20:41 (local)

Assume compass deviation is 0.

Assume no time additive for traffic pattern.

Weather

Low Altitude Route

***** FA Synopsis and VFR Clouds/Weather *****

SFOC FA 311045

SYNOPSIS AND VFR CLDS/WX

SYNOPSIS VALID UNTIL 010500

CLDS/WX VALID UNTIL 312300...OTLK VALID 312300-010500

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 WA CSTL WTRS-OR CSTL WTRS-JUST W OF CNTRL CA

UNITED STATES OF AMERICA Department of Transportation Federal Aviation Administration					
MEDICAL CERTIFICATE <u>FIRST</u> CLASS					
This certifies that (Full name and address): Timothy John Phillips 1234 Flightline Rd. Portland, OR 97201					
Date of Birth	Height	Weight	Hair	Eyes	Sex
01/23/1963	70	185	BROWN	BROWN	M
has met the medical standards prescribed in part 67, Federal Aviation Regulations, for this class of Medical Certificate.					
Limitations	NONE				
Date of Exam	Exi				
02/12/2006	12345				
Examiner	Signature 				
	Typed Name Dr. Gary Shenley				
Examinee	Signature 				

FAA Form 8500-9 (3-99) Supersedes Previous Edition

Route of Flight

Leg #1

McMinnville, OR (MMV) direct to Pacific City, OR (PFC)
Altitude 4500 MSL

Leg#2

Pacific City, OR (PFC) direct to Astoria, OR (AST)
Altitude 3500 MSL

Leg#3

Astoria, OR (AST) direct to Troutdale, OR (TTD)
Altitude 5500 MSL

Leg #4

Troutdale, OR (TTD) direct to McMinnville, OR (MMV)
Altitude 4500 MSL

Supplemental Data

Today is Monday, July 31, 2006 and you are in McMinnville, OR visiting your friend Anne. You flew into town last night in a Diamond DA40 that you rented in Portland. Anne was gracious enough to take you for a tour of the Evergreen Aviation Museum and its star attraction, the Hughes Flying Boat H-4 (HK-1) Hercules, better known as the "Spruce Goose". You were absolutely in awe of this one of a kind flying boat's 319 feet, 11 inch wingspan. You take a ton of pictures and can't wait to rub them in your aircraft identification team's noses. After Anne drags you kicking and screaming from the museum you decide that a tour of some of the local wineries would be a great way to finish off the evening. You finish your last glass of wine at 1am and head back to Anne's house to get a good night's rest before going on a coastal tour in the morning. You plan on getting up at 7am and departing for the airport at 8am.

When you wake up in the morning you are greeted by blue skies! A perfect day for a flight up the coast. You borrow your friend Anne's computer and get a weather briefing from duats.com. You enter your route MMV – PFC – AST – TTD – MMV. It looks like you and Anne are in for a great day of flying. You plan on getting back to McMinnville, OR at 10pm (local).

Aircraft information

Current Tach 326.4

Last 100 hour inspection 205.8

Transponder inspection July 10, 2004.

ELT last inspected July 10, 2004.

Pitot static system inspected July 10, 2004.

Annual inspection June 16, 2006.

UNITED STATES OF AMERICA		XI	
DEPARTMENT OF TRANSPORTATION - FEDERAL AVIATION ADMINISTRATION			
IV NAME			
Timothy John Phillips			
V ADDRESS			
1234 Flightline Rd. Portland, OR 97201 USA			
VI NATIONALITY		USA	
VII D.O.B		23 JAN 1963	
SEX		M	
HEIGHT		70	
WEIGHT		185	
HAIR		BROWN	
EYES		BROWN	
IX HAS BEEN FOUND TO BE PROPERLY QUALIFIED TO EXERCISE THE PRIVILEGES OF			
II PRIVATE PILOT			
III CERTIFICATE NUMBER		3074456	
X DATE OF ISSUE		3 APR 2005	
XIV <i>[Signature]</i>			
VIII ADMINISTRATOR			