NACOmatic

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GENERAL INFORMATION

This Airport/Facility Directory is a Civil Flight Information Publication published and distributed every eight weeks by the FAA, Department of Transportation, National Aeronautical Navigation Services, Silver Spring, Maryland 20910. It is designed for use with Aeronautical Charts covering the conterminous United States, Puerto Rico and the Virgin Islands.

This directory contains all open to the public airports, seaplane bases and heliports, military facilities, and selected private use facilities specifically requested by the Department of Defense (DoD) for which a DoD Instrument Approach Procedure has been published in the U.S. Terminal Procedures Publication. Additionally, this directory contains communications data, navigational facilities and certain special notices and procedures.

Military data contained within this publication is provided by the National Geospatial–Intelligence Agency and is intended to provide reference data for military and/or joint civil/military airports. Not all military data contained in this publication is applicable to civil users.

CORRECTIONS, COMMENTS, AND/OR PROCUREMENT

CRITICAL information such as equipment malfunction, abnormal field conditions, hazards to flight, etc., should be reported as soon as possible to the nearest FAA facility, either in person or by reverse charge telephone call.

FOR AIRPORT SUPPLEMENT REVISIONS FORM VISIT WEB SITE: http://nfdc.faa.gov/portal/airportchanges.do

FAA, Aeronautical Information Services, ATO–R, Rm. 626
800 Independence Ave., SW
Washington, DC 20591
Telephone 1–866–295–8236
Fax 202–267–5322
Email 9–ATOR–HQ–AIS–AIRPORTCHANGES@FAA.GOV

NOTICE: Changes must be received by the Aeronautical Information Services as soon as possible but not later than the ''cut-off'' dates listed below to assure publication on the desired effective date.

Effective Date	Airport Information Cut-off date	Airspace Information* Cut-off date
8 Apr 10	24 Feb 10	4 Feb 10
3 Jun 10	21 Apr 10	1 Apr 10
29 Jul 10	16 Jun 10	27 May 10
23 Sep 10	11 Aug 10	22 Jul 10
18 Nov 10	6 Oct 10	16 Sep 10
13 Jan 11	1 Dec 10	11 Nov 10

*Including changes to preferred routes and graphic depictions on charts.

FOR CHARTING ERRORS CONTACT:

FAA, National Aeronautical Navigation Services
SSMC–4 Sta. #4259
1305 East West Highway
Silver Spring, MD 20910–3281
Telephone 1–800–626–3677
Email 9–AMC–Aerochart@faa.gov

Frequently asked questions (FAQs) are answered on our website at http://aeronav.faa.gov.
See the FAQs prior to contact via toll free number.

FOR PROCUREMENT CONTACT:

FAA, National Aeronautical Navigation Services
REDIS/Distribution Team
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Online at http://aeronav.faa.gov
Email 9–AMC–Chartsales@faa.gov
Telephone 1–800–638–8972
Fax 301–436–6829
or any authorized chart agent.

New or Changed Information—To alert users of new information or changes to information from the previous issue, a vertical line will be portrayed in the outside margin and extending the full length of the new and/or revised data. This will not apply to the front cover or the airport/facility directory listing.

This Airport/Facility Directory comprises part of the following sections of the United States Aeronautical Information Publication (AIP): GEN, ENR and AD.

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ABBREVIATIONS

The following abbreviations/acronyms are those commonly used within this Directory. Other abbreviations/acronyms may be found in the Legend and are not duplicated below. The abbreviations presented are intended to represent grammatical variations of the basic form. (Example–''req'' may mean ''request'', ''requesting'', ''requested'', or ''requests'').

AAF	Army Air Field	byd	beyond
AB	Airbase	C	Commercial Circuit (Telephone)
abv	above	CGAF	Coast Guard Air Facility
ACC	Air Combat Command; Area Control Center	CGAS	Coast Guard Air Station
		CIV	Civil
acft	aircraft	clsd	closed
ADCC	Air Defense Control Center	comd	command
AER	approach end rwy	CONUS	Continental United States
AFB	Air Force Base	CSTMS	Customs
AFHP	Air Force Heliport	ctc	contact
afld	airfield	ctl	control
AFOD	US Army Flight Operations Detachment	dalgt	daylight
AFRC	Armed Forces Reserve Center/Air Force Reserve Command	Dec	December
		DIAP	DoD Instrument Approach Procedure
AFSS	Automated Flight Service Station	DoD	Department of Defense
AG	Agriculture	DSN	Defense Switching Network (Telephone)
A–GEAR	Arresting Gear	dsplcd	displaced
AGL	above ground level	durn	duration
AHP	Army heliport	eff	effective
ALS	Approach Light System	emerg	emergency
alt	altitude	EOR	End of Runway
AMC	Air Mobility Command	ETA	Estimated Time of Arrival
ANGS	Air National Guard Station	ETD	Estimated Time of Departure
apch	approach	exc	except
Apr	April	extd	extend
APU	Auxiliary Power Unit	FBO	fixed–base operator
ARB	Air Reserve Base	Feb	February
arpt	airport	fld	field
ARS	Air Reserve Station	FLIP	Flight Information Publication
AS	Air Station	flt	flight
ASDE–X	Airport Surface Detection Equipment—Model X	flw	follow
		Fri	Friday
ASU	Aircraft Starting Unit	FSS	Flight Service Station
ATC	Air Traffic Control	GA	glide angle
Aug	August	GCA	Ground Controlled Approach
AUW	All Up Weight (gross weight)	GS	glide slope
avbl	available	haz	hazard
bcn	beacon	HQ	Headquarters
blo	below		

CONTINUED ON NEXT PAGE

CONTINUED FROM PRECEDING PAGE

hr	hour
IAP	Instrument Approach Procedure
ICAO	International Civil Aviation Organization
IFR	Instrument Flight Rules
ILS	Instrument Landing System
IM	Inner Marker
IMG	Immigration
incr	increase
indef	indefinite
ints	intensity
invof	in the vicinity of
IMC	Instrument Meteorological Conditions
Jan	January
JASU	Jet Aircraft Starting Unit
JOAP	Joint Oil Analysis Program
JOSAC	Joint Operational Support Airlift Center
JRB	Joint Reserve Base
Jul	July
Jun	June
Kt	Knots
LAA	Local Airport Advisory
LAHSO	Land and Hold Short Operations
lbs	pounds
ldg	landing
lgtd	lighted
lgts	lights
LMM	Compass locator at Middle Marker ILS
LOC	Localizer
LOM	Compass locator at Outer Marker ILS
ltd	limited
MACC	Military Area Control Center
Mar	March
MCAF	Marine Corps Air Facility
MCALF	Marine Corps Auxiliary Landing Field
MCAS	Marine Corps Air Station
MCB	Marine Corps Base
med	medium
METRO	Pilot-to-Metro voice call
Mil	military
min	minute
MLS	Microwave Landing System
MM	Middle Marker of ILS
Mon	Monday
MP	Maintenance Period
MSL	mean sea level
MSAW	minimum safe altitude warning
NAAS	Naval Auxiliary Air Station
NADC	Naval Air Development Center
NADEP	Naval Air Depot
NAEC	Naval Air Engineering Center
NAES	Naval Air Engineering Station
NAF	Naval Air Facility
NALCO	Naval Air Logistics Control Office
NALO	Navy Air Logistics Office
NALF	Naval Auxiliary Landing Field
NAS	Naval Air Station
NAWC	Naval Air Warfare Center
NAWS	Naval Air Weapons Station
ngt	night
NOLF	Naval Outlying Field
Nov	November
npi	non precision instrument
NS ABTMT	Noise Abatement
NSTD	nonstandard
ntc	notice
obsn	observation
Oct	October
OLF	Outlying Field
opr	operate, operator, operational
ops	operations
OTS	out of service
ovrn	overrun
PAEW	personnel and equipment working
pat	pattern
p-line	power line
PMSV	Pilot-to-Metro Service
POL	Petrol, Oils and Lubricants
PPR	prior permission required
PRM	Precision Runway Monitoring
PTD	Pilot to Dispatcher
RAMCC	Regional Air Movement Control Center
req	request
rgt tfc	right traffic
RON	Remain Overnight
rqr	require
rstd	restricted
RSRS	reduced same runway separation
rwy	runway
Sat	Saturday
SELF	Strategic Expeditionary Landing Field
Sep	September
SFA	Single Frequency Approach
sfc	surface
SFRA	Special Flight Rules Area
SOAP	Spectrometric Oil Analysis Program
SOF	Supervisor of Flying
SPB	Seaplane Base
SR	sunrise
SS	sunset
std	standard
Sun	Sunday
svc	service
tfc	traffic
thld	threshold
Thu	Thursday
tkf	take-off
tmpry	temporary
tran	transient
Tue	Tuesday
twr	tower
twy	taxiway
UC	Under Construction
USA	United States Army
USAF	United States Air Force
USCG	United States Coast Guard
USN	United States Navy
V	Defense Switching Network (telephone, formerly AUTOVON)
VFR	Visual Flight Rules
VIP	Very Important Person
VMC	Visual Meteorological Conditions
Wed	Wednesday
wx	weather

SAMPLE

(1) **CITY NAME**

AIRPORT NAME (ALTERNATE NAME) (LTS) (KLTS) CIV/MIL 3 N UTC–6(–5DT) N34°41.93′ W99°20.20′ **JACKSONVILLE**
200 B S4 **FUEL** 100 0X 1 TPA—1000(800) AOE Class IV, ARFF Index A NOTAM FILE ORL Not insp. **COPTER**
H–4G, L–19C
IAP, DIAP, AD

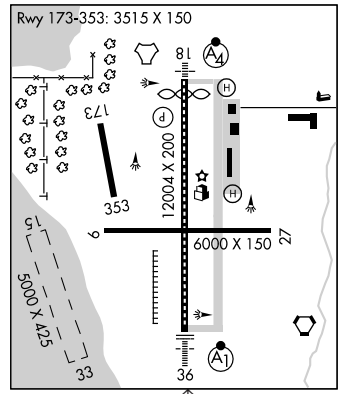
(11) (12) (13) (14) (15) (16) (17) (18) (19) (20) (9)

(21) **RWY 18–36:** H12004X200 (ASPH–CONC–GRVD)
S–90, D–160, DT–300 PCN 80 R/B/W/T HIRL CL
RWY 18: LDIN. MALSF. TDZL. REIL. PAPI(P2R)—GA 3.0° TCH 36′.
Thld dsplcd 300′. Trees. Rgt tfc. 0.3% up.
RWY 36: ALSF1. 0.4% down.
RWY 09–27: H6000X150 (ASPH) MIRL
RWY 173–353: H3515X150 (ASPH–PFC) AUW PCN 59 F/A/W/T

LAND AND HOLD SHORT OPERATIONS

LANDING	HOLD SHORT POINT	DIST AVBL
RWY 18	09–27	6500
RWY 36	09–27	5400

RUNWAY DECLARED DISTANCE INFORMATION
RWY 18: TORA–12004 TODA–12704 ASDA–11704 LDA–11504
RWY 36: TORA–12004 TODA–12004 ASDA–12004 LDA–11704



(10)

(22) **ARRESTING GEAR/SYSTEM**
RWY 18 → HOOK E5 (65′ OVRN) BAK–14 BAK–12B (1650′)
BAK–14 BAK–12 (B) (1087′) HOOK E5 (74′ OVRN) ← **RWY 36**

(23) **MILITARY SERVICE: A–GEAR** E–5 connected on dep end, disconnected on apch end. **JASU** 3(AM32A–60) 2(A/M32A–86)

(24)

(25) **FUEL** J8(Mil) (NC–100, A) **FLUID** W SP PRESAIR LOX ← (26)

OIL 0–128 **TRAN ALERT** Avbl 1300–0200Z‡, svc limited weekends.

(27) (28)

(29) **AIRPORT REMARKS:** Special Air Traffic Rules—Part 93, see Regulatory Notices. Attended 1200–0300Z‡. Parachute Jumping. Deer invof arpt. Heavy jumbo jet training surface to 9000′. Twy A clsd indef. Flight Notification Service (ADCUS) avbl.

(30) **MILITARY REMARKS: ANG** PPR/Official Business Only. Base OPS DSN 638–4390, C503–335–4222. Ctc Base OPS 15 minutes prior to ldg and after dep. Limited tran parking.

(31) **WEATHER DATA SOURCES:** AWOS–1 120.3 (202) 426–8000. LLWAS.

(32) **COMMUNICATIONS: SFA** **ATIS** 127.25 273.5 (202) 426–8003 **UNICOM** 122.95 **PTD** 372.2
NAME FSS (ORL) on arpt. 123.65 122.65 122.2
NAME RCO 112.2T 112.1R (NAME RADIO)
Ⓡ **NAME APP/DEP CON** 128.35 257.725 (1200–0400Z‡)
TOWER 119.65 255.6 (1200–0400Z‡) **GND CON** 121.7 **GCO** 135.075 (ORLANDO CLNC) **CLNC DEL** 125.55
NAME COMD POST (GERONIMO) 311.0 321.4 6761 **PMSV METRO** 239.8 **NAME OPS** 257.5

(33) **AIRSPACE: CLASS B** See VFR Terminal Area Chart.

(34) **RADIO AIDS TO NAVIGATION:** NOTAM FILE ORL. VHF/DF ctc FSS.
(H) VORTAC 112.2 MCO Chan 59 N28°32.55′ W81°20.12′ at fld. 1110/8E.
(H) TACAN Chan 29 CBU (109.2) N28°32.65′ W81°21.12′ at fld. 1115/8E.
HERNY NDB (LOM) 221 OR N28°37.40′ W81°21.05′ 177° 5.4 NM to fld.
ILS/DME 108.5 I–ORL Chan 22 Rwy 18. Class IIE. LOM HERNY NDB.
ASR/PAR (1200–0400Z‡)

(35) **COMM/NAV/WEATHER REMARKS:** Emerg frequency 121.5 not avbl at twr.

HELIPAD H1: H100X75 (ASPH)
HELIPAD H2: H60X60 (ASPH)
HELIPORT REMARKS: Helipad H1 lctd on general aviation side and H2 lctd on air carrier side of arpt.

(1)

187 TPA 1000(813)
WATERWAY 15–33: 5000X425 (WATER)
SEAPLANE REMARKS: Birds roosting and feeding areas along river banks. Seaplanes operating adjacent to SW side of arpt not visible from twr and are required to ctc twr.

All bearings and radials are magnetic unless otherwise specified.
All mileages are nautical unless otherwise noted.
All times are Coordinated Universal Time (UTC) except as noted.
All elevations are in feet above/below Mean Sea Level (MSL) unless otherwise noted.
The horizontal reference datum of this publication is North American Datum of 1983 (NAD83), which for charting purposes is considered equivalent to World Geodetic System 1984 (WGS 84).

(10)

SKETCH LEGEND

RUNWAYS/LANDING AREAS

Hard Surfaced . . . . . .

Metal Surface . . . . . .

Sod, Gravel, etc. . . . . .

Light Plane, ...
Ski Landing Area or Water

Under Construction . . . . .

Closed . . . . . .

Helicopter Landings Area . . . . . (H)

Displaced Threshold . . . . . .

Taxiway, Apron and Stopways . .

MISCELLANEOUS BASE AND CULTURAL FEATURES

Buildings . . . . . .

Power Lines . . . . . —T——T—

Fence . . . . . .

Towers . . . . . .

Tanks . . . . . .

Oil Well . . . . . .

Smoke Stack . . . . . .

Obstruction 5812

Controlling Obstruction . . . . . +5812

Trees . . . . . .

Populated Places . . . . . .

Cuts and Fills . . . . . Cut Fill

Cliffs and Depressions . .

Ditch . . . . . .

Hill . . . . . .

RADIO AIDS TO NAVIGATION

VORTAC . . . VOR . . . . . .

VOR/DME . . NDB . . . . . .

TACAN . . . . NDB/DME . . . .

MISCELLANEOUS AERONAUTICAL FEATURES

Airport Beacon . . . . . .

Wind Cone . . . . . .

Landing Tee . . . . . .

Tetrahedron . . . . . .

Control Tower . . . . . .

APPROACH LIGHTING SYSTEMS

A dot " • " portrayed with approach lighting letter identifier indicates sequenced flashing lights (F) installed with the approach lighting system e.g. (A1) Negative symbology, e.g., (A1) (V) indicates Pilot Controlled Lighting (PCL).

Runway Centerline Lighting . . . . .

(A) Approach Lighting System ALSF-2 . .

(A1) Approach Lighting System ALSF-1 . .

(A2) Short Approach Lighting System SALS/SALSF . . . . . .

(A3) Simplified Short Approach Lighting System (SSALR) with RAIL . . . . .

(A4) Medium Intensity Approach Lighting System (MALS and MALSF)/(SSALS and SSALF) . . . . . .

(A5) Medium Intensity Approach Lighting System (MALSR) and RAIL . . . . . .

Omnidirectional Approach Lighting System (ODALS) . . . . . .

(D) Navy Parallel Row and Cross Bar . . .

Air Force Overrun . . . . . .

(V) Visual Approach Slope Indicator with Standard Threshold Clearance provided

(V2) Pulsating Visual Approach Slope Indicator (PVASI)

(V3) Visual Approach Slope Indicator with a threshold crossing height to accomodate long bodied or jumbo aircraft

(V4) Tri-color Visual Approach Slope Indicator (TRCV)

(V5) Approach Path Alignment Panel (APAP)

(P) Precision Approach Path Indicator (PAPI)

LEGEND

This directory is a listing of data on record with the FAA on all open to the public airports, military facilities and selected private use facilities specifically requested by the Department of Defense (DoD) for which a DoD Instrument Approach Procedure has been published in the U.S. Terminal Procedures Publication. Additionally this listing contains data for associated terminal control facilities, air route traffic control centers, and radio aids to navigation within the conterminous United States, Puerto Rico and the Virgin Islands. Joint civil/military and civil airports are listed alphabetically by state, associated city and airport name and cross-referenced by airport name. Military facilities are listed alphabetically by state and official airport name and cross-referenced by associated city name. Navaids, flight service stations and remote communication outlets that are associated with an airport, but with a different name, are listed alphabetically under their own name, as well as under the airport with which they are associated.

The listing of an open to the public airport in this directory merely indicates the airport operator's willingness to accommodate transient aircraft, and does not represent that the facility conforms with any Federal or local standards, or that it has been approved for use on the part of the general public. Military and private use facilities published in this directory are open to civil pilots only in an emergency or with prior permission. See Special Notice Section, Civil Use of Military Fields.

The information on obstructions is taken from reports submitted to the FAA. Obstruction data has not been verified in all cases. Pilots are cautioned that objects not indicated in this tabulation (or on the airports sketches and/or charts) may exist which can create a hazard to flight operation. Detailed specifics concerning services and facilities tabulated within this directory are contained in the Aeronautical Information Manual, Basic Flight Information and ATC Procedures.

The legend items that follow explain in detail the contents of this Directory and are keyed to the circled numbers on the sample on the preceding pages.

(1) CITY/AIRPORT NAME

Civil and joint civil/military airports and facilities in this directory are listed alphabetically by state and associated city. Where the city name is different from the airport name the city name will appear on the line above the airport name. Airports with the same associated city name will be listed alphabetically by airport name and will be separated by a dashed rule line. A solid rule line will separate all others. FAA approved helipads and seaplane landing areas associated with a land airport will be separated by a dotted line. Military airports are listed alphabetically by state and official airport name.

(2) ALTERNATE NAME

Alternate names, if any, will be shown in parentheses.

(3) LOCATION IDENTIFIER

The location identifier is a three or four character FAA code followed by a four-character ICAO code assigned to airports. ICAO codes will only be published at joint civil/military, and military facilities. If two different military codes are assigned, both codes will be shown with the primary operating agency's code listed first. These identifiers are used by ATC in lieu of the airport name in flight plans, flight strips and other written records and computer operations. Zeros will appear with a slash to differentiate them from the letter ''O''.

(4) OPERATING AGENCY

Airports within this directory are classified into two categories, Military/Federal Government and Civil airports open to the general public, plus selected private use airports. The operating agency is shown for military, private use and joint civil/military airports. The operating agency is shown by an abbreviation as listed below. When an organization is a tenant, the abbreviation is enclosed in parenthesis. No classification indicates the airport is open to the general public with no military tenant.

A	US Army	MC	Marine Corps
AFRC	Air Force Reserve Command	N	Navy
AF	US Air Force	NAF	Naval Air Facility
ANG	Air National Guard	NAS	Naval Air Station
AR	US Army Reserve	NASA	National Air and Space Administration
ARNG	US Army National Guard	P	US Civil Airport Wherein Permit Covers Use by Transient Military Aircraft
CG	US Coast Guard		
CIV/MIL	Joint Use Civil/Military	PVT	Private Use Only (Closed to the Public)
DND	Department of National Defense Canada		

(5) AIRPORT LOCATION

Airport location is expressed as distance and direction from the center of the associated city in nautical miles and cardinal points, e.g., 4 NE.

(6) TIME CONVERSION

Hours of operation of all facilities are expressed in Coordinated Universal Time (UTC) and shown as ''Z'' time. The directory indicates the number of hours to be subtracted from UTC to obtain local standard time and local daylight saving time UTC–5(–4DT). The symbol ‡ indicates that during periods of Daylight Saving Time effective hours will be one hour earlier than shown. In those areas where daylight saving time is not observed the (–4DT) and ‡ will not be shown. Daylight saving time is in effect from 0200 local time the second Sunday in March to 0200 local time the first Sunday in November. Canada and all U.S. Conterminous States observe daylight saving time except Arizona and Puerto Rico, and the Virgin Islands. If the state observes daylight saving time and the operating times are other than daylight saving times, the operating hours will include the dates, times and no ‡ symbol will be shown, i.e., April 15–Aug 31 0630–1700Z, Sep 1–Apr 14 0600–1700Z.

⑦ GEOGRAPHIC POSITION OF AIRPORT—AIRPORT REFERENCE POINT (ARP)

Positions are shown as hemisphere, degrees, minutes and hundredths of a minute and represent the approximate geometric center of all usable runway surfaces.

⑧ CHARTS

Charts refer to the Sectional Chart and Low and High Altitude Enroute Chart and panel on which the airport or facility is located. Helicopter Chart locations will be indicated as COPTER. IFR Gulf of Mexico West and IFR Gulf of Mexico Central will be depicted as GOMW and GOMC.

⑨ INSTRUMENT APPROACH PROCEDURES, AIRPORT DIAGRAMS

IAP indicates an airport for which a prescribed (Public Use) FAA Instrument Approach Procedure has been published. DIAP indicates an airport for which a prescribed DoD Instrument Approach Procedure has been published in the U.S. Terminal Procedures. See the Special Notice Section of this directory, Civil Use of Military Fields and the Aeronautical Information Manual 5–4–5 Instrument Approach Procedure Charts for additional information. AD indicates an airport for which an airport diagram has been published. Airport diagrams are located in the back of each A/FD volume alphabetically by associated city and airport name.

⑩ AIRPORT SKETCH

The airport sketch, when provided, depicts the airport and related topographical information as seen from the air and should be used in conjunction with the text. It is intended as a guide for pilots in VFR conditions. Symbology that is not self-explanatory will be reflected in the sketch legend. The airport sketch will be oriented with True North at the top. Airport sketches will be added incrementally.

⑪ ELEVATION

The highest point of an airport's usable runways measured in feet from mean sea level. When elevation is sea level it will be indicated as ''00''. When elevation is below sea level a minus ''–'' sign will precede the figure.

⑫ ROTATING LIGHT BEACON

B indicates rotating beacon is available. Rotating beacons operate sunset to sunrise unless otherwise indicated in the AIRPORT REMARKS or MILITARY REMARKS segment of the airport entry.

⑬ SERVICING—CIVIL

S1: Minor airframe repairs.
S2: Minor airframe and minor powerplant repairs.
S3: Major airframe and minor powerplant repairs.
S4: Major airframe and major powerplant repairs.
S5: Major airframe repairs.
S6: Minor airframe and major powerplant repairs.
S7: Major powerplant repairs.
S8: Minor powerplant repairs.

⑭ FUEL

CODE	FUEL
80	Grade 80 gasoline (Red)
100	Grade 100 gasoline (Green)
100LL	100LL gasoline (low lead) (Blue)
115	Grade 115 gasoline (115/145 military specification) (Purple)
A	Jet A, Kerosene, without FS–II*, FP** minus 40° C.
A+	Jet A, Kerosene, with FS–II*, FP** minus 40°C.
A1	Jet A–1, Kerosene, without FS–II*, FP** minus 47°C.
A1+	Jet A–1, Kerosene with FS–II*, FP** minus 47° C.
B	Jet B, Wide-cut, turbine fuel without FS–II*, FP** minus 50° C.
B+	Jet B, Wide-cut, turbine fuel with FS–II*, FP** minus 50° C.
J4 (JP4)	(JP–4 military specification) FP** minus 58° C.
J5 (JP5)	(JP–5 military specification) Kerosene with FS–11, FP** minus 46°C.
J8 (JP8)	(JP–8 military specification) Jet A–1, Kerosene with FS–II*, FP** minus 47°C.
J8+100	(JP–8 military specification) Jet A–1, Kerosene with FS–II*, FP** minus 47°C, with-fuel additive package that improves thermo stability characteristics of JP–8.
J	(Jet Fuel Type Unknown)
MOGAS	Automobile gasoline which is to be used as aircraft fuel.

*(Fuel System Icing Inhibitor)
**(Freeze Point)

NOTE: Certain automobile gasoline may be used in specific aircraft engines if a FAA supplemental type certificate has been obtained. Automobile gasoline, which is to be used in aircraft engines, will be identified as ''MOGAS'', however, the grade/type and other octane rating will not be published.

Data shown on fuel availability represents the most recent information the publisher has been able to acquire. Because of a variety of factors, the fuel listed may not always be obtainable by transient civil pilots. Confirmation of availability of fuel should be made directly with fuel suppliers at locations where refueling is planned.

⑮ OXYGEN—CIVIL

OX 1 High Pressure
OX 2 Low Pressure
OX 3 High Pressure—Replacement Bottles
OX 4 Low Pressure—Replacement Bottles

⑯ TRAFFIC PATTERN ALTITUDE

Traffic Pattern Altitude (TPA)—The first figure shown is TPA above mean sea level. The second figure in parentheses is TPA above airport elevation. Multiple TPA shall be shown as ''TPA—See Remarks'' and detailed information shall be shown in the Airport or Military Remarks Section. Traffic pattern data for USAF bases, USN facilities, and U.S. Army airports (including those on which ACC or U.S. Army is a tenant) that deviate from standard pattern altitudes shall be shown in Military Remarks.

⑰ AIRPORT OF ENTRY, LANDING RIGHTS, AND CUSTOMS USER FEE AIRPORTS

U.S. CUSTOMS USER FEE AIRPORT—Private Aircraft operators are frequently required to pay the costs associated with customs processing.

AOE—Airport of Entry. A customs Airport of Entry where permission from U.S. Customs is not required to land. However, at least one hour advance notice of arrival is required.

LRA—Landing Rights Airport. Application for permission to land must be submitted in advance to U.S. Customs. At least one hour advance notice of arrival is required.

NOTE: Advance notice of arrival at both an AOE and LRA airport may be included in the flight plan when filed in Canada or Mexico. Where Flight Notification Service (ADCUS) is available the airport remark will indicate this service. This notice will also be treated as an application for permission to land in the case of an LRA. Although advance notice of arrival may be relayed to Customs through Mexico, Canada, and U.S. Communications facilities by flight plan, the aircraft operator is solely responsible for ensuring that Customs receives the notification. (See Customs, Immigration and Naturalization, Public Health and Agriculture Department requirements in the International Flight Information Manual for further details.)

US Customs Air and Sea Ports, Inspectors and Agents

Northeast Sector (New England and Atlantic States—ME to MD)	407–975–1740
Southeast Sector (Atlantic States—DC, WV, VA to FL)	407–975–1780
Central Sector (Interior of the US, including Gulf states—MS, AL, LA)	407–975–1760
Southwest East Sector (OK and eastern TX)	407–975–1840
Southwest West Sector (Western TX, NM and AZ)	407–975–1820
Pacific Sector (WA, OR, CA, HI and AK)	407–975–1800

⑱ CERTIFICATED AIRPORT (14 CFR PART 139)

Airports serving Department of Transportation certified carriers and certified under 14 CFR part 139 are indicated by the Class and the ARFF Index; e.g. Class I, ARFF Index A, which relates to the availability of crash, fire, rescue equipment. Class I airports can have an ARFF Index A through E, depending on the aircraft length and scheduled departures. Class II, III, and IV will always carry an Index A.

14 CFR PART 139 CERTIFICATED AIRPORTS AIRPORT CLASSIFICATIONS

Type of Air Carrier Operation	Class I	Class II	Class III	Class IV
Scheduled Air Carrier Aircraft with 31 or more passenger seats	X			
Unscheduled Air Carrier Aircraft with 31 or more passengers seats	X	X		X
Scheduled Air Carrier Aircraft with 10 to 30 passenger seats	X	X	X	

14 CFR–PART 139 CERTIFICATED AIRPORTS

INDICES AND AIRCRAFT RESCUE AND FIRE FIGHTING EQUIPMENT REQUIREMENTS

Airport Index	*Required No. Vehicles*	*Aircraft Length*	*Scheduled Departures*	*Agent + Water for Foam*
A	1	<90′	≥1	500#DC or HALON 1211 or 450#DC + 100 gal H_2O
B	1 or 2	≥90′, <126′	≥5	Index A + 1500 gal H_2O
		≥126′, <159′	<5	
C	2 or 3	≥126′, <159′	≥5	Index A + 3000 gal H_2O
		≥159′, <200′	<5	
D	3	≥159′, <200′		Index A + 4000 gal H_2O
		>200′	<5	
E	3	≥200′	≥5	Index A + 6000 gal H_2O

> Greater Than; < Less Than; ≥ Equal or Greater Than; ≤ Equal or Less Than; H_2O–Water; DC–Dry Chemical.

NOTE: The listing of ARFF index does not necessarily assure coverage for non-air carrier operations or at other than prescribed times for air carrier. ARFF Index Ltd.—indicates ARFF coverage may or may not be available, for information contact airport manager prior to flight.

⑲ NOTAM SERVICE

All public use landing areas are provided NOTAM ''D'' (distant dissemination) and NOTAM ''L'' (local dissemination) service. Airport NOTAM file identifier is shown for individual airports, e.g. ''NOTAM FILE IAD''. See AIM, Basic Flight Information and

ATC Procedures for detailed description of NOTAM's. Current NOTAMs are available from Flight Service Stations at 1–800–WX–BRIEF. Real time Military NOTAMs are available using the DoD Internet NOTAM Distribution System (DINS) www.notams.jcs.mil.

⑳ FAA INSPECTION

All airports not inspected by FAA will be identified by the note: Not insp. This indicates that the airport information has been provided by the owner or operator of the field.

㉑ RUNWAY DATA

Runway information is shown on two lines. That information common to the entire runway is shown on the first line while information concerning the runway ends is shown on the second or following line. Runway direction, surface, length, width, weight bearing capacity, lighting, and slope, when available are shown for each runway. Multiple runways are shown with the longest runway first. Direction, length, width, and lighting are shown for sea-lanes. The full dimensions of helipads are shown, e.g., 50X150. Runway data that requires clarification will be placed in the remarks section.

RUNWAY DESIGNATION

Runways are normally numbered in relation to their magnetic orientation rounded off to the nearest 10 degrees. Parallel runways can be designated L (left)/R (right)/C (center). Runways may be designated as Ultralight or assault strips. Assault strips are shown by magnetic bearing.

RUNWAY DIMENSIONS

Runway length and width are shown in feet. Length shown is runway end to end including displaced thresholds, but excluding those areas designed as overruns.

RUNWAY SURFACE AND LENGTH

Runway lengths prefixed by the letter ''H'' indicate that the runways are hard surfaced (concrete, asphalt, or part asphalt–concrete). If the runway length is not prefixed, the surface is sod, clay, etc. The runway surface composition is indicated in parentheses after runway length as follows:

(AFSC)—Aggregate friction seal coat
(ASPH)—Asphalt
(CONC)—Concrete
(DIRT)—Dirt
(GRVD)—Grooved
(GRVL)—Gravel, or cinders
(MATS)—Pierced steel planking, landing mats, membranes
(PEM)—Part concrete, part asphalt
(PFC)—Porous friction courses
(PSP)—Pierced steel plank
(RFSC)—Rubberized friction seal coat
(TURF)—Turf
(TRTD)—Treated
(WC)—Wire combed

RUNWAY WEIGHT BEARING CAPACITY

Runway strength data shown in this publication is derived from available information and is a realistic estimate of capability at an average level of activity. It is not intended as a maximum allowable weight or as an operating limitation. Many airport pavements are capable of supporting limited operations with gross weights in excess of the published figures. Permissible operating weights, insofar as runway strengths are concerned, are a matter of agreement between the owner and user. When desiring to operate into any airport at weights in excess of those published in the publication, users should contact the airport management for permission. Runway strength figures are shown in thousand of pounds, with the last three figures being omitted. Add 000 to figure following S, D, 2S, 2T, AUW, SWL, etc., for gross weight capacity. A blank space following the letter designator is used to indicate the runway can sustain aircraft with this type landing gear, although definite runway weight bearing capacity figures are not available, e.g., S, D. Applicable codes for typical gear configurations with S=Single, D=Dual, T=Triple and Q=Quadruple:

CURRENT	NEW	NEW DESCRIPTION
S	S	Single wheel type landing gear (DC3), (C47), (F15), etc.
D	D	Dual wheel type landing gear (BE1900), (B737), (A319), etc.
T	D	Dual wheel type landing gear (P3, C9).
ST	2S	Two single wheels in tandem type landing gear (C130).
TRT	2T	Two triple wheels in tandem type landing gear (C17), etc.
DT	2D	Two dual wheels in tandem type landing gear (B707), etc.
TT	2D	Two dual wheels in tandem type landing gear (B757, KC135).
SBTT	2D/D1	Two dual wheels in tandem/dual wheel body gear type landing gear (KC10).
None	2D/2D1	Two dual wheels in tandem/two dual wheels in tandem body gear type landing gear (A340–600).
DDT	2D/2D2	Two dual wheels in tandem/two dual wheels in double tandem body gear type landing gear (B747, E4).
TTT	3D	Three dual wheels in tandem type landing gear (B777), etc.
TT	D2	Dual wheel gear two struts per side main gear type landing gear (B52).
TDT	C5	Complex dual wheel and quadruple wheel combination landing gear (C5).

AUW—All up weight. Maximum weight bearing capacity for any aircraft irrespective of landing gear configuration.
SWL—Single Wheel Loading. (This includes information submitted in terms of Equivalent Single Wheel Loading (ESWL) and Single Isolated Wheel Loading).
PSI—Pounds per square inch. PSI is the actual figure expressing maximum pounds per square inch runway will support, e.g., (SWL 000/PSI 535).

Omission of weight bearing capacity indicates information unknown.

The ACN/PCN System is the ICAO standard method of reporting pavement strength for pavements with bearing strengths greater than 12,500 pounds. The Pavement Classification Number (PCN) is established by an engineering assessment of the runway. The PCN is for use in conjunction with an Aircraft Classification Number (ACN). Consult the Aircraft Flight Manual, Flight Information Handbook, or other appropriate source for ACN tables or charts. Currently, ACN data may not be available for all aircraft. If an ACN table or chart is available, the ACN can be calculated by taking into account the aircraft weight, the pavement type, and the subgrade category. For runways that have been evaluated under the ACN/PCN system, the PCN will be shown as a five-part code (e.g. PCN 80 R/B/W/T). Details of the coded format are as follows:

(1) The PCN NUMBER—The reported PCN indicates that an aircraft with an ACN equal or less than the reported PCN can operate on the pavement subject to any limitation on the tire pressure.

(2) The type of pavement:
R — Rigid
F — Flexible

(3) The pavement subgrade category:
A — High
B — Medium
C — Low
D — Ultra-low

(4) The maximum tire pressure authorized for the pavement:
W — High, no limit
X — Medium, limited to 217 psi
Y — Low, limited to 145 psi
Z — Very low, limited to 73 psi

(5) Pavement evaluation method:
T — Technical evaluation
U — By experience of aircraft using the pavement

NOTE: Prior permission from the airport controlling authority is required when the ACN of the aircraft exceeds the published PCN or aircraft tire pressure exceeds the published limits.

RUNWAY LIGHTING

Lights are in operation sunset to sunrise. Lighting available by prior arrangement only or operating part of the night and/or pilot controlled lighting with specific operating hours are indicated under airport or military remarks. At USN/USMC facilities lights are available only during airport hours of operation. Since obstructions are usually lighted, obstruction lighting is not included in this code. Unlighted obstructions on or surrounding an airport will be noted in airport or military remarks. Runway lights nonstandard (NSTD) are systems for which the light fixtures are not FAA approved L-800 series: color, intensity, or spacing does not meet FAA standards. Nonstandard runway lights, VASI, or any other system not listed below will be shown in airport remarks or military service. Temporary, emergency or limited runway edge lighting such as flares, smudge pots, lanterns or portable runway lights will also be shown in airport remarks or military service. Types of lighting are shown with the runway or runway end they serve.

NSTD—Light system fails to meet FAA standards.
LIRL—Low Intensity Runway Lights.
MIRL—Medium Intensity Runway Lights.
HIRL—High Intensity Runway Lights.
RAIL—Runway Alignment Indicator Lights.
REIL—Runway End Identifier Lights.
CL—Centerline Lights.
TDZL—Touchdown Zone Lights.
ODALS—Omni Directional Approach Lighting System.
AF OVRN—Air Force Overrun 1000′ Standard Approach Lighting System.
LDIN—Lead-In Lighting System.
MALS—Medium Intensity Approach Lighting System.
MALSF—Medium Intensity Approach Lighting System with Sequenced Flashing Lights.
MALSR—Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights.
SALS—Short Approach Lighting System.
SALSF—Short Approach Lighting System with Sequenced Flashing Lights.
SSALS—Simplified Short Approach Lighting System.
SSALF—Simplified Short Approach Lighting System with Sequenced Flashing Lights.
SSALR—Simplified Short Approach Lighting System with Runway Alignment Indicator Lights.
ALSAF—High Intensity Approach Lighting System with Sequenced Flashing Lights.
ALSF1—High Intensity Approach Lighting System with Sequenced Flashing Lights, Category I, Configuration.
ALSF2—High Intensity Approach Lighting System with Sequenced Flashing Lights, Category II, Configuration.
SF—Sequenced Flashing Lights.
OLS—Optical Landing System.
WAVE–OFF.

NOTE: Civil ALSF2 may be operated as SSALR during favorable weather conditions. When runway edge lights are positioned more than 10 feet from the edge of the usable runway surface a remark will be added in the ''Remarks'' portion of the airport entry. This is applicable to Air Force, Air National Guard and Air Force Reserve Bases, and those joint civil/military airfields on which they are tenants.

VISUAL GLIDESLOPE INDICATORS

APAP—A system of panels, which may or may not be lighted, used for alignment of approach path.

PNIL	APAP on left side of runway	PNIR	APAP on right side of runway

PAPI—Precision Approach Path Indicator

P2L	2-identical light units placed on left side of runway	P4L	4-identical light units placed on left side of runway
P2R	2-identical light units placed on right side of runway	P4R	4-identical light units placed on right side of runway

PVASI—Pulsating/steady burning visual approach slope indicator, normally a single light unit projecting two colors.

PSIL	PVASI on left side of runway	PSIR	PVASI on right side of runway

SAVASI—Simplified Abbreviated Visual Approach Slope Indicator

S2L	2-box SAVASI on left side of runway	S2R	2-box SAVASI on right side of runway

TRCV—Tri-color visual approach slope indicator, normally a single light unit projecting three colors.

TRIL	TRCV on left side of runway	TRIR	TRCV on right side of runway

VASI—Visual Approach Slope Indicator

V2L	2-box VASI on left side of runway	V6L	6-box VASI on left side of runway
V2R	2-box VASI on right side of runway	V6R	6-box VASI on right side of runway
V4L	4-box VASI on left side of runway	V12	12-box VASI on both sides of runway
V4R	4-box VASI on right side of runway	V16	16-box VASI on both sides of runway

NOTE: Approach slope angle and threshold crossing height will be shown when available; i.e., –GA 3.5° TCH 37′.

PILOT CONTROL OF AIRPORT LIGHTING

Key Mike	Function
7 times within 5 seconds	Highest intensity available
5 times within 5 seconds	Medium or lower intensity (Lower REIL or REIL-Off)
3 times within 5 seconds	Lowest intensity available (Lower REIL or REIL-Off)

Available systems will be indicated in the airport or military remarks, e.g., ACTIVATE HIRL Rwy 07–25, MALSR Rwy 07, and VASI Rwy 07—122.8.

Where the airport is not served by an instrument approach procedure and/or has an independent type system of different specification installed by the airport sponsor, descriptions of the type lights, method of control, and operating frequency will be explained in clear text. See AIM, ''Basic Flight Information and ATC Procedures,'' for detailed description of pilot control of airport lighting.

RUNWAY SLOPE

When available, runway slope data will only be provided for those airports with an approved FAA instrument approach procedure. Runway slope will be shown only when it is 0.3 percent or greater. On runways less than 8000 feet, the direction of the slope up will be indicated, e.g., 0.3% up NW. On runways 8000 feet or greater, the slope will be shown (up or down) on the runway end line, e.g., RWY 13: 0.3% up., RWY 21: Pole. Rgt tfc. 0.4% down.

RUNWAY END DATA

Information pertaining to the runway approach end such as approach lights, touchdown zone lights, runway end identification lights, visual glideslope indicators, displaced thresholds, controlling obstruction, and right hand traffic pattern, will be shown on the specific runway end. ''Rgt tfc''—Right traffic indicates right turns should be made on landing and takeoff for specified runway end.

LAND AND HOLD SHORT OPERATIONS (LAHSO)

LAHSO is an acronym for ''Land and Hold Short Operations.'' These operations include landing and holding short of an intersection runway, an intersecting taxiway, or other predetermined points on the runway other than a runway or taxiway. Measured distance represents the available landing distance on the landing runway, in feet.

Specific questions regarding these distances should be referred to the air traffic manager of the facility concerned. The Aeronautical Information Manual contains specific details on hold–short operations and markings.

RUNWAY DECLARED DISTANCE INFORMATION

TORA—Take-off Run Available. The length of runway declared available and suitable for the ground run of an aeroplane take–off.

TODA—Take-off Distance Available. The length of the take–off run available plus the length of the clearway, if provided.

ASDA—Accelerate-Stop Distance Available. The length of the take–off run available plus the length of the stopway, if provided.

LDA—Landing Distance Available. The length of runway which is declared available and suitable for the ground run of an aeroplane landing.

(22) ARRESTING GEAR/SYSTEMS

Arresting gear is shown as it is located on the runway. The a–gear distance from the end of the appropriate runway (or into the overrun) is indicated in parentheses. A–Gear which has a bi–direction capability and can be utilized for emergency approach end engagement is indicated by a (B). The direction of engaging device is indicated by an arrow. Up to 15 minutes advance notice may be required for rigging A–Gear for approach and engagement. Airport listing may show availability of other than US Systems. This information is provided for emergency requirements only. Refer to current aircraft operating manuals for specific engagement weight and speed criteria based on aircraft structural restrictions and arresting system limitations.

Following is a list of current systems referenced in this publication identified by both Air Force and Navy terminology:

BI–DIRECTIONAL CABLE (B)

TYPE	DESCRIPTION
BAK–9	Rotary friction brake.
BAK–12A	Standard BAK–12 with 950 foot run out, 1–inch cable and 40,000 pound weight setting. Rotary friction brake.
BAK–12B	Extended BAK–12 with 1200 foot run, 1¼ inch Cable and 50,000 pounds weight setting. Rotary friction brake.
E28	Rotary Hydraulic (Water Brake).
M21	Rotary Hydraulic (Water Brake) Mobile.

The following device is used in conjunction with some aircraft arresting systems:

BAK–14	A device that raises a hook cable out of a slot in the runway surface and is remotely positioned for engagement by the tower on request. (In addition to personnel reaction time, the system requires up to five seconds to fully raise the cable.)
H	A device that raises a hook cable out of a slot in the runway surface and is remotely positioned for engagement by the tower on request. (In addition to personnel reaction time, the system requires up to one and one–half seconds to fully raise the cable.)

UNI–DIRECTIONAL CABLE

TYPE	DESCRIPTION
MB60	Textile brake—an emergency one–time use, modular braking system employing the tearing of specially woven textile straps to absorb the kinetic energy.
E5/E5–1/E5–3	Chain Type. At USN/USMC stations E–5 A–GEAR systems are rated, e.g., E–5 RATING–13R–1100 HW (DRY), 31L/R–1200 STD (WET). This rating is a function of the A–GEAR chain weight and length and is used to determine the maximum aircraft engaging speed. A dry rating applies to a stabilized surface (dry or wet) while a wet rating takes into account the amount (if any) of wet overrun that is not capable of withstanding the aircraft weight. These ratings are published under Military Service.

FOREIGN CABLE

TYPE	DESCRIPTION	US EQUIVALENT
44B–3H	Rotary Hydraulic) (Water Brake)	
CHAG	Chain	E–5

UNI–DIRECTIONAL BARRIER

TYPE	DESCRIPTION
MA–1A	Web barrier between stanchions attached to a chain energy absorber.
BAK–15	Web barrier between stanchions attached to an energy absorber (water squeezer, rotary friction, chain). Designed for wing engagement.

NOTE: Landing short of the runway threshold on a runway with a BAK–15 in the underrun is a significant hazard. The barrier in the down position still protrudes several inches above the underrun. Aircraft contact with the barrier short of the runway threshold can cause damage to the barrier and substantial damage to the aircraft.

OTHER

TYPE	DESCRIPTION
EMAS	Engineered Material Arresting System, located beyond the departure end of the runway, consisting of high energy absorbing materials which will crush under the weight of an aircraft.

(23) MILITARY SERVICE

Specific military services available at the airport are listed under this general heading. Remarks applicable to any military service are shown in the individual service listing.

(24) JET AIRCRAFT STARTING UNITS (JASU)

The numeral preceding the type of unit indicates the number of units available. The absence of the numeral indicates ten or more units available. If the number of units is unknown, the number one will be shown. Absence of JASU designation indicates non–availability.

The following is a list of current JASU systems referenced in this publication:

USAF JASU (For variations in technical data, refer to T.O. 35–1–7.)

ELECTRICAL STARTING UNITS:

A/M32A–86	AC: 115/200v, 3 phase, 90 kva, 0.8 pf, 4 wire DC: 28v, 1500 amp, 72 kw (with TR pack)
MC–1A	AC: 115/208v, 400 cycle, 3 phase, 37.5 kva, 0.8 pf, 108 amp, 4 wire DC: 28v, 500 amp, 14 kw
MD–3	AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire DC: 28v, 1500 amp, 45 kw, split bus
MD–3A	AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire DC: 28v, 1500 amp, 45 kw, split bus
MD–3M	AC: 115/208v, 400 cycle, 3 phase, 60 kva, 0.75 pf, 4 wire DC: 28v, 500 amp, 15 kw

MD–4	AC: 120/208v, 400 cycle, 3 phase, 62.5 kva, 0.8 pf, 175 amp, ''WYE'' neutral ground, 4 wire, 120v, 400 cycle, 3 phase, 62.5 kva, 0.8 pf, 303 amp, ''DELTA'' 3 wire, 120v, 400 cycle, 1 phase, 62.5 kva, 0.8 pf, 520 amp, 2 wire
AIR STARTING UNITS	
AM32–95	150 +/– 5 lb/min (2055 +/– 68 cfm) at 51 +/– 2 psia
AM32A–95	150 +/– 5 lb/min @ 49 +/– 2 psia (35 +/– 2 psig)
LASS	150 +/– 5 lb/min @ 49 +/– 2 psia
MA–1A	82 lb/min (1123 cfm) at 130° air inlet temp, 45 psia (min) air outlet press
MC–1	15 cfm, 3500 psia
MC–1A	15 cfm, 3500 psia
MC–2A	15 cfm, 200 psia
MC–11	8,000 cu in cap, 4000 psig, 15 cfm
COMBINED AIR AND ELECTRICAL STARTING UNITS:	
AGPU	AC: 115/200v, 400 cycle, 3 phase, 30 kw gen DC: 28v, 700 amp AIR: 60 lb/min @ 40 psig @ sea level
AM32A–60*	AIR: 120 +/– 4 lb/min (1644 +/– 55 cfm) at 49 +/– 2 psia AC: 120/208v, 400 cycle, 3 phase, 75 kva, 0.75 pf, 4 wire, 120v, 1 phase, 25 kva DC: 28v, 500 amp, 15 kw
AM32A–60A	AIR: 150 +/– 5 lb/min (2055 +/– 68 cfm at 51 +/– psia AC: 120/208v, 400 cycle, 3 phase, 75 kva, 0.75 pf, 4 wire DC: 28v, 200 amp, 5.6 kw
AM32A–60B*	AIR: 130 lb/min, 50 psia AC: 120/208v, 400 cycle, 3 phase, 75 kva, 0.75 pf, 4 wire DC: 28v, 200 amp, 5.6 kw

*NOTE: During combined air and electrical loads, the pneumatic circuitry takes preference and will limit the amount of electrical power available.

USN JASU

ELECTRICAL STARTING UNITS:	
NC–8A/A1	DC: 500 amp constant, 750 amp intermittent, 28v; AC: 60 kva @ .8 pf, 115/200v, 3 phase, 400 Hz.
NC–10A/A1/B/C	DC: 750 amp constant, 1000 amp intermittent, 28v; AC: 90 kva, 115/200v, 3 phase, 400 Hz.
AIR STARTING UNITS:	
GTC–85/GTE–85	120 lbs/min @ 45 psi.
MSU–200NAV/A/U47A–5	204 lbs/min @ 56 psia.
WELLS AIR START SYSTEM	180 lbs/min @ 75 psi or 120 lbs/min @ 45 psi. Simultaneous multiple start capability.
COMBINED AIR AND ELECTRICAL STARTING UNITS:	
NCPP–105/RCPT	180 lbs/min @ 75 psi or 120 lbs/min @ 45 psi. 700 amp, 28v DC. 120/208v, 400 Hz AC, 30 kva.
JASU (ARMY)	
59B2–1B	28v, 7.5 kw, 280 amp.
OTHER JASU	
ELECTRICAL STARTING UNITS (DND):	
CE12	AC 115/200v, 140 kva, 400 Hz, 3 phase
CE13	AC 115/200v, 60 kva, 400 Hz, 3 phase
CE14	AC/DC 115/200v, 140 kva, 400 Hz, 3 phase, 28vDC, 1500 amp
CE15	DC 22–35v, 500 amp continuous 1100 amp intermittent
CE16	DC 22–35v, 500 amp continuous 1100 amp intermittent soft start
AIR STARTING UNITS (DND):	
CA2	ASA 45.5 psig, 116.4 lb/min
COMBINED AIR AND ELECTRICAL STARTING UNITS (DND)	
CEA1	AC 120/208v, 60 kva, 400 Hz, 3 phase DC 28v, 75 amp AIR 112.5 lb/min, 47 psig
ELECTRICAL STARTING UNITS (OTHER)	
C–26	28v 45kw 115–200v 15kw 380–800 Hz 1 phase 2 wire
C–26–B, C–26–C	28v 45kw: Split Bus: 115–200v 15kw 380–800 Hz 1 phase 2 wire
E3	DC 28v/10kw
AIR STARTING UNITS (OTHER):	
A4	40 psi/2 lb/sec (LPAS Mk12, Mk12L, Mk12A, Mk1, Mk2B)
MA–1	150 Air HP, 115 lb/min 50 psia
MA–2	250 Air HP, 150 lb/min 75 psia
CARTRIDGE:	
MXU–4A	USAF

(25) FUEL—MILITARY

Fuel available through US Military Base supply, DESC Into–Plane Contracts and/or reciprocal agreement is listed first and is followed by (Mil). At commercial airports where Into–Plane contracts are in place, the name of the refueling agent is shown. Military fuel should be used first if it is available. When military fuel cannot be obtained but Into–Plane contract fuel is available, Government aircraft must refuel with the contract fuel and applicable refueling agent to avoid any breach in contract terms and conditions. Fuel not available through the above is shown preceded by NC (no contract). When fuel is obtained from NC sources, local purchase procedures must be followed. The US Military Aircraft Identaplates DD Form 1896 (Jet Fuel), DD Form 1897 (Avgas) and AF Form 1245 (Avgas) are used at military installations only. The US Government Aviation Into–Plane Reimbursement (AIR) Card (currently issued by AVCARD) is the instrument to be used to obtain fuel under a DESC Into–Plane Contract and for NC purchases if the refueling agent at the commercial airport accepts the AVCARD. A current list of contract fuel locations is available online at www.desc.dla.mil/Static/ProductsAndServices.asp; click on the Commercial Airports button.

See legend item 14 for fuel code and description.

(26) SUPPORTING FLUIDS AND SYSTEMS—MILITARY

CODE	
ADI	Anti–Detonation Injection Fluid—Reciprocating Engine Aircraft.
W	Water Thrust Augmentation—Jet Aircraft.
WAI	Water–Alcohol Injection Type, Thrust Augmentation—Jet Aircraft.
SP	Single Point Refueling.
PRESAIR	Air Compressors rated 3,000 PSI or more.
De–Ice	Anti–icing/De–icing/Defrosting Fluid (MIL–A–8243).

OXYGEN:

LPOX	Low pressure oxygen servicing.
HPOX	High pressure oxygen servicing.
LHOX	Low and high pressure oxygen servicing.
LOX	Liquid oxygen servicing.
OXRB	Oxygen replacement bottles. (Maintained primarily at Naval stations for use in acft where oxygen can be replenished only by replacement of cylinders.)
OX	Indicates oxygen servicing when type of servicing is unknown.

NOTE: Combinations of above items is used to indicate complete oxygen servicing available;

LHOXRB	Low and high pressure oxygen servicing and replacement bottles;
LPOXRB	Low pressure oxygen replacement bottles only, etc.

NOTE: Aircraft will be serviced with oxygen procured under military specifications only. Aircraft will not be serviced with medical oxygen.

NITROGEN:

LPNIT — Low pressure nitrogen servicing.
HPNIT — High pressure nitrogen servicing.
LHNIT — Low and high pressure nitrogen servicing.

(27) OIL—MILITARY

US AVIATION OILS (MIL SPECS):

CODE	GRADE, TYPE
O–113	1065, Reciprocating Engine Oil (MIL–L–6082)
O–117	1100, Reciprocating Engine Oil (MIL–L–6082)
O–117+	1100, O–117 plus cyclohexanone (MIL–L–6082)
O–123	1065, (Dispersant), Reciprocating Engine Oil (MIL–L–22851 Type III)
O–128	1100, (Dispersant), Reciprocating Engine Oil (MIL–L–22851 Type II)
O–132	1005, Jet Engine Oil (MIL–L–6081)
O–133	1010, Jet Engine Oil (MIL–L–6081)
O–147	None, MIL–L–6085A Lubricating Oil, Instrument, Synthetic
O–148	None, MIL–L–7808 (Synthetic Base) Turbine Engine Oil
O–149	None, Aircraft Turbine Engine Synthetic, 7.5c St
O–155	None, MIL–L–6086C, Aircraft, Medium Grade
O–156	None, MIL–L–23699 (Synthetic Base), Turboprop and Turboshaft Engines
JOAP/SOAP	Joint Oil Analysis Program. JOAP support is furnished during normal duty hours, other times on request. (JOAP and SOAP programs provide essentially the same service, JOAP is now the standard joint service supported program.)

(28) TRANSIENT ALERT (TRAN ALERT)—MILITARY

Tran Alert service is considered to include all services required for normal aircraft turn–around, e.g., servicing (fuel, oil, oxygen, etc.), debriefing to determine requirements for maintenance, minor maintenance, inspection and parking assistance of transient aircraft. Drag chute repack, specialized maintenance, or extensive repairs will be provided within the capabilities and priorities of the base. Delays can be anticipated after normal duty hours/holidays/weekends regardless of the hours of transient maintenance operation. Pilots should not expect aircraft to be serviced for TURN–AROUNDS during time periods when servicing or maintenance manpower is not available. In the case of airports not operated exclusively by US military, the servicing indicated by the remarks will not always be available for US military

aircraft. When transient alert services are not shown, facilities are unknown. NO PRIORITY BASIS—means that transient alert services will be provided only after all the requirements for mission/tactical assigned aircraft have been accomplished.

㉙ AIRPORT REMARKS

The Attendance Schedule is the months, days and hours the airport is actually attended. Airport attendance does not mean watchman duties or telephone accessibility, but rather an attendant or operator on duty to provide at least minimum services (e.g., repairs, fuel, transportation).

Airport Remarks have been grouped in order of applicability. Airport remarks are limited to those items of information that are determined essential for operational use, i.e., conditions of a permanent or indefinite nature and conditions that will remain in effect for more than 30 days concerning aeronautical facilities, services, maintenance available, procedures or hazards, knowledge of which is essential for safe and efficient operation of aircraft. Information concerning permanent closing of a runway or taxiway will not be shown. A note ''See Special Notices'' shall be applied within this remarks section when a special notice applicable to the entry is contained in the Special Notices section of this publication.

Parachute Jumping indicates parachute jumping areas associated with the airport. See Parachute Jumping Area section of this publication for additional Information.

Landing Fee indicates landing charges for private or non-revenue producing aircraft. In addition, fees may be charged for planes that remain over a couple of hours and buy no services, or at major airline terminals for all aircraft.

Note: Unless otherwise stated, remarks including runway ends refer to the runway's approach end.

㉚ MILITARY REMARKS

Military Remarks published at a joint Civil/Military facility are remarks that are applicable to the Military. At Military Facilities all remarks will be published under the heading Military Remarks. Remarks contained in this section may not be applicable to civil users. The first group of remarks is applicable to the primary operator of the airport. Remarks applicable to a tenant on the airport are shown preceded by the tenant organization, i.e., (A) (AF) (N) (ANG), etc. Military airports operate 24 hours unless otherwise specified. Airport operating hours are listed first (airport operating hours will only be listed if they are different than the airport attended hours or if the attended hours are unavailable) followed by pertinent remarks in order of applicability. Remarks will include information on restrictions, hazards, traffic pattern, noise abatement, customs/agriculture/immigration, and miscellaneous information applicable to the Military.

Type of restrictions:

CLOSED: When designated closed, the airport is restricted from use by all aircraft unless stated otherwise. Any closure applying to specific type of aircraft or operation will be so stated. USN/USMC/USAF airports are considered closed during non–operating hours. Closed airports may be utilized during an emergency provided there is a safe landing area.

OFFICIAL BUSINESS ONLY: The airfield is closed to all transient military aircraft for obtaining routine services such as fueling, passenger drop off or pickup, practice approaches, parking, etc. The airfield may be used by aircrews and aircraft if official government business (including civilian) must be conducted on or near the airfield and prior permission is received from the airfield manager.

AF OFFICIAL BUSINESS ONLY OR NAVY OFFICIAL BUSINESS ONLY: Indicates that the restriction applies only to service indicated.

PRIOR PERMISSION REQUIRED (PPR): Airport is closed to transient aircraft unless approval for operation is obtained from the appropriate commander through Chief, Airfield Management or Airfield Operations Officer. Official Business or PPR does not preclude the use of US Military airports as an alternate for IFR flights. If a non–US military airport is used as a weather alternate and requires a PPR, the PPR must be requested and confirmed before the flight departs. The purpose of PPR is to control volume and flow of traffic rather than to prohibit it. Prior permission is required for all aircraft requiring transient alert service outside the published transient alert duty hours. All aircraft carrying hazardous materials must obtain prior permission as outlined in AFJI 11–204, AR 95–27, OPNAVINST 3710.7.

Note: OFFICIAL BUSINESS ONLY AND PPR restrictions are not applicable to Special Air Mission (SAM) or Special Air Resource (SPAR) aircraft providing person or persons on aboard are designated Code 6 or higher as explained in AFJMAN 11–213, AR 95–11, OPNAVINST 3722–8J. Official Business Only or PPR do not preclude the use of the airport as an alternate for IFR flights.

㉛ WEATHER DATA SOURCES

Weather data sources will be listed alphabetically followed by their assigned frequencies and/or telephone number and hours of operation.

ASOS—Automated Surface Observing System. Reports the same as an AWOS–3 plus precipitation identification and intensity, and freezing rain occurrence (future enhancement).

AWOS—Automated Weather Observing System

AWOS–A—reports altimeter setting (all other information is advisory only).

AWOS–1—reports altimeter setting, wind data and usually temperature, dewpoint and density altitude.

AWOS–2—reports the same as AWOS–1 plus visibility.

AWOS–3—reports the same as AWOS–1 plus visibility and cloud/ceiling data.

See AIM, Basic Flight Information and ATC Procedures for detailed description of AWOS.

HIWAS—See RADIO AIDS TO NAVIGATION
LAWRS—Limited Aviation Weather Reporting Station where observers report cloud height, weather, obstructions to vision, temperature and dewpoint (in most cases), surface wind, altimeter and pertinent remarks.
LLWAS—indicates a Low Level Wind Shear Alert System consisting of a center field and several field perimeter anemometers.
SAWRS—identifies airports that have a Supplemental Aviation Weather Reporting Station available to pilots for current weather information.
SWSL—Supplemental Weather Service Location providing current local weather information via radio and telephone.
TDWR—indicates airports that have Terminal Doppler Weather Radar.
WSP—indicates airports that have Weather System Processor.

When the automated weather source is broadcast over an associated airport NAVAID frequency (see NAVAID line), it shall be indicated by a bold ASOS, AWOS, or HIWAS followed by the frequency, identifier and phone number, if available.

(32) COMMUNICATIONS

Airport terminal control facilities and radio communications associated with the airport shall be shown. When the call sign is not the same as the airport name the call sign will be shown. Frequencies shall normally be shown in descending order with the primary frequency listed first. Frequencies will be listed, together with sectorization indicated by outbound radials, and hours of operation. Communications will be listed in sequence as follows:

Single Frequency Approach (SFA), Common Traffic Advisory Frequency (CTAF), Automatic Terminal Information Service (ATIS) and Aeronautical Advisory Stations (UNICOM) or (AUNICOM) along with their frequency is shown, where available, on the line following the heading ''COMMUNICATIONS.'' When the CTAF and UNICOM frequencies are the same, the frequency will be shown as CTAF/UNICOM 122.8.

The FSS telephone nationwide is toll free 1–800–WX–BRIEF (1–800–992–7433). When the FSS is located on the field it will be indicated as ''on arpt''. Frequencies available at the FSS will follow in descending order. Remote Communications Outlet (RCO) providing service to the airport followed by the frequency and FSS RADIO name will be shown when available.

FSS's provide information on airport conditions, radio aids and other facilities, and process flight plans. Airport Advisory Service (AAS) is provided on the CTAF by FSS's for select non-tower airports or airports where the tower is not in operation.

(See AIM, Para 4–1–9 Traffic Advisory Practices at Airports Without Operating Control Towers or AC 90–42C.)

Aviation weather briefing service is provided by FSS specialists. Flight and weather briefing services are also available by calling the telephone numbers listed.

Remote Communications Outlet (RCO)—An unmanned air/ground communications facility that is remotely controlled and provides UHF or VHF communications capability to extend the service range of an FSS.

Civil Communications Frequencies-Civil communications frequencies used in the FSS air/ground system are operated on 122.0, 122.2, 123.6; emergency 121.5; plus receive-only on 122.1.

a. 122.0 is assigned as the Enroute Flight Advisory Service frequency at selected FSS RADIO outlets.
b. 122.2 is assigned as a common enroute frequency.
c. 123.6 is assigned as the airport advisory frequency at select non-tower locations. At airports with a tower, FSS may provide airport advisories on the tower frequency when tower is closed.
d. 122.1 is the primary receive-only frequency at VOR's.
e. Some FSS's are assigned 50 kHz frequencies in the 122–126 MHz band (eg. 122.45). Pilots using the FSS A/G system should refer to this directory or appropriate charts to determine frequencies available at the FSS or remoted facility through which they wish to communicate.

Emergency frequency 121.5 and 243.0 are available at all Flight Service Stations, most Towers, Approach Control and RADAR facilities.

Frequencies published followed by the letter ''T'' or ''R'', indicate that the facility will only transmit or receive respectively on that frequency. All radio aids to navigation (NAVAID) frequencies are transmit only.

TERMINAL SERVICES

SFA—Single Frequency Approach.
CTAF—A program designed to get all vehicles and aircraft at airports without an operating control tower on a common frequency.
ATIS—A continuous broadcast of recorded non-control information in selected terminal areas.
D–ATIS—Digital ATIS provides ATIS information in text form outside the standard reception range of conventional ATIS via landline & data link communications and voice message within range of existing transmitters.
AUNICOM—Automated UNICOM is a computerized, command response system that provides automated weather, radio check capability and airport advisory information selected from an automated menu by microphone clicks.
UNICOM—A non-government air/ground radio communications facility which may provide airport information.
PTD—Pilot to Dispatcher.
APP CON—Approach Control. The symbol Ⓡ indicates radar approach control.
TOWER—Control tower.
GCA—Ground Control Approach System.
GND CON—Ground Control.
GCO—Ground Communication Outlet—An unstaffed, remotely controlled, ground/ground communications facility. Pilots at uncontrolled airports may contact ATC and FSS via VHF to a telephone connection to obtain an instrument clearance or close a VFR or IFR flight plan. They may also get an updated weather briefing prior to takeoff. Pilots will use four ''key clicks'' on the

VHF radio to contact the appropriate ATC facility or six ''key clicks'' to contact the FSS. The GCO system is intended to be used only on the ground.
DEP CON—Departure Control. The symbol Ⓡ indicates radar departure control.
CLNC DEL—Clearance Delivery.
PRE TAXI CLNC—Pre taxi clearance.

VFR ADVSY SVC—VFR Advisory Service. Service provided by Non-Radar Approach Control.
Advisory Service for VFR aircraft (upon a workload basis) ctc APP CON.
COMD POST—Command Post followed by the operator call sign in parenthesis.
PMSV—Pilot–to–Metro Service call sign, frequency and hours of operation, when full service is other than continuous. PMSV installations at which weather observation service is available shall be indicated, following the frequency and/or hours of operation as ''Wx obsn svc 1900–0000Z‡'' or ''other times'' may be used when no specific time is given. PMSV facilities manned by forecasters are considered ''Full Service''. PMSV facilities manned by weather observers are listed as ''Limited Service''.
OPS—Operations followed by the operator call sign in parenthesis.
CON
RANGE
FLT FLW—Flight Following
MEDIVAC
NOTE: Communication frequencies followed by the letter ''X'' indicate frequency available on request.

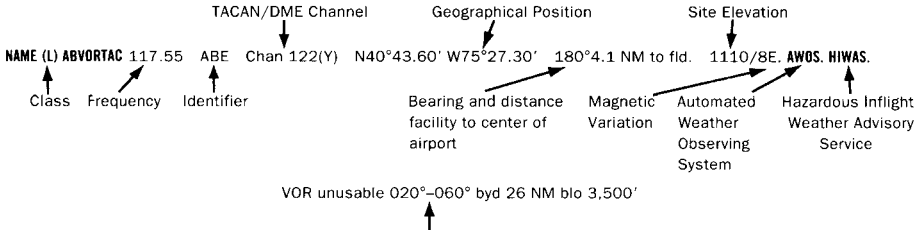
㉝ AIRSPACE

Information concerning Class B, C, and part–time D and E surface area airspace shall be published with effective times. Class D and E surface area airspace that is continuous as established by Rulemaking Docket will not be shown.
CLASS B—Radar Sequencing and Separation Service for all aircraft in CLASS B airspace.
CLASS C—Separation between IFR and VFR aircraft and sequencing of VFR arrivals to the primary airport.
TRSA—Radar Sequencing and Separation Service for participating VFR Aircraft within a Terminal Radar Service Area.
Class C, D, and E airspace described in this publication is that airspace usually consisting of a 5 NM radius core surface area that begins at the surface and extends upward to an altitude above the airport elevation (charted in MSL for Class C and Class D). Class E surface airspace normally extends from the surface up to but not including the overlying controlled airspace.
When part–time Class C or Class D airspace defaults to Class E, the core surface area becomes Class E. This will be formatted as:
AIRSPACE: CLASS C svc ''times'' ctc **APP CON** other times CLASS E:
or
AIRSPACE: CLASS D svc ''times'' other times CLASS E.
When a part–time Class C, Class D or Class E surface area defaults to Class G, the core surface area becomes Class G up to, but not including, the overlying controlled airspace. Normally, the overlying controlled airspace is Class E airspace beginning at either 700′ or 1200′ AGL. This will be formatted as:
AIRSPACE: CLASS C svc ''times'' ctc **APP CON** other times CLASS G, with CLASS E 700′ (or 1200′) AGL & abv:
or
AIRSPACE: CLASS D svc ''times'' other times CLASS G with CLASS E 700′ (or 1200′) AGL & abv:
or
AIRSPACE: CLASS E svc ''times'' other times CLASS G with CLASS E 700′ (or 1200′) AGL & abv.
NOTE: AIRSPACE SVC "TIMES" INCLUDE ALL ASSOCIATED ARRIVAL EXTENSIONS. Surface area arrival extensions for instrument approach procedures become part of the primary core surface area. These extensions may be either Class D or Class E airspace and are effective concurrent with the times of the primary core surface area. For example, when a part–time Class C, Class D or Class E surface area defaults to Class G, the associated arrival extensions will default to Class G at the same time. When a part–time Class C or Class D surface area defaults to Class E, the arrival extensions will remain in effect as Class E airspace.
NOTE: CLASS E AIRSPACE EXTENDING UPWARD FROM 700 FEET OR MORE ABOVE THE SURFACE, DESIGNATED IN CONJUNCTION WITH AN AIRPORT WITH AN APPROVED INSTRUMENT PROCEDURE.
Class E 700′ AGL (shown as magenta vignette on sectional charts) and 1200′ AGL (blue vignette) areas are designated when necessary to provide controlled airspace for transitioning to/from the terminal and enroute environments. Unless otherwise specified, these 700′/1200′ AGL Class E airspace areas remain in effect continuously, regardless of airport operating hours or surface area status. These transition areas should not be confused with surface areas or arrival extensions.
(See Chapter 3, AIRSPACE, in the Aeronautical Information Manual for further details)

㉞ RADIO AIDS TO NAVIGATION

The Airport/Facility Directory lists, by facility name, all Radio Aids to Navigation that appear on National Aeronautical Navigation Services Visual or IFR Aeronautical Charts and those upon which the FAA has approved an Instrument Approach Procedure, with exception of selected TACANs. Military TACAN information will be published for Military facilities contained in this publication. All VOR, VORTAC, TACAN, ILS and MLS equipment in the National Airspace System has an automatic monitoring and shutdown feature in the event of malfunction. Unmonitored, as used in this publication, for any navigational aid, means that monitoring personnel cannot observe the malfunction or shutdown signal. The NAVAID NOTAM file identifier will be shown as ''NOTAM FILE IAD'' and will be listed on the Radio Aids to Navigation line. When two or more NAVAIDS are listed and the NOTAM file identifier is different from that shown on the Radio Aids to Navigation line, it will be shown with the NAVAID listing. NOTAM file identifiers for ILSs and its components (e.g., NDB (LOM) are the same as the associated airports and are not repeated. Automated Surface Observing System (ASOS), Automated Weather Observing System (AWOS), and Hazardous Inflight Weather Advisory Service (HIWAS) will be shown when this service is broadcast over selected NAVAIDs.

NAVAID information is tabulated as indicated in the following sample:



Restriction within the normal altitude/range of the navigational aid (See primary alphabetical listing for restrictions on VORTAC and VOR/DME).

Note: Those DME channel numbers with a (Y) suffix require TACAN to be placed in the ''Y'' mode to receive distance information.

HIWAS—Hazardous Inflight Weather Advisory Service is a continuous broadcast of inflight weather advisories including summarized SIGMETs, convective SIGMETs, AIRMETs and urgent PIREPs. HIWAS is presently broadcast over selected VOR's throughout the U.S.

ASR/PAR—Indicates that Surveillance (ASR) or Precision (PAR) radar instrument approach minimums are published in the U.S. Terminal Procedures. Only part-time hours of operation will be shown.

RADIO CLASS DESIGNATIONS

VOR/DME/TACAN Standard Service Volume (SSV) Classifications

SSV Class	Altitudes	Distance (NM)
(T) Terminal	1000′ to 12,000′	25
(L) Low Altitude	1000′ to 18,000′	40
(H) High Altitude	1000′ to 14,500′	40
	14,500′ to 18,000′	100
	18,000′ to 45,000′	130
	45,000′ to 60,000′	100

NOTE: Additionally, (H) facilities provide (L) and (T) service volume and (L) facilities provide (T) service. Altitudes are with respect to the station's site elevation. Coverage is not available in a cone of airspace directly above the facility.

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The term VOR is, operationally, a general term covering the VHF omnidirectional bearing type of facility without regard to the fact that the power, the frequency protected service volume, the equipment configuration, and operational requirements may vary between facilities at different locations.

AB	Automatic Weather Broadcast.
DF	Direction Finding Service.
DME	UHF standard (TACAN compatible) distance measuring equipment.
DME(Y)	UHF standard (TACAN compatible) distance measuring equipment that require TACAN to be placed in the ''Y'' mode to receive DME.
GS	Glide slope.
H	Non-directional radio beacon (homing), power 50 watts to less than 2,000 watts (50 NM at all altitudes).
HH	Non-directional radio beacon (homing), power 2,000 watts or more (75 NM at all altitudes).
H-SAB	Non-directional radio beacons providing automatic transcribed weather service.
ILS	Instrument Landing System (voice, where available, on localizer channel).
IM	Inner marker.
ISMLS	Interim Standard Microwave Landing System.
LDA	Localizer Directional Aid.
LMM	Compass locator station when installed at middle marker site (15 NM at all altitudes).
LOM	Compass locator station when installed at outer marker site (15 NM at all altitudes).
MH	Non-directional radio beacon (homing) power less than 50 watts (25 NM at all altitudes).
MLS	Microwave Landing System.
MM	Middle marker.
OM	Outer marker.
S	Simultaneous range homing signal and/or voice.
SABH	Non-directional radio beacon not authorized for IFR or ATC. Provides automatic weather broadcasts.
SDF	Simplified Direction Facility.
TACAN	UHF navigational facility-omnidirectional course and distance information.
VOR	VHF navigational facility-omnidirectional course only.
VOR/DME	Collocated VOR navigational facility and UHF standard distance measuring equipment.
VORTAC	Collocated VOR and TACAN navigational facilities.
W	Without voice on radio facility frequency.
Z	VHF station location marker at a LF radio facility.

ILS FACILITY PEFORMANCE CLASSIFICATION CODES

Codes define the ability of an ILS to support autoland operations. The two portions of the code represent Official Category and farthest point along a Category I, II, or III approach that the Localizer meets Category III structure tolerances.

Official Category: I, II, or III; the lowest minima on published or unpublished procedures supported by the ILS.

Farthest point of satisfactory Category III Localizer performance for Category I, II, or III approaches: A – 4 NM prior to runway threshold, B – 3500 ft prior to runway threshold, C – glide angle dependent but generally 750–1000 ft prior to threshold, T – runway threshold, D – 3000 ft after runway threshold, and E – 2000 ft prior to stop end of runway.

ILS information is tabulated as indicated in the following sample:

ILS/DME 108.5 I–ORL Chan 22 Rwy 18. Class IIE. LOM HERNY NDB.

ILS Facility Performance Classification Code

FREQUENCY PAIRING PLAN AND MLS CHANNELING

MLS CHANNEL	VHF FREQUENCY	TACAN CHANNEL	MLS CHANNEL	VHF FREQUENCY	TACAN CHANNEL	MLS CHANNEL	VHF FREQUENCY	TACAN CHANNEL
500	108.10	18X	568	109.45	31Y	636	114.15	88Y
502	108.30	20X	570	109.55	32Y	638	114.25	89Y
504	108.50	22X	572	109.65	33Y	640	114.35	90Y
506	108.70	24X	574	109.75	34Y	642	114.45	91Y
508	108.90	26X	576	109.85	35Y	644	114.55	92Y
510	109.10	28X	578	109.95	36Y	646	114.65	93Y
512	109.30	30X	580	110.05	37Y	648	114.75	94Y
514	109.50	32X	582	110.15	38Y	650	114.85	95Y
516	109.70	34X	584	110.25	39Y	652	114.95	96Y
518	109.90	36X	586	110.35	40Y	654	115.05	97Y
520	110.10	38X	588	110.45	41Y	656	115.15	98Y
522	110.30	40X	590	110.55	42Y	658	115.25	99Y
524	110.50	42X	592	110.65	43Y	660	115.35	100Y
526	110.70	44X	594	110.75	44Y	662	115.45	101Y
528	110.90	46X	596	110.85	45Y	664	115.55	102Y
530	111.10	48X	598	110.95	46Y	666	115.65	103Y
532	111.30	50X	600	111.05	47Y	668	115.75	104Y
534	111.50	52X	602	111.15	48Y	670	115.85	105Y
536	111.70	54X	604	111.25	49Y	672	115.95	106Y
538	111.90	56X	606	111.35	50Y	674	116.05	107Y
540	108.05	17Y	608	111.45	51Y	676	116.15	108Y
542	108.15	18Y	610	111.55	52Y	678	116.25	109Y
544	108.25	19Y	612	111.65	53Y	680	116.35	110Y
546	108.35	20Y	614	111.75	54Y	682	116.45	111Y
548	108.45	21Y	616	111.85	55Y	684	116.55	112Y
550	108.55	22Y	618	111.95	56Y	686	116.65	113Y
552	108.65	23Y	620	113.35	80Y	688	116.75	114Y
554	108.75	24Y	622	113.45	81Y	690	116.85	115Y
556	108.85	25Y	624	113.55	82Y	692	116.95	116Y
558	108.95	26Y	626	113.65	83Y	694	117.05	117Y
560	109.05	27Y	628	113.75	84Y	696	117.15	118Y
562	109.15	28Y	630	113.85	85Y	698	117.25	119Y
564	109.25	29Y	632	113.95	86Y			
566	109.35	30Y	634	114.05	87Y			

FREQUENCY PAIRING PLAN AND MLS CHANNELING

The following is a list of paired VOR/ILS VHF frequencies with TACAN channels and MLS channels.

TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL	TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL	TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL
2X	134.5	-	19Y	108.25	544	25X	108.80	-
2Y	134.55	-	20X	108.30	502	25Y	108.85	556
11X	135.4	-	20Y	108.35	546	26X	108.90	508
11Y	135.45	-	21X	108.40	-	26Y	108.95	558
12X	135.5	-	21Y	108.45	548	27X	109.00	-
12Y	135.55	-	22X	108.50	504	27Y	109.05	560
17X	108.00	-	22Y	108.55	550	28X	109.10	510
17Y	108.05	540	23X	108.60	-	28Y	109.15	562
18X	108.10	500	23Y	108.65	552	29X	109.20	-
18Y	108.15	542	24X	108.70	506	29Y	109.25	564
19X	108.20	-	24Y	108.75	554	30X	109.30	512

TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL	TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL	TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL
30Y	109.35	566	63X	133.60	-	95Y	114.85	650
31X	109.40	-	63Y	133.65	-	96X	114.90	-
31Y	109.45	568	64X	133.70	-	96Y	114.95	652
32X	109.50	514	64Y	133.75	-	97X	115.00	-
32Y	109.55	570	65X	133.80	-	97Y	115.05	654
33X	109.60	-	65Y	133.85	-	98X	115.10	-
33Y	109.65	572	66X	133.90	-	98Y	115.15	656
34X	109.70	516	66Y	133.95	-	99X	115.20	-
34Y	109.75	574	67X	134.00	-	99Y	115.25	658
35X	109.80	-	67Y	134.05	-	100X	115.30	-
35Y	109.85	576	68X	134.10	-	100Y	115.35	660
36X	109.90	518	68Y	134.15	-	101X	115.40	-
36Y	109.95	578	69X	134.20	-	101Y	115.45	662
37X	110.00	-	69Y	134.25	-	102X	115.50	-
37Y	110.05	580	70X	112.30	-	102Y	115.55	664
38X	110.10	520	70Y	112.35	-	103X	115.60	-
38Y	110.15	582	71X	112.40	-	103Y	115.65	666
39X	110.20	-	71Y	112.45	-	104X	115.70	-
39Y	110.25	584	72X	112.50	-	104Y	115.75	668
40X	110.30	522	72Y	112.55	-	105X	115.80	-
40Y	110.35	586	73X	112.60	-	105Y	115.85	670
41X	110.40	-	73Y	112.65	-	106X	115.90	-
41Y	110.45	588	74X	112.70	-	106Y	115.95	672
42X	110.50	524	74Y	112.75	-	107X	116.00	-
42Y	110.55	590	75X	112.80	-	107Y	116.05	674
43X	110.60	-	75Y	112.85	-	108X	116.10	-
43Y	110.65	592	76X	112.90	-	108Y	116.15	676
44X	110.70	526	76Y	112.95	-	109X	116.20	-
44Y	110.75	594	77X	113.00	-	109Y	116.25	678
45X	110.80	-	77Y	113.05	-	110X	116.30	-
45Y	110.85	596	78X	113.10	-	110Y	116.35	680
46X	110.90	528	78Y	113.15	-	111X	116.40	-
46Y	110.95	598	79X	113.20	-	111Y	116.45	682
47X	111.00	-	79Y	113.25	-	112X	116.50	-
47Y	111.05	600	80X	113.30	-	112Y	116.55	684
48X	111.10	530	80Y	113.35	620	113X	116.60	-
48Y	111.15	602	81X	113.40	-	113Y	116.65	686
49X	111.20	-	81Y	113.45	622	114X	116.70	-
49Y	111.25	604	82X	113.50	-	114Y	116.75	688
50X	111.30	532	82Y	113.55	624	115X	116.80	-
50Y	111.35	606	83X	113.60	-	115Y	116.85	690
51X	111.40	-	83Y	113.65	626	116X	116.90	-
51Y	111.45	608	84X	113.70	-	116Y	116.95	692
52X	111.50	534	84Y	113.75	628	117X	117.00	-
52Y	111.55	610	85X	113.80	-	117Y	117.05	694
53X	111.60	-	85Y	113.85	630	118X	117.10	-
53Y	111.65	612	86X	113.90	-	118Y	117.15	696
54X	111.70	536	86Y	113.95	632	119X	117.20	-
54Y	111.75	614	87X	114.00	-	119Y	117.25	698
55X	111.80	-	87Y	114.05	634	120X	117.30	-
55Y	111.85	616	88X	114.10	-	120Y	117.35	-
56X	111.90	538	88Y	114.15	636	121X	117.40	-
56Y	111.95	618	89X	114.20	-	121Y	117.45	-
57X	112.00	-	89Y	114.25	638	122X	117.50	-
57Y	112.05	-	90X	114.30	-	122Y	117.55	-
58X	112.10	-	90Y	114.35	640	123X	117.60	-
58Y	112.15	-	91X	114.40	-	123Y	117.65	-
59X	112.20	-	91Y	114.45	642	124X	117.70	-
59Y	112.25	-	92X	114.50	-	124Y	117.75	-
60X	133.30	-	92Y	114.55	644	125X	117.80	-
60Y	133.35	-	93X	114.60	-	125Y	117.85	-
61X	133.40	-	93Y	114.65	646	126X	117.90	-
61Y	133.45	-	94X	114.70	-	126Y	117.95	-
62X	133.50	-	94Y	114.75	648			
62Y	133.55	-	95X	114.80	-			

(35) COMM/NAV/WEATHER REMARKS:

These remarks consist of pertinent information affecting the current status of communications, NAVAIDs and weather.

AGGET N44°40.56′ W124°03.92′. NOTAM FILE ONP. SEATTLE

NDB (LOM) 350 ON 158° 5.8 NM to Newport Muni. Unusable 360°–150°.

ALBANY MUNI (S12) 3 E UTC−8(−7DT) N44°38.27′ W123°03.57′ SEATTLE

226 B S4 **FUEL** 100LL OX 3 NOTAM FILE MMV L–1B

RWY 16–34: H3004X75 (ASPH) S–30, D–43, DT–71 MIRL IAP

RWY 16: VASI(V4L)—GA 4.0° TCH 29′. Road.

RWY 34: REIL. VASI(V2L)—GA 4.0° TCH 25′. Tree.

AIRPORT REMARKS: Attended 1600–0100Z‡. Twy marked by reflectors. ACTIVATE VASI Rwy 16—CTAF.

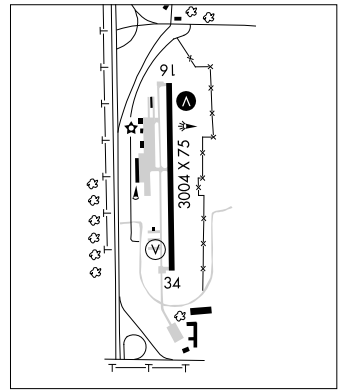
COMMUNICATIONS: CTAF/UNICOM 122.8

Ⓡ **CASCADE APP/DEP CON** 127.5 (1400–0730Z‡)

SEATTLE CENTER APP/DEP CON 125.8 (0730–1400Z‡)

RADIO AIDS TO NAVIGATION: NOTAM FILE CVO.

CORVALLIS (H) VORW/DME 115.4 CVO Chan 101 N44°29.98′ W123°17.62′ 032° 13 NM to fld. 241/18E.



ALKALI LAKE STATE (RØ3) 8 N UTC−8(−7DT) N43°05.24′ W119°58.56′ KLAMATH FALLS

4312 TPA—5312(1000) NOTAM FILE MMV

RWY 18–36: 6100X150 (GRVL)

AIRPORT REMARKS: Unattended. Livestock frequently on rwy. Windsock midfield west side.

COMMUNICATIONS: CTAF 122.9

ARLINGTON MUNI (1S8) 1 NE UTC−8(−7DT) N45°42.99′ W120°10.07′ SEATTLE

890 NOTAM FILE MMV

RWY 06–24: 5000X50 (DIRT)

RWY 24: Rgt tfc.

AIRPORT REMARKS: Unattended. Rwy 06–24 loose gravel on surface, center portion grvl, surface rough due to bunch grass growth.

COMMUNICATIONS: CTAF 122.9

ASHLAND MUNI–SUMNER PARKER FLD (SØ3) 2 E UTC−8(−7DT) KLAMATH FALLS

N42°11.42′ W122°39.64′ L–2I

1885 B S4 **FUEL** 100LL, JET A OX 2 TPA—2900(1015)

NOTAM FILE MMV

RWY 12–30: H3603X75 (ASPH) S–15 MIRL

RWY 12: VASI(V2L)—GA 3.75° TCH 37′. Trees.

RWY 30: REIL. VASI(V2L)—GA 4.0° TCH 22′. Thld dsplcd 190′. Trees.

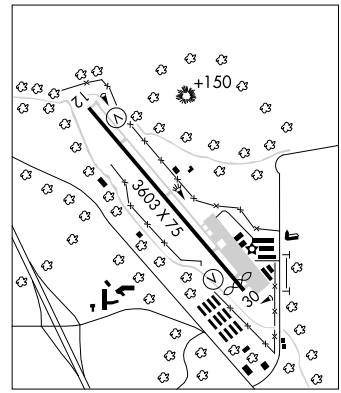
AIRPORT REMARKS: Attended Oct–Apr Mon–Sat 1600–0100Z‡, May–Sep Mon–Sat 1600–0200Z‡, Sun 1700–0100Z‡. 24 hr credit card fuel. Deer and birds on and invof arpt. ACTIVATE MIRL Rwy 12–30, and REIL Rwy 30—CTAF. VASI Rwy 12 and Rwy 30 opr 24 hrs.

WEATHER DATA SOURCES: AWOS–3 122.7 (617) 262–3825. OTS indef.

COMMUNICATIONS: CTAF/UNICOM 122.8

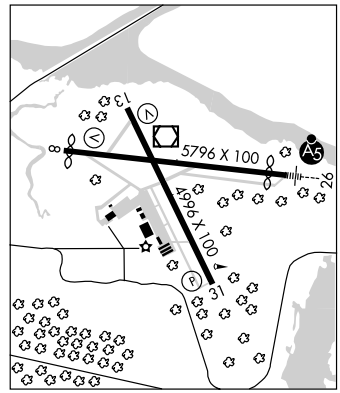
RADIO AIDS TO NAVIGATION: NOTAM FILE MFR.

ROGUE VALLEY (H) VORTACW 113.6 OED Chan 83 N42°28.77′ W122°54.78′ 128° 20.7 NM to fld. 2083/19E. **HIWAS.**



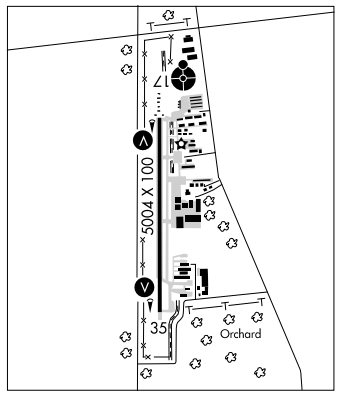
ASTORIA RGNL (AST) 3 SW UTC−8(−7DT) N46°09.48′ W123°52.72′ **SEATTLE**
15 B S3 **FUEL** 100LL, JET A Class IV, ARFF Index A NOTAM FILE AST **H–1A, L–1C**
RWY 08–26: H5796X100 (ASPH) S–60, D–76, ST–97, DT–119 MIRL **IAP**
RWY 08: REIL. VASI(V4L)—GA 3.0° TCH 51′. Thld dsplcd 301′. Tree.
RWY 26: MALSR. Thld dsplcd 704′. Dike.
RWY 13–31: H4996X100 (ASPH) S–60, D–76, ST–97, DT–119 MIRL
RWY 13: REIL. VASI(V4L)—GA 3.0°TCH 54′. 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 13:	TORA–4467	TODA–4467	ASDA–4467	LDA–4467
RWY 26:	TORA–5796	TODA–6096	ASDA–5496	LDA–4782
RWY 31:	TORA–4467	TODA–4467	ASDA–4467	LDA–4467

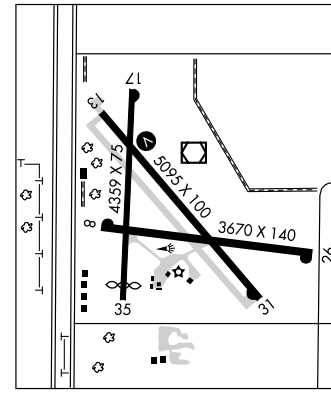


AIRPORT REMARKS: Attended 1600–0100Z‡. For fuel outside normal working hours ctc fixed-base operator 503–861–1222. Migratory flocks of waterfowl on and in vicinity of arpt. High concentration helicopter operations in area. ACTIVATE MIRL Rwy 08–26 and Rwy 13–31, MALSR Rwy 26 and REIL Rwy 08—CTAF.
WEATHER DATA SOURCES: ASOS 135.375 (503) 861–1371. **HIWAS** 114.0 AST.
COMMUNICATIONS: CTAF/UNICOM 122.8
RCO 122.3 (Mc MINNVILLE RADIO)
SEATTLE CENTER APP/DEP CON 124.2
RADIO AIDS TO NAVIGATION: NOTAM FILE AST.
(L) VORW/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′
180°–210° beyond 10 NM below 3300′
180°–240° beyond 5 NM below 2000′
200°–210° beyond 20 NM below 8,000′
210°–240° beyond 30 NM below 6,000′
240°–320° beyond 12 NM below 2,000′
240°–320° beyond 25 NM below 5,000′
320°–330° beyond 30 NM below 5,500′
330°–360° beyond 20 NM below 5,500′
DME unusable:
075°–088° beyond 35 NM below 7,000′
330°–360° beyond 28 NM below 6,300′
KARPEN NDB (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.

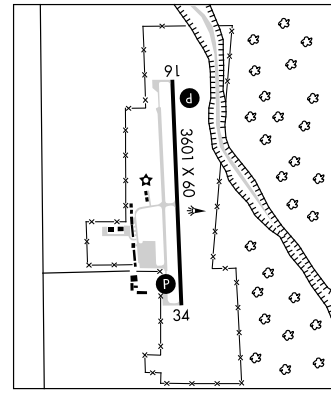
AURORA STATE (UAO) 1 NW UTC−8(−7DT) N45°14.83′ W122°46.20′ **SEATTLE**
200 B S4 **FUEL** 100LL, JET A OX 1 TPA—1200(1000) NOTAM FILE UAO **H–1B, L–1B**
RWY 17–35: H5004X100 (ASPH–GRVD) S–30, D–45 MIRL **IAP**
RWY 17: ODALS. VASI(V4R)—GA 3.5° TCH 40′. Trees.
RWY 35: VASI(V4L)—GA 3.0° TCH 40′. Tree.
AIRPORT REMARKS: Attended 1500–0500Z‡. Rwy 17 +30′ p–line 2100′ from thld, marked by balls. Parallel twy 35′ wide and has medium ints twy lgts. Rwy 17–35 has 150′ blast pad at south end. Rwy 35 calm wind rwy. Use only paved sfcs. Exercise caution, frequent straight–in instrument apch tfc to Rwy 17. ACTIVATE MIRL Rwy 17–35, 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
Ⓡ **PORTLAND APP/DEP CON** 126.0 **CLNC DEL** 119.95
RADIO AIDS TO NAVIGATION: NOTAM FILE MMV.
NEWBERG (H) VORW/DME 117.4 UBG 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 blo 2500′.



BAKER CITY MUNI (BKE) 3 N UTC−8(−7DT) N44°50.24′ W117°48.55′ **SEATTLE**
3373 B S2 **FUEL** 100LL, JET A NOTAM FILE BKE **H–1C, L–13B**
RWY 13–31: H5095X100 (ASPH) S–50, D–65, ST–82 MIRL **IAP**
RWY 13: VASI(V4L)—GA 3.0°TCH 55′. Trees. **RWY 31:** Road.
RWY 17–35: H4359X75 (ASPH) S–30
RWY 17: Trees. **RWY 35:** Thld dsplcd 397′.
RWY 08–26: H3670X140 (ASPH) S–30
RWY 08: Road.
RWY 26: P–line.
AIRPORT REMARKS: Attended dalgt hrs. Birds invof arpt. Rwy 08–26 and Rwy 17–35 no winter maintenance, CLOSED by snow. Rwy 08–26 has many large unsealed cracks, grass growing on rwy, standing water on surface. Rwy 13–31 parallel twy marked with reflectors. ACTIVATE MIRL Rwy 13–31 and VASI Rwy 13—CTAF.
WEATHER DATA SOURCES: ASOS 134.275 (541) 523–5412.
COMMUNICATIONS: CTAF/UNICOM 123.0
SALT LAKE CENTER APP/DEP CON 128.05
AIRSPACE: CLASS E svc continuous.
RADIO AIDS TO NAVIGATION: NOTAM FILE BKE.
(H) VORW/DME 115.3 BKE Chan 100 N44°50.44′ W117°48.47′ at fld. 3360/20E.
VOR/DME unusable:
005°–050° byd 30 NM blo 12,000′
110°–125° byd 15 NM blo 9,000′
110°–125° byd 30 NM blo 11,000′
125°–180° byd 15 NM all altitudes
180°–200° byd 15 NM blo 12,000′
200°–230° byd 15 NM all altitudes
230°–265° byd 15 NM blo 12,000′
230°–265° byd 20 NM all altitudes
265°–290° byd 15 NM blo 12,000′
265°–290° byd 30 NM all altitudes



BANDON STATE (SØ5) 2 SE UTC−8(−7DT) N43°05.19′ W124°24.47′ **KLAMATH FALLS**
122 B S4 **FUEL** 100LL TPA—1122(1000) NOTAM FILE MMV **L–1A**
RWY 16–34: H3601X60 (ASPH) S–12 MIRL
RWY 16: REIL. PAPI(P4L) TCH 45′. Trees.
RWY 34: REIL. PAPI(P4L) TCH 40′. Trees.
AIRPORT REMARKS: Attended 1500–0200Z‡. Deer invof arpt. Twy marked with blue reflectors. PAPI Rwy 16 OTS indef. ACTIVATE MIRL Rwy 16–34, REIL Rwy 16 and Rwy 34 and PAPI Rwy 16 and Rwy 34—CTAF.
COMMUNICATIONS: CTAF/UNICOM 122.8
RADIO AIDS TO NAVIGATION: NOTAM FILE OTH.
NORTH BEND (L) VORTACW 112.1 OTH Chan 58 N43°24.93′ W124°10.11′ 190° 22.4 NM to fld. 707/18E. **HIWAS.**

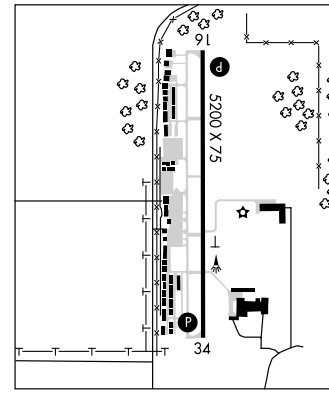


BANKS N45°37.82′ W123°02.75′ NOTAM FILE HIO. **SEATTLE**
NDB (MHW) 356 PND 122° 6.7 NM to Portland–Hillsboro **L–1C**

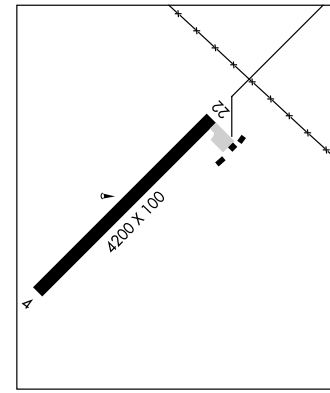
BEAVER MARSH STATE (2S2) 1 SW UTC−8(−7DT) N43°07.74′ W121°49.07′ **KLAMATH FALLS**
4638 TPA—5638(1000) NOTAM FILE MMV
RWY 18–36: 4500X60 (DIRT)
RWY 18: Trees. **RWY 36:** Trees.
AIRPORT REMARKS: Unattended. CLOSED winter months. Rwy 18–36 15′ rwy width usable in center. Rwy 18–36 dirt surface loose and powdery, creates clouds of dust, loose rocks on surface, rough.
COMMUNICATIONS: CTAF 122.9

BEAVER MOUNTAIN N44°35.21′ W117°47.26′ **SEATTLE**
RCO 122.4 (MC MINNVILLE RADIO) **H–1C, L–13B**

BEND MUNI (BDN) 5 NE UTC−8(−7DT) N44°05.67′ W121°12.01′ **KLAMATH FALLS**
3460 B S2 **FUEL** 100LL, JET A OX 1, 3, 4 TPA—4460(1000) NOTAM FILE MMV **H–1B, L–13A**
RWY 16–34: H5200X75 (ASPH) S–30 MIRL 1.0% up SE **IAP**
RWY 16: PAPI(P4L)—GA 3.0° TCH 39′. Road.
RWY 34: PAPI(P4L)—GA 3.0° TCH 44′. Tree.
AIRPORT REMARKS: Attended Mon–Fri 1530–0200Z‡, Sat–Sun 1600–0100Z‡. Glider opr on and invof arpt. Calm wind rwy is Rwy 16. Noise abatememt procedures in effect, call FBO at 541–388–0019. Twy parallel to Rwy 16–34 marked by reflectors. ACTIVATE MIRL Rwy 16–34 and PAPI Rwy 16 and Rwy 34—CTAF.
WEATHER DATA SOURCES: AWOS–3 134.425 (541) 382–1477.
COMMUNICATIONS: CTAF/UNICOM 123.0
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′ 137° 10.5 NM to fld. 4101/18E. **HIWAS.**



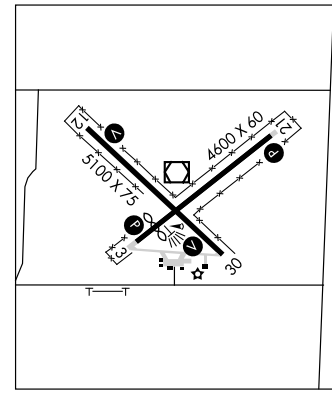
BOARDMAN (M5Ø) 4 SW UTC−8(−7DT) N45°48.89′ W119°49.23′ **SEATTLE**
396 NOTAM FILE MMV **L–13A**
RWY 04–22: H4200X100 (ASPH) S–30 MIRL
RWY 22: Rgt tfc.
AIRPORT REMARKS: Unattended. Telephone avbl. ACTIVATE MIRL Rwy 04–22—122.9.
COMMUNICATIONS: CTAF 122.9
RADIO AIDS TO NAVIGATION: NOTAM FILE PDT.
PENDLETON (H) VORTACW 114.7 PDT Chan 94 N45°41.91′ W118°56.32′ 261° 37.7 NM to fld. 1559/20E. **HIWAS.**



BODEY N44°18.48′ W121°01.14′ NOTAM FILE RDM. **KLAMATH FALLS**
NDB (HW/LOM) 411 RD 222° 6.5 NM to Roberts Fld. **L–13A**
NDB unusable 091°–111° byd 25 NM blo 14000′.

BROOKINGS (BOK) 1 NE UTC−8(−7DT) N42°04.47′ W124°17.41′ **KLAMATH FALLS**
459 B **FUEL** 100LL, JET A TPA—1459(1000) NOTAM FILE 4BK
RWY 12–30: H2900X60 (ASPH) S–11 MIRL
RWY 12: PAPI(P2L)—GA 4.0° TCH 40′. Trees. Rgt tfc. **RWY 30:** PAPI(P2L)—GA 3.0° TCH 40′. Tree.
AIRPORT REMARKS: Attended continuously. ACTIVATE MIRL Rwy 12–30 and PAPI Rwy 12 and Rwy 30—CTAF.
WEATHER DATA SOURCES: ASOS 132.025 (541) 412–8682.
COMMUNICATIONS: CTAF/UNICOM 122.8

BURNS MUNI (BNO) 5 E UTC−8(−7DT) N43°35.52′ W118°57.33′ **KLAMATH FALLS**
4148 B S4 **FUEL** 100LL, JET A NOTAM FILE BNO **H–1B, L–11A**
RWY 12–30: H5100X75 (ASPH) S–30, D–50, DT–90 MIRL **IAP**
RWY 12: REIL. VASI(V2L)—GA 3.0° TCH 45′.
RWY 30: REIL. VASI(V2L)—GA 3.0° TCH 45′. Road.
RWY 03–21: H4600X60 (CONC) S–30 MIRL
RWY 03: REIL. PAPI(P2L)—GA 3.0° TCH 40′. Thld dsplcd 600′. P–lines.
RWY 21: REIL. PAPI(P2L)—GA 3.0° TCH 40′.
AIRPORT REMARKS: Attended Mon–Sat 1600–0200Z‡. Self serve card lock fuel avbl 24 hrs. Flocks of large birds in vicinity of arpt Feb–May and Sep–Oct. Bottle oxygen obtainable-½ hr. Rwy 21 PAPI OTS indef. ACTIVATE MIRL Rwys 03–21 and 12–30, PAPI Rwys 03 and 21, VASI Rwys 12 and 30, and REIL Rwys 03, 21, 12 and 30—CTAF.
WEATHER DATA SOURCES: ASOS 135.575 (541) 573–1382.
COMMUNICATIONS: CTAF/UNICOM 122.8
RCO 122.5 (MC MINNVILLE RADIO)
AIRSPACE: CLASS E svc 1500–2300Z‡ other times CLASS G.
RADIO AIDS TO NAVIGATION: NOTAM FILE BNO.
WILDHORSE (L) VORW/DME 113.8 ILR Chan 85 N43°35.59′ W118°57.30′ at fld. 4140/18E.

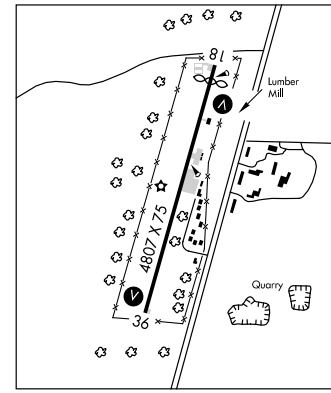


CAPE BLANCO STATE (See DENMARK)

CASCADE LOCKS STATE (CZK) 1 NE UTC−8(−7DT) N45°40.62′ W121°52.73′ **SEATTLE**
151 TPA—1151(1000) NOTAM FILE CZK
RWY 06–24: H1800X30 (ASPH) S–4
RWY 06: Tree. **RWY 24:** Road. Rgt tfc.
AIRPORT REMARKS: Unattended. Owner advises ctc Oregon Dept. of Aviation 503–378–4880 prior to use. Unlighted powerlines 3NM SW of arpt.
COMMUNICATIONS: CTAF 122.9

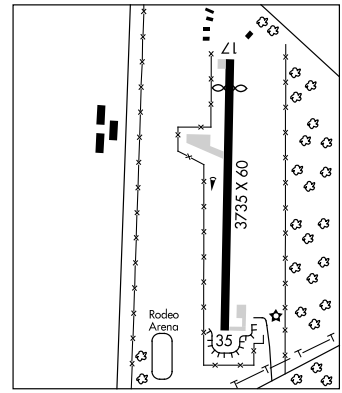
CAVE JUNCTION

ILLINOIS VALLEY (3S4) 4 SW UTC−8(−7DT) N42°06.22′ W123°40.95′ **KLAMATH FALLS**
1394 B TPA—2394(1000) NOTAM FILE MMV **L–2I**
RWY 18–36: H4807X75 (ASPH) S–20, D–30 LIRL
RWY 18: VASI(V2L)—GA 4.0° TCH 50′. Thld dsplcd 125′. Road.
RWY 36: VASI(V2L)—GA 4.5° TCH 49′. Trees.
AIRPORT REMARKS: Unattended. Frequent ultra–light activity. Rwy 18 and Rwy 36 VASI out of svc indefinitely. Rwy 36 designated calm wind rwy. ACTIVATE LIRL Rwy 18–36, VASI Rwy 18 and Rwy 36—CTAF.
WEATHER DATA SOURCES: AWOS–2 122.9 (617) 262–3825.
COMMUNICATIONS: CTAF 122.9
RADIO AIDS TO NAVIGATION: NOTAM FILE CEC.
CRESCENT CITY (L) VORTACW 109.0 CEC Chan 27 N41°46.77′ W124°14.44′ 033° 31.7 NM to fld. 54/19E.

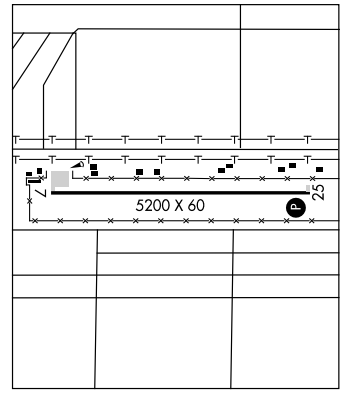


CHEHALEM AIRPARK (See NEWBERG)

CHILOQUIN STATE (2S7) 1 W UTC−8(−7DT) N42°34.99′ W121°52.57′ **KLAMATH FALLS**
4217 B TPA—5217(1000) NOTAM FILE MMV **L–2J**
RWY 17–35: H3735X60 (ASPH) S–10 MIRL
RWY 17: Thld dsplcd 420′. Tree. **RWY 35:** Tree.
AIRPORT REMARKS: Unattended. Irregular winter maintenance, arpt may be clsd due to snow. Downdraft area north of rwy. ACTIVATE MIRL Rwy 17–35—CTAF.
COMMUNICATIONS: CTAF 122.9
RADIO AIDS TO NAVIGATION: NOTAM FILE LMT.
KLAMATH FALLS (H) VORTACW 115.9 LMT Chan 106 N42°09.19′ W121°43.65′ 329° 26.6 NM to fld. 4087/17E. **HIWAS.**



CHRISTMAS VALLEY (62S) 1 SE UTC−8(−7DT) N43°14.19′ W120°39.97′ **KLAMATH FALLS**
4317 B NOTAM FILE MMV **H–1B, L–11A**
RWY 07–25: H5200X60 (ASPH) S–12 MIRL
RWY 07: Building. **RWY 25:** PAPI(P2L)—GA 3.0° TCH 38′. Building.
AIRPORT REMARKS: Unattended. UNICOM monitored irregularly. ACTIVATE MIRL Rwy 07–25 and PAPI Rwy 25—CTAF.
COMMUNICATIONS: CTAF/UNICOM 122.8
RADIO AIDS TO NAVIGATION: NOTAM FILE LKV.
LAKEVIEW (H) VORTACW 112.0 LKV Chan 57 N42°29.57′ W120°30.43′ 332° 45.2 NM to fld. 7460/19E.
HIWAS.



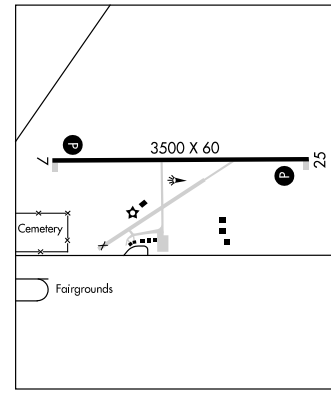
CLEARWATER

TOKETEE STATE (3S6) 2 S UTC−8(−7DT) N43°13.41′ W122°25.25′ **KLAMATH FALLS**
3361 NOTAM FILE MMV
RWY 11–29: 5350X60 (DIRT)
RWY 11: Trees. **RWY 29:** Trees.
AIRPORT REMARKS: Unattended. Arpt CLOSED from 1 Nov–1 May. Elk and deer on and invof arpt. Arpt on W side of Cascades and affected by weather West. Best info on arpt thru US Forest svc Roseburg, or local fixed–base operator at Roseburg. Rwy 11–29 graded, 60′ wide, shoulders rough and rutted. Rwy 11–29 has 120′ trees 250′ either side of centerline. Rwy 11–29 thlds outlined with white tires.
COMMUNICATIONS: CTAF 122.9

COLUMBIA N45°35.32′ W122°36.68′ NOTAM FILE PDX. **SEATTLE**
(H) TACAN Chan 29 CBU (109.2) at Portland Intl. 22/20E. **H–1B, L–1C**
TACAN unusable:
030°–050° byd 20 NM blo 9,500′
155°–210° byd 20 NM blo 6,000′
210°–220° byd 20 NM blo 10,500′
220°–230° byd 20 NM blo 8,500′
230°–250° byd 15 NM blo 8,500′
250°–270° byd 20 NM blo 8,500′

COLUMBIA GORGE RGNL/THE DALLES MUNI (See THE DALLES)

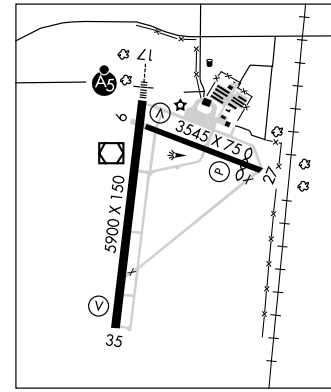
CONDON STATE PAULING FLD (3S9) 1 NE UTC−8(−7DT) N45°14.79′ W120°09.99′ **SEATTLE**
2911 B TPA—3911(1000) NOTAM FILE MMV **L–13A**
RWY 07–25: H3500X60 (CONC) S–12 MIRL
RWY 07: REIL. PAPI(P4L)—GA 3.0° TCH 40′. Road.
RWY 25: REIL. PAPI(P4L)—GA 3.0° TCH 40′. Ground.
AIRPORT REMARKS: Unattended. Heavy agricultural ops Feb–Jun. Tmpry tie–down area/gravel parking apron clsd. ACTIVATE MIRL Rwy 07–25, PAPI Rwy 07 and Rwy 25, and REIL Rwy 07 and Rwy 25—CTAF.
COMMUNICATIONS: CTAF 122.9
RADIO AIDS TO NAVIGATION: NOTAM FILE DLS.
KLICKITAT (H) VORW/DME 112.3 LTJ Chan 70 N45°42.81′ W121°06.05′ 104° 48.4 NM to fld. 3220/21E.
HIWAS.



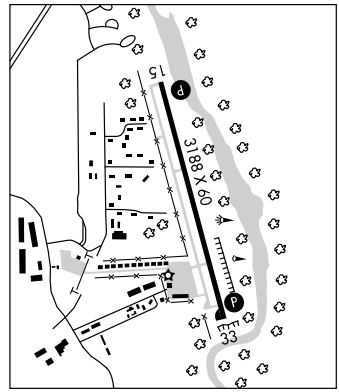
CORNELIUS

SKYPORT (4S4) 3 N UTC−8(−7DT) N45°34.96′ W123°03.17′ **SEATTLE**
174 NOTAM FILE MMV
RWY 16–34: 2000X45 (TURF–GRVL)
RWY 16: Trees. Rgt tfc. **RWY 34:** Thld dsplcd 200′. Road.
AIRPORT REMARKS: Attended 1400–0400Z‡. Helicopter and Ultralight ops prohibited. Rwy 16–34 rwy ends marked with half barrels. Rwy 34 dsplcd thld marked with ''L'' shaped boards.
COMMUNICATIONS: CTAF 122.9

CORVALLIS MUNI (CVO) 4 SW UTC−8(−7DT) N44°29.83′ W123°17.37′ **KLAMATH FALLS**
250 B S4 **FUEL** 100LL, JET A OX 1, 2, 3 TPA—1050(800) NOTAM FILE CVO **H–1A, L–1B**
RWY 17–35: H5900X150 (ASPH) S–35, D–73, ST–127, DT–100 MIRL **IAP**
RWY 17: MALSR. VASI(V4L)—GA 3.0° TCH 50′.
RWY 35: REIL. VASI(V4L)—GA 3.0° TCH 51′.
RWY 09–27: H3545X75 (ASPH) S–51, D–65, ST–83, DT–100 MIRL
RWY 27: PAPI(P4L)—GA 3.0° TCH 25′. Thld dsplcd 199′. Railroad.
AIRPORT REMARKS: Attended 1600Z‡–dusk. Migratory waterfowl and other birds on and in the vicinity of arpt. Heavy–lift helicopter activity on and invof arpt, be aware of possible rotor tip vortices. ACTIVATE MALSR Rwy 17 and MIRL Rwy 09–27—CTAF.
WEATHER DATA SOURCES: AWOS–3 135.775 (541) 754–0081.
COMMUNICATIONS: CTAF/UNICOM 123.0
Ⓡ **CASCADE APP/DEP CON** 127.5 (1400–0730Z‡)
Ⓡ **SEATTLE CENTER APP/DEP CON** 125.8 (0730–1400Z‡)
RADIO AIDS TO NAVIGATION: NOTAM FILE CVO.
(H) VORW/DME 115.4 CVO Chan 101 N44°29.98′ W123°17.62′ at fld. 241/18E.
LEWISBURG NDB (MHW) 225 LWG N44°36.82′ W123°16.24′ 169° 7.0 NM to fld.
ILS 111.9 I–CVO Rwy 17. Class IT.



COTTAGE GROVE STATE (61S) 1 E UTC−8(−7DT) N43°47.99′ W123°01.74′ **KLAMATH FALLS**
641 B S4 **FUEL** 100LL TPA—1641(1000) NOTAM FILE MMV **L–1A**
RWY 15–33: H3188X60 (ASPH) S–15 MIRL
RWY 15: PAPI(P4L)—GA 3.0° TCH 45′. Trees.
RWY 33: PAPI(P4R)—GA 4.2° TCH 45′. Tree. Rgt tfc.
AIRPORT REMARKS: Attended Mon–Sat 1800–0300Z‡. If no attendant on duty, phone number is posted on pump. Fuel avbl 24 hr self serve cardlock. High concentration of birds on and in vicinity of arpt. Deer on and in vicinity of arpt all hours. Twys 25′ wide, marked with blue reflectors. Unicom unmonitored. PAPI Rwy 15 OTS indef. ACTIVATE MIRL Rwy 15–33 PAPI Rwy 15 and Rwy 33—CTAF.
COMMUNICATIONS: CTAF/UNICOM 122.8
RADIO AIDS TO NAVIGATION: NOTAM FILE EUG.
EUGENE (H) VORTACW 112.9 EUG Chan 76 N44°07.25′ W123°13.37′ 136° 21.0 NM to fld. 364/20E. **HIWAS.**

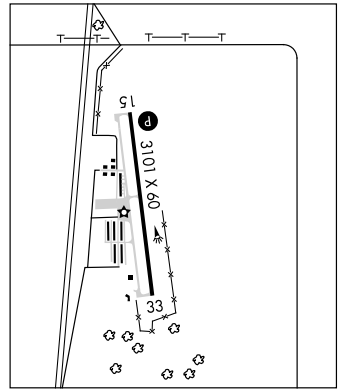


COUNTRY SQUIRE AIRPARK (See SANDY)

CRESCENT LAKE STATE (5S2) 2 NE UTC−8(−7DT) N43°31.96′ W121°57.00′ **KLAMATH FALLS**
4810 TPA—5810(1000) NOTAM FILE MMV **L–1A**
RWY 13–31: H3900X30 (ASPH)
RWY 13: Trees. **RWY 31:** Thld dsplcd 275′. Trees.
AIRPORT REMARKS: Unattended. Arpt CLOSED Nov 1–May 1 due to snow. Rwy surrounded by trees. Owner advises contact with State Department of Aviation 503–378–4880. Gravel occasionally on rwy due to runoff.
COMMUNICATIONS: CTAF 122.9
RADIO AIDS TO NAVIGATION: NOTAM FILE RDM.
DESCHUTES (H) VORTACW 117.6 DSG Chan 123 N44°15.17′ W121°18.21′ 195° 51.5 NM to fld. 4101/18E. **HIWAS.**

CRESWELL

HOBBY FLD (77S) 1 NE UTC−8(−7DT) N43°55.85′ W123°00.40′ **KLAMATH FALLS**
538 B S4 **FUEL** 100LL, JET A TPA—1403(865) NOTAM FILE MMV **L–1A**
RWY 15–33: H3101X60 (ASPH) S–12 MIRL
RWY 15: PAPI(P2L)—GA 3.0°. Tree. **RWY 33:** Trees.
AIRPORT REMARKS: Attended Mon–Fri 1700–0200Z‡, Sat–Sun 1900–0000Z‡. Self serve fuel avbl 24 hrs. Parachute Jumping. ACTIVATE MIRL Rwy 15–23 and PAPI Rwy 15—CTAF.
COMMUNICATIONS: CTAF/UNICOM 122.7
RADIO AIDS TO NAVIGATION: NOTAM FILE EUG.
EUGENE (H) VORTACW 112.9 EUG Chan 76 N44°07.25′ W123°13.37′ 121° 14.8 NM to fld. 364/20E. **HIWAS.**



CULVER

LAKE BILLY CHINOOK STATE (5S5) 6 W UTC−8(−7DT) N44°31.16′ W121°19.24′ **SEATTLE**

2695 TPA—3695(1000) NOTAM FILE MMV

RWY 16–34: H2500X32 (ASPH)

RWY 16: Thld dsplcd 660′. Trees. **RWY 34:** Tree.

AIRPORT REMARKS: Unattended. Animals on and in vicinity of arpt. Grass area south of rwy not for acft ops. Rwy 16–34 has restricted rwy sight distance. Rwy 16 NSTD dsplcd thld marked with three orange reflective marker cans each side.

COMMUNICATIONS: CTAF 122.9

DAVIS (See GATES)

DENMARK

CAPE BLANCO STATE (5S6) 4 SW UTC−8(−7DT) N42°51.47′ W124°31.06′ **KLAMATH FALLS H–1A, L–1A**

214 TPA—1214(1000) NOTAM FILE MMV

RWY 14–32: H5100X150 (ASPH) S–115, D–185, DT–340

RWY 14: Trees. **RWY 32:** Brush.

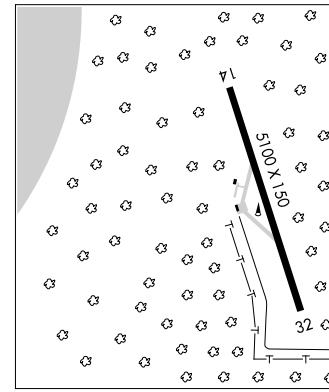
AIRPORT REMARKS: Unattended.

COMMUNICATIONS: CTAF 122.9

CAPE BLANCO RCO 122.4 (MC MINNVILLE RADIO)

RADIO AIDS TO NAVIGATION: NOTAM FILE CEC.

CRESCENT CITY (L) VORTACW 109.0 CEC Chan 27 N41°46.77′ W124°14.44′ 330° 65.7 NM to fld. 54/19E.



DESCHUTES N44°15.17′ W121°18.21′ NOTAM FILE RDM. **KLAMATH FALLS H–1B, L–13A**

(H) VORTACW 117.6 DSD Chan 123 071° 6.6 NM to Roberts Fld. 4101/18E. **HIWAS.**

VORTAC unusable: 220°–240° byd 30 NM

EASTERN OREGON RGNL AT PENDLETON (See PENDLETON)

EMIRE N43°23.67′ W124°18.62′ NOTAM FILE OTH. **KLAMATH FALLS L–1A**

NDB (LOM) 378 OT 046° 3.1 NM to Southwest Oregon Rgnl.

Unusable 360°–165° byd 10 NM

ENTERPRISE N45°26.04′ W117°16.23′ **SEATTLE L–13B**

RCO 122.5 (MC MINNVILLE RADIO)

ENTERPRISE MUNI (8S4) 0 E UTC−8(−7DT) N45°25.49′ W117°15.89′ **SEATTLE**

3957 B S2 **FUEL** 100LL TPA—4957(1000) NOTAM FILE MMV

RWY 12–30: H2850X50 (ASPH) S–7 LIRL

AIRPORT REMARKS: Attended on call. For attendant call 541–426–3562. For fuel call 541–426–3288. No line of sight from rwy ends. Announce intentions arriving/departure on 122.8. 65′ lgtd cell twr located 200′ SW of Rwy 12. Minor airframe and minor power plant repairs on call 541–426–4984. Be alert, soft edges and steep shoulders along rwy and twy. Parallel twy 20′ wide, loose grvl on surface. Unlgtd helipad 150′ SE of rotating bcn adjacent to twy.

COMMUNICATIONS: CTAF/UNICOM 122.8

ESTACADA

VALLEY VIEW (5S9) 1 NE UTC−8(−7DT) N45°18.49′ W122°19.12′ **SEATTLE L–1B**

735 TPA—1685(950) NOTAM FILE MMV

RWY 16–34: H3780X32 (ASPH)

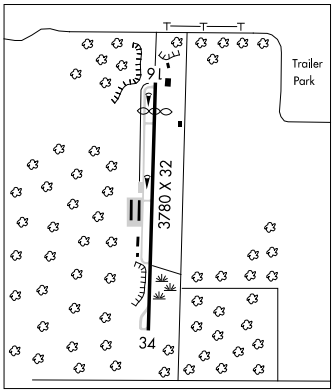
RWY 16: Thld dsplcd 490′. Trees. **RWY 34:** Trees.

AIRPORT REMARKS: Attended irregularly. LIRL Rwy 16–34 owner's use only. Rwy 16 lgtd thld relocated 250′ for ngt ops.

COMMUNICATIONS: CTAF 122.9

RADIO AIDS TO NAVIGATION: NOTAM FILE MMV.

NEWBERG (H) VORW/DME 117.4 UBG Chan 121 N45°21.19′ W122°58.69′ 074° 28.1 NM to fld. 1440/21E. **HIWAS.**



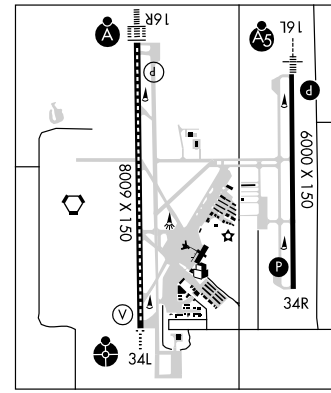
EUGENE N44°07.25′ W123°13.37′. NOTAM FILE EUG. **KLAMATH FALLS H–1A, L–1B**

(H) VORTACW 112.9 EUG Chan 76 at Mahlon Sweet Fld. 364/20E. **HIWAS.**

RCO 122.3 (MC MINNVILLE RADIO)

EUGENE

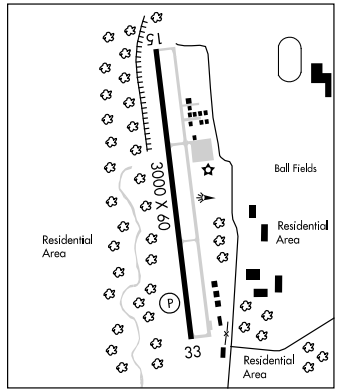
MAHLON SWEET FLD (EUG) 7 NW UTC−8(−7DT) N44°07.40′ W123°13.12′ **KLAMATH FALLS**
374 B S4 **FUEL** 100LL, JET A OX 1, 2, 3, 4 TPA—1174(800) Class I, ARFF Index B **H–1A, L–1B**
NOTAM FILE EUG **IAP, AD**



RWY 16R–34L: H8009X150 (ASPH–GRVD) S–75, D–200, DT–400 HIRL CL
RWY 16R: ALSF2. TDZL. PAPI(P4L)—GA 3.0° TCH 50′.
RWY 34L: ODALS. VASI(V4L)—GA 3.0° TCH 53′.
RWY 16L–34R: H6000X150 (ASPH–GRVD) S–105, D–175, DT–240 HIRL
RWY 16L: MALSR. PAPI(P4L)—GA 3.0° TCH 52′.
RWY 34R: REIL. PAPI(P4L)—GA 3.0° TCH 50′.
RUNWAY DECLARED DISTANCE INFORMATION
RWY 16L: TORA–6000 TODA–6000 ASDA–6000 LDA–6000
RWY 16R: TORA–8009 TODA–8009 ASDA–8009 LDA–8009
RWY 34L: TORA–8009 TODA–8009 ASDA–8009 LDA–8009
RWY 34R: TORA–6000 TODA–6000 ASDA–6000 LDA–6000
AIRPORT REMARKS: Attended continuously. Migratory waterfowl and other birds on and invof arpt. Possible up/down drafts and restricted visibility due to fld burning between July–September. PPR for unscheduled air carrier ops with more than 30 passenger seats call 541–682–5430. ARFF svcs unavailable 0000–0500 local except PPR 541–682–5430. No access to Rwy 34L byd Twy A9. Helicopters ldg and departing avoid overflying the airline passenger terminal and ramp located E of Rwy 16R–34L. Helipads west of Rwy 16R restricted, PPR phone 541–682–5430. Twys H and K unavailable to acft 21,000 pounds single weight and 40,000 pounds dual gross weight. Terminal apron closed to acft except scheduled air carriers and flights with prior permission. HIRL Rwy 16L–34R and Rwy 16R–34L twr ctl 1400–0730Z‡, med ints 0730–1400Z‡. PAPI Rwy 16R and VASI Rwy 34L opr 24 hrs. ALSF Rwy 16R and ODALS Rwy 34L, MALSR Rwy 16L, PAPI Rwy 16L and Rwy 34R, and REIL Rwy 34R twr ctl 1400–0730Z‡, 0730–1400Z‡ ACTIVATE—CTAF.
WEATHER DATA SOURCES: ASOS (541) 461–3114. **HIWAS** 112.9 EUG.
COMMUNICATIONS: CTAF 118.9 **ATIS** 125.225 (541) 607–4699 **UNICOM** 122.95
EUGENE RCO 122.3 (MC MINNVILLE RADIO)
Ⓡ **CASCADE APP/DEP CON** 119.6 (340°–159°) 120.25 (160°–339°) (1400–0730Z‡)
Ⓡ **SEATTLE CENTER APP/DEP CON** 125.8 (0730–1400Z‡)
EUGENE TOWER 118.9 (Rwy 16R–34L), 124.15 (Rwy 16L–34R) (1400–0730Z‡) **GND CON/CLNC DEL** 121.7
AIRSPACE: CLASS D svc 1400–0730Z‡ other times CLASS E.
RADIO AIDS TO NAVIGATION: NOTAM FILE EUG.
EUGENE (H) VORTACW 112.9 EUG Chan 76 N44°07.25′ W123°13.37′ at fld. 364/20E. **HIWAS.**
FRAKK NDB(MHW) 260 EU N44°12.77′ W123°13.23′ 157° 5.3 NM to fld.
ILS/DME 110.1 I–EUG Chan 38 Rwy 16R. Class IIIE. OM FRAKK NDB ILS unmonitored when tower closed.
ILS/DME 111.75 I–ADE Chan 54(Y) Rwy 16L. Class IE.

FLORENCE

FLORENCE MUNI (6S2) 1 N UTC−8(−7DT) N43°58.97′ W124°06.68′ **KLAMATH FALLS**
51 B **FUEL** 100LL, JET A TPA—1051(1000) **L–1A**
NOTAM FILE MMV
RWY 15–33: H3000X60 (ASPH) S–12.5 MIRL
RWY 15: Rgt tfc.
RWY 33: PAPI(P2L)—GA 3.0° TCH 40′. Trees.
AIRPORT REMARKS: Attended 1630–0030Z‡. Birds, deer and wildlife on and invof arpt. ACTIVATE MIRL Rwy 15–33—CTAF. PAPI Rwy 33 opr 24 hrs.
WEATHER DATA SOURCES: AWOS–3 118.225 (541) 997–8664.
COMMUNICATIONS: CTAF/UNICOM 122.8
RADIO AIDS TO NAVIGATION: NOTAM FILE OTH.
NORTH BEND (L) VORTACW 112.1 OTH Chan 58 N43°24.93′ W124°10.11′ 346° 34.1 NM to fld. 707/18E.
HIWAS.



LAKE WOAHINK SPB (10Ø) 4 S UTC−8(−7DT) N43°54.25′ W124°06.88′ **KLAMATH FALLS**
39 NOTAM FILE MMV
WATERWAY N–S: 9000X1000 (WATER)
WATERWAY N: Trees. **WATERWAY S:** Trees. Rgt tfc.
WATERWAY NW–SE: 3200X1000 (WATER)
WATERWAY NW: Trees. **WATERWAY SE:** Trees. Rgt tfc.
SEAPLANE REMARKS: Unattended. Noise abatement procedures in effect avoid overflight of homes. Sealanes not marked.
COMMUNICATIONS: CTAF 122.9

FRAKK N44°12.77′ W123°13.23′. NOTAM FILE EUG. **KLAMATH FALLS**
NDB (MHW) 260 EU 157° 5.3 NM to Mahlon Sweet Fld. Unmonitored when twr clsd. **L–1B**
NDB unusable 020°–070° byd 15 NM and 170°–310° byd 11 NM.

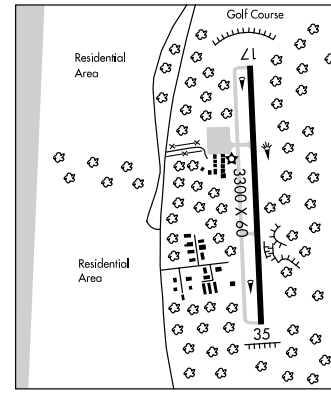
GATES

DAVIS (6S4) 1 S UTC−8(−7DT) N44°44.74′ W122°25.29′ **SEATTLE**
1026 NOTAM FILE MMV
RWY 07–25: 1940X50 (TURF)
RWY 07: Trees. **RWY 25:** Tree.
AIRPORT REMARKS: Unattended.
COMMUNICATIONS: CTAF 122.9

GEORGE FELT (See ROSEBURG)

GLENEDEN BEACH

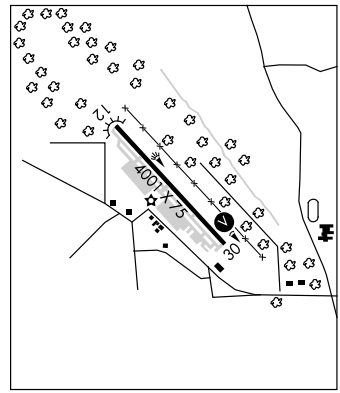
SILETZ BAY STATE (S45) 1 SE UTC−8(−7DT) N44°52.62′ W124°01.71′ **SEATTLE**
69 B TPA—1069(1000) NOTAM FILE MMV **L–1B**
RWY 17–35: H3300X60 (ASPH) S–11 MIRL
RWY 17: Trees. Rgt tfc. **RWY 35:** Brush.
AIRPORT REMARKS: Unattended. Wildlife on and invof arpt. Rwy 35 has 4–6 inch dip 800′ from S end. MIRL Rwy 17–35 preset low intensity; ACTIVATE higher intensity—CTAF.
COMMUNICATIONS: CTAF/UNICOM 122.7
RADIO AIDS TO NAVIGATION: NOTAM FILE ONP.
NEWPORT (H) VORTACW 117.1 ONP Chan 118 N44°34.52′ W124°03.64′ 345° 18.1 NM to fld. 150/19E.



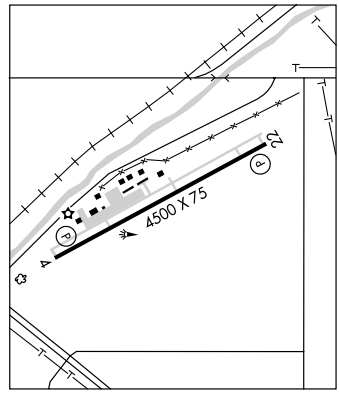
GOLD BEACH MUNI (4S1) 0 W UTC−8(−7DT) N42°24.92′ W124°25.50′ **KLAMATH FALLS**
20 B **FUEL** 100LL, JET A NOTAM FILE MMV **L–2J**
RWY 16–34: H3237X75 (ASPH) S–12.5 MIRL
RWY 16: REIL. Thld dsplcd 90′. Road. Rgt tfc. **RWY 34:** REIL. Road.
AIRPORT REMARKS: Attended 1600–0100Z‡. BE ALERT: Birds on and in the vicinity of arpt. ACTIVATE MIRL Rwy 16–34, REIL Rwy 16 and Rwy 34—CTAF.
WEATHER DATA SOURCES: AWOS–3 118.15 (541) 247–2518.
COMMUNICATIONS: CTAF/UNICOM 122.8
RADIO AIDS TO NAVIGATION: NOTAM FILE CEC.
CRESCENT CITY (L) VORTACW 109.0 CEC Chan 27 N41°46.77′ W124°14.44′ 329° 39.0 NM to fld. 54/19E.
COMM/NAV/WEATHER REMARKS: UNICOM unmonitored.

GRANT CO RGNL/OGILVIE FLD (See JOHN DAY)

GRANTS PASS (3S8) 5 NW UTC−8(−7DT) N42°30.61′ W123°23.28′ **KLAMATH FALLS**
1126 B S4 **FUEL** 100LL, JET A TPA—2126(1000) NOTAM FILE MMV **L–2J**
RWY 12–30: H4001X75 (ASPH) S–19 MIRL 0.8% up SE **IAP**
RWY 12: REIL. Trees.
RWY 30: REIL. VASI(V4R)—GA 4.25° TCH 55′. Trees.
AIRPORT REMARKS: Attended 1600–0100Z‡. 24 hr credit card fuel avbl. VASI Rwy 30 not to be used for turbojet operations. Rwy 30 designated calm wind rwy. Rwy 12–30 has basic markings, plus aiming point markings. ACTIVATE VASI Rwy 30 and REIL Rwy 12 and Rwy 30—CTAF. MIRL Rwy 12–30 on continuously.
WEATHER DATA SOURCES: AWOS–2 122.8 (617) 262–3825.
COMMUNICATIONS: CTAF/UNICOM 122.8
CASCADE APP/DEP CON 124.3 (1400–0700Z‡)
SEATTLE CENTER APP/DEP CON 121.4 (0700–1400Z‡)
RADIO AIDS TO NAVIGATION: NOTAM FILE MFR.
ROGUE VALLEY (H) VORTACW 113.6 OED Chan 83 N42°28.77′ W122°54.78′ 256° 21.2 NM to fld. 2083/19E. **HIWAS.**



HERMISTON MUNI (HRI) 2 SE UTC−8(−7DT) N45°49.69′ W119°15.55′ **SEATTLE**
644 B S4 **FUEL** 100LL, JET A TPA—1444(800) NOTAM FILE HRI **L–13A**
RWY 04–22: H4500X75 (ASPH) S–22 MIRL **IAP**
RWY 04: PAPI (P2L)—GA 3.0° TCH 36′. Tree.
RWY 22: REIL. PAPI(P2L)—GA 3.5° TCH 37′. P–line.
AIRPORT REMARKS: Attended Oct–Mar 1600–0100Z‡, Apr–Sep 1600–0200Z‡. Parachute Jumping. ACTIVATE MIRL Rwy 04–22 and REIL Rwy 22—CTAF. PAPI Rwy 04 and Rwy 22 opr continuously.
WEATHER DATA SOURCES: ASOS 135.225 (541) 567–8580.
COMMUNICATIONS: CTAF/UNICOM 122.8
Ⓡ **CHINOOK APP/DEP CON** 133.15 (1400–0600Z‡)
SEATTLE CENTER APP/DEP CON 132.6 (0600–1400Z‡)
RADIO AIDS TO NAVIGATION: NOTAM FILE PDT.
PENDLETON (H) VORTACW 114.7 PDT Chan 94 N45°41.91′ W118°56.32′ 280° 15.6 NM to fld. 1559/20E. **HIWAS.**



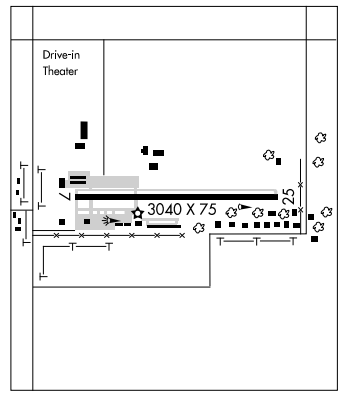
HILLSBORO

STARK'S TWIN OAKS AIRPARK (7S3) 4 S UTC−8(−7DT) N45°25.71′ W122°56.53′ **SEATTLE**
170 S3 **FUEL** 100LL TPA—1110(940) NOTAM FILE MMV
RWY 02–20: H2465X48 (ASPH) LIRL
RWY 02: Thld dsplcd 100′. Tree. **RWY 20:** Trees.
AIRPORT REMARKS: Attended dawn–dusk. Rwy lgts opr 0200–0800Z‡. For LIRL Rwy 02–20 after 0800Z‡ PPR call arpt manager 503–628–2056.
COMMUNICATIONS: CTAF/UNICOM 123.05
PORTLAND CLNC DEL 119.95

HOBBY FLD (See CRESWELL)

HOOD RIVER

KEN JERNSTEDT AIRFIELD (4S2) 2 S UTC−8(−7DT) N45°40.36′ W121°32.19′ **SEATTLE**
631 B S4 **FUEL** 100LL TPA—1500(869) NOTAM FILE MMV **L–1C, 13A**
RWY 07–25: H3040X75 (ASPH) S–23 LIRL
RWY 07: Tree. **RWY 25:** REIL. Road.
AIRPORT REMARKS: Attended Nov–Apr 1600–0100Z‡, May–Oct 1600–0200Z‡. Frequent vehicular tfc AER 07. Gliders and ultralights use right traffic for Rwys 07 and 25. ACTIVATE REIL Rwy 25—CTAF. Rwy 07–25 LIRL opr continuously.
WEATHER DATA SOURCES: AWOS–3 134.375 (541) 386–2386.
COMMUNICATIONS: CTAF/UNICOM 122.8
RADIO AIDS TO NAVIGATION: NOTAM FILE DLS.
KLICKITAT (H) VORW/DME 112.3 LTJ Chan 70 N45°42.81′ W121°06.05′ 242° 18.5 NM to fld. 3220/21E. **HIWAS.**



HUBBARD

LENHARDT AIRPARK (7S9) 3 E UTC−8(−7DT) N45°10.82′ W122°44.61′ **SEATTLE**

165 S4 **FUEL** 100LL NOTAM FILE MMV

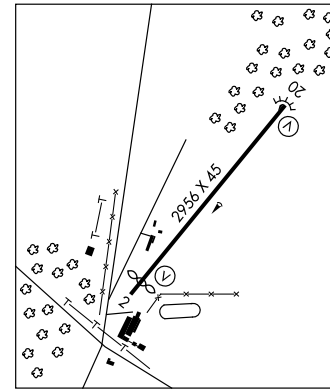
RWY 02–20: H2956X45 (ASPH) LIRL

RWY 02: VASI(NSTD)—GA 7.0°. Thld dsplcd 230′. Road.

RWY 20: VASI(NSTD)—GA 4.0°. Trees.

AIRPORT REMARKS: Attended irregularly. Rwy 02 +6′ fence 50′ right of threshold. Rwy 02 has powerline at 730′; 150′ trees at 1536′. Rwy 20 80′ trees at 585′. Rwy 02 NSTD VASI one flashing/steady light on right side of rwy. Rwy 20 NSTD VASI one flashing/steady light on left side of rwy. Parallel twy west of rwy—grass.

COMMUNICATIONS: CTAF 122.9



ILLINOIS VALLEY (See CAVE JUNCTION)

IMNAHA

MEMALOOSE (25U) 10 SE UTC−8(−7DT) N45°25.66′ W116°41.63′ **GREAT FALLS**

6708 NOTAM FILE MMV

RWY 17–35: 3300X120 (DIRT)

RWY 17: Rgt tfc. **RWY 35:** Trees. Rgt tfc.

AIRPORT REMARKS: Unattended. CLOSED winters. Livestock and wildlife on and invof arpt. No line of sight between rwy ends. Early Spring; damp soft spot on North end of rwy; land long to South. Rwy 35 expect downdrafts on short final due to sheer drop in terrain. Rwy 17–35 outlined with rocks painted white. Rwy 17–35 loose 3 inch–6 inch rocks on rwy; rwy poorly defined. South 1000′ rough and overgrown with weeds. Rwy 35 thld marked by white rocks across rwy end.

COMMUNICATIONS: CTAF 122.9

INDEPENDENCE STATE (7S5) 1 NW UTC−8(−7DT) N44°52.02′ W123°11.89′ **SEATTLE**

180 B **FUEL** 80, 100LL TPA—1180(1000) NOTAM FILE MMV **L–1B**

RWY 16–34: H3142X60 (ASPH) S–12.5 MIRL

RWY 16: PAPI(P4R)—GA 3.0° TCH 40′. P–line.

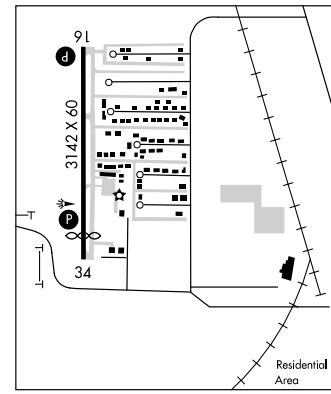
RWY 34: PAPI(P4L)—GA 3.0° TCH 40′. Thld dsplcd 140′. Road.

AIRPORT REMARKS: Attended daylight hours. Ultralight acft on and invof arpt. Migratory flocks of waterfowl on and invof arpt. ACTIVATE MIRL Rwy 16–34, PAPI Rwy 16 and Rwy 34—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8

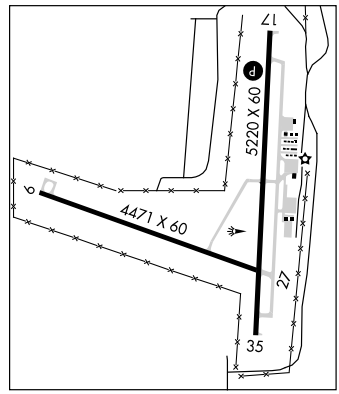
RADIO AIDS TO NAVIGATION: NOTAM FILE MMV.

NEWBERG (H) VORW/DME 117.4 UBG Chan 121 N45°21.19′ W122°58.69′ 177° 30.6 NM to fld. 1440/21E. **HIWAS.**

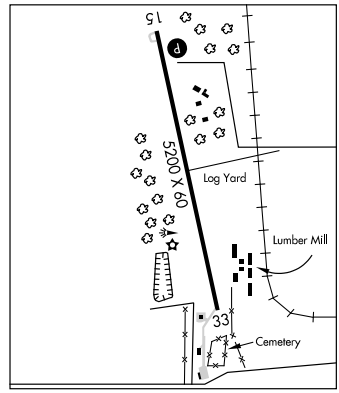


JOHN DAY

GRANT CO RGNL/OGILVIE FLD (GCD) 1 SW UTC−8(−7DT) N44°24.17′ W118°58.07′ **KLAMATH FALLS**
3703 B **FUEL** 100LL, JET A NOTAM FILE GCD **H–1B, L–13A**
RWY 17–35: H5220X60 (ASPH) S–12.5 MIRL 0.5% up S **IAP**
RWY 17: REIL. PAPI(P4R)—GA 4.0° TCH 52′.
RWY 09–27: H4471X60 (ASPH) S–12.5 LIRL 1.3% up E
RWY 27: Rgt tfc.
AIRPORT REMARKS: Attended Oct–May 1600–0000Z‡, Jun–Sep Mon–Fri 1500–0300Z‡. Self service fuel available after hours. Extensive helicopter activity during fire season Jul–Oct. Rwy 27 and Rwy 35 hold lines are marked in white outline only. Be aware of soft edges along rwys and twys. 8 foot game fence around arpt. Rwy 17–35 basic markings, plus aiming point marks. Twy lines and Rwy 17–35 centerline markings incomplete, Rwy 27 relocated thld and Rwy 27 not marked. Twy marked with reflectors. ACTIVATE LIRL Rwy 09–27, MIRL Rwy 17–35, REIL Rwy 17 and PAPI Rwy 17—CTAF.
WEATHER DATA SOURCES: AWOS–3 118.375 (541) 575–1122.
COMMUNICATIONS: CTAF/UNICOM 122.8
SEATTLE CENTER APP/DEP CON 128.15.
RADIO AIDS TO NAVIGATION: NOTAM FILE MMV.
KIMBERLY (H) VORTACW 115.6 IMB Chan 103 N44°38.90′ W119°42.70′ 095° 35.2 NM to fld. 5220/20E. **HIWAS.**
COMM/NAV/WEATHER REMARKS: CLNC DEL thru Flight Services 1–800–WX–BRIEF.



JOSEPH STATE (JSY) 1 W UTC−8(−7DT) N45°21.57′ W117°15.23′ **SEATTLE**
4121 B **FUEL** 100LL TPA—5121(1000) NOTAM FILE MMV **H–1C, L–13B**
RWY 15–33: H5200X60 (ASPH) S–12.5 MIRL
RWY 15: REIL. PAPI(P2L)—GA 4.0° TCH 43′. Trees.
RWY 33: P–line.
AIRPORT REMARKS: Unattended. Use extreme CAUTION during South tkfs due to possible hazardous downdrafts south of arpt under south wind conditions. Deer on arpt all hours. P–lines near Rwy 33 AER unmarked. Unicom unattended. ACTIVATE MIRL Rwy 15–33, PAPI and REIL Rwy 15—CTAF.
WEATHER DATA SOURCES: AWOS–3 123.775 (541) 432–0458.
COMMUNICATIONS: CTAF/UNICOM 122.8
RADIO AIDS TO NAVIGATION: NOTAM FILE MYL.
DONNELLY (H) VORTACW 116.2 DNJ Chan 109 N44°46.03′ W116°12.38′ 290° 57.0 NM to fld. 7333/19E.

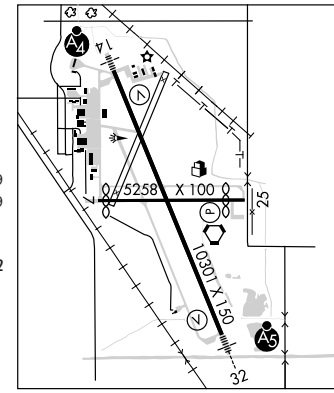


KARPEN N46°08.37′ W123°35.24′. NOTAM FILE AST. **SEATTLE**
NDB (MHW) 201 PEN 255° 12.2 NM to Astoria Rgnl. NDB unmonitored. **L–1C**

KEN JERNSTEDT AIRFIELD (See HOOD RIVER)

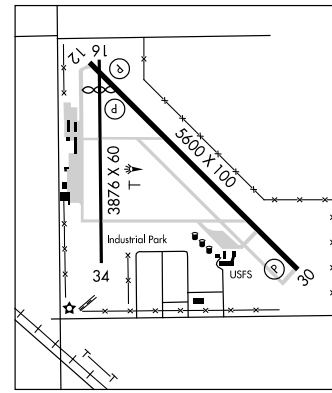
KIMBERLY N44°38.90′ W119°42.70′. NOTAM FILE MMV. **SEATTLE**
(H) VORTACW 115.6 IMB Chan 103 094° 35.3 NM to Grant Co Rgnl/Ogilvie Fld. 5220/20E. **H–1B, L–13A**
HIWAS.
RCO 122.6 (MC MINNVILLE RADIO)

KLAMATH FALLS (LMT) 4 SE UTC−8(−7DT) N42°09.37′ W121°43.99′ **KLAMATH FALLS**
4095 B S4 **FUEL** 100LL, JET A OX 1, 3 Class I, ARFF Index A NOTAM FILE LMT **H–3B, L–2I**
RWY 14–32: H10301X150 (ASPH–CONC–GRVD) S–110, D–145, ST–175, DT–230 HIRL **IAP, AD**
RWY 14: MALSF. VASI(V4L)—GA 3.0° TCH 50′. Tree.
RWY 32: MALSR. VASI(V4L)—GA 3.0° TCH 50′.
RWY 07–25: H5258X100 (ASPH–GRVD) S–38, D–52, DT–87
MIRL
RWY 07: Thld dsplcd 307′. Railroad.
RWY 25: REIL. PAPI(P4L)—GA 3.0° TCH 40′. Thld dsplcd 514′. Fence.
RUNWAY DECLARED DISTANCE INFORMATION
RWY 07: TORA–5260 TODA–5260 ASDA–4746 LDA–4439
RWY 25: TORA–5260 TODA–5260 ASDA–4953 LDA–4439
ARRESTING GEAR/SYSTEM
RWY 14 ← HOOK BAK–12B(B) (1500′)
HOOK BAK–12B(B) (1500′)→ **RWY 32**
AIRPORT REMARKS: Attended 1500–0600Z‡. For services after hours call fixed base operator at 541–882–4681. Flocks of large migratory waterfowl in vicinity Nov–May. When twr closed ACTIVATE MALSF Rwy 14, MALSR Rwy 32, HIRL Rwy 14–32 and MIRL Rwy 07–25 and twy lgts—CTAF. Rwy lgts have a 30 second warm up delay.



WEATHER DATA SOURCES: ASOS (541) 883–8127. **HIWAS** 115.9 LMT.
COMMUNICATIONS: CTAF 133.975 **ATIS** 126.5 **UNICOM** 122.95
RCO 122.6 (MC MINNVILLE RADIO)
Ⓡ **KINGSLEY APP/DEP CON** 123.675 (Mon–Fri 1600–0000Z‡ exc weekends and holidays), other times ctc
Ⓡ **SEATTLE CENTER APP/DEP CON** 127.6
TOWER 133.975 (1500–0600Z‡) **GND CON** 121.9
AIRSPACE: CLASS D svc 1500–0600Z‡ other times CLASS E.
RADIO AIDS TO NAVIGATION: NOTAM FILE LMT.
(H) VORTACW 115.9 LMT Chan 106 N42°09.19′ W121°43.65′ at fld. 4087/17E. **HIWAS.**
VOR portion unusable:
050°–060° byd 30 NM blo 12,000′
060°–120° byd 25 NM blo 12,000′
170°–195° byd 20 NM
210°–245° byd 25 NM blo 12,000′
270°–280° byd 20 NM
320°–050° byd 23 NM blo 12,000′
320°–050° byd 30 NM
DME portion unusable:
105°–125° byd 7 NM blo 12,000′
153°–195° byd 20 NM blo 11,000′
210°–305° byd 25 NM blo 10,500′
320°–105° byd 13 NM blo 13,000′
320°–125° byd 20 NM
MERRILL NDB (MHW) 347 LFA N41°59.11′ W121°38.57′ 322° 11.0 NM to fld. SHUTDOWN.
ILS 109.5 I–LMT Rwy 32.

LA GRANDE/UNION COUNTY (LGD) 4 SE UTC−8(−7DT) N45°17.41′ W118°00.43′ **SEATTLE**
2717 B S4 **FUEL** 100LL, JET A NOTAM FILE LGD Not insp. **H–1C, L–13A**
RWY 12–30: H5600X100 (ASPH) S–65, D–90, ST–114, DT–130 MIRL **IAP**
RWY 12: PAPI(P2L). Road. **RWY 30:** REIL. PAPI(P2L)—GA 3.0°.
RWY 16–34: H3876X60 (ASPH) S–45, D–60, DT–100
RWY 16: PAPI(P4L)—GA 3.0° TCH 35′. Thld dsplcd 486′. Road.
AIRPORT REMARKS: Attended Dec–Mar 1600–0200Z‡, Apr–Nov 1500–0300Z‡. For attendant 24 hours call 541–963–6714. Extensive Forest Service opr during summer months. Landing fee for aircraft over 12,500 pounds. Rwy 16–34 marked with reflectors. Twys marked with blue reflectors.
WEATHER DATA SOURCES: AWOS–3 135.075 (541) 963–6824.
COMMUNICATIONS: CTAF/UNICOM 122.8
RCO 122.5 (MC MINNVILLE RADIO)
SEATTLE CENTER APP/DEP CON 132.6
RADIO AIDS TO NAVIGATION: NOTAM FILE BKE.
BAKER CITY (H) VORW/DME 115.3 BKE Chan 100 N44°50.44′ W117°48.47′ 323° 28.3 NM to fld. 3360/20E.
NDB (MHW) 296 LGD N45°20.55′ W117°57.76′ 194° 3.7 NM to fld. NOTAM FILE LGD. Unusable 160°–190° beyond 15 NM and 290°–315° beyond 15 NM.



LAKE BILLY CHINOOK STATE (See CULVER)

LAKE CO (See LAKEVIEW)

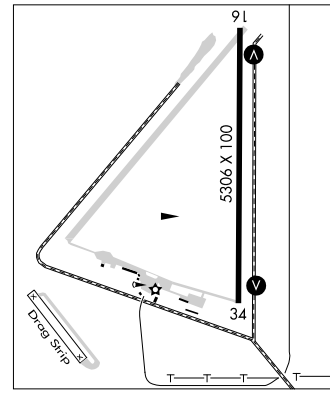
LAKER N45°32.46′ W122°27.74′. NOTAM FILE PDX. SEATTLE
NDB (MHW) 332 LBH 277° 6.4 NM to Portland Intl. L–1C

LAKESIDE STATE (9S3) 0 NW UTC−8(−7DT) N43°34.99′ W124°10.82′ KLAMATH FALLS
20 TPA—1020(1000) NOTAM FILE MMV
RWY 15–33: 2150X100 (TURF)
RWY 15: Trees **RWY 33:** Trees
AIRPORT REMARKS: Unattended. Rwy 15–33 rwy ends marked with white mats.
COMMUNICATIONS: CTAF 122.9

LAKEVIEW N42°29.57′ W120°30.43′ NOTAM FILE LKV. KLAMATH FALLS
(H) VORTACW 112.0 LKV Chan 57 147° 20.5 NM to Lake Co. 7460/19E. **HIWAS.** H–3B, L–11A
RCO 122.3 (MC MINNVILLE RADIO)

LAKEVIEW

LAKE CO (LKV) 3 SW UTC−8(−7DT) N42°09.67′ W120°23.95′ KLAMATH FALLS
4733 B **FUEL** 100LL, JET A TPA—5733(1000) NOTAM FILE LKV H–3B, L–11A
RWY 16–34: H5306X100 (ASPH) S–74, D–86, ST–109 MIRL IAP
RWY 16: VASI(V4L)—GA 3.0° TCH 55′.
RWY 34: REIL. VASI(V4R)—GA 3.0° TCH 55′.
AIRPORT REMARKS: Attended Apr–Sep 1700–0000Z‡, Oct–Mar 1500–0100Z‡. Flocks of large waterfowl in vicinity Nov–May. Extensive airtanker ops in fire season. Possible glider ops on twy. Twy NE–SW used for strong cross wind ldg. ACTIVATE MIRL Rwy 16–34, VASI Rwy 16 and Rwy 34 and REIL Rwy 34—CTAF.
WEATHER DATA SOURCES: AWOS–3 135.525 (541) 947–5069.
HIWAS 112.0 LKV.
COMMUNICATIONS: CTAF/UNICOM 122.8
LAKEVIEW RCO 122.3 (MC MINNVILLE RADIO)
SEATTLE CENTER APP/DEP CON 127.6
RADIO AIDS TO NAVIGATION: NOTAM FILE LKV.
LAKEVIEW (H) VORTACW 112.0 LKV Chan 57 N42°29.57′ W120°30.43′ 147° 20.5 NM to fld. 7460/19E.
HIWAS.



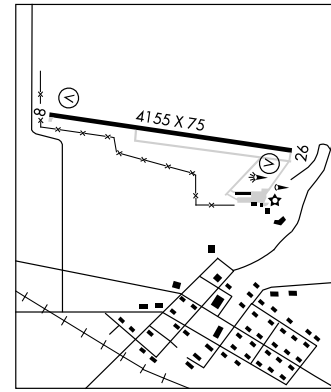
LAKE WOAHINK SPB (See FLORENCE)

LEBANON STATE (S3Ø) 1 SW UTC−8(−7DT) N44°31.79′ W122°55.77′ SEATTLE
344 B S4 **FUEL** 100LL, MOGAS TPA—1344(1000) NOTAM STATE MMV.
RWY 16–34: H2877X50 (ASPH) MIRL
RWY 16: PAPI(P2L)—GA 3.0°TCH 40′. Tree. **RWY 34:** PAPI(P2L)—GA 3.5°TCH 40′. Thld dsplcd 387′. Brush.
AIRPORT REMARKS: Attended continuously. Acft departing Rwy 34 make 10° left turn after takeoff as soon as safety permits. Rwy 16–34 twy markings NSTD, marked with reflectors.
COMMUNICATIONS: CTAF/UNICOM 122.8

LENHARDT AIRPARK (See HUBBARD)

LEWISBURG N44°36.82′ W123°16.24′. NOTAM FILE CVO. KLAMATH FALLS
NDB (MHW) 225 LWG 169° 7.0 NM to Corvallis Muni. L–1B

LEXINGTON (9S9) 1 N UTC−8(−7DT) N45°27.25′ W119°41.42′ **SEATTLE**
1634 B **FUEL** 100LL TPA—2634(1000) NOTAM FILE MMV **L–13A**
RWY 08–26: H4155X75 (ASPH) S–12.5 MIRL 1.3% up E **IAP**
RWY 08: VASI(V2L)—GA 3.0° TCH 44′. Fence.
RWY 26: VASI(V2L)—GA 3.5° TCH 59′.
AIRPORT REMARKS: Unattended. Fuel 24 hours credit card svc avbl. Rwy 08–26 200′ gravel E end. ACTIVATE MIRL Rwy 08–26—CTAF.
WEATHER DATA SOURCES: AWOS–3 134.475 (541) 989–8557.
COMMUNICATIONS: CTAF 122.9
Ⓡ **SEATTLE CENTER APP/DEP CON** 132.6
RADIO AIDS TO NAVIGATION: NOTAM FILE PDT.
PENDLETON (H) VORTACW 114.7 PDT Chan 94 N45°41.91′ W118°56.32′ 225° 34.9 NM to fld. 1559/20E.
HIWAS.



MADRAS MUNI CITY–CO (S33) 3 NW UTC−8(−7DT) N44°40.21′ W121°09.31′ **SEATTLE**
2437 B S4 **FUEL** 100LL, JET A OX 3, 4 NOTAM FILE MMV **H–1B, L–13A**
RWY 16–34: H5089X75 (ASPH) S–75, D–120, DT–180 MIRL **IAP**
RWY 34: VASI(V4L)—GA 3.0°.
RWY 04–22: H2701X50 (ASPH) S–16 0.3% up NE
RWY 04: P–line. **RWY 22:** Road.
AIRPORT REMARKS: Attended Nov–Apr 1600–0100Z‡, May–Oct 1600–0200Z‡. Rwy 04–22 marked with white reflectors. Rwy 16–34 blue reflectors on twys. ACTIVATE MIRL Rwy 16–34 and VASI Rwy 34—CTAF.
COMMUNICATIONS: CTAF/UNICOM 122.8
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′ 356° 25.8 NM to fld. 4101/18E. **HIWAS.**

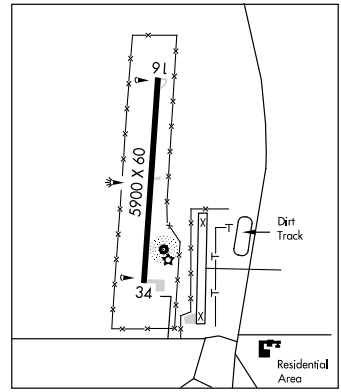
MAHLON SWEET FLD (See EUGENE)

MALIN (4S7) 1 SE UTC−8(−7DT) N42°00.06′ W121°23.78′ **KLAMATH FALLS**
4052 NOTAM FILE MMV
RWY 14–32: 2800X30 (ASPH–GRVL)
RWY 14: P–line. **RWY 32:** Road.
AIRPORT REMARKS: Unattended. Rwy 14–32 has weed growth along rwy edges and around NW end. Rwy 14–32 weeds growing on rwy; asph portion cracked with weeds growing through. Rwy 14 NW 305′ ASPH.
COMMUNICATIONS: CTAF 122.9

MANZANITA

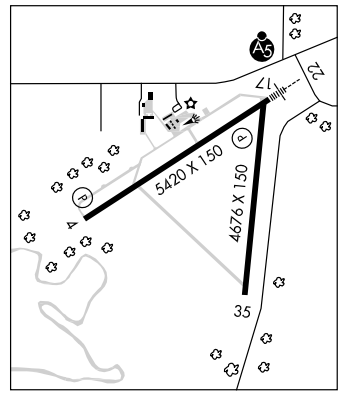
NEHALEM BAY STATE (3S7) 2 S UTC−8(−7DT) N45°41.89′ W123°55.79′ **SEATTLE**
22 TPA—1022(1000) NOTAM FILE MMV
RWY 15–33: H2350X50 (ASPH)
RWY 15: Trees **RWY 33:** Deer and water fowl invof arpt. Unpaved twy and ramp.
AIRPORT REMARKS: Unattended.
COMMUNICATIONS: CTAF 122.9

MC DERMITT STATE (26U) 0 W UTC−8(−7DT) N42°00.13′ W117°43.39′ KLAMATH FALLS
4478 B TPA—5478(1000) NOTAM FILE MMV H–3C, L–11B
RWY 16–34: H5900X60 (ASPH) S–12.5 LIRL
AIRPORT REMARKS: Unattended. P–lines South and East. Vegetation growing in primary sfc.
COMMUNICATIONS: CTAF 122.9
RADIO AIDS TO NAVIGATION: NOTAM FILE REO.
ROME (H) VORTACW 112.5 REO Chan 72 N42°35.43′ W117°52.09′ 151° 35.9 NM to fld. 4050/19E.
NDB (MHW) 204 RMD N42°00.69′ W117°43.26′ at fld. NOTAM FILE MMV. VFR only.



MC KENZIE BRIDGE STATE (ØØS) 3 E UTC−8(−7DT) N44°10.99′ W122°05.32′ KLAMATH FALLS
1620 TPA—2620(1000) NOTAM FILE MMV
RWY 06–24: 2600X90 (TURF)
RWY 06: Trees. **RWY 24:** Trees.
AIRPORT REMARKS: Unattended. Wildlife on and around arpt year round. Owner advises ctc with Oregon Dept of Aviation 503–378–4880 prior to use. Irregular winter maintenance, arpt may be clsd due to snow. Rwy 6–24 slopes up to the east. Rwy 06–24 rough with numerous dips and ruts particularly on the east half. Land east–tkf west. Rwy 06 thld marked with white mats. Rwy edges marked with white panel markers.
COMMUNICATIONS: CTAF 122.9

MC MINNVILLE MUNI (MMV) 3 SE UTC−8(−7DT) N45°11.67′ W123°08.16′ SEATTLE
163 B S4 **FUEL** 100LL, JET A OX 1 NOTAM FILE MMV H–1A, L–1B
RWY 04–22: H5420X150 (ASPH) S–40, D–50, DT–80 HIRL IAP
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.
AIRPORT REMARKS: Attended 1600Z‡–dusk. Fuel 24 hour credit card svc avbl. For fuel dusk–dawn contact fixed–base operator 503–472–0558. Military helicopter and parachute ops in area. Scheduled by notam. High pressure bulk oxygen avbl Mon–Sat. Glider ops Rwy 17–35 and within 8 NM blo 8000′ during dalgt hours Feb–Nov. 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
RCO 122.45 (MC MINNVILLE RADIO)
Ⓡ **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 (H) VORW/DME 117.4 UBG Chan 121 N45°21.19′ W122°58.69′ 194° 11.6 NM to fld. 1440/21E. HIWAS.
ILS 110.9 I–MMV Rwy 22. Class 1A.

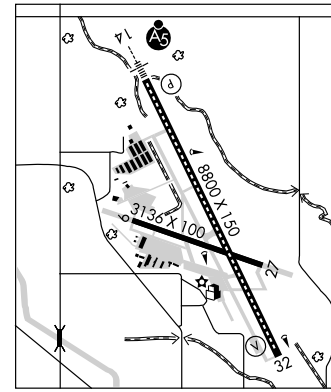


MCNARY FLD (See SALEM)

MEDFORD N42°23.50′ W122°52.73′ NOTAM FILE MFR. KLAMATH FALLS
NDB (MHW) 356 MEF 148° 1.1 NM to fld. LOM unusable 220°–240° beyond 15 NM. L–2I
RCO 122.65 (MC MINNVILLE RADIO)

MEDFORD

ROGUE VALLEY INTL–MEDFORD (MFR) 3 N UTC−8(−7DT) N42°22.45′ W122°52.41′ **KLAMATH FALLS**
1335 B S4 **FUEL** 100LL, JET A OX 1, 3 TPA—See Remarks **H–3A, L–2I**
Class I, ARFF Index B NOTAM FILE MFR **IAP, AD**



RWY 14–32: H8800X150 (ASPH–GRVD) S–200, D–200, ST–175, DT–400 HIRL CL
RWY 14: MALSR. TDZL. PAPI(P4L)—GA 3.0 TCH 73′ 0.4% up.
RWY 32: REIL. VASI(V4L)—GA 3.0° TCH 49′ 0.5% down.
RWY 09–27: H3136X100 (ASPH) S–63, D–70, ST–89, DT–105 MIRL(NSTD) 0.4% up E
AIRPORT REMARKS: Attended 1300–0800Z‡. For fuel after hrs call 541–779–5451, or 541–842–2254. Bird hazard large flocks of migratory waterfowl in vicinity Nov–May. Rwy 09–27 CLOSED to acft over 12,500 lbs GWT. PPR for unscheduled ops with more than 30 passenger seats, call arpt operations 541–776–7228. Rwy 32 preferred for tkfs and landings when twr clsd. Twy B/B–1 not visible from twr between twy B–2 and AER 9. TPA—2304(969) for propeller acft; 2804(1469) for turbo acft. Rwy 09–27 NSTD MIRL first 10′ of Rwy 09 unlgt and first 9′ of Rwy 27 unlgt, 3136 lgtd. ACTIVATE HIRL Rwy 14–32, MALSR Rwy 14, REIL Rwy 32, TDZL Rwy 14, centerline lgts Rwy 14 and Rwy 32, and twy lgts—CTAF. PAPI Rwy 14 and VASI Rwy 32 on continuously. U.S. Customs user fee arpt. Ldg fee applies to all corporate acft and all other acft with weight exceeding 12,500 lbs.
WEATHER DATA SOURCES: ASOS (541) 776–1238. **HIWAS** 113.6 OED.
COMMUNICATIONS: CTAF 119.4 **ATIS** 127.25 **UNICOM** 122.95
MEDFORD RCO 122.65 (MC MINNVILLE RADIO)
Ⓡ **CASCADE APP/DEP CON** 124.3 (1400–0700Z‡)
SEATTLE CENTER APP/DEP CON 124.85 (0700–1400Z‡)
MEDFORD TOWER 119.4 (1400–0500Z‡) **GND CON** 121.8
AIRSPACE: CLASS D svc 1400–0500Z‡ other times CLASS E.
RADIO AIDS TO NAVIGATION: NOTAM FILE MFR.
(H) VORTACW 113.6 OED Chan 83 N42°28.78′ W122°54.77′ 145° 6.6 NM to fld. 2083/19E. **HIWAS.**
MEDFORD NDB (MHW) 356 MEF N42°23.50′ W122°52.73′ 148° 1.1 NM to fld.
PUMIE NDB (LOM) 373 MF N42°27.06′ W122°54.80′ 140° 4.9 NM to fld. LOM unusable 260°–270° beyond 10 NM
ILS/DME 110.3 I–MFR Chan 40 Rwy 14. Class IA. LOM PUMIE NDB. ILS unmonitored when tower closed. LOC Back Course unusable byd 11 NM blo 7000′, byd 13 NM blo 8300′, byd 17 NM blo 8700′. LOC Back Course unusable byd 20° left of course.

MEMALOOSE (See IMNAHA)

MERRILL N41°59.11′ W121°38.57′. NOTAM FILE LMT. **KLAMATH FALLS**
NDB (MHW) 347 LFA 322° 11.0 NM to Klamath Falls. SHUTDOWN. **L–2I**

MILLER MEMORIAL AIRPARK (See VALE)

MONUMENT MUNI (12S) 1 NW UTC−8(−7DT) N44°49.91′ W119°25.82′ **SEATTLE**
2323 TPA—3323(1000) NOTAM FILE MMV
RWY 14–32: 2104X29 (GRVL–TRTD)
RWY 14: Hill.
AIRPORT REMARKS: Unattended. Intermittently CLOSED winters due to snow. Rwy 14 rwy ends marked at each corner by a single white tire.
COMMUNICATIONS: CTAF 122.9

MULINO STATE (See PORTLAND-MURINO)

MYRTLE CREEK MUNI (16S) 2 SW UTC−8(−7DT) N42°59.84′ W123°18.92′ **KLAMATH FALLS**
619 B TPA—1600(981) NOTAM FILE MMV
RWY 03–21: H2600X60 (ASPH) S–12 MIRL
RWY 03: REIL. PAPI(P2L)—GA 4.0° TCH 41′. Tree. Rgt tfc. **RWY 21:** Tree.
AIRPORT REMARKS: Unattended. Terrain rises to 2200′ MSL within 2 miles on each side of rwy. ACTIVATE MIRL Rwys 03–21, REIL Rwy 03 and PAPI Rwy 03—CTAF. UNICOM unmonitored indef.
COMMUNICATIONS: CTAF/UNICOM 122.7

NEHALEM BAY STATE (See MANZANITA)

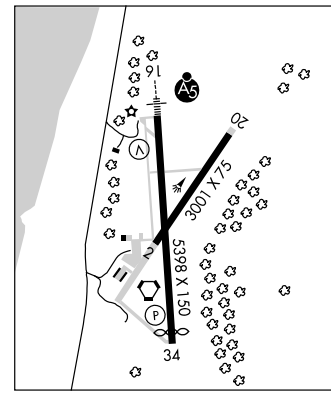
NEWBERG N45°21.19′ W122°58.69′. NOTAM FILE MMV. SEATTLE
(H) VORW/DME 117.4 UBG Chan 121 105° 10.9 NM to Aurora State. 1440/21E. HIWAS. H–1B, L–1B
RCO 122.45 (MC MINNVILLE RADIO)

NEWBERG

CHEHALEM AIRPARK (17S) 4 N UTC−8(−7DT) N45°19.42′ W123°03.26′ SEATTLE
190 S4 FUEL 100LL, JET A NOTAM FILE MMV
RWY 07–25: H2285X40 (ASPH) RWY LGTS(NSTD)
RWY 07: Thld dsplcd 300′. P–line. RWY 25: Tree.
AIRPORT REMARKS: Attended 1600–0200Z‡. Rwy 25 has noise abatement procedures in effect for more information ctc aprt manager 503–537–0108. Rwy 07–25 NSTD basic markings, NSTD size, rwy edge strips. Rwy 07 dsplcd thld NSTD markings, NSTD size. Rwy 07–25 NSTD green thld lgts at W end only; no thld lgts on E end; 300′ dsplcd thld unlgtd.
COMMUNICATIONS: CTAF 122.9

SPORTSMAN AIRPARK (2S6) 1 SE UTC−8(−7DT) N45°17.74′ W122°57.32′ SEATTLE
181 S4 FUEL 100LL, JET A NOTAM FILE MMV
RWY 17–35: H2755X50 (ASPH) S–30 LIRL
RWY 17: Thld dsplcd 369′. Tree. RWY 35: Thld dsplcd 315′. Brush. Rgt tfc.
AIRPORT REMARKS: Attended dawn–dusk. Arpt lgts opr sunset–0800Z‡. For LIRL Rwy 17–35 after 0800Z‡ phone 503–538–2134. Rwy 17–35 alligator cracks, dips, patch work in poor condition and edge cracks, needs joint sealing.
COMMUNICATIONS: CTAF 122.9
PORTLAND CLNC DEL 126.0

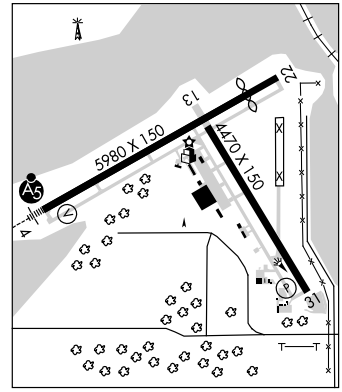
NEWPORT MUNI (ONP) 3 S UTC−8(−7DT) N44°34.82′ W124°03.48′ SEATTLE
181 B FUEL 100LL, JET A Class IV, ARFF Index A NOTAM FILE ONP H–1A, L–1B
RWY 16–34: H5398X150 (ASPH) S–75, D–120, ST–152, DT–170 HIRL IAP
RWY 16: MALSR. VASI(V4R)—GA 3.0° TCH 50′. Rgt tfc.
RWY 34: REIL. PAPI(P4L)—GA 3.0° TCH 50′. Thld dsplcd 300′.
RWY 02–20: H3001X75 (ASPH) S–33, D–50, DT–84
MIRL 1.0% up NE
RWY 02: Ground. RWY 20: Rgt tfc.
RUNWAY DECLARED DISTANCE INFORMATION
RWY 02: TORA–3001 TODA–3001 ASDA–3001 LDA–3001
RWY 16: TORA–5398 TODA–5398 ASDA–5398 LDA–5398
RWY 20: TORA–3001 TODA–3001 ASDA–3001 LDA–3001
RWY 34: TORA–5398 TODA–5398 ASDA–5398 LDA–5398
AIRPORT REMARKS: Attended 1600–0100Z‡. For fuel after hours call 541–867–3655 or 541–961–9725. Deer and coyotes on and invof rwys and twys. Birds invof arpt during Apr and Oct. PPR for air carrier ops with more than 30 passenger seats, call arpt manager 541–867–7422. ACTIVATE MALSR Rwy 16, MIRL Rwy 02–20, HIRL Rwy 16–34, and REIL Rwy 34—CTAF.
WEATHER DATA SOURCES: AWOS–3 133.9 (541)–867–4175.
COMMUNICATIONS: CTAF/UNICOM 122.8
RCO 122.5 (MC MINNVILLE RADIO)
SEATTLE CENTER APP/DEP CON 125.8
RADIO AIDS TO NAVIGATION: NOTAM FILE ONP.
(H) VORTACW 117.1 ONP Chan 118 N44°34.52′ W124°03.64′ at fld. 150/19E.
VORTAC unusable:
342°–007° byd 35 NM blo 5,000′
007°–047° byd 35 NM blo 6,000′
057°–112° byd 35 NM blo 7,000′
112°–132° byd 35 NM blo 8,000′
132°–162° byd 35 NM blo 5,000′
AGGET NDB (LOM) 350 ON N44°40.56′ W124°03.92′ 158° 5.8 NM to fld. Unusable 360°–150°
ILS 111.5 I–ONP Rwy 16. LOM AGGET NDB. LOM unusable 360°–150°



NORTH BEND N43°24.93′ W124°10.11′ NOTAM FILE OTH KLAMATH FALLS
(L) VORTACW 112.1 OTH Chan 58 253° 3.4 NM to Southwest Oregon Rgnl. 707/18E. HIWAS. L–1A
VORTAC unusable:
012°–087° byd 30 NM blo 5000′.
RCO 122.4 (MC MINNVILLE RADIO)

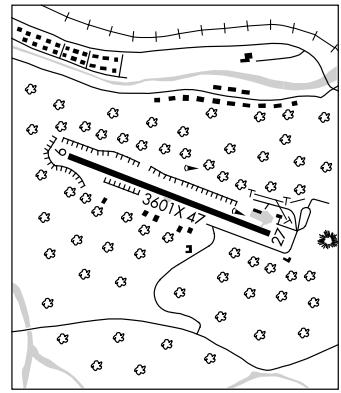
NORTH BEND

SOUTHWEST OREGON RGNL (OTH) 1 NW UTC−8(−7DT) N43°25.02′ W124°14.82′ **KLAMATH FALLS**
17 B S4 **FUEL** 100LL, JET A Class I, ARFF Index A NOTAM FILE OTH **H–1A, L–1A**
RWY 04–22: H5980X150 (ASPH–PFC–GRVD) S–106, D–113, ST–143, DT–190 HIRL **IAP, AD**
RWY 04: MALSR. VASI (V4R)—GA 3.0° TCH 38′. Boat.
RWY 22: Thld dsplcd 660′. Ship.
RWY 13–31: H4470X150 (ASPH–GRVD) S–90, D–100, ST–127, DT–100 MIRL
RWY 13: REIL. Ship.
RWY 31: REIL. PAPI(P4L)—GA 4.0° TCH 50′. Road. Rgt tfc.



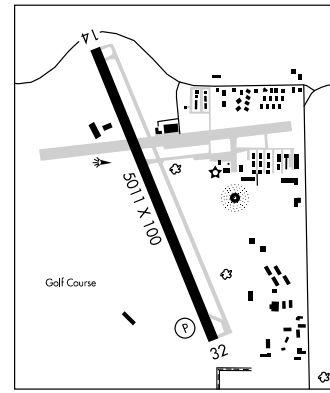
RUNWAY DECLARED DISTANCE INFORMATION
RWY 04: TORA–5321 TODA–5321 ASDA–5321 LDA–5321
RWY 22: TORA–6000 TODA–6000 ASDA–6000 LDA–5321
AIRPORT REMARKS: Attended 1000–0600Z‡. Services avbl 1600–0100Z‡, for services after hours call 541–756–7272. Migratory flocks of waterfowl on and in vicinity of arpt. PAEW invof rwys and twys 1530–2330Z‡. Ship channel crosses Rwy 04 approximately ⅔ mile from thld, crosses Rwy 13 and Rwy 22 approximately 1000′ to 1700′ from thld, mast heights to 140′. Landing fee. Non–commercial landing fee for all acft over 12,500 lbs. ACTIVATE MALSR Rwy 04–CTAF. HIRL Rwy 04–22 and MIRL Rwy 13–31 opr continuously at night.
WEATHER DATA SOURCES: AWOS–3 135.075 (541) 756–0135.
HIWAS 112.1 OTH.
COMMUNICATIONS: CTAF 118.45
NORTH BEND RCO 122.4 (Mc MINNVILLE RADIO)
SEATTLE CENTER APP/DEP CON 121.4
NORTH BEND TOWER 118.45 (1500–0500Z‡) **GND** 127.1
AIRSPACE: CLASS D svc 1500–0500Z‡ other times CLASS E.
RADIO AIDS TO NAVIGATION: NOTAM FILE OTH.
NORTH BEND (L) VORTACW 112.1 OTH Chan 58 N43°24.93′ W124°10.11′ 253° 3.4 NM to fld. 707/18E. **HIWAS.**
EMIRE NDB (LOM) 378 OT N43°23.67′ W124°18.62′ 046° 3.1 NM to fld. NDB unusable 360°–165° byd 10 NM.
ILS 108.5 I–OTH Rwy 04. LOM EMIRE NDB.

OAKRIDGE STATE (5SØ) 1 W UTC−8(−7DT) N43°45.16′ W122°30.15′ **KLAMATH FALLS**
1393 TPA—2393(1000) NOTAM FILE MMV **L–1A**
RWY 09–27: H3610X47 (ASPH)
RWY 09: Trees. **RWY 27:** Road.



AIRPORT REMARKS: Unattended. Irregular winter maintenance, arpt may be clsd by snow. US Forest Service helicopters active in vicinity of arpt during fire season. Deer and elk on and invof arpt.
COMMUNICATIONS: CTAF 122.9
RADIO AIDS TO NAVIGATION: NOTAM FILE EUG.
EUGENE (H) VORTACW 112.9 EUG Chan 76 N44°07.25′ W123°13.37′ 105° 38.3 NM to fld. 364/20E. **HIWAS.**

ONTARIO MUNI (ONO) 3 W UTC−7(−6DT) N44°01.16′ W117°00.78′ **KLAMATH FALLS**
2193 B S4 **FUEL** 100LL, JET A NOTAM FILE ONO **H–1C, L–11B**
RWY 14–32: H5011X100 (ASPH) S–30 D–50 MIRL **IAP**
RWY 14: Road.
RWY 32: REIL. PAPI(P2L). Berm.
AIRPORT REMARKS: Attended 1500–0000Z‡. Self serve card lock fuel avbl 24 hrs. Twy marked with blue reflectors. ACTIVATE MIRL Rwy 14–32 and REIL Rwy 32—CTAF. PAPI Rwy 32 OPR continuously.
WEATHER DATA SOURCES: ASOS 135.275 (541) 889–7388.
COMMUNICATIONS: CTAF/UNICOM 122.8
Ⓡ **SALT LAKE CENTER APP/DEP CON** 128.05
RCO 122.3 (MC MINNVILLE RADIO)
RADIO AIDS TO NAVIGATION: NOTAM FILE BOI.
BOISE (H) VORTACW 113.3 BOI Chan 80 N43°33.17′ W116°11.53′ 291° 45.3 NM to fld. 2876/17E.
NDB (MHW) 305 ONO N44°01.18′ W117°00.50′ at fld. NOTAM FILE ONO.



OWYHEE RESERVOIR STATE (28U) 25 SW UTC−8(−7DT) N43°25.49′ W117°20.73′ **KLAMATH FALLS**
2680 TPA—3680(1000) NOTAM FILE MMV
RWY 13–31: 1840X30 (DIRT)
AIRPORT REMARKS: Unattended. Rwy 13–31 sfc rough, loose rocks, soft when wet, subject to washouts. 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

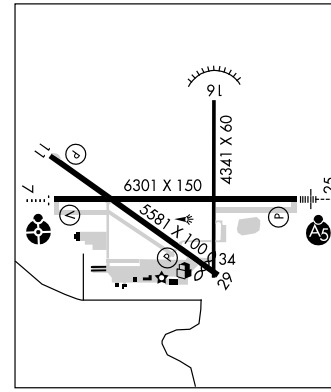
PACIFIC CITY STATE (PFC) 1 S UTC−8(−7DT) N45°11.99′ W123°57.74′ **SEATTLE**
5 TPA—1005(1000) NOTAM FILE MMV
RWY 14–32: H1875X30 (ASPH) S–7
RWY 14: Thld dsplcd 300′. P–line. **RWY 32:** Trees.
AIRPORT REMARKS: Unattended. Rwy may be under water during winter high tides. Occasional driftwood on rwy due to flooding. Owner advises ctc with Department of Aviation 503–378–4880 prior to use. Ramp in poor condition. Rwy 14–32 NSTD basic markings, markings NSTD size/placement and rwy edge markings.
COMMUNICATIONS: CTAF 122.9

PAISLEY (22S) 3 NW UTC−8(−7DT) N42°43.08′ W120°33.77′ **KLAMATH FALLS**
4395 B TPA—5395(1000) NOTAM FILE MMV **L–11A**
RWY 13–31: H4300X60 (ASPH) LIRL
AIRPORT REMARKS: Unattended.
COMMUNICATIONS: CTAF 122.9
RADIO AIDS TO NAVIGATION: NOTAM FILE MMV.
LAKEVIEW (H) 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. **SEATTLE**
(H) VORTACW 114.7 PDT Chan 94 073° 4.1 NM to Eastern Oregon Rgnl at Pendleton. 1559/20E. **HIWAS.** **H–1B, L–13A**
RCO 122.2 (MC MINNVILLE RADIO)

PENDLETON

EASTERN OREGON RGNL AT PENDLETON (PDT) 3 NW UTC−8(−7DT) N45°41.70′ W118°50.49′ **SEATTLE**
1497 B S4 **FUEL** 100LL, JET A1 +, MOGAS Class I, ARFF Index A NOTAM FILE PDT **H–1B, L–13A**
RWY 07–25: H6301X150 (ASPH–PFC) S–115, D–132, ST–167, DT–210 HIRL **IAP, AD**
RWY 07: ODALS. VASI(V4R)—GA 3.0° TCH 47′. Ground.
RWY 25: MALSR. PAPI(V4L)—GA 3.0° TCH 55′.
RWY 11–29: H5581X100 (ASPH–GRVD) S–70, D–120, ST–152, DT–122 MIRL
RWY 11: REIL. PAPI(V4L)—GA 3.0° TCH 47′. Ground.
RWY 29: REIL. PAPI(V4L)–GA 3.0° TCH 35′. Thld dsplcd 456′.
RWY 16–34: H4341X60 (ASPH) S–20 0.8% up SE
RUNWAY DECLARED DISTANCE INFORMATION
RWY 11: TORA–5581 TODA–5581 ASDA–5581 LDA–5581
RWY 16: TORA–4341 TODA–4341 ASDA–4341 LDA–4341
RWY 29: TORA–5581 TODA–5581 ASDA–5581 LDA–5125
RWY 34: TORA–4341 TODA–4341 ASDA–4341 LDA–4341



AIRPORT REMARKS: Attended 1400–0400Z‡. Services available from FBO between 0400–1400Z‡ by phone call 541–276–3313/3373. Self fuel avbl 24 hrs. CLOSED to unscheduled air carrier ops with more than 30 passenger seats except PPR 24 hrs call 541–276–4411. Deer on and invof arpt Apr and Aug especially mornings and evenings. Twy B clsd south of Twy A. Pilots shall exercise extreme caution at intersection of ramp and Rwy 29 north end of terminal building area obstructed from view of tower by terminal building. ACTIVATE MALSR Rwy 25, ODALS Rwy 07, HIRL Rwy 07–25, MIRL Rwy 11–29, REIL Rwy 11 and Rwy 29, when twr clsd—CTAF. Rwy 25 touchdown runway visual range avbl.
WEATHER DATA SOURCES: ASOS 118.325 (541) 278–2329. **HIWAS** 114.7 PDT.
COMMUNICATIONS: CTAF 119.7 **UNICOM** 122.95
PENDLETON RCO 122.2 (MC MINNVILLE RADIO)
Ⓡ **CHINOOK APP/DEP CON** 133.15 (1400–0600Z‡).
Ⓡ **SEATTLE CENTER APP/DEP CON** 132.6 (0600–1400Z‡)
PENDLETON TOWER 119.7 (1400–0400Z‡). **GND CON** 121.9
AIRSPACE: CLASS D svc 1400–0400Z‡ other times CLASS E.
RADIO AIDS TO NAVIGATION: NOTAM FILE PDT.
PENDLETON (H) VORTACW 114.7 PDT Chan 94 N45°41.91′ W118°56.32′ 073° 4.1 NM to fld. 1559/20E. **HIWAS.**
ILS 110.3 I–PDT Rwy 25. Class IE. LOC and GS unmonitored when twr clsd.
COMM/NAV/WEATHER REMARKS: Emerg frequency 121.5 not available at tower.

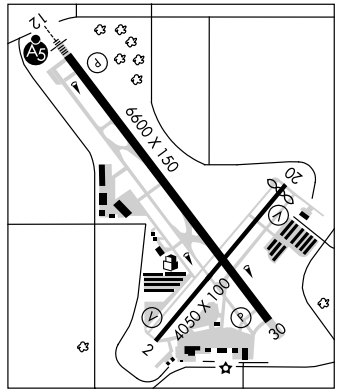
PINEHURST STATE (24S) 1 SW UTC−8(−7DT) N42°06.61′ W122°22.99′ **KLAMATH FALLS**
3638 TPA—4638(1000) NOTAM FILE MMV Not insp.
RWY 04–22: H2800X30 (ASPH)
RWY 04: Trees. **RWY 22:** Trees.
AIRPORT REMARKS: Unattended. Irregular winter maintenance. Arpt may be clsd by snow. Rwy 04–22 70′ trees along both sides of rwy 125′ from centerline. Rwy 22 slopes up to the SW, with abrupt 4% rise on SW half of rwy. Owner advises contact Oregon Dept. of Aviation 503–378–4880 prior to use.
COMMUNICATIONS: CTAF 122.9

PORTLAND N45°41.92′ W122°55.52′ **SEATTLE**
RCO 122.6 (MC MINNVILLE RADIO) **L–1C**

PORTLAND

PORTLAND DOWNTOWN HELIPORT (61J) 00 N UTC−8(−7DT) N45°31.52′ W122°40.26′ **SEATTLE**
78 B NOTAM FILE MMV
HELIPAD H1: H80X80 (CONC) S–25
HELIPORT REMARKS: Unattended. Parking fee if more than 30 minutes. +199′ radio twr (lgtd) 4950′ E of heliport in flight apch and tkf 025°. Helipad H1 yellow perimeter lgts, blue centerline twy lgts to helipads. Helipad H1 single heliport with 4 flight apchs 162°/220°/248°/295°/ and tkf directions 342°/040°/068°/115°. Arrow lgts for flight apch 220°/248°/295° and tkf 040°/068°/115°. Landing fee.
COMMUNICATIONS: CTAF/UNICOM 123.075

PORTLAND–HILLSBORO (HIO) 15 SW UTC−8(−7DT) N45°32.44′ W122°57.01′ **SEATTLE**
208 B S4 **FUEL** 100LL, JET A OX 1, 2, 4 TPA—1208 (1000) LRA NOTAM FILE HIO **H–1B, L–1C**
RWY 12–30: H6600X150 (ASPH) S–50, D–70, ST–89, DT–110 HIRL **IAP, AD**
RWY 12: MALSR. PAPI(P4L)—GA 3.0° TCH 49′.
RWY 30: REIL. PAPI(P4L)—GA 3.0° TCH 50′. Trees. Rgt tfc.
RWY 02–20: H4050X100 (ASPH) S–45, D–58, DT–90 MIRL
RWY 02: VASI(V4L)—GA 3.0° TCH 50′. Tree. Rgt tfc.
RWY 20: VASI(V4L)—GA 3.0° TCH 50′. Thld dsplcd 172′. Fence.

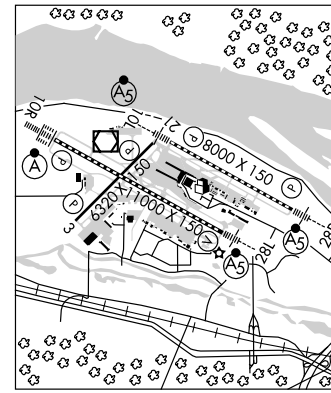


LAND AND HOLD SHORT OPERATIONS

LANDING	HOLD SHORT POINT	DIST AVBL
RWY 12	02–20	4922

AIRPORT REMARKS: Attended 1400–0600Z‡. Rwy 02–20 CLOSED to touch and go landings between 0600–1400Z‡. Be alert for bird activity in vicinity Nov to May. Noise abatement procedures in effect call 503–693–1963 or 503–460–4068. Rwy 12 run–up area not visible from twr. Rwy 12 touchdown rwy visual range avbl. Commercial acft and operators of acft with an FAA certified maximum gross ldg weight that exceeds 10,000 lbs are required to pay a ldg fee. When twr clsd ACTIVATE MALSR Rwy 12—CTAF. Flight Notification Service (ADCUS) avbl, 2 hour advance notice required Mon–Sat 0100–1400Z‡ and 24 hrs Sun and holidays. Ldg fee.
WEATHER DATA SOURCES: ASOS (503) 640–2984.
COMMUNICATIONS: CTAF 119.3 **ATIS** 127.65. **UNICOM** 122.95
Ⓡ **APP/DEP CON** 126.0
HILLSBORO TOWER 119.3 (1400–0600Z‡). **GND CON** 121.7
AIRSPACE: CLASS D svc 1400–0600Z‡ other times CLASS E.
RADIO AIDS TO NAVIGATION: NOTAM FILE MMV.
NEWBERG (H) VORW/DME 117.4 UBG Chan 121 N45°21.19′ W122°58.69′ 345° 11.3 NM to fld. 1440/21E. **HIWAS.**
BANKS NDB (MHW) 356 PND N45°37.82′ W123°02.75′ 122° 6.7 NM to fld. NOTAM FILE HIO.
ILS 110.7 I–HIO Rwy 12. Class IE. ILS unmonitored when ATCT closed. Localizer unusable byd 27° each side of course.
COMM/NAV/WEATHER REMARKS: Emerg frequency 121.5 not avbl at twr.

PORTLAND INTL (PDX)(KPDX) CIV/MIL/AFRC/ANG 4 NE UTC−8(−7DT) N45°35.31′ W122°35.85′ **SEATTLE**
31 B S4 **FUEL** 100LL, JET A OX 1, 2, 3, 4 LRA Class I, ARFF Index E NOTAM FILE PDX **H–1B, L–1C**
RWY 10R–28L: H11000X150 (ASPH–GRVD) S–200, D–200, ST–175, DT–360 **IAP, DIAP, AD**
PCN 63 F/A/X/T HIRL CL
RWY 10R: ALSF2. TDZL. PAPI(P4R)—GA 3.0° TCH 71′. Rgt tfc.
RWY 28L: MALSR. VASI(V4L)—GA 3.0° TCH 60′.
RWY 10L–28R: H8000X150 (ASPH–GRVD) S–200, D–200, ST–175, DT–400 PCN 63 F/A/X/T HIRL CL
RWY 10L: MALSR. PAPI(P4L)—GA 3.0° TCH 60′.
RWY 28R: MALSR. PAPI(P4R)—GA 3.0° TCH 65′. Road. Rgt tfc.
RWY 03–21: H6320X150 (ASPH–GRVD) S–124, D–170, ST–175, DT–310 PCN 34 F/A/X/T MIRL
RWY 03: REIL. PAPI(P4L)—GA 3.3° TCH 60′.
RWY 21: REIL. PAPI(P4R)—GA 3.6° TCH 32′. Road.



RUNWAY DECLARED DISTANCE INFORMATION

RWY 03:	TORA–6320	TODA–6320	ASDA–6320	LDA–6320
RWY 10L:	TORA–8000	TODA–8000	ASDA–8000	LDA–8000
RWY 10R:	TORA–11000	TODA–11000	ASDA–11000	LDA–11000
RWY 21:	TORA–6320	TODA–6320	ASDA–6320	LDA–6320
RWY 28L:	TORA–11000	TODA–11000	ASDA–11000	LDA–11000
RWY 28R:	TORA–8000	TODA–8000	ASDA–8000	LDA–8000

ARRESTING GEAR/SYSTEM
RWY 10R BAK–14 BAK–12A(B) (1625′) BAK–14 BAK–12A(B) (2000′) RWY 28L
MILITARY SERVICE: A–GEAR BAK–12A(B) Rwy 10R and 28L cable raised by BAK–14 device on request to twr. Not inspected for opr capability weekend or holiday. **JASU** (AM32A–60) 4(A/M32A–86) (MC–11) 1(MA–1A)
FUEL A, J8(Mil) (NC–100LL, Jet A) A (Air BP—Flightcraft Inc., C603–331–4220.) **FLUID** LHOXRB
OIL O–128–133–148(Mil)
AIRPORT REMARKS: Attended continuously. Arpt CLOSED to non–powered acft except in emergencies. Migratory and wintering flocks of large waterfowl on and in vicinity of arpt. Heavy seagull activity Sep–Apr, expect high number of birds year around; check local advisories. Construction on Rwy 10L–28R in progress. See NOTAMS for current information. Rwy 28R perimeter road at 200′ from rwy thld and 408′ right from rwy extended centerline. Uncontrolled tfc at Pearson Field Vancouver WA, 3 NM W of Rwy 10L thld on extended centerline. Rwy 21 clsd to Height Group IV acft with cockpit to wheel height greater than 22′. Rwy 28R road in levee 480′ right. Rwy 28R 19′ levee located approximately parallel to rwy centerline extended at 200′ from thld. Dike located approximately 408′ from rwy centerline extended. Noise abatement procedures in effect call noise office, 503–460–4100. Rwy 28L arrivals are noise sensitive, expect apch to Rwy 28R with transition to Rwy 28L. Touchdown, midpoint and rollout rwy visual range avbl Rwy 10R–28L and Rwy 10L–28R. Twy T between the North Ramp and the General Aviation Ramp clsd to through tfc. Twy A3 between Twy A and the general aviation ramp clsd to acft with wingspan greater than 95′. Acft with wingspan between 79′ and 95′, must be towed. Twy F between Rwy 10R–28L and Twy C clsd to acft over 65,000 pounds. Twy F clsd to non–Part 139 acft with wingspan greater than 194′. Twy F clsd to Part 139 acft with wingspan greater than 108′. At the west end arm/dearm area on Twy C no acft of any type may taxi past the arm/dearm area while it is being used. Acft authorized to utilize the northwest ramp or the north ramp will be towed to/from these ramps. Area of Twy T between M and E3 not visible from tower. Twy T between exits B5 and B6 clsd to acft with wingspan of 118′ and greater. Twy J clsd to acft with a wingspan greater than 171′. Acft with wingspan between 125′ and 171′ on Twy J must be under positive guidance by either towing or wingwalker. Twy V clsd to acft with wingspan greater than 135′. Acft with wingspan greater than 91′ prohibited from turning westbound onto Twy A from Twy V unless under tow. 180° turns by acft weighing in excess of 12,500 lbs prohibited on all rwys and taxiways. Rwy 10L and Rwy 28R MALSR OTS indef. Ldg fee. Commercial acft and operators of acft with an FAA certified maximum gross ldg weight that exceeds 10,000 lbs are required to pay a ldg fee. Flight Notification Service (ADCUS) available.
MILITARY REMARKS: ANG See FLIP AP/1 for Supplementary Arpt Information. Hazardous bird conditions exist. Phase I May–Oct, Phase II Nov–Apr. Current bird watch conditions are not reported on ATIS. PPR/Official Business Only. Base ops opr 1500–2300Z‡ Mon–Fri exc holiday, DSN 638–4390, C503–335–4390. Ctc Base OPS 15 min prior to ldg and after dep on 281.2. Tran quarters not avbl.
WEATHER DATA SOURCES: ASOS (C503) 284–6771. WSP.

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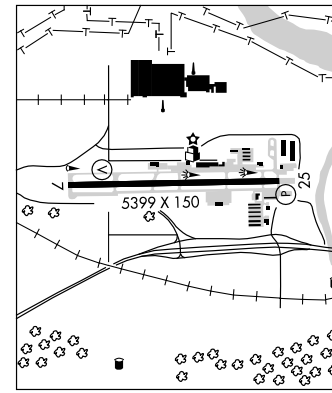
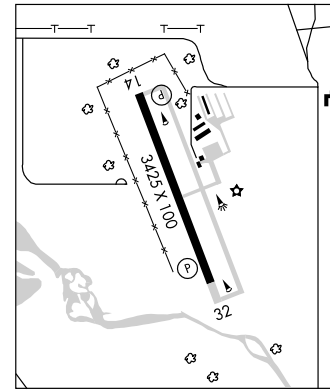
COMMUNICATIONS: D-ATIS 128.35 269.9 503 493–7557.
UNICOM 122.95
Ⓡ **APP CON** 124.35 299.2 (280°–099°) 118.1 (100°–279°) 284.6 (100°–279°)
TOWER 118.7 257.8 (Rwy 10L–28R) 123.775 251.125 (Rwy 03–21 and Rwy 10R–28L)
GND CON 121.9 132.275 348.6 **CLNC DEL** 120.125 318.1
Ⓡ **DEP CON** 124.35 299.2 (280°–099°) 118.1 284.6 (100°–279°) 127.85 290.3
ANG BASE OPS 281.2 (Portland Guard OPS/Guard Comd Post)
AIRSPACE: CLASS C svc ctc **APP CON**
RADIO AIDS TO NAVIGATION: NOTAM FILE PDX.
BATTLE GROUND (H) VORTACW 116.6 BTG Chan 113 N45°44.87′ W122°35.49′ 161° 9.6 NM to fld. 253/21E.
(L) VORW/DME 111.8 PDX Chan 55 N45°35.62′ W122°36.38′ at fld. 23/20E.
VOR/DME unusable:
001°–024°
025°–039° byd 30 NM
131°–230°
322°–351°
351°–001° byd 20 NM blo 5,500′
351°–001° byd 34 NM blo 6,500′
COLUMBIA (H) TACAN CBU (109.2) Chan 29 N45°35.32 W122°36.68′ at fld. 22/20E.
LAKER NDB (MHW) 332 LBH N45°32.46′ W122°27.74′ 277° 6.4 NM to fld.
ILS 111.3 I–VDG Chan 50 Rwy 10L. Class IE.
ILS 110.5 I–PDX Chan 42 Rwy 10R. Class IIIE.
ILS 111.3 I–IAP Rwy 28R DME also serves Rwy 10L.
ILS/DME 108.9 I–GPO Chan 26 Rwy 21. LOC only. LOC unusable byd 25° rgt of course
ILS 110.5 I–JMJ Chan 42 Rwy 28L. Class IT. Coupled apchs not authorized blo 420′ due to GS reversal 0.9 NM fm Rwy 28L thld.

PORTLAND–TROUTDALE (TTD) 10 E UTC−8(−7DT) N45°32.96′ W122°24.08′ **SEATTLE**
39 B S4 **FUEL** 100LL, JET A OX 1 NOTAM FILE TTD **H–1B, L–1C**
RWY 07–25: H5399X150 (ASPH) S–19, D–25 MIRL **IAP, AD**
RWY 07: REIL. VASI(V4L)—GA 3.0° TCH 50′. Trees.
RWY 25: REIL. PAPI(P4L)–GA 3.0° TCH 47′. Trees.
AIRPORT REMARKS: Attended 1500–0600Z‡. CAUTION: Migratory flocks of waterfowl on and invof arpt. Portland Intl arpt (PDX) Rwy 10L–28R extended centerline crosses arpt, ATCT may issue restrictions due to PDX tfc. Ldg fee. Commercial acft and operators of acft with an FAA certified maximum gross ldg weight that exceeds 10,000 lbs are required to pay a ldg fee. Rwy 25 PAPI is baffled 08° left and right of centerline. ACTIVATE MIRL Rwy 07–25—CTAF. Rwy 07 VASI and PAPI Rwy 25 opr continously.
WEATHER DATA SOURCES: ASOS 135.625 (503) 492–2887.
COMMUNICATIONS: CTAF 120.9 **ATIS** 135.625 (503) 492–7634
UNICOM 122.95
Ⓡ **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 svc 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 NDB (MHW) 332 LBH N45°32.46′ W122°27.74′ 059° 2.6 NM to fld.
COMM/NAV/WEATHER REMARKS: Freq 121.5 not avbl at tower.

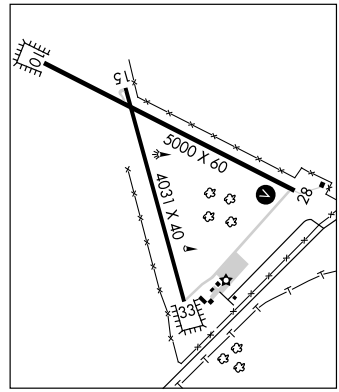


PORTLAND–MULINO (4S9) 20 S UTC−8(−7DT) N45°12.98′ W122°35.41′ **SEATTLE**
MULINO STATE 260 B S8 NOTAM FILE MMV **L–1B**
RWY 14–32: H3425X100 (ASPH) MIRL
RWY 14: PAPI(P2L)—GA 3.0° TCH 43′. Fence. Rgt tfc.
RWY 32: PAPI(P2L)—GA 3.0° TCH 33′.
AIRPORT REMARKS: Unattended. Be alert for weekend glider activity. Birds on and invof arpt. Rwy 14 designated calm wind rwy. ACTIVATE MIRL Rwy 14–32, twy lgts, and windcone—CTAF. PAPI Rwy 14 and Rwy 32 operate 24 hrs.
COMMUNICATIONS: CTAF/UNICOM 123.05
PORTLAND CLNC DEL 119.95
RADIO AIDS TO NAVIGATION: NOTAM FILE MMV.
NEWBERG (H) VORW/DME 117.4 UBG Chan 121 N45°21.19′ W122°58.69′ 095° 18.4 NM to fld. 1440/21E. **HIWAS.**

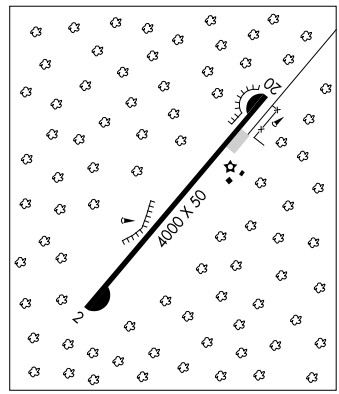


POWERS (6S6) 1 SE UTC−8(−7DT) N42°52.17′ W124°03.56′ **KLAMATH FALLS**
326 TPA—1326(1000) NOTAM FILE MMV
RWY 13–31: 2500X60 (TURF)
RWY 13: Trees. **RWY 31:** Trees.
AIRPORT REMARKS: Unattended. Arpt in valley surrounded by high terrain. Livestock and wildlife on and invof arpt.
COMMUNICATIONS: CTAF 122.9

PRINEVILLE (S39) 3 SW UTC−8(−7DT) N44°17.22′ W120°54.23′ KLAMATH FALLS
3250 B S4 **FUEL** 100LL, JET A NOTAM FILE MMV H–1B, L–13A
RWY 10–28: H5000X60 (ASPH) S–30 MIRL IAP
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 1500–0200Z‡. 24 hr card lock self-svc fuel avbl. Deer on and invof arpt. Rwy 15–33 limited by arpt operator to 5000 lbs max weight. ACTIVATE MIRL Rwy 10–28, VASI Rwy 28, and LIRL Rwy 15–33—CTAF.
COMMUNICATIONS: CTAF/UNICOM 122.8
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. 4101/18E. **HIWAS.**
BODEY NDB (HW/LOM) 411 RD N44°18.48′ W121°01.14′ 086° 5.1 NM to fld. NDB unusable 091°–111° byd 25 NM blo 14,000′.



PROSPECT STATE (64S) 1 S UTC−8(−7DT) N42°44.59′ W122°29.29′ KLAMATH FALLS
2578 B TPA—3578(1000) NOTAM FILE MMV L–2J
RWY 02–20: H4000X50 (ASPH) LIRL
RWY 02: Trees. **RWY 20:** Trees.
AIRPORT REMARKS: Unattended. Irregular winter maintenance, arpt may be clsd by snow. 80′–100′ trees within 200′ of rwy centerline both sides of rwy. Turf tie down area rough.
COMMUNICATIONS: CTAF/UNICOM 122.8
RADIO AIDS TO NAVIGATION: NOTAM FILE MFR.
ROGUE VALLEY (H) VORTACW 113.6 OED Chan 83 N42°28.77′ W122°54.78′ 031° 24.6 NM to fld. 2083/19E. **HIWAS.**

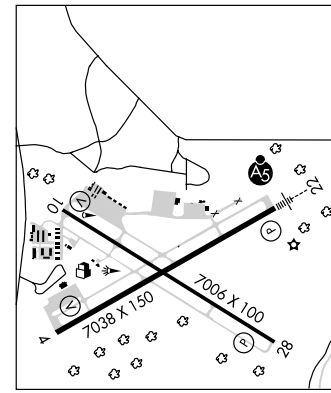


PUMIE N42°27.06′ W122°54.80′. NOTAM FILE MFR. KLAMATH FALLS
NDB (LOM) 373 MF 140° 4.9 NM to Rogue Valley Intl.
LOM unusable 260°–270° beyond 10NM all altitudes.

REDMOND N44°15.25′ W121°09.15′ KLAMATH FALLS
RCO 122.5 (MC MINNVILLE RADIO) L–13A

REDMOND

ROBERTS FLD (RDM) 1 SE UTC−8(−7DT) N44°15.24′ W121°09.00′ **KLAMATH FALLS**
3080 B S4 **FUEL** 100LL, JET A Class I, ARFF Index B NOTAM FILE RDM **H–1B, L–13A**
RWY 04–22: H7038X150 (ASPH–GRVD) S–68, D–110, ST–140, DT–200 HIRL 0.3% up SW **IAP, AD**
RWY 04: REIL. VASI(V4L)—GA 3.0° TCH 50′.
RWY 22: MALSR. PAPI(P4L)—GA 3.0° TCH 43′.
RWY 10–28: H7006X100 (ASPH–GRVD) S–28, D–40
MIRL 0.5% up SE
RWY 10: REIL. VASI(V4L)—GA 3.0° TCH 50′.
RWY 28: REIL. PAPI(P4L)—GA 3.0° TCH 50′.



RUNWAY DECLARED DISTANCE INFORMATION

RWY 04:	TORA–7038	TODA–7038	ASDA–7038	LDA–7038
RWY 10:	TORA–7006	TODA–7006	ASDA–7006	LDA–7006
RWY 22:	TORA–7038	TODA–7038	ASDA–7038	LDA–7038
RWY 28:	TORA–7006	TODA–7006	ASDA–7006	LDA–7006

AIRPORT REMARKS: Attended 1330Z‡–dusk. For fuel after hrs call 541–410–2938 or 541–480–0014. CLOSED to unscheduled air carrier ops with more than 30 passenger seats except PPR call airport manager 541–548–0646 extension 3496. Acft in excess of SW 28 or DW 40 prohibited from landing or takeoff Rwy 10–28 except with PPR from airport manager when Rwy 04–22 is unavbl. Occasional wildlife on and in vicinity of arpt. Taxiway G restricted to acft 26,000 lbs or less. Taxiway B not avbl for use by air carrier acft with more than 30 passenger seats. Terminal apron not avbl for general aviation acft. Helipad H1 private use only. When twr clsd ACTIVATE HIRL Rwy 04–22, MIRL Rwy 10–28, MALSR Rwy 22, REIL Rwy 04, Rwy 10 and Rwy 28 and twy lgts—CTAF.
WEATHER DATA SOURCES: ASOS 119.025 (541) 504–8743.
COMMUNICATIONS: CTAF 124.5
ATIS 119.025 (541) 548–1742 **UNICOM** 122.95
REDMOND RCO 122.5 (MC MINNVILLE RADIO)
SEATTLE CENTER APP/DEP CON 128.15
TOWER 124.5 (1400–0400Z‡) **GND CON** 121.8
AIRSPACE: CLASS D svc 1400–0400Z‡ other times CLASS E.
RADIO AIDS TO NAVIGATION: NOTAM FILE RDM.
DESCHUTES (H) VORTACW 117.6 DSD Chan 123 N44°15.17′ W121°18.21′ 071° 6.6 NM to fld. 4101/18E. HIWAS.
BODEY NDB (HW/LOM) 411 RD N44°18.48′ W121°01.14′ 222° 6.5 NM to fld.
ILS 109.1 I–RDM Rwy 22. Class IE. LOM BODEY NDB
COMM/NAV/WEATHER REMARKS: ATC radar svc provided within 40 NM radius by Seattle Center to transponder equipped acft only. RDM ATCT does not provide ATC radar svc.

ROBERTS FLD (See REDMOND)

ROGUE VALLEY INTL–MEDFORD (See MEDFORD)

ROME N42°35.43′ W117°52.09′ NOTAM FILE REO. **KLAMATH FALLS**
(H) VORTACW 112.5 REO Chan 72 at Rome State. 4050/19E. **H–3C, L–11B**
RCO 122.65 (BOISE RADIO)

ROME STATE (REO) 20 SW UTC−8(−7DT) N42°34.66′ W117°53.13′ **KLAMATH FALLS**

4053 TPA—5053(1000) NOTAM FILE REO

RWY 03–21: 6000X150 (GRVL)

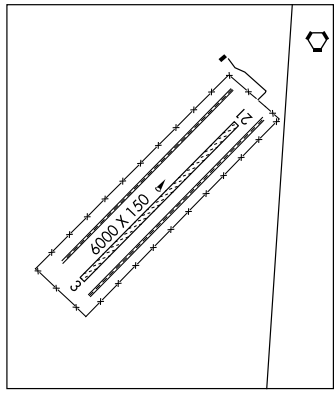
AIRPORT REMARKS: Unattended. Sage growing in primary sfc. Rwy 03–21 sagebrush growing on west portion of rwy. Rwy 03–21 limited by arpt operator to 8000 pounds single wheel gear.

COMMUNICATIONS: CTAF 122.9

RCO 122.65 (BOISE RADIO)

RADIO AIDS TO NAVIGATION: NOTAM FILE REO.

(H) VORTACW 112.5 REO Chan 72 N42°35.43′ W117°52.09′ at fld. 4050/19E.



ROSEBURG

GEORGE FELT (5S1) 3 W UTC−8(−7DT) N43°13.49′ W123°23.82′ **KLAMATH FALLS**

428 NOTAM FILE MMV

RWY 10–28: 2300X100 (TURF)

RWY 10: Trees. **RWY 28:** Trees. Rgt tfc.

AIRPORT REMARKS: Attended irregularly. Deer frequently on rwy. Migratory flocks of waterfowl on and in vicinity of arpt. Soft earth off rwy and taxiway when wet. For noise abatement fly to river before turning. Monitor Roseburg Rgnl CTAF/UNICOM for conflicting acft.

COMMUNICATIONS: CTAF 122.9

ROSEBURG RGNL (RBG) 1 NW UTC−8(−7DT) N43°14.33′ W123°21.35′ **KLAMATH FALLS**

529 B S4 **FUEL** 100LL, JET A OX 1 NOTAM FILE RBG **L–1A**

RWY 16–34: H4602X100 (ASPH) S–42, D–54, DT–88 MIRL 0.6% up NW **IAP**

RWY 16: REIL. Thld dsplcd 700′. Pole.

RWY 34: REIL. VASI(V2L)—GA 3.0° TCH 53′. Thld dsplcd 371′. Tree.

AIRPORT REMARKS: Attended May–Sep 1600–0300Z‡, Oct–Apr 1600–0100Z‡. Migratory flocks of waterfowl on and in vicinity of arpt. CAUTION advised. ACTIVATE MIRL Rwy 16–34 and REIL Rwy 16 and Rwy 34—CTAF. Rwy 34 VASI opr continuously.

WEATHER DATA SOURCES: ASOS 135.475 (541) 673–1483.

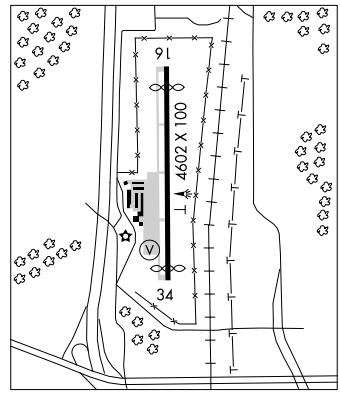
COMMUNICATIONS: CTAF/UNICOM 122.8

RCO 122.55 (MC MINNVILLE RADIO)

SEATTLE CENTER APP/DEP CON 121.4

RADIO AIDS TO NAVIGATION: NOTAM FILE RBG.

(L) VORW/DME 108.2 RBG Chan 19 N43°10.95′ W123°21.14′ 337° 3.4 NM to fld. 1320/20E.



ROSEBURG N43°10.95′ W123°21.14′ NOTAM FILE RBG. **KLAMATH FALLS**

(L) VORW/DME 108.2 RBG Chan 19 337° 3.4 NM to Roseburg Rgnl. 1320/20E. **H–1A, L–1A**

VOR unusable:

070°–130° beyond 20 NM below 8000′

130°–150° beyond 20 NM below 7000′

240°–290° beyond 25 NM below 5000′

DME unusable:

070°–130° beyond 20 NM below 8000′

130°–190° beyond 30 NM below 7000′

240°–320° beyond 25 NM below 5000′

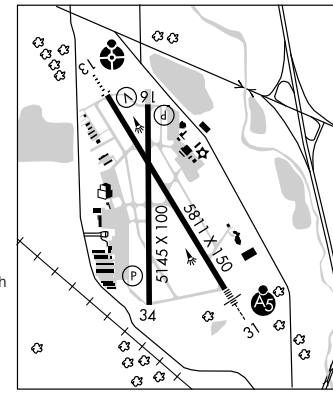
RCO 122.55 (MC MINNVILLE RADIO)

SALEM N44°55.14′ W123°00.54′ **SEATTLE**

RCO 122.6 (Mc MINNVILLE RADIO) **L–1B**

SALEM

McNARY FLD (SLE) 2 SE UTC−8(−7DT) N44°54.57′ W123°00.15′ **SEATTLE**
214 B S4 **FUEL** 100LL, JET A OX 1, 3 Class IV, ARFF Index A NOTAM FILE SLE **H–1B, L–1B**
RWY 13–31: H5811X150 (ASPH–GRVD) S–100, D–122, ST–154, DT–185 HIRL 0.3% up SE **IAP, AD**
RWY 13: ODALS. REIL. VASI(V4L)—GA 3.0° TCH 51′. Road.
RWY 31: MALSR. Tree.
RWY 16–34: H5145X100 (ASPH–GRVD) S–30, D–60, DT–100
MIRL 0.3% up S
RWY 16: REIL. PAPI(P4L)—GA 3.0° TCH 40′. Road.
RWY 34: REIL. PAPI(P4L)—GA 4.0° TCH 44′. Tree.



LAND AND HOLD SHORT OPERATIONS

LANDING	HOLD SHORT POINT	DIST AVBL
RWY 31	16–34	3150
RWY 34	13–31	3050

AIRPORT REMARKS: Attended 1530Z‡–dusk. Self fueling (100LL only) avbl 24 hrs a day. Jet A avbl after normal business hrs with advanced notice at 503–508–4178 or 503–364–0111. CAUTION: Rising terrain west of arpt. PPR for unscheduled air carrier ops with more than 30 passenger seats, call arpt manager on 503–588–6314. PPR required for parking acft on general aviation ramp over 99,000 lbs call airport manager 503–588–6314. Bird hazard: Heavy concentration waterfowl adj to arpt and approaches to all rwys. Twy A from Twy L to L9 not visible from ATCT. Flocks of geese concentrated transiting CLASS D airspace at TPA Oct–May. Noise abatement procedures in effect. When twr clsd ACTIVATE HIRL Rwy 13–31, MIRL Rwy 16–34, REILS Rwy 13, Rwy 16 and Rwy 34, MALSR Rwy 31 and ODALS Rwy 13—CTAF.
WEATHER DATA SOURCES: ASOS (503) 371–1062.
COMMUNICATIONS: CTAF 119.1 **ATIS** 124.55 **UNICOM** 122.95
SALEM RCO 122.6 (MC MINNVILLE RADIO)
Ⓡ **SEATTLE CENTER APP/DEP CON** 125.8
SALEM TOWER 119.1 (1500–0500Z‡) **GND CON** 121.9
AIRSPACE: CLASS D svc 1500–0500Z‡ other times CLASS E.
RADIO AIDS TO NAVIGATION: NOTAM FILE MMV.
NEWBERG (H) VORW/DME 117.4 UBG Chan 121 N45°21.19′ W122°58.69′ 161° 26.6 NM to fld. 1440/21E. **HIWAS.**
TURNO NDB (LOM) 266 SL N44°50.85′ W122°57.06′ 330° 4.3 NM to fld. LOM unmonitored when twr clsd.
ILS/DME 110.3 I–SLE Chan 40 Rwy 31. LOM TURNO NDB. ILS and LOM unmonitored when tower closed. Localizer back course unusable beyond 16 NM below 2,400′.

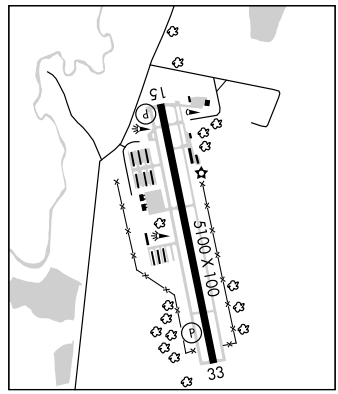
SANDY

COUNTRY SQUIRE AIRPARK (S48) 3 S UTC−8(−7DT) N45°21.27′ W122°16.08′ **SEATTLE**
1175 NOTAM FILE MMV **L–1B**
RWY 07–25: H3095X32 (ASPH) S–7
RWY 07: Trees. **RWY 25:** Trees.
AIRPORT REMARKS: Attended irregularly. CAUTION: Watch for deer on and in vicinity of arpt. Sink hole located 75′ N of the AER 25. Rwy 07–25 loose gravel on surface, grass growing in cracks. Ldg fee. Overnight tiedown fee and landing fee for non based acft.
COMMUNICATIONS: CTAF 122.9
RADIO AIDS TO NAVIGATION: NOTAM FILE PDX.
BATTLE GROUND (H) VORTACW 116.6 BTG Chan 113 N45°44.87′ W122°35.49′ 129° 27.3 NM to fld. 253/21E.

SANDY RIVER (Ø3S) 1 NE UTC−8(−7DT) N45°24.11′ W122°13.72′ **SEATTLE**
704 S3 **FUEL** 100LL TPA—See Remarks NOTAM FILE MMV
RWY 08–26: 2115X100 (TURF)
RWY 08: Trees. **RWY 26:** Tree.
AIRPORT REMARKS: Attended sunrise–sunset. Extensive ultralight activity on and in vicinity of arpt. Ultralight operations use right traffic and TPA—1304(600), do not land on turf adjacent to rwy. Rwy 08–26 not marked.
COMMUNICATIONS: CTAF/UNICOM 122.8

SANTIAM JUNCTION STATE (8S3) 0 S UTC−8(−7DT) N44°26.07′ W121°56.54′ **KLAMATH FALLS**
3780 TPA—4780(1000) NOTAM FILE MMV
RWY 06–24: 2800X150 (GRVL)
RWY 06: Trees. **RWY 24:** Trees.
AIRPORT REMARKS: Unattended. CLOSED Winters. Owner advises ctc with Department of Aviation 503–378–4880 prior to use. Land to east tkf to west. Arpt surrounded by trees and high terrain. Rwy 06–24 marked with white tires at corners. State Highway Maintenance Station nearby.
COMMUNICATIONS: CTAF 122.9

SCAPPOOSE INDUSTRIAL AIRPARK (SPB) 1 NE UTC−8(−7DT) N45°46.26′ W122°51.71′ **SEATTLE**
58 B S4 **FUEL** 100LL, JET A NOTAM FILE SPB **H–1B,L–1C**
RWY 15–33: H5100X100 (ASPH–RFSC) S–30, D–50, DT–90 MIRL 0.5% up NW **IAP**
RWY 15: REIL. PAPI(P4R)—GA 3.73° TCH 41′. Tree.
RWY 33: PAPI(P4L)—GA 3.0° TCH 40′. Rgt tfc.
AIRPORT REMARKS: Attended 1600Z‡–dusk. Extensive ultralight activity on west side parallel twy. PAPI Rwy 33 OTS indef.
WEATHER DATA SOURCES: ASOS 135.875 (503) 543–6401.
COMMUNICATIONS: CTAF/UNICOM 122.8
Ⓡ **PORTLAND APP CON** 124.35 Ⓡ**PORTLAND DEP CON** 133.0
CLNC DEL 121.65
RADIO AIDS TO NAVIGATION: NOTAM FILE PDX.
BATTLE GROUND (H) VORTACW 116.6 BTG Chan 113 N45°44.87′ W122°35.49′ 256° 11.4 NM to fld. 253/21E.
ILS/DME 111.1 I–FKO Chan 48 Rwy 15. LOC only. LOC unusable byd 20° west of course.



SEASIDE MUNI (56S) 1 NE UTC−8(−7DT) N46°00.90′ W123°54.46′ **SEATTLE**
12 B TPA—1012(1000) NOTAM FILE MMV
RWY 16–34: H2211X50 (ASPH) S–12 LIRL
RWY 16: Thld dsplcd 155′. Trees. **RWY 34:** Tree.
AIRPORT REMARKS: Unattended. Birds and elk on and in vicinity of rwy.
COMMUNICATIONS: CTAF 122.9

SEXTON SUMMIT STX N42°36.00′ W123°22.04′/3838. **KLAMATH FALLS**
ASOS 118.375 541–471–1460 **L–2J**

SEXTON SUMMIT N42°35.99′ W123°22.04′ **KLAMATH FALLS**
RCO 122.5 (MC MINNVILLE RADIO) **L–2J**

SILETZ BAY STATE (See GLENEDEN BEACH)

SILVER LAKE F S STRIP (45S) 3 SW UTC−8(−7DT) N43°06.66′ W121°05.65′ **KLAMATH FALLS**
4492 NOTAM FILE MMV
RWY 03–21: 3000X55 (GRVL–DIRT)
RWY 03: Fence. **RWY 21:** Fence.
AIRPORT REMARKS: Unattended. Rwy soft when wet, call 541–576–7520 for current conditions. Rwy 03 outlined with white tires. Rwy 03–21 has fence post at each end of rwy painted orange and white. Rwy 03–21 weed growth and sage throughout primary sfc.
COMMUNICATIONS: CTAF 122.9

SISTERS EAGLE AIR (6K5) 1 N UTC−8(−7DT) N44°18.27′ W121°32.35′ **KLAMATH FALLS**
3168 NOTAM FILE MMV **L–1B**

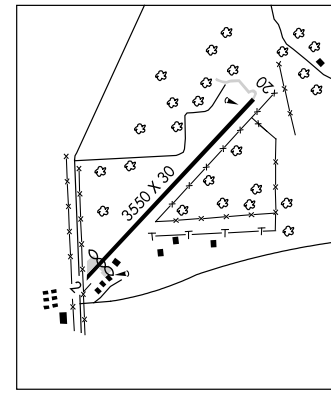
RWY 02–20: H3550X30 (ASPH) S–4
RWY 02: Thld dsplcd 340′ Tree. **RWY 20:** Trees.

AIRPORT REMARKS: Unattended. Deer on and invof arpt. Rising terrain off departure end of Rwy 02. Check density altitude/acft performance prior to tkf. Avoid overflights of homes to northeast. Pilots may consider a departure climb over meadow approximately 45° to the left of the departure end of Rwy 02. Rwy 02–20 numbers and centerline smaller than std. Landing fee.

COMMUNICATIONS: CTAF 122.9

RADIO AIDS TO NAVIGATION: NOTAM FILE RDM.

DESCHUTES (H) VORTACW 117.6 DSD Chan 123 N44°15.17′ W121°18.21′ 269° 10.6 NM to fld. 4101/18E. **HIWAS.**



SKYPORT (See CORNELIUS)

SOUTHWEST OREGON RGNL (See NORTH BEND)

SPORTSMAN AIRPARK (See NEWBERG)

STARK'S TWIN OAKS AIRPARK (See HILLSBORO)

SUNRIVER (S21) 1 W UTC−8(−7DT) N43°52.58′ W121°27.18′ **KLAMATH FALLS**
4164 B **FUEL** 100LL, JET A, A+ TPA—5164(1000) NOTAM FILE MMV **H–1B, L–1A, 11A**
RWY 18–36: H5455X75 (ASPH) S–30 LIRL **IAP**

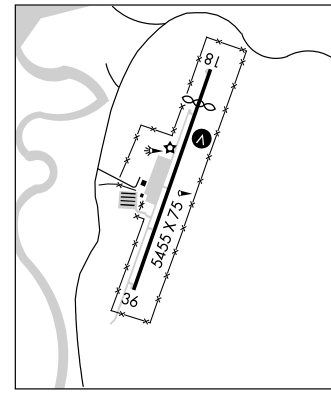
RWY 18: VASI(V2L)—GA 3.5° TCH 22′. Thld dsplcd 988′. Tree. Rgt tfc. **RWY 36:** Trees.

AIRPORT REMARKS: Attended 1 Apr–15 May 1630–0100Z‡, 16 May–15 Jun 1600–0200Z‡, 16 June–15 Sep 1600–0200Z‡, 16 Sep–15 Oct 1600–0130Z‡, 16 Oct–30 Nov 1600–0100Z‡, 1 Dec–31 Mar 1630–0030Z‡. After hrs fuel call 541–593–4603 for insructions or call after hrs emergency 541–480–1688. Flocks of waterfowl invof arpt. For fuel after hrs phone 541–593–1000. For noise abatement departing acft are urged to climb west of arpt prior to turning on course. ACTIVATE LIRL Rwy 18–36 and VASI Rwy 18—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8
RCO 122.3 (MC MINNVILLE RADIO)
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′ 178° 23.5 NM to fld. 4101/18E. **HIWAS.**

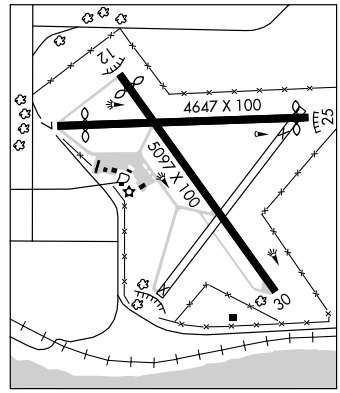


THE DALLES N45°42.82′ W121°06.06′ **SEATTLE**
RCO 122.65 (SEATTLE RADIO) **L–13A**

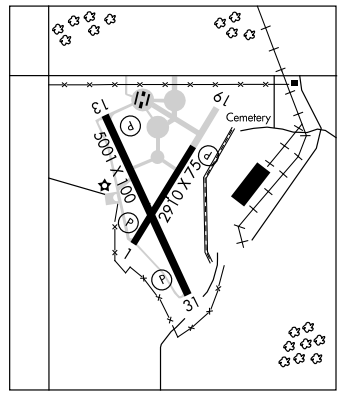
THE DALLES

COLUMBIA GORGE RGNL/THE DALLES MUNI (DLS) 2 NE UTC−8(−7DT) **SEATTLE**
N45°37.11′ W121°10.04′ **H–1B, L–13A**
247 B S4 **FUEL** 100LL, JET A1 NOTAM FILE DLS **IAP**

RWY 12–30: H5097X100 (ASPH) S–30, D–30 MIRL 0.6% up SE
RWY 12: Thld dsplcd 200′. Trees. **RWY 30:** REIL.
RWY 07–25: H4647X100 (ASPH) S–30, D–30 MIRL 0.7% up E
RWY 07: Thld dsplcd 440′. Trees. **RWY 25:** Thld dsplcd 196′.
AIRPORT REMARKS: Attended 1600–0200Z‡. Waterfowl on and inovf arpt. PPR for overweight ldgs. Mtns byd 5000′ approach Rwy 30. Arpt physically located in state of Washington. ACTIVATE MIRL Rwy 12–30, Rwy 07–25 and REIL Rwy 30–CTAF.
WEATHER DATA SOURCES: ASOS 135.175 (509) 767–1726.
COMMUNICATIONS: CTAF/UNICOM 123.0
THE DALLES RCO 122.65 (SEATTLE RADIO)
SEATTLE CENTER APP/DEP CON 119.65
RADIO AIDS TO NAVIGATION: NOTAM FILE DLS.
KLICKITAT (H) VORW/DME 112.3 LTJ Chan 70 N45°42.81′ W121°06.05′ 185° 6.4 NM to fld. 3220/21E. **HIWAS.**
ILS/DME 109.35 I–DLS Chan 30(Y) Rwy 25. LOC unusable byd 33° right of course.



TILLAMOOK (TMK) 3 S UTC−8(−7DT) N45°25.10′ W123°48.86′ **SEATTLE**
36 B **FUEL** 100LL, JET A NOTAM FILE TMK **H–1A, L–1C**
RWY 13–31: H5001X100 (ASPH) S–60, D–75, DT–125 MIRL 0.4% up SE **IAP**
RWY 13: REIL. PAPI(P2L)—GA 3.0°. TCH 40′. Fence.
RWY 31: PAPI(P2L)—GA 3.5° TCH 40′. Brush.
RWY 01–19: H2910X75 (ASPH) S–40, D–46, DT–67 MIRL
RWY 01: PAPI(P2L)—GA 4.0° TCH 45′. Fence.
RWY 19: PAPI(P2L)—GA 3.0° TCH 40′. Rgt tfc.
AIRPORT REMARKS: Attended 1700–0100Z‡. Rwy 13 REIL out of svc indefinitely. Ultralight acft on and invof arpt. Occasional flocks of birds on or near arpt. ACTIVATE MIRL Rwy 13–31 and Rwy 01–19—CTAF. PAPI Rwy 13, Rwy 31, Rwy 01, and Rwy 19 opr continuously.
WEATHER DATA SOURCES: AWOS–3 120.0 (503) 842–8792.
COMMUNICATIONS: CTAF/UNICOM 122.8
SEATTLE APP/DEP CON 124.2.
RADIO AIDS TO NAVIGATION: NOTAM FILE MMV.
NEWBERG (H) VORW/DME 117.4 UBG Chan 121 N45°21.19′ W122°58.69′ 256° 35.6 NM to fld. 1440/21E. **HIWAS.**



TOKETEE STATE (See CLEARWATER)

TOLEDO STATE (5S4) 1 SW UTC−8(−7DT) N44°36.06′ W123°56.37′ **SEATTLE**
7 TPA—1007(1000) NOTAM FILE MMV
RWY 13–31: H1750X40 (ASPH)
RWY 13: Trees. **RWY 31:** Trees.
AIRPORT REMARKS: Unattended. Numerous deer and waterfowl invof of arpt. Owner advises contact with Department of Aviation 503–378–4880 prior to use. Trees in transition area. Rwy 13 has 120′ trees near centerline, curve apch path from over water. Unpaved ramp and twy.
COMMUNICATIONS: CTAF 122.9

TURNO N44°50.85′ W122°57.06′. NOTAM FILE SLE. **SEATTLE**
NDB (LOM) 266 SL 330° 4.3 NM to McNary Fld. LOM unmonitored when twr clsd.

VALE

MILLER MEMORIAL AIRPARK (S49) 1 SW UTC−7(−6DT) N43°57.83′ W117°15.56′ **KLAMATH FALLS**
2249 B NOTAM FILE MMV
RWY 18–36: 3872X65 (GRVL) LIRL
RWY 18: Thld dsplcd 880′. Road. **RWY 36:** Thld dsplcd 125′. Brush.
RWY 10–28: 2100X40 (GRVL)
RWY 10: Berm. **RWY 28:** Brush.
AIRPORT REMARKS: Unattended. Rwy 36 has very rough gravel extension. Rwy 18–36 marked by rwy lgts atop yellow cones. Dsplcd thld marked with standard thld lgts each side. Dsplcd sections marked with red lgts atop yellow cones. ACTIVATE LIRL Rwy 18–36—CTAF.
COMMUNICATIONS: CTAF 122.9

VALLEY VIEW (See ESTACADA)

VANCOUVER N45°41.92′ W122°55.52′. **SEATTLE**
RCO 122.35 (SEATTLE RADIO) **L–1C**

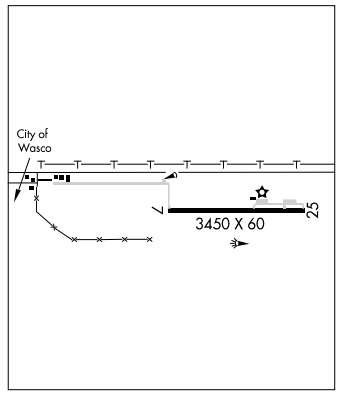
VERNONIA MUNI (Ø5S) 2 W UTC−8(−7DT) N45°51.09′ W123°14.49′ **SEATTLE**
647 NOTAM FILE MMV
RWY 09–27: 2940X45 (TURF)
RWY 09: Trees. Rgt tfc. **RWY 27:** Hill.
AIRPORT REMARKS: Unattended. Hangars 100′ right of centerline on AER 27.
COMMUNICATIONS: CTAF 122.9

WAKONDA BEACH STATE (See WALDPORT)

WALDPORT

WAKONDA BEACH STATE (R33) 3 S UTC−8(−7DT) N44°23.07′ W124°05.11′ **KLAMATH FALLS**
41 TPA—1041(1000) NOTAM FILE MMV
RWY 16–34: 2000X30 (TURF)
RWY 16: Trees. **RWY 34:** Trees.
AIRPORT REMARKS: Unattended. Owner advises contact Oregon Dept of Aviation 503–378–4880 prior to use. Ldg to the south and tkf to the north not recommended. Rwy 34 curve apch from SW to avoid high terrain and trees right at 800′. Rwy 34 has rising terrain and ditch 7′ wide and 2′ deep at 25′ from thld. Rwy 16–34 white tires mark rwy ends. Rwy 16 has a road, +30′ trees, and a p-line across the approach path within 110 ft of rwy end.
COMMUNICATIONS: CTAF 122.9

WASCO STATE (35S) 1 E UTC−8(−7DT) N45°35.37′ W120°40.45′ **SEATTLE**
1503 B TPA—2503(1000) NOTAM FILE MMV **L–13A**
RWY 07–25: H3450X60 (ASPH) S–12.5 MIRL
RWY 25: Rgt tfc.
AIRPORT REMARKS: Unattended. Extensive AG–sprayer ops, during Spring and Summer. ACTIVATE MIRL Rwy 07–25—CTAF.
COMMUNICATIONS: CTAF 122.9
RADIO AIDS TO NAVIGATION: NOTAM FILE DLS.
KLICKITAT (H) VORW/DME 112.3 LTJ Chan 70 N45°42.81′ W121°06.05′ 091° 19.4 NM to fld. 3220/21E.
HIWAS.



WILDHORSE N43°35.59′ W118°57.30′. NOTAM FILE BNO. **KLAMATH FALLS**
(L) VORW/DME 113.8 ILR Chan 85 at Burns Muni. 4140/18E. **L–11A**

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2010 U.S. & CANADIAN MILITARY AERIAL AIRCRAFT/PARACHUTE DEMONSTRATIONS

During CY 2010, the U.S. and Canadian Military Aerial Demonstration Teams (Thunderbirds, Blue Angels, Snowbirds, and Golden Knights) will be performing on the dates and locations listed below.

Pilots should expect Temporary Flight Restrictions (TFR) in accordance with 14 CFR Section 91.145, Management of aircraft operations in the vicinity of aerial demonstrations and major sporting events. The dimensions and effective times of the TFRs may vary based upon the specific aerial demonstration event and will be issued via the U.S. NOTAM system. Pilots are strongly encouraged to check FDC NOTAMs to verify they have the most current information regarding these airspace restrictions.

The currently scheduled 2010 aerial demonstration locations, subject to change without notice, are:

DATE:		USAF Thunderbirds	USN Blue Angels	USA Golden Knights	Canadian Snowbirds
April	10-11	Eglin AFB, FL			
	11		NAS Key West, FL		
	17		Charleston AFB, SC		
	17-18	Lakeland, FL			
	24-25	Barksdale AFB, LA	Vidalia, GA	Ft. Lauderdale, FL	
	24-25			Galena, FL	
May	1	Dyess AFB, TX			
	2	Altus AFB, OK			
	1-2		St. Joseph, MO		
	8-9	Shaw AFB, SC	Tuscaloosa, AL	Shaw AFB, SC	Niagara Falls, NY
	8-9			Tuscaloosa, AL	
	13			Union, NJ	
	15-16	Columbus AFB, MS	Andrews AFB, MD	Columbus AFB, MS	
	15-16			Andrews AFB, MD	
	22	Grand Forks AFB, ND			
	22-23		MCAS Cherry Point, NC		
	26	Colorado Springs, CO	Annapolis, MD		
	29-30	Janesville, WI	Jones Beach, NY	Jones Beach, NY	
	29-30			Janesville, WI	
June	5-6	Ocean City, MD	Eau Claire, WI	Eau Claire, WI	
	5-6			Florence, SC	
	12-13		Milwaukee, WI	Milwaukee, WI	
	19-20	Tinker AFB, OK	Cape Girardeau, MO	Cape Girardeau, MO	
	19-20			Gaylord, MI	
	26-27	North Kingstown, RI	St. Cloud, MN	Findlay, OK	
July	3			Madison, WI	
	3			Dubuque, IA	
	3-4		Traverse City, MI		
	4			Ft Bragg, NC	
	10		Pensacola Beach, FL		
	10-11	Gary, IN		Gary, IN	
	17-18	Duluth, MN	Dayton, OH		
	24-25	Fairchild AFB, WA	Idaho Falls, ID		
	28	Cheyenne, WY			
	29			Goshen, IN	
	29			Ft AP Hill, VA	
	31	Rockford, IL	Anchorage, AK	Rockford, IL	Elmendorf AFB, AK
	31			Johnstown, PA	

DATE:		USAF Thunderbirds	USN Blue Angels	USA Golden Knights	Canadian Snowbirds
August	1	Rockford, IL	Anchorage, AK	Rockford, IL	Elmendorf AFB, AK
	1			Johnstown, PA	
	7-8	TBD	Seattle, WA		
	14-15		Chicago, IL	Chicago, IL	
	21-22	Westfield, MA		Westfield, MA	
	21-22			Kansas City, MO	
	25			Atlantic City, NJ	
	26			Ft Monroe, VA	
	28-29	Coney Island (Brooklyn), NY	Portsmouth, NH	Coney Island (Brooklyn), NY	
	28-29			Portsmouth, NH	
September	4-5	Martinsburg, WV		Cleveland, OH	
	4-5			Martinsburg, WV	
	4-6		Cleveland, OH		
	11-12	Corapolis (Pittsburgh), PA	Scott AFB, IL	Corapolis (Pittsburgh), PA	
	11-12			Scott AFB, IL	
	18-19	Whiteman AFB, MO	NAS Oceana, VA	Whiteman AFB, MO	Reno, NV
	25-26	McConnell AFB, KS	MCAS Kaneohe Bay, HI		
October	1-3		MCAS Miramar, CA		MCAS Miramar, CA
	2-3	Salinas, CA		MCAS Miramar, CA	
	2-3			Jackson, MS	
	9-10	Little Rock AFB, AR	San Francisco, CA	Little Rock, AFB, AR	Daytona Beach, FL
	16-17	El Paso, IX	Dobbins AFB, GA	El Paso, TX	Atlanta, GA
	23-24	Houston, TX	NAS Jacksonville, FL	Washington, DC	
	30-31	Cocoa Beach, FL	Ft Worth Alliance, TX	Ft Worth Alliance, TX	
November	6-7	Lackland AFB, TX	Homestead ARB, FL	Lackland AFB, TX	
	6-7			Homestead ARB, FL	
	11-14			Ft Bragg, NC	
	12-13		NAS Pensacola, FL		
	13-14	Nellis AFB, NV			

Note: Dates and locations are scheduled ''show dates'' only and do not reflect arrival or practice date TFR periods that may precede the specific aerial demonstration events listed above. Again, pilots are strongly encouraged to check FDC NOTAMs to verify they have the most current information regarding any airspace restrictions.

VFR ADVISORY AREA
Canadian Airspace
VICTORIA–VANCOUVER
(Effective: Until Further Notice)

Effective 0901 UTC August 6, 1994, a VFR Advisory Area was permanently established between the two Canadian control zones, from above 1,200′ MSL up to 2,500′ MSL. Vancouver and Victoria Towers provide radar traffic information to all participating aircraft within the VFR Advisory Area.

PROCEDURES

Victoria/Vancouver

*All aircraft operating between Victoria and Vancouver within the VFR Advisory Area should follow the routes shown on the graphic.

***Northbound:** Change from Victoria Tower, 119.1, to Vancouver Tower, 124.0, when instructed by ATC.

***Southbound:** Change from Vancouver Tower, 124.0, to Victoria Tower, 119.1, when instructed by ATC.

*Set transponder codes as requested.

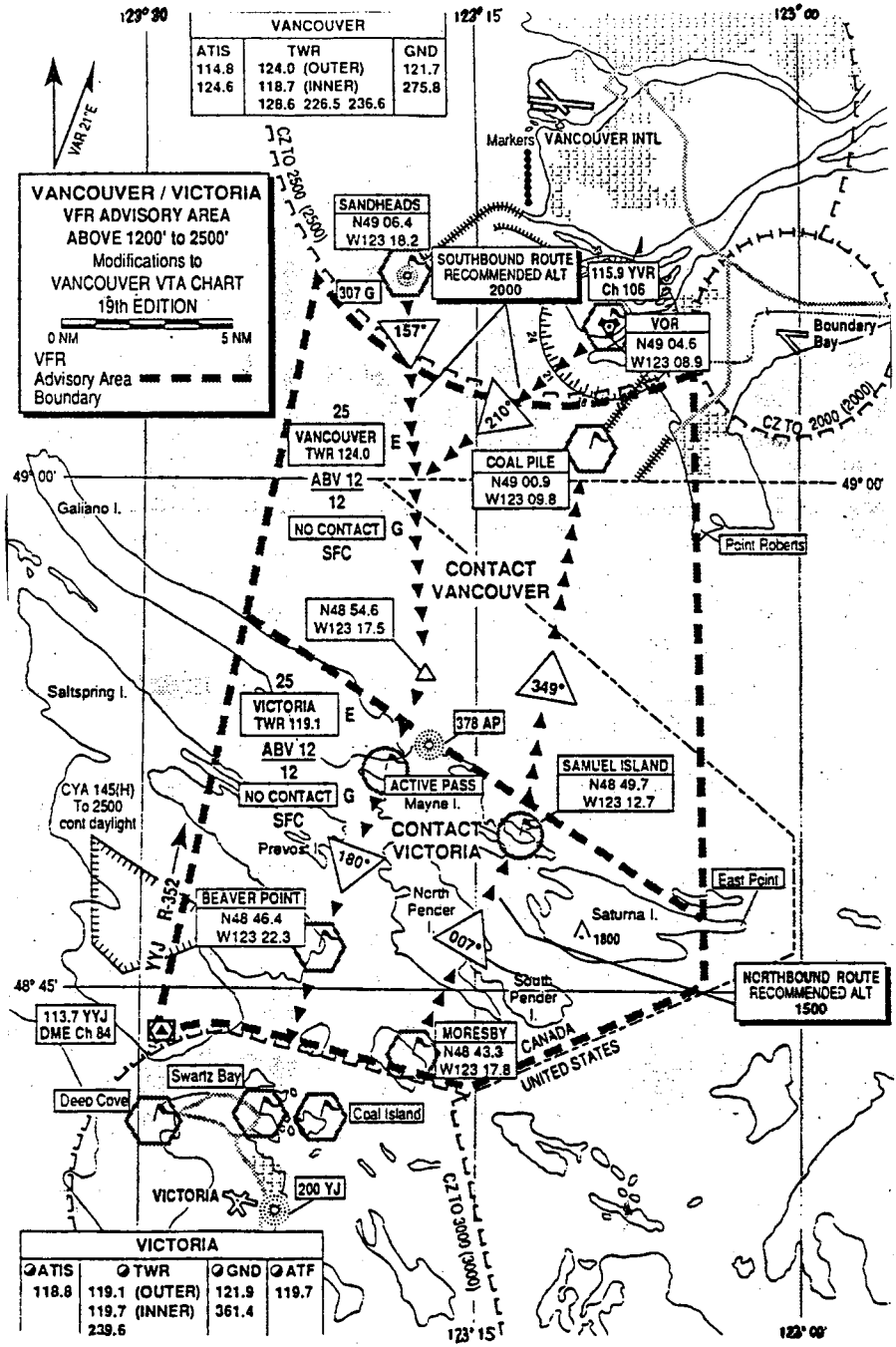
TRANSITING TRAFFIC

*Call Vancouver Tower on 124.0 when north of the Active Pass/Samuel Island Line.

*Call Victoria Tower on 119.1 when south of the Active Pass/Samuel Island Line.

*Set Transponder codes as requested.

Routes and recommended altitudes will not be useable by all aircraft at all times because of weather and regulations pertaining to flight over water. Higher altitudes may be requested. If unable to maintain VFR, advice ATC.


VANCOUVER
ATIS 114.8 124.6
TWR 124.0 (OUTER) 118.7 (INNER) 128.6 226.5 236.6
GND 121.7 275.8
VAR 21°E
VANCOUVER / VICTORIA
VFR ADVISORY AREA
ABOVE 1200' to 2500'
Modifications to
VANCOUVER VTA CHART
19th EDITION
0 NM 5 NM
VFR
Advisory Area Boundary
CZ TO 2500 (2500)
SANDHEADS
N49 06.4
W123 18.2
SOUTHBOUND ROUTE
RECOMMENDED ALT
2000
307 G
157°
115.9 YVR
Ch 106
Markers
VANCOUVER INTL
VOR
N49 04.6
W123 08.9
Boundary Bay
210°
CZ TO 2000 (2000)
25
VANCOUVER
TWR 124.0
E
ABV 12
12
NO CONTACT G
SFC
COAL PILE
N49 00.9
W123 09.8
49° 00'
Galiano I.
Point Roberts
CONTACT
VANCOUVER
N48 54.6
W123 17.5
Saltspring I.
25
VICTORIA
TWR 119.1
E
ABV 12
12
NO CONTACT G
SFC
349°
378 AP
SAMUEL ISLAND
N48 49.7
W123 12.7
ACTIVE PASS
Mayne I.
CONTACT
VICTORIA
CYA 145(H)
To 2500
cont daylight
Prevost I.
180°
East Point
BEAVER POINT
N48 46.4
W123 22.3
YYJ R-352
North Pender I.
Saturna I.
1800
007°
48° 45'
South Pender I.
NORTHBOUND ROUTE
RECOMMENDED ALT
1500
113.7 YYJ
DME Ch 84
MORESBY
N48 43.3
W123 17.8
CANADA
UNITED STATES
Swartz Bay
Deep Cove
Coal Island
VICTORIA
200 YJ
CZ TO 3000 (3000)
VICTORIA
ATIS 118.8
TWR 119.1 (OUTER) 119.7 (INNER) 239.6
GND 121.9 361.4
ATF 119.7
123° 30
123° 15
123° 00

CONTROLLED FIRING
Fort Harrison Controlled Firing Area
Helena, Montana

Controlled firing occurs in the vicinity of the Helena, Montana VORTAC (HLN) 24 hours daily, 5'800 MSL and BELOW. The area defined by the following radial/DME coordinates HLN258008, HLN258005, HLN250008, HLN250005.

CONTROLLED FIRING
Limestone Hills Controlled Firing Area
Helena, Montana

Controlled firing occurs in the vicinity of the Helena, Montana VORTAC (HLN) 24 hours daily, FL180 and BELOW. The area defined by the following radial/DME coordinates HLN125026, HLN127028, HLN140025, HLN125028.

SPECIAL NORTH ATLANTIC, CARIBBEAN AND PACIFIC AREA COMMUNICATIONS

VHF air-to-air frequencies enable aircraft engaged in flights over remote and oceanic areas out of range of VHF ground stations to exchange necessary operational information and to facilitate the resolution of operational problems.

Frequencies have been designated as follows:

North Atlantic area:	123.45 MHz
Caribbean area:	123.45 MHz
Pacific area:	123.45 MHz

MOUNT ST. HELENS NATIONAL VOLCANIC MONUMENT, WASHINGTON

The U.S. Geological Survey (USGS) and the U.S. Forest Service (USFS) conduct low level flights to and from monitor station within the monument and within the crater itself. Due to this activity, the volatility of the volcano and a high volume of sightseeing flights in the area, the following procedures are recommended in the interest of flying safety.

1. VFR aircraft are encouraged to transmit an initial position report on 122.75 MHz in the blind when flying at altitudes of less than 10,000 feet MSL within 10 nautical miles of the Mount St. Helens volcano crater.
2. VFR flight below 3000 feet AGL – strongly not recommended.
3. VFR flight above 3000 feet AGL – fly a counterclockwise pattern, no closer than 3 miles to the volcano summit.

VFR rules of ''see and be seen'' and good airmanship practices will prevail. Approval to land can only be obtained through appropriate Federal or State authority. Any significant information will be broadcast on the transcribed weather broadcasts by the Seattle and McMinnville Flight Service Stations and available on the Portland and Seattle ATIS. Marginal radar coverage limits Seattle Center's ability to provide radar flight following to aircraft in orbit of the volcano.

DEVILS TOWER NATIONAL MONUMENT, WYOMING

For reasons of national welfare, pilots are requested to avoid flights within 3 nautical miles of Devils Tower National Monument.

BIRD HAZARD OREGON AND WASHINGTON

Heavy concentration of migratory and wintering flocks of large waterfowl from the Canadian to California borders annually November to May. Caution advised at all airports or while transiting area.

SIMULTANEOUS OPERATIONS
Boeing Field/King County International Airport
Seattle, Washington

All users: Boeing Field Airport Traffic Control Tower is authorized to conduct simultaneous same direction operations to parallel runways, between sunrise and sunset, for Category II aircraft and smaller.

Spokane International Airport
Spokane, Washington

Application of visual separation for simultaneous operations. When weather conditions at Spokane International Airport are 1500′ ceiling and 5 miles visibility or greater Spokane International Airport controllers may provide visual separation of aircraft landing and departing simultaneously at Spokane International Airport and Fairchild Airforce Base.

LASER LIGHT DEMONSTRATIONS
Bozeman, Montana

A laser light demonstration will be conducted daily between 0000 and 2359 MDT until June 24, 2010 at Montana State University BZN VORTAC 129 radial at 8 NM LAT 45–39–59N/Long 111–02–44W. The laser beam elevation will be a maximum of 090 and a minimum of 089. The beam may be injurious to eyes when viewed within 12000 feet AGL vertically and 500 feet laterally of the light source. Cockpit illumination–flash blindness may occur beyond these distances.

SEATTLE–TACOMA INTL
SEATTLE, WASHINGTON

Gatehold Procedures:

During peak departure periods, gatehold procedures are implemented for all IFR departures. Additional information will be broadcast on ATIS.

Oceanic Departures:

1. Contact Clearance Delivery *only* when you will be ready to taxi within ten minutes. State destination, requested altitude, ''ten minutes to taxi.''
2. If ATC delays are more than 15 minutes for your filed altitude/route, alternatives with less delay will be offered.
3. Failure to depart the gate within ten minutes or reach the runway at the release time specified in the IFR clearance may result in the cancellation of your clearance.

MOUNTAIN HOME, IDAHO

All aircraft operating within 20 NM of the Liberator VOR are requested to contact Mountain Home APP CON on 124.8 for traffic advisory due to intensive military training in the Mountain Home area.

MILITARY TRAINING ROUTES

The DOD Flight Information Publication AP/1B provides textual and graphic descriptions and operating instructions for all military training routes (IR, VR, SR) and refueling tracks/anchors. Complete and more comprehensive information relative to policy and procedures for IRs and VRs is published in FAA Handbook 7610.4 (Special Military Operations) which is agreed to by the DOD and therefore directive for all military flight operations. The AP/1B is the official source of route data for military users.

CIVIL USE OF MILITARY FIELDS:

U.S. Army, Air Force, Navy and Coast Guard Fields are open to civil fliers only in emergency or with prior permission.

Army installations, prior permission is required from the Commanding Officer of the installation.

For Air Force installations, prior permission should be requested at least 30 days prior to first intended landing from either Headquarters USAF (PRPOC) or the Commander of the installation concerned (who has authority to approve landing rights for certain categories of civil aircraft). For use of more than one Air Force installation, requests should be forwarded direct to Hq USAF (PRPOC), Washington, D.C. 20330.

Use of USAF installations must be specifically justified.

For Navy and Marine Corps installations, prior permission should be requested at least 30 days prior to first intended landing. An Aviation Facility License must be approved and executed by the Navy prior to any landing by civil aircraft.

Forms and further information may be obtained from the nearest U.S. Navy or Marine Corps aviation activity.

For Coast Guard fields prior permission should be requested from the Commandant, U.S. Coast Guard via the Commanding Officer of the field.

When instrument approaches are conducted by civil aircraft at military airports, they shall be conducted in accordance with the procedures and minimums approved by the military agency having jurisdiction over the airport.

AIRCRAFT LANDING RESTRICTIONS

Landing of aircraft at locations other than public use airports may be a violation of Federal or local law. All land and water areas are owned or controlled by private individuals or organizations, states, cities, local governments, or U.S. Government agencies. Except in emergency, prior permission should be obtained before landing at any location that is not a designated public use airport or seaplane base.

Landing of aircraft is prohibited on lands or water administered by the National Park Service, U.S. Fish and Wildlife Service, U.S. Forest Service, and on many areas controlled by the U.S. Army Corps of Engineers, unless prior authorization is obtained from the respective agency.

CONTINUOUS POWER FACILITIES

In order to insure that a basic ATC system remains in operation despite an areawide or catastrophic commercial power failure, key equipment and certain airports have been designated to provide a network of facilities whose operational capability can be utilized independent of any commercial power supply.

In addition to those facilities comprising the basic ATC system, the following approach and lighting aids have been included in this program for a selected runway.

1. ILS (Localizer, Glide Slope, COMLO, Inner, Middle and Outer Markers)
2. Wind Measuring Capability
3. Approach Light System (ALS) or Short ALS (SALS)
4. Ceiling Measuring Capability
5. Touchdown Zone Lighting (TDZL)
6. Centerline Lighting (CL)
7. Runway Visual Range (RVR)
8. High Intensity Runway Lighting (HIRL)
9. Taxiway Lighting
10. Apron Light (Perimeter Only)

The following have been designated ''Continuous Power Airports,'' and have independent back up capability for the equipment installed.

Airport/Ident	Runway No.	Airport/Ident	Runway No.
Albuquerque, NM (ABQ)	08	Milwaukee, WI (MKE)	01L
Andrews AFB, MD (ADW)	01L	Minneapolis, MN (MSP)	30L
Anchorage, AK (ANC)	07R	Nashville, TN (BNA)	02L
Atlanta, GA (ATL)	09R	New Orleans, LA (MSY)	10
Baltimore, MD (BWI)	10	New York, NY (JFK)	04R
Bismarck, ND (BIS)	31	New York, NY (LGA)	22
Boise, ID (BOI)	10R	Newark, NJ (EWR)	04R
Boston, MA (BOS)	04R	Oklahoma City, OK (OKC)	35R
Charlotte, NC (CLT)	36L	Omaha, NE (OMA))	14R
Chicago, IL (ORD)	14R	Ontario, CA (ONT)	26L
Cincinnati, OH (CVG)	36C	Philadelphia, PA (PHL)	09R
Cleveland, OH (CLE)	06R	Phoenix, AZ (PHX)	08
Dallas/Fort Worth, TX (DFW)	17C	Pittsburgh, PA (PIT)	10L
Denver, CO (DEN)	35R	Reno, NV (RNO)	16R
Des Moines, IA (DSM)	31	Salt Lake City, UT (SLC)	34L
Detroit, MI (DTW)	03R	San Antonio, TX (SAT)	12R
El Paso, TX (ELP)	22	San Diego, CA (SAN)	09
Fairbanks, AK (FAI)	01L	San Francisco, CA (SFO)	28R
Great Falls, MT (GTF)	03	San Juan, PR (SJU)	08
Honolulu, HI (HNL)	08L	Seattle, WA (SEA)	16C
Houston, TX (IAH)	26L	St. Louis, MO (STL)	30R
Indianapolis, IN (IND)	05L	Tampa, FL (TPA)	36L
Jacksonville, FL (JAX)	07	Tulsa, OK (TUL)	36R
Kansas City, MO (MCI)	19R	Washington, DC (DCA)	01
Los Angeles, CA (LAX)	24R	Washington, DC (IAD)	01R
Memphis, TN (MEM)	36L	Wichita, KS (ICT)	01L
Miami, FL (MIA)	08R		

NOTE—The existing CPA runway is listed. Pending and future changes at some locations will require a revised runway designation.

Night Vision Lights Out Operations
Yakima Training Center, Washington

Military helicopter activity will be conducted for night vision lights out training at Yakima Training Center, Washington. Position lights will be extinguished or greatly reduced in intensity. The training will be conducted within the confines of the YTC reservation but outside of the restricted airspace. The general description of the night vision goggle (NVG) training area is that airspace bordered by R–6714H on the south, Highline Canal on the west, the southern edge of Interstate 90 on the north, and Ginko State Park Petified Forest on the east.

The boundaries of the NVG area are:

Beginning at lat. 46°55′03″N, long. 120°01′34″W;
to lat. 46°55′40″N, long. 120°01′35″W;
to lat. 46°55′39″N, long. 120°02′52″W;
to lat. 46°56′15″N, long. 120°02′52″W
thence west along the southern edge of Interstate 90;
to lat. 46°57′21″N, long. 120°18′08″W;
thence west/southwest along the Highline Canal;
to lat. 46°55′24″N, long. 120°19′55″W;
to point of beginning.

Times of use: Sunset to sunrise, daily.

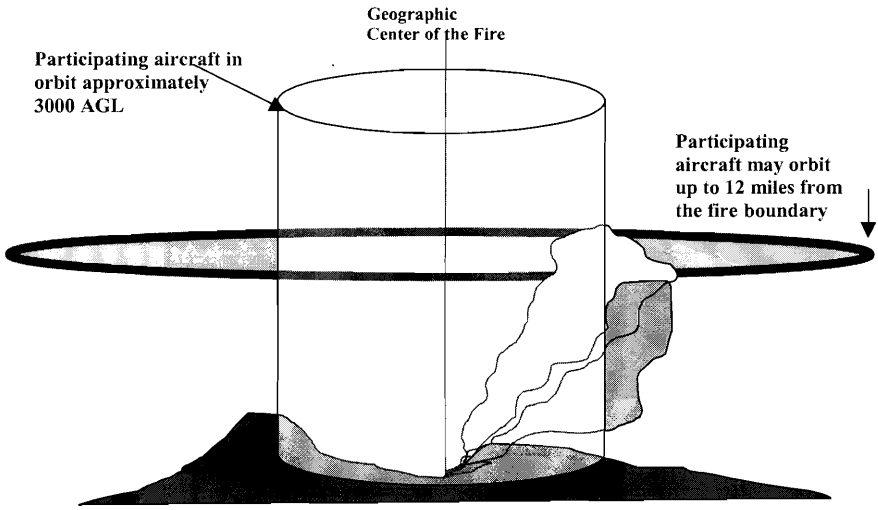
Request Publication date of May 22, 1997.

Please refer any questions to James Riley, ANM–532.2, at (206) 227–2537.

LIGHTS–OUT OPERATIONS
Hays MOA, Montana

Lights–out night vision goggle training operations conducted within the Hays MOA at all altitudes from sunset to sunrise when MOA is active by NOTAM. Contact Salt Lake City ARTCC on 133.4 or 119.75 or Great Falls FSS for schedule and NOTAM information.

FIREFIGHTING TRAFFIC AREAS



Pilots are advised to stay clear of Firefighting Traffic Areas. Remain 15 miles from the area of activity. If you must over-fly the area, do so at an altitude of 5000 feet AGL above. However, to remain safe and out of the way of working aircraft, it is best to circumnavigate the area.

The wild-land fire environment can be very complex and involve a large number and variety of aircraft types including fixed and rotary wing aircraft. Some of the aircraft are small single and multi-engine command and control platforms that can be especially difficult to see and may give the appearance that the fire is not staffed. The aircraft participating in firefighting can orbit as far out as 12 miles from the perimeter of the fire. Any intrusion by aircraft not directly involved in the firefighting operation could delay the delivery of much needed retardant or water to ground firefighters and will adversely affect the safety of participating aircraft. Please stay well away from wild-land fires even if you feel that aircraft are not working the fire; they may be en route or unseen.

If you see a fire developing along your route, report it immediately to air traffic control who will advise the US Forest Service. The firefighting community would welcome this information.

The following narratives summarize the FAR Part 93 Special Air Traffic Rules, and Airport Traffic Patterns in effect as prescribed in the rule. This information is advisory in nature and in no way relieves the pilot from compliance with the specific rules set forth in FAR Parts 91 and 93.

Special Airport Traffic Areas prescribed in Part 93 are depicted on Sectional Aeronautical Charts, World Aeronautical Charts, Enroute Low Altitude Charts, and where applicable, on VFR Terminal Area Charts.

OPERATIONS RESERVATIONS FOR HIGH DENSITY TRAFFIC AIRPORTS KENNEDY, LAGUARDIA, AND WASHINGTON REAGAN NATIONAL

The Federal Aviation Administration (FAA) has designated New York's Kennedy and LaGuardia Airports and Washington Reagan National Airport as High Density Traffic Airports (HDTA), Title 14, Code of Federal Regulations, part 93, subpart K, and has prescribed air traffic rules and requirements for operating aircraft (excluding helicopters) to and from those airports during certain hours.

Reservations are required for operations from 6 a.m. through 11:59 p.m. local time at LaGuardia Airport and Washington Reagan National Airport. Reservations at Kennedy Airport are required from 3 p.m. through 7:59 p.m. local time.

Reservation procedures are detailed in Advisory Circular 93–1, Reservations for Unscheduled Operations at High Density Traffic Airports. A copy of the advisory circular is available on the FAA website at http://www.faa.gov. Reservations for unscheduled operations are allocated through the Enhanced Computer Voice Reservation System (e–CVRS) accessible via telephone or the Internet. This system may not be used to make reservations for scheduled air carrier or commuter flights.

The toll–free telephone number for accessing e–CVRS is 1–800–875–9694 and is available for calls originating within the United States, Canada, and the Caribbean. Users outside the toll–free areas may access e–CVRS by calling the toll number of 703–707–0568. The Internet web address for accessing the e–CVRS is http://www.fly.faa.gov/ecvrs. If you have any questions about reservation requirements or are experiencing problems with the system, you may telephone the Airport Reservation Office at the Air Traffic Control System Command Center at (703) 904–4452.

Requests for instrument flight rules (IFR) reservations will be accepted beginning 72 hours prior to the proposed time of operation at the high–density airport. For example, a request for an 11 a.m. reservation on a Thursday will be accepted beginning at 11 a.m. on the previous Monday.

IFR reservations must be obtained prior to IFR landing or takeoff at an HDTA during slot controlled hours. An air traffic control (ATC) clearance does not constitute a reservation. A reservation does not constitute permission to operate at an HDTA if additional operational limits or procedures are required by NOTAM and/or regulation.

Aircraft involved in medical emergencies will be handled by ATC without regard to a reservation after obtaining prior approval of the ATC System Command Center on (703) 904–4452. ATC will accommodate declared other emergency situations without regard to slot reservations.

NOTE: Visual flight rule (VFR) reservations via ATC for unscheduled operations at LaGuardia are not authorized from 7 a.m. through 8:59 a.m. local time and 4 p.m. through 6:59 p.m. local time, Monday through Friday and Sunday evenings, unless otherwise announced by NOTAM. Both IFR and VFR operations during those time periods must obtain an advance reservation through e–CVRS.

FSS
TELEPHONE NUMBERS

Flight Service Station (FSS) facilities provide flight planning and weather briefing services to pilots. FSS services in the contiguous United States, Hawaii and Purerto Rico, are provided by a network of large hub facilities and smaller remote facilities which are interconnected with the hubs.

Selected remote FSS facilities across the contiguous United States have variable part–time operating hours. Because of the interconnectivity between remote and hub facilities, all FSS services are available continuously using published telephone numbers and radio frequencies.

NORTHWEST U.S.

WASHINGTON: Seattle, Boeing Field/King County International (BFI)–**SEA FSS**

Telephone Information Briefing Service (TIBS) is a FSS service that provides continuous recordings of meteorological and/or aeronautical information including area and/or route briefings, airspace procedures and special announcements. A touch–tone telephone is required to fully utilize this service.

Further information can be found in the Aeronautical Information Manual (AIM).

NATIONAL FSS TELEPHONE NUMBER

Pilot Weather Briefings 1–800–WX–BRIEF (1–800–992–7433)

OTHER FSS TELEPHONE NUMBERS (except in Alaska)

TIBS (see description above) ..... 1–877–4TIBS–WX(1–877–484–2799)

Clearance Delivery Only 1–888–766–8267

Lifeguard Flights Only 1–877–LIF–GRD3 (1–877–543–4733)

Flights within DC SFRA & FRZ * 1–866–225–7410

* District of Columbia Special Flight Rules Area & Flight Restricted Zone

KEY to AERODROME FORECAST (TAF) and AVIATION ROUTINE WEATHER REPORT (METAR)

TAF KPIT 091730Z 091818 15005KT 5SM HZ FEW020 WS010/31022KT
FM1930 30015G25KT 3SM SHRA OVC015 TEMPO 2022 1/2SM +TSRA OVC008CB
FM0100 27008KT 5SM SHRA BKN020 OVC040 PROB40 0407 1SM -RA BR
FM1015 18005KT 6SM -SHRA OVC020 BECMG 1315 P6SM NSW SKC

METAR KPIT 091955Z COR 22015G25KT 3/4SM R28L/2600FT TSRA OVC010CB 18/16 A2992 RMK SLP045 T01820159

Forecast	Explanation	Report
TAF	Message type: TAF-routine or TAF AMD-amended forecast, METAR-hourly, SPECI-special or TESTM-non-commissioned ASOS report	**METAR**
KPIT	ICAO location indicator	**KPIT**
091730Z	Issuance time: ALL times in UTC "Z", 2-digit date, 4-digit time	**091955Z**
091818	Valid period: 2-digit date, 2-digit beginning, 2-digit ending times	
	In U.S. **METAR**: CORrected ob; or AUTOmated ob for automated report with no human intervention; omitted when observer logs on	**COR**
15005KT	Wind: 3 digit true-north direction, nearest 10 degrees (or VaRiaBle); next 2-3 digits for speed and unit, KT (KMH or MPS); as needed, Gust and maximum speed; 00000KT for calm; for **METAR**, if direction varies 60 degrees or more, Variability appended, e.g. 180V260	**22015G25KT**
5SM	Prevailing visibility: in U.S., Statute Miles & fractions; above 6 miles in **TAF** Plus6SM. (Or, 4-digit minimum visibility in meters and as required, lowest value with direction)	**3/4SM**
	Runway Visual Range: R; 2-digit runway designator Left, Center, or Right as needed; "/"; Minus or Plus in U.S., 4-digit value, FeeT in U.S., (usually meters elsewhere); 4-digit value Variability 4-digit value (and tendency Down, Up or No change)	**R28L/2600FT**
HZ	Significant present, forecast and recent weather: see table (on back)	**TSRA**
FEW020	Cloud amount, height and type: SKy Clear 0/8, FEW >0/8-2/8, SCaTtered 3/8-4/8, BroKeN 5/8-7/8, OVerCast 8/8; 3-digit height in hundreds of ft; Towering CUmulus or CumulonimBus in **METAR**; in **TAF**, only CB. Vertical Visibility for obscured sky and height "VV004". More than 1 layer may be reported or forecast. In automated **METAR** reports only, CLeaR for "clear below 12,000 feet"	**OVC010CB**
	Temperature: degrees Celsius; first 2 digits, temperature "/" last 2 digits, dew-point temperature; Minus for below zero, e.g., M06	**18/16**
	Altimeter setting: indicator and 4 digits; in U.S., A-inches and hundredths; (Q-hectoPascals, e.g., Q1013)	**A2992**

KEY to AERODROME FORECAST (TAF) and AVIATION ROUTINE WEATHER REPORT (METAR)

Forecast	Explanation	Report
WS010/31022KT	In U.S. **TAF**, non-convective low-level (≤2,000 ft) Wind Shear; 3-digit height (hundreds of ft); "/"; 3-digit wind direction and 2-3 digit wind speed above the indicated height, and unit, KT	
	In **METAR**, ReMarK indicator & remarks. For example: Sea-Level Pressure in hectoPascals & tenths, as shown: 1004.5 hPa; Temp/ dew-point in tenths °C, as shown: temp. 18.2°C, dew-point 15.9°C	**RMK SLP045 T01820159**
FM1930	FroM and 2-digit hour and 2-digit minute **beginning** time: indicates significant change. Each FM starts on new line, indented 5 spaces.	
TEMPO 2022	TEMPOrary: changes expected for < 1 hour and in total, < half of 2-digit hour **beginning** and 2-digit hour **ending** time period	
PROB40 0407	PROBability and 2-digit percent (30 or 40): probable condition during 2-digit hour **beginning** and 2-digit hour **ending** time period	
BECMG 1315	BECoMinG: change expected during 2-digit hour **beginning** and 2-digit hour **ending** time period	

Table of Significant Present, Forecast and Recent Weather - Grouped in categories and used in the order listed below; or as needed in TAF, No Significant Weather.

QUALIFIER

Intensity or Proximity

- Light "no sign" Moderate + Heavy

VC Vicinity: but not at aerodrome; in U.S. **METAR**, between 5 and 10SM of the point(s) of observation; in U.S. **TAF**, 5 to 10SM from center of runway complex (elsewhere within 8000m)

Descriptor

MI Shallow	BC Patches	PR Partial	TS Thunderstorm
BL Blowing	SH Showers	DR Drifting	FZ Freezing

WEATHER PHENOMENA

Precipitation

DZ Drizzle	RA Rain	SN Snow	SG Snow grains
IC Ice crystals	PL Ice pellets	GR Hail	GS Small hail/snow pellets

UP Unknown precipitation in automated observations

Obscuration

BR Mist (≥5/8SM)	FG Fog (<5/8SM)	FU Smoke	VA Volcanic ash
SA Sand	HZ Haze	PY Spray	DU Widespread dust

Other

SQ Squall	SS Sandstorm	DS Duststorm	PO Well developed dust/sand whirls
FC Funnel cloud	+FC tornado/waterspout		

- Explanations in parentheses "( )" indicate different worldwide practices.
- Ceiling is not specified; defined as the lowest broken or overcast layer, or the vertical visibility.
- NWS **TAFs** exclude turbulence, icing & temperature forecasts; NWS **METARs** exclude trend fcsts
- Although not used in US, Ceiling And Visibility OK replaces visibility, weather and clouds if: visibility ≥10 km; no cloud below 5000 ft (1500 m) or below the highest minimum sector altitude, whichever is greater and no CB; and no precipitation, TS, DS, SS, MIFG, DRDU, DRSA or DRSN.

UNITED STATES DEPARTMENT OF COMMERCE
NOAA/PA 96052 **National Oceanic and Atmospheric Administration**—National Weather Service

Air Traffic Control System Command Center

Main Number.....703–904–4400

RGNL AIR TRAFFIC DIVISIONS

REGION	TELEPHONE
Alaskan	907–271–5464
Central	816–329–2500
Eastern	718–553–4502
Great Lakes	847–294–7202
New England	781–238–7500
Northwest Mountain	425–227–2500
Southern	404–305–5500
Southwest	817–222–5500
Western Pacific	310–725–6500

AIR ROUTE TRAFFIC CONTROL CENTERS (ARTCCs)

ARTCC NAME	*24 HR RGNL DUTY OFFICE TELEPHONE #	BUSINESS HOURS	BUSINESS TELEPHONE #
Albuquerque	817–222–5006	7:30 a.m.–4:00 p.m.	505–856–4300
Anchorage	907–271–5936	7:30 a.m.–4:00 p.m.	907–269–1137
Atlanta	404–305–5180	7:30 a.m.–5:00 p.m.	770–210–7601
Boston	617–238–7001	7:30 a.m.–4:00 p.m.	603–879–6633
Chicago	847–294–8400	8:00 a.m.–4:00 p.m.	630–906–8221
Cleveland	847–294–8400	8:00 a.m.–4:00 p.m.	440–774–0310
Denver	425–227–1389	7:30 a.m.–4:00 p.m.	303–651–4100
Ft. Worth	817–222–5006	7:30 a.m.–4:00 p.m.	817–858–7300
Houston	817–222–5006	7:30 a.m.–4:00 p.m.	281–230–5300
Indianapolis	847–294–8400	8:00 a.m.–4:00 p.m.	317–247–2231
Jacksonville	404–305–5180	8:00 a.m.–4:30 p.m.	904–549–1501
Kansas City	816–329–3000	7:30 a.m.–4:00 p.m.	913–254–8500
Los Angeles	661–265–8200	7:30 a.m.–4:00 p.m.	661–265–8200
Memphis	404–305–5180	7:30 a.m.–4:00 p.m.	901–368–8103
Miami	404–305–5180	7:00 a.m.–3:30 p.m.	305–716–1500
Minneapolis	847–294–8400	8:00 a.m.–4:00 p.m.	651–463–5580
New York	718–995–5426	8:00 a.m.–4:40 p.m.	516–468–1001
Oakland	310–725–3300	6:30 a.m.–3:00 p.m.	510–745–3331
Salt Lake City	425–227–1389	7:30 a.m.–4:00 p.m.	801–320–2500
Seattle	425–227–1389	7:30 a.m.–4:00 p.m.	253–351–3500
Washington	718–995–5426	8:00 a.m.–4:30 p.m.	703–771–3401

MAJOR TERMINAL RADAR APPROACH CONTROLS (TRACONs)

TRACON NAME	*24 HR RGNL DUTY OFFICE TELEPHONE #	BUSINESS HOURS	BUSINESS TELEPHONE #
Atlanta	404–305–5180	7:00 a.m.–3:30 p.m.	404–669–1200
Chicago	847–294–8400	8:00 a.m.–4:00 p.m.	847–608–5509
Dallas/Ft. Worth	817–222–5006	7:30 a.m.–4:00 p.m.	972–615–2500
Denver	425–227–1389	7:30 a.m.–4:00 p.m.	303–342–1500
Houston	817–222–5006	7:30 a.m.–4:00 p.m.	281–230–8400
New York	718–995–5426	8:00 a.m.–4:30 p.m.	516–683–2901
Northern CA	310–725–3300	7:00 a.m.–3:30 p.m.	916–366–4001
Potomac	718–995–5426	8:00 a.m.–4:30 p.m.	540–349–7500
Southern CA	310–725–3300	7:30 a.m.–4:00 p.m.	858–537–5800

*Facilities can be contacted through the Rgnl Duty Officer during non-business hours.

KEY AIR TRAFFIC FACILITIES

DAILY NAS REPORTABLE AIRPORTS

AIRPORT NAME	*24 HR RGNL DUTY OFFICE TELEPHONE #	BUSINESS HOURS	BUSINESS TELEPHONE #
Albuquerque Intl Sunport, NM	817–222–5006	8:00 a.m.–5:00 p.m.	505–842–4366
Andrews AFB, MD	718–995–5426	8:00 a.m.–4:30 p.m.	301–735–2380
Baltimore/Washington Intl Thurgood Marshall, MD	718–995–5426	8:00 a.m.–4:30 p.m.	410–962–3555
Boston Logan Intl, MA	781–238–7001	7:30 a.m.–4:00 p.m.	617–455–3100
Bradley Intl, CT	617–238–7001	7:30 a.m.–4:00 p.m.	203–627–3428
Burbank/Bob Hope, CA	310–725–3300	7:00 a.m.–5:30 p.m.	818–567–4806
Charlotte Douglas Intl, NC	404–305–5180	8:00 a.m.–4:30 p.m.	704–344–6487
Chicago Midway, IL	847–294–8400	8:00 a.m.–4:00 p.m.	773–884–3670
Chicago O'Hare Intl, IL	847–294–8400	8:00 a.m.–4:00 p.m.	773–601–7600
Cleveland Hopkins Intl, OH	847–294–8400	8:00 a.m.–4:00 p.m.	216–898–2020
Covington/Cincinnati, OH	708–294–7401	8:00 a.m.–4:30 p.m.	606–767–1006
Dallas/Ft. Worth Intl, TX	817–222–5006	8:30 a.m.–5:00 p.m.	972–615–2531
Dayton Cox Intl, OH	847–294–8400	7:30 a.m.–4:00 p.m.	937–454–7300
Denver Intl, CO	425–227–1389	7:30 a.m.–4:00 p.m.	303–342–1600
Detroit Metro, MI	847–294–8400	8:00 a.m.–4:00 p.m.	734–955–5000
Fairbanks Intl, AK	907–271–5936	7:30 a.m.–4:00 p.m.	907–474–0050
Fort Lauderdale Intl, FL	404–305–5180	7:00 a.m.–3:30 p.m.	305–356–7932
George Bush Intercontinental/Houston, TX	817–222–5006	7:30 a.m.–4:00 p.m.	713–230–8400
Hartsfield–Jackson Atlanta Intl, GA	404–305–5180	7:00 a.m.–3:30 p.m.	404–669–1200
Honolulu Intl, HI	310–643–3200	7:30 a.m.–4:00 p.m.	808–840–6100
Houston Hobby, TX	817–222–5006	8:00 a.m.–5:00 p.m.	713–847–1400
Indianapolis Intl, IN	847–294–8400	8:00 a.m.–4:00 p.m.	317–484–6600
Kahului/Maui, HI	310–643–3200	7:30 a.m.–4:00 p.m.	808–877–0725
Kansas City Intl, MO	816–329–3000	7:30 a.m.–4:00 p.m.	816–329–2700
Las Vegas McCarran, NV	310–725–3300	7:30 a.m.–4:00 p.m.	702–262–5978
Los Angeles Intl, CA	310–725–3300	7:00 a.m.–3:30 p.m.	310–342–4900
Louis Armstrong New Orleans Intl, LA	817–222–5006	7:00 a.m.–4:30 p.m.	504–471–4300
Memphis Intl, TN	404–305–5180	7:30 a.m.–4:00 p.m.	901–322–3350
Miami Intl, FL	404–305–5180	7:00 a.m.–4:00 p.m.	305–869–5400
Minneapolis/St. Paul, MN	847–294–8400	8:00 a.m.–4:00 p.m.	612–713–4000
Nashville Intl, TN	404–305–5180	7:00 a.m.–3:30 p.m.	615–781–5460
New York Kennedy Intl, NY	718–995–5426	8:00 a.m.–4:30 p.m.	718–656–0335
New York La Guardia, NY	718–995–5426	8:00 a.m.–4:30 p.m.	718–335–5461
Newark Liberty Intl, NJ	718–995–5426	8:00 a.m.–4:30 p.m.	973–645–3103
Norman Y. Mineta San Jose Intl, CA	310–643–3200	7:30 a.m.–4:00 p.m.	408–982–0750
Ontario Intl, CA	310–643–3200	7:30 a.m.–4:00 p.m.	909–983–7518
Orlando Intl, FL	404–305–5180	7:30 a.m.–5:00 p.m.	407–850–7000
Philadelphia Intl, PA	718–995–5426	8:00 a.m.–4:30 p.m.	215–492–4100
Phoenix Sky Harbor Intl, AZ	310–643–3200	7:30 a.m.–4:00 p.m.	602–379–4226
Pittsburgh Intl, PA	718–995–5426	8:00 a.m.–4:30 p.m.	412–269–9237
Portland Intl, OR	425–227–1389	7:30 a.m.–4:00 p.m.	503–493–7500
Raleigh-Durham, NC	404–305–5180	8:00 a.m.–4:30 p.m.	919–840–5544
Ronald Reagan Washington National, DC	718–995–5426	8:00 a.m.–4:30 p.m.	703–413–1535
Salt Lake City, UT	425–227–1389	7:30 a.m.–4:00 p.m.	801–325–9600
San Antonio Intl, TX	817–222–5006	8:00 a.m.–4:30 p.m.	210–805–5507
San Diego Lindbergh Intl, CA	310–725–3300	8:00 a.m.–4:30 p.m.	619–299–0677
San Francisco Intl, CA	310–643–3200	7:00 a.m.–3:30 p.m.	650–876–2883
San Juan Intl, PR	404–305–5180	7:30 a.m.–5:00 p.m.	809–253–8663
Seattle–Tacoma Intl, WA	425–227–1389	7:30 a.m.–4:00 p.m.	206–214–4600
St. Louis Lambert, MO	816–329–3000	7:30 a.m.–4:00 p.m.	314–890–1000
Tampa Intl, FL	404–305–5180	7:30 a.m.–4:00 p.m.	813–371–7700
Ted Stevens Anchorage Intl, AK	907–271–5936	7:30 a.m.–4:00 p.m.	907–271–2700
Teterboro, NJ	718–995–5426	8:00 a.m.–4:30 p.m.	201–288–1889
Washington Dulles Intl, DC	718–995–5426	8:00 a.m.–4:30 p.m.	703–661–6031
West Palm Beach, FL	404–305–5180	8:00 a.m.–4:30 p.m.	561–683–1867
Westchester Co, NY	718–995–5426	8:00 a.m.–4:30 p.m.	914–948–6520

*Facilities can be contacted through the Rgnl Duty Officer during non-business hours.

Air Route Traffic Control Center frequencies and their remoted transmitter sites are listed below for the coverage of this volume. Bold face type indicates high altitude frequencies, light face type indicates low altitude frequencies. To insure unrestricted IFR operations within the high altitude enroute sectors, the use of 720 channel communications equipment (25 kHz channel spacing) is required.

ⓇDENVER CENTER – 125.9 — **H–1–2–3–4–5–6, L–8–9–10–11–12–13–14–15** **(KZDV)**

Casper – 135.6 **118.925**
Cherokee – 132.1
Cheyenne – 134.575 133.175 132.1 125.9
Laramie – 125.9
Lusk – 135.6
Medicine Bow – 133.175 132.1 126.5
Rock Springs – 128.5
Sundance – 135.6 **133.675**

ⓇSALT LAKE CITY CENTER — **H–1–2–3, L–9–11–12–13–14** **(KZLC)**

Ashton – 132.4 132.4 **128.35** 128.35
Baker – 128.05
Big Piney – 128.35 128.35
Billings – 127.75 127.75
Blackfoot – 128.35 128.35
Bliss – 128.55 118.05
Boise – 118.05
Bozeman – 132.4 132.4
Burley – 118.05
Butte – 133.4 133.4 **132.4** 132.4
Cascade – 121.15
Francis Peak – 127.7
Glasgow – 126.85 126.85
Great Falls – 133.4 133.4 **132.425**
Green River – 124.35 124.35
Jackson – 133.25 133.25
Judith Mountain – 133.4 133.4 **126.85** 126.85
Lakeside – 133.4
Lovell – 133.25 133.25
Malad City – 126.75
Miles City – 126.85 126.85
Missoula – 133.4 **119.75** 119.75
Rome – 128.05
Salmon – 132.4 132.4
Sheridan – 127.75 127.75
Squaw Butte – 128.05 **121.15**
Thermopolis – 133.25 133.25 **124.35** 124.35

ⓇSEATTLE CENTER — **H–1–3, L–1–2–11–13** **(KZSE)**

Antelope Mountain – 124.85
Arcata – 124.85
Badger Mountain – 127.05 127.05 **134.95** 134.95
Beacon Hill – 127.05 127.05 **120.3** 120.3
Cottonwood – 123.95 **118.55**
Dallesport – 126.6 126.6
Fort Lawton – 127.05 127.05
Hoquiam – 128.3
Horton – 132.075 125.8 121.4
Kimberly – 135.45
Klamath Falls – 134.9 127.6
Lakeside – 123.95
Lakeview – 135.35 127.6
Larch Mountain – 128.3 128.3 **126.6** 126.6
Marlin – 126.1
Medford – 135.15 124.85 121.4
Mohler – 128.45
Mullan Pass – 128.45
Nassel – 124.2
Neah Bay – 125.1 125.1
Redmond – 121.35 134.9 135.35 128.15
Rex-Parrett – 121.35
Scappoose – 124.2 128.15
Spokane – 123.95 119.225
Stampede Pass – 134.95 134.95
The Dalles – 135.45 119.65
Wallula – 132.6
Wenatchee – 126.1
Whidbey Island – 134.95 134.95 128.5 **125.1** 125.1
Yakima – 135.525 135.525 132.6 **120.3** 120.3 **118.55**

VHF frequencies available at Flight Service Stations and at their remote communication outlets (RCO's) are listed below for the coverage of this volume. Frequencies in bold type are available all altitudes but recommended for use FL180 and above. ''T'' indicates transmit only and ''R'' indicates receive only. RCO's available at NAVAID's are listed after the NAVAID name. RCO's not at NAVAID's are listed by name.

BOISE AFSS

ASHTON RCO 123.625
BLISS RCO 122.4
BOISE RCO 122.2 122.6
CASCADE RCO 122.35
CONNERS RCO 122.05
COEUR D'ALENE RCO 122.05
HAILEY RCO 122.4
IDAHO FALLS RCO 122.55
LEWISTON RCO 122.35
MALAD CITY RCO 122.65
MOUNTAIN HOME RCO 122.6
MULLAN PASS RCO 122.15
POCATELLO RCO 122.35
ROME RCO 122.65
SALMON RCO 122.55
SQAW BUTTE RCO 122.45
STANLEY RCO 122.6
TWIN FALLS RCO 122.25

CASPER AFSS

ANTELOPE GAP RCO 122.2
BIG PINEY RCO 122.3
BOYSEN RESERVOIR RCO 122.3
CASPER RCO 122.2 122.4
CHEROKEE RCO 122.4
CHEYENNE RCO 122.3
CODY RCO 122.3
CONVERSE RCO 121.975
CRAZY WOMAN RCO 122.025
DUNIOR RCO 122.6
FORT BRIDGER RCO 122.3
GILLETTE RCO 122.3
JACKSON RCO 122.05
LARAMIE RCO 122.6
MEDICINE BOW RCO 122.5
NEWCASTLE RCO 122.5
RAWLINS RCO 122.2
RIVERTON RCO 122.2
ROCK SPRINGS RCO 122.6
SHERIDAN RCO 122.5
WORLAND RCO 122.4

GREAT FALLS AFSS

BILLINGS 122.55
BOZEMAN RCO 122.5
BUTTE RCO 122.2 122.4
COPPERTOWN RCO 122.65
CUT BANK RCO 122.2
DILLON RCO 122.15
GLASGOW RCO 122.25
GLENDIVE RCO 122.55
GREAT FALLS RCO 122.6
HARLOWTON RCO 122.4
HAVRE RCO 123.65
HELENA RCO 122.55
JUDITH MOUNTAIN RCO 122.2
LAKESIDE RCO 122.5
LEWISTOWN RCO 122.35
LIVINGSTON RCO 122.2
MILES CITY RCO 122.2
MILLER PEAK RCO 122.45
SIDNEY RCO 123.65
TOWER HILL RCO 122.3
WOLF POINT RCO 122.45
YELLOWSTONE RCO **119.4**

Mc MINNVILLE AFSS

ASTORIA RCO 122.3
AUGSPURGER RCO 122.3
BEAVER MOUNTAIN RCO **122.4**
BURNS RCO 122.5
CAPE BLANCO RCO 122.4
ENTERPRISE RCO 122.5
EUGENE RCO **122.3**
KIMBERLY RCO 122.6
KLAMATH FALLS RCO 122.6
LA GRANDE RCO 122.5
LAKEVIEW RCO 122.3
MC MINNVILLE RCO 122.45
MEDFORD RCO 122.65
NEWBERG RCO 122.45
NEWPORT RCO 122.5
NORTH BEND RCO 122.4
ONTARIO RCO 122.3
PENDLETON RCO 122.2
PORTLAND RCO 122.6
REDMOND RCO 122.5
ROSEBURG RCO 122.55
SALEM RCO 122.6
SEXTON SUMMIT RCO 122.5
SUNRIVER RCO 122.3
WALLULA RCO 122.6

SEATTLE AFSS 122.5

BADGER MOUNTAIN RCO 122.3
BELLINGHAM RCO 122.15
BUCKHORN MTN RCO 122.2
ELLENSBURG RCO 122.2
EPHRATA RCO 122.2
HOQUIAM RCO 122.2
JUMP–OFF–JOE RCO 122.4
MOSES LAKE RCO 122.4
MT CONSTITUTION RCO 122.3
OCEAN SHORES RCO 122.4
OMAK RCO 122.2
PAINE RCO 122.55
PORT ANGELES RCO 122.6
PULLMAN RCO 122.6
SEATTLE RCO 122.5 123.65
SOUTHWEST WASHINGTON RCO 122.25 122.55
SPOKANE RCO 122.2 122.55 122.65
TATOOSH RCO 122.25
THE DALLES RCO 122.65
VANCOUVER RCO 122.35
WALLA WALLA RCO 122.3
WENATCHEE RCO 122.6
YAKIMA RCO 122.5

FLIGHT STANDARDS DISTRICT OFFICES (FSDO)

Below is a list of FSDO's in the area of coverage of this directory. These offices serve the aviation industry and the general public on matters relating to certification and operation of general aviation aircraft. Address letters to Manager, Flight Standards District Office–Federal Aviation Administration.

IDAHO

3295 Elder Street, Suite 350
Airport Plaza
Boise, ID 83705
Telephone: 208–334–1238

MONTANA

Helena Airport
2725 Skyway Drive
Helena, MT 59601
Telephone: 406–449–5270
1–800–457–9917

OREGON

Portland Flight Standards District Office
3180 NW 229th Avenue
Hillsboro, Oregon 97124
Telephone: 503–615–3200
FAX 503–615–3300

WASHINGTON

Seattle FSDO
1601 Lind Ave. S. W.
Renton, WA 98057
Telephone: 425–227–2813

Spokane FSDO
Felts Field
6133 E. Rutter Avenue
Spokane, WA 99212
Telephone: 509–532–2340

PREFERRED IFR ROUTES

A system of preferred routes has been established to guide pilots in planning their route of flight, to minimize route changes during the operational phase of flight, and to aid in the efficient orderly management of the air traffic using federal airways. The preferred IFR routes which follow are designed to serve the needs of airspace users and to provide for a systematic flow of air traffic in the major terminal and en route flight environments. Cooperation by all pilots in filing preferred routes will result in fewer traffic delays and will better provide for efficient departure, en route and arrival air traffic service.

The following lists contain preferred IFR routes for the low altitude stratum and the high altitude stratum. The high altitude list is in two sections; the first section showing terminal to terminal routes and the second section showing single direction route segments. Also, on some high altitude routes low altitude airways are included as transition routes.

The following will explain the terms/abbreviations used in the listing:

1. Preferred routes beginning/ending with an airway number indicate that the airway essentially overlies the airport and flight are normally cleared directly on the airway.

2. Preferred IFR routes beginning/ending with a fix indicate that aircraft may be routed to/from these fixes via a Standard Instrument Departure (SID) route, radar vectors (RV), or a Standard Terminal Arrival Route (STAR).

3. Preferred IFR routes for major terminals selected are listed alphabetically under the name of the departure airport. Where several airports are in proximity they are listed under the principal airport and categorized as a metropolitan area; e.g., New York Metro Area.

4. Preferred IFR routes used in one direction only for selected segments, irrespective of point of departure or destination, are listed numerically showing the segment fixes and the direction and times effective.

5. Where more than one route is listed the routes have equal priority for use.

6. Official location identifiers are used in the route description for VOR/VORTAC navaids.

7. Intersection names are spelled out.

8. Navaid radial and distance fixes (e.g., ARD201113) have been used in the route description in an expediency and intersection names will be assigned as soon as routine processing can be accomplished. Navaid radial (no distance stated) may be used to describe a route to intercept a specified airway (e.g., MIV MIV101 V39); another navaid radial (e.g., UIM UIM255 GSW081); or an intersection (e.g., GSW081 FITCH).

9. Where two navaids, an intersection and a navaid, a navaid and a navaid radial and distance point, or any navigable combination of these route descriptions follow in succession, the route is direct.

10. The effective times for the routes are in UTC. During periods of daylight saving time effective times will be one hour earlier than indicated. All states observe daylight saving time except Arizona, Puerto Rico and the Virgin Islands. Pilots planning flight between the terminals or route segments listed should file for the appropriate preferred IFR route.

11. (90–170 incl) altitude flight level assignment in hundred of feet.

12. The notations ''pressurized'' and ''unpressurized'' for certain low altitude preferred routes to Kennedy Airport indicate the preferred route based on aircraft performance.

13. High Altitude Preferred IFR Routes are in effect during the following time periods unless otherwise noted.

Sun	1300–2259 local time.
Mon thru Fri	0701–2259 local time.
Sat	0701–1459 local time.

14. Use current SIDs and STARSs for flight planning.

15. For high altitude routes, the portion of the routes contained in brackets [ ] is suggested but optional. The portion of the route outside the brackets will likely be required by the facilities involved.

SPECIAL LOW ALTITUDE DIRECTIONAL ROUTES

	Route	Effective Times (UTC)
Low altitude IFR traffic 13000 feet and below overflying the Portland, OR Area:		
Southbound/southwestbound	OLM V165 UBG	1400–0700
Northbound	UBG V165 OLM	1400–0700
Low Altitude IFR traffic 9000 feet and below overflying the Seattle, WA Area:		
Southbound/Southwestbound	V165	1400–0700
Northbound	V165	1400–0700
Eastbound	V004 SEA V002	1400–0700
Low Altitude IFR traffic 10000 to 15000 overflying the Seattle, WA Area:		
Southbound	V165 V495	1400–0700
Southbound	V023 V165 DIGGN V495	1400–0700
Eastbound	V004 SEA V2	1400–0700
Low Altitude IFR traffic 10000 to 15000 overflying the Seattle, WA Area landing in PDX area:		
Southbound	V165 V495 SEA HELNS–STAR	1400–0700
Southbound	V023 V165 DIGGN V495 SEA HELNS–STAR	1400–0700
Low Altitude IFR traffic from the North terminating at McMinnville, OR, Aurora State, OR, or Hillsboro, OR:		
Southbound	V165 UBG	1400–0700

SPECIAL LOW ALTITUDE DIRECTIONAL ROUTES

Terminals	Route	Effective Times (UTC)
From the Eugene, OR Area: (props and turboprops, 170 and below)		
Northbound	V481 CVO V495 UBG	1400–0700
Southbound	V448 OED	1400–0700

HIGH ALTITUDE

Terminals	Route	Effective Times (UTC)
PORTLAND (PDX)		
Burbank (BUR)	J67 LIN J189 AVE FIM	1300–0600
Chicago O'Hare (ORD)	J16 MCW JVL–STAR	0000–2359
Detroit Metro–Wayne Co (DTW)	ODI J34 BAE MKG POLAR–STAR	
Houston (HOU)	(Turbojets) PNH MQP EUVR TEXNN–STAR	
Houston (IAH)	PNH MQP RIICE–STAR	
Long Beach (LGB)	J67 LIN J189 AVE FIM	1300–0600
Los Angeles (LAX)	J67 LIN J189 AVE FIM	1300–0600
Ontario (ONT)	J67 LKV J5 EHF PMD	1300–0600
Santa Ana (SNA)	J67 LIN J189 AVE FIM	1300–0600
SEATTLE BOEING FLD (BFI)		
Burbank (BUR)	SEA J5 LKV J67 LIN J189 AVE FIM	1300–0600
Long Beach (LGB)	SEA J5 LKV J67 LIN J189 AVE FIM	1300–0600
Los Angeles (LAX)	SEA J5 LKV J67 LIN J189 AVE FIM	1300–0600
Ontario (ONT)	SEA J5 EHF ZIGGY–STAR	1300–0600
Santa Ana (SNA)	SEA J5 LKV J67 LIN J189 AVE FIM	1300–0600
SEATTLE/TACOMA (SEA)		
Anchorage (ANC)	(RNAV only) SQUIM AKWAY AKHOG LAIRE AKZOO JOH	
Burbank (BUR)	SUMMA–DP SUMMA J5 LKV J67 LIN J189 AVE FIM	1300–0600
Cleveland Metro Area (CLE) (CGF) (BKL) (LNN) (LPR)	BAE J34 GRR HIMEZ–STAR	
Detroit Metro–Wayne Co. (DTW)	J90 HLN J34 BAE MKG POLAR–STAR	
Houston (HOU)	(Turbojets) PNH MQP EUVR TEXNN–STAR	
Houston (IAH)	PNH MQP RIICE–STAR	
Kennedy (JFK)	J90 HLN J34 ODI J30 J90 OBK J584 CRL J554 JHW J70 LVZ LENDY–STAR	
Long Beach (LGB)	SUMMA–DP SUMMA J5 LKV J67 LIN J189 AVE FIM	1300–0600
Los Angeles (LAX)	SUMMA–DP SUMMA J5 LKV J67 LIN J189 AVE FIM	1300–0600
Newark (EWR)	J90 ABR J70 GEP DLL J34 CRL J584 SLT FQM–STAR	
Ontario (ONT)	SUMMA–DP SUMMA J5 EHF PMD	1300–0600
Santa Ana (SNA)	SUMMA–DP SUMMA J5 LKV J67 LIN J189 AVE FIM	1300–0600
SPOKANE (GEG)		
Chicago O'Hare (ORD)	(FL240 and above, Turbojets) to join DPR J16 MCW JVL–STAR	0000–2359

Q-ROUTES REGULATORY

Q1, Q3, Q5, Q7, Q9 and Q11 are preferred single direction (Southbound) Q routes; flight planning Northbound not authorized.

Q routes are RNAV routes that require the use of GNSS or DME/DME/IRU RNAV, unless otherwise indicated. Please note that this section does not apply to Q routes in the Gulf of Mexico. Gulf of Mexico Q routes are explained in the Southeast and South Central A/FD volumes. Q routes listed in this A/FD volume have at least part of one of their leg segments within this volume's area of coverage.

GNSS and DME/DME/IRU RNAV operations are authorized along Q routes at FL 180 and above. GNSS and DME/DME/IRU RNAV MEAs will only be published if above FL 180.

DME facilities that have been assessed for RNAV operations are listed below. Q routes with no DME facilities listed are limited to GNSS RNAV operations only. Those routes will have an enroute chart note ''GNSS REQUIRED''.

Route	Segment	DME
Q1	ELMAA–ERAVE	BTG, OLM, HQM, HUH, UBG
	ERAVE–EASON	BTG, OLM, HQM, HUH, LTJ, CVO, DSD, OED, UBG, ONP, EUG
	EASON–EBINY	CVO, DSD, OED, BTG, UBG, ONP, EUG, LMT
	EBINY–ENVIE	CVO, OED, EUG, LMT, RBL, ENI, ONP, FJS
	ENVIE–ETCHY	OED, PYE, OAK, LIN, ECA, LMT, RBL, ENI, SAC, FJS
	ETCHY–POINT REYES	LIN, ECA, RBL, ENI, SAC, OAK
Q2	BOILE–HEDVI	HEC, PDZ, OCN, PMD, LAX, RZS, IPL, TRM, PKE, BLH, EED, BZA, GBN, PXR
	HEDVI–HOBOL	BZA, GBN, BLH, EED, PXR, IPL, TFD, DRK, TUS
	HOBOL–ITUCO	TFD, GBN, BLH, PXR, TUS, CIE, SSO
	ITUCO–NEWMAN	EWM, TFD, PXR, CIE, SSO, TUS, TCS
Q3	FEPOT–FAMUK	OLM, TOU, HQM, CVO, BTG, DSD, LTJ, UBG, ONP, EUG
	FAMUK–FRFLY	BTG, DSD, OED, CVO, EUG, ONP, UBG, RBL, LMT
	FRFLY–FINER	OED, EUG, RBL, LMT, ENI, CVO, FJS
	FINER–FOWND	OED, PYE, ECA, LIN, OAK, ENI, RBL, LMT, SAC, FJS
	FOWND–POINT REYES	LIN, ECA, PYE, RBL, SAC, ENI
Q4	BOILE–HEDVI	HEC, PDZ, OCN, PMD, LAX, RZS, IPL, TRM, PKE, BLH, EED, BZA, GBN, PXR
	HEDVI–SCOLE	EED, BLH, BZA, GBN, TRM, IPL, TFD
	SCOLE–SPTFR	EED, BLH, BZA, GBN, TRM, IPL, TFD
	SPTFR–ZEBOL	EED, IPL, BZA, GBN, TFD, PXR, BLH
	ZEBOL–SKTTR	PXR, BLH, BZA, GBN, TFD, TUS, SSO, CIE, SVC, TCS
	SKTTR–EL PASO	EWM, CUS, SVC, TCS, SSO, CIE, ELP, DMN, CME
Q5	HAROB–HISKU	OLM, ONP, CVO, EUG, HQM, UBG, BTG, LTJ, DSD, HUH
	HISKU–HARPR	ONP, CVO, EUG, LTJ, DSD, UBG, BTG, RBL, OED, LMT, FJS, LKV
	HARPR–HOMEG	CVO, EUG, OED, RBL, LMT, ENI, FJS, LKV
	HOMEG–HUPTU	SAC, PYE, LIN, OAK, ECA, LMT, RBL, ENI, OED, FJS
	HUPTU–STIKM	OAK, ECA, PYE, LIN, SAC, ENI, RBL
Q7	JINMO–JOGEN	CVO, HQM, LTJ, UBG, BTG, ONP, IMB, EUG, OLM, DSD, YKM, PDT, SEA
	JOGEN–JUNEJ	LTJ, IMB, UBG, EUG, CVO, RBL, LMT, FMG, DSD, LKV, OED, BTG
	JUNEJ–JAGWA	RBL, LMT, FMG, LIN, SAC, ECA, ENI, MOD, SWR, OAK, LKV, CZQ, AVE, SNS
	JAGWA–AVENAL	OAK, MOD, ECA, EHF, PRB, AVE, SNS, CZQ
Q9	SUMMA–SMIGE	OLM, UBG, SEA, YKM, BTG, ONP, IMB, HQM, PDT, EUG, LTJ, CVO, DSD, OED, EPH, MWH
	SMIGE–SUNBE	IMB, UBG, EUG, IMB, RBL, LMT, FMG, SAC, OED, CVO, LKV, DSD, BTG
	SUNBE–REBRG	RBL, LMT, FMG, SAC, ECA, MVA, CZQ, OAK, EHF, PMD, LKV, LIN, MOD, AVE, OED, SWR
	REBRG–DERBB	CZQ, PMD, EHF, LAX, RZS, AVE, MOD, ECA
Q11	PAAGE–PAWLI	EPH, UBG, CVO, EUG, HQM, YKM, OLM, PDT, BTG, ONP, IMB, LTJ, DSD, LKV, OED, SEA
	PAWLI–PITVE	EUG, FMG, SAC, IMB, LKV, OED, DSD, RBL, LMT, CVO, REO
	PITVE–PUSHH	FMG, SAC, LIN, SWR, MOD, OAL, RBL, LKV, LMT, MVA, CZQ
	PUSHH–LOS ANGELES	SAC, ECA, FMG, LIN, OAL, MOD, EHF, LAX, PMD, PDZ, HEC, OCN, CZQ, AVE, RZS
Q13	All segments	None; GNSS required
Q15	All segments	None; GNSS required
Q19	PLESS–NASHVILLE	ENL, GQO, PXV, BNA, IIU, FAM, BWG, CSX
Q20	CORONA–HONDS	CNX, ABQ, ACH, ONM, TXO, LVS, TCC, CME
	HONDS–UNNOS	CNX, INK, CME, TXO, TCC
	UNNOS–FUSCO	FST, ACH, INK, CME, SJT, TXO, TCC
	FUSCO–JUNCTION	ABI, CWK, CSI, INK, LZZ, JCT, SJT, STV, FST
Q21	JONEZ–RAZORBACK	BYP, EOS, TUL, TXK, ADM, RZC, OKM
Q22	GUSTI–OYSTY	AEX, DAS, MCB, LLA, BTR, LCH, HRV, LFT, LEV
	OYSTY–ACMES	RQR, GCV, MCB, BTR, PCU, GPT, HRV, LEV, SJI
	ACMES–CATLN	SJI, MGM, MCB, BFM, GPT, GCV, HRV, CEW, MVC, PCU, MEI
Q23	FORT SMITH–RAZORBACK	OKM, RZC, EOS, TUL

Route	Segment	DME
Q24	LAKE CHARLES–BATON ROUGE	AEX, DAS, LCH, MCB, LFT, BTR
	BATON ROUGE–IRUBE	AEX, LEV, MCB, LCH, RQR, HRV, BTR, GCV, MCB, PCU, SJI, LBY
	IRUBE–PAYTN	GCV, MCB, JYU, PCU, MEI, HRV, CEW, SJI
Q25	MEEOW–WALNUT RIDGE	ELD, MEM, LIT, FAM, RZC
	WALNUT RIDGE–WLSUN	MEM, STL, BWG, PXV, ENL, FAM, ARG, BNA, CSX, TTH
	WLSUN–POCKET CITY	BWG, PXV, ENL, BNA, TTH
Q26	WALNUT RIDGE–DEVAC	LIT, JKS,GQO, MEM, BNA, FAM, ARG, DYR, VUZ, RMG
Q27	FORT SMITH–ZALDA	OKM, SGF, RZC, EOS, TUL
Q28	GRAZN–PYRMD	EIC, LIT, ELD, OKM, TXK
	PYRMD–HAKAT	ARG, LIT, FAM, ELD, SGF, RZC, MEM, TXK
	HAKAT–ESTEE	ARG, LIT, FAM, SGF, MEM
	ESTEE–POCKET CITY	ARG, CSX, FAM, PXV, ENL, MEM, STL, BWG, TTH, BNA
Q29	HARES–MEMPHIS	MEM, ARG, LIT, JAN, ELD, SQS
	MEMPHIS–SIDAE	MEM, PXV, BNA, BWG, ARG, ENL
	SIDAE–POCKET CITY	PXV, TTH, BWG, ENL
Q30	SIDON–VULCAN	GLH, MEM, VUZ, JAN, JYU, MEI, MGM, SQS, RMG
Q31	DHART–JODOX	SQS, LIT, TXK
	JODOX–MARVELL	SQS, LIT, ELD, MEM, ARG
	MARVELL–TIIDE	ARG, BWG, PXV, FAM, LIT, MEM, ENL, TTH
	TIIDE–POCKET CITY	BWG, PXV, ENL, TTH
Q32	EL DORADO–GAGLE	AEX, JAN, MEM, SQS, SWB, ELD, LIT, TXK
	GAGLE–CRAMM	JAN, SQS, MEM, ARG, VUZ, BNA, LIT
	CRAMM–NASHVILLE	BWG, MEM, VUZ, BNA, GQO
	NASHVILLE–SWAPP	BWG, IIU, PXV, VXV, BNA, GQO
Q33	DHART-LITTLE ROCK	AEX, ELD, LIT, TXK, SWB, ARG, MEM, SQS
	LITTLE ROCK–PROWL	ELD, SGF, FAM, LIT, ARG, MEM, RZC, CSX, STL
Q34	TEXARKANA–MATIE	LIT, SWB, TXK, BYP, EIC, ELD, SQS
	MATIE–MEMPHIS	LIT, ARG, MEM, ELD, SQS
	MEMPHIS–SWAPP	BWG, ARG, MEM, MKL, SQS,PXV, BNA, GQO, IIU, VXV
Q35	KIMBERLY–NEERO	LTJ, PDT, DSD, IMB, LKV, BOI, REO, BAM, SDO
	NEERO–WINEN	BQU, SDO, BAM, REO, BVL, ILC, DTA, ELY, CDC, MLF, BCE
	WINEN–CORKR	CDC, BCE, BLD, ILC, MLF, TBC, PGS, INW, DRK
	CORKR–DRAKE	TBC, BCE, BLD, DRK, PGS, FLG, GCN, INW, TFD
Q36	RAZORBACK–TWITS	RZC, MEM, SGF, BUM, TUL, EOS, FAM, ARG, LIT
	TWITS–DEPEC	MEM, GQO, BNA, BWG, FAM, ARG, PXV, IIU
	DEPEC–NASHVILLE	GQO, BWG, BNA, PXV, IIU
	NASHVILLE–SWAPP	VXV, BWG, BNA, GQO, PXV, IIU
Q38	ROKIT–INCIN	DAS, LCH, SWB, IAH, LFK, HUB, AEX
	INCIN–LAREY	JAN, MCB, SWB, AEX
	LAREY–BESOM	JAN, JYU, MEI, SQS, VUZ
Q40	ALEXANDRIA–DOOMS	AEX, SWB, LCH, JAN, HEZ, MCB
	DOOMS–WINAP	JAN, SQS, MEI, MCB
	WINAP–MISLE	MEI, VUZ, JYU
Q42	KIRKSVILLE–STRUK	CID, IOW, UIN, LMN, IRK, BDF, STL, DEC, ENL, CSX
	STRUK–DANVILLE	ENL, IOW, UIN, BDF, DEC, STL, CSX, SPI, TTH, BVT, JOT, VHP, OXI, ENL, OKK, OBK, GIJ, FWA, GSH, IRK
	DANVILLE–MUNCIE	GIJ, SPI, BDF, OBK, OKK, VHP, BVT, DEC, GSH, FWA, JOT, TTH, OXI, ROD, FLM
	MUNCIE–HIDON	FLM, VHP, GSH, TTH, GIJ, OKK, FWA, ROD, OXI, CRL, GSH, APE, DJB, DXO, HNN, AIR, HVQ, CXR, EWC
	HIDON–BUBAA	AIR, APE, HNN, CXR, HVQ, EWC, DJB
	BUBAA–PSYKO	AIR, APE, DJB, CXR, HNN, EWC, SLT, CSN, JHW, ETG, PSB
	PSYKO–BRNAN	PSB, JHW, EWC, AIR, ETG, CSN, EMI, SLT
	BRNAN–MAALS	EMI, SLT, CSN, EWC, PSB, ETG, SAX, RBV, HNK, HUO, SIE
	MAALS–SUZIE	ETG, EMI, CSN, HUO, SIE, JFK, PSB, SLT, HNK
	SUZIE–EAST TEXAS	JFK, EMI, PSB, SLT, HNK, SIE, RBV, SAX, HUO, CYN
	EAST TEXAS–ELIOT	HUO, RBV, EMI, CYN, SAX, JFK, PSB, HNK
Q104	DEFUN–HEVVN	PIE, PZD, CRG, SZW, TAY, JYU, CEW, MGM, OTK, CRG
	HEVVN–PLYER	PIE, ORL, OMN, SRQ, TAY, LAL, CRG, SZW, PZD
	PLYER–SWABE	PIE, ORL, OMN, SRQ, TAY
	SWABE–ST PETERSBURG	LAL, ORL, OMN, SRQ, PHK, PIE
	ST PETERSBURG–CYPRESS	PHK, PBI, SRQ, PIE, VRB, ORL, FLL, LAL, OMN

Route	Segment	DME
Q106	SMELZ–BULZI	LAL, ORL, OMN, PHK, PIE, CRG, VRB, TAY, OTK, PZD, AMG, SZW
	BULZI–DRABK	AMG, PZD, TAY, CRG, SZW, MGM, OTK, JYU, CEW, SJI
	DRABK–GADAY	MGM, PZD, OTK, JYU, SZW, CEW, SJI
Q108	GADAY–HKUNA	CEW, JYU, MGM, SZW, RRS, PZD, MAI, OTK, GEF, MGR, TAY, AMG, CRG
Q110	THNDR–JAYMC	SRQ, VRB, PHK, PIE, LAL, VKZ, ORL, PBI
	JAYMC–RVERO	VKZ, VRB, PHK, PIE, LAL, SRQ, ORL, OMN, PBI, DHP
	RVERO–KPASA	OMN, PIE, PBI, SRQ, ORL, LAL
	KPASA–BRUTS	SRQ, VRB, ORL, PHK, TAY, PIE, OMN, OTK, LAL, CRG, SZW, AMG
	BRUTS–GULFR	OMN, AMG, CRG, SZW, PIE, TAY, PZD, OTK
	GULFR–FEONA	TAY, MCN, PZD, CRG, OTK, SZW, AMG, MCN, ATL, MGM
Q112	DEFUN–HEVVN	PIE, OTK, CRG, OMN, LAL, SZW, SRQ, ORL, VRB
	HEVVN–INPIN	JYU, PZD, CEW, SZW, MGM, OTK, TAY, AMG, PIE, CRG
Q116	KPASA–BRUTS	SRQ, VRB, ORL, PHK, TAY, PIE, OMN, OTK, LAL, CRG, SZW, AMG
	BRUTS–GULFR	OMN, AMG, CRG, TAY, LAL, PZD, SZW, OTK
	GULFR–CEEYA	MCN, AMG, PZD, OTK, SZW, TAY
Q118	KPASA–BRUTS	SRQ, VRB, ORL, PHK, TAY, PIE, OMN, OTK, LAL, CRG, SZW, AMG
	BRUTS–LENIE	OMN, AMG, CRG, TAY, LAL, PZD, SZW, OTK, MCN
Q501	VIXIS–GOPHER	ECK, FNT, APN, SSM, GRR, MBL, SAW, BAE, MNM, DLL, AUW, ODI, STE, FGT,EAU, DLH, GEP, BRD, MCW, MSP, ASP, TVC, GRB, RWF
	GOPHER–SOBME	FGT, BRD, MCW, GEP, ABR, FAR, DLH, ODI, RWF, FSD
Q502	KENPA–GOPHER	SSM, FNT, ECK, APN, SAW, GRB, BAE, DLL, AUW, ODI, FGT, DLH, EAU, MCW, MSP, MNM, ASP, TVC, GEP, RWF, BRD
	GOPHER–SOBME	FGT, DLH, ODI, MCW, ABR, FAR, MSP, GEP, RWF, FSD, BRD
Q504	NOTAP–CESNA	SSM, ECK, APN, GLR, PLN, ISQ, MNM, DLL, RHI, DLH, GEP, FGT, ODI, ASP, TVC, SAW, GRB, BRD
	CESNA–HEMDI	ODI, GEP, DLH, FGT, RWF, FAR, AXN, FSD, ABR, DLL, BRD
Q505	OMAGA–RIMBE	SSM, TVC, ASP, SAW, GRB
	RIMBE–CESNA	SSM, RHI, DLL, DLH, GEP, FGT, TVC, SAW, GRB, BRD, ODI
	CESNA–HEMDI	GEP, DLH, FGT, RWF, FAR, AXN, FSD, ABR, BRD, ODI, GRB

RNAV Routing Pitch and Catch Points

The purpose of this section of the Special High Altitude Routes is to present user routing options for flight within the initial HAR Phase I expansion airspace. Users are able to fly user-preferred routes, referred to as non-restrictive routing (NRR), between specific fixes described by **pitch** (entry into) and **catch** (exit out of) fixes in the HAR airspace. Pitch points indicate an end of departure procedures, preferred IFR routings, or other established routing programs where a flight can begin a segment of NRR. The catch point indicates where a flight ends a segment of NRR and joins published arrival procedures, preferred IFR routing, or other established routing programs.

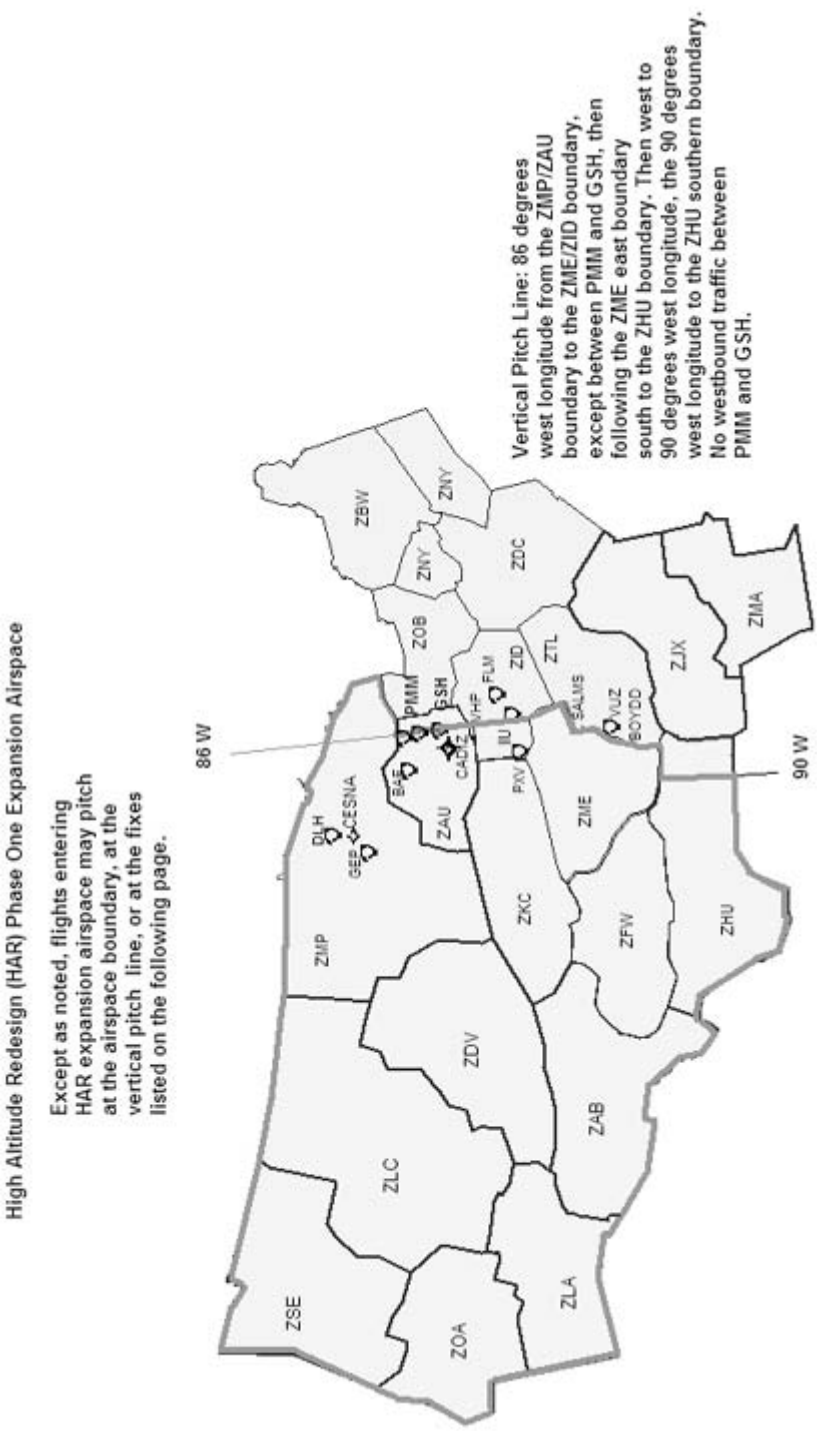
The HAR Phase I expansion airspace is defined as that airspace at and above FL 350 in fourteen of the western and southern Air Route Traffic Control Centers (ARTCCs). The airspace includes Minneapolis (ZMP), Chicago (ZAU), Kansas City (ZKC), Denver (ZDV), Salt Lake City (ZLC), Oakland (ZOA), Seattle Centers (ZSE), Los Angeles (ZLA), Albuquerque (ZAB), Fort Worth (ZFW), Memphis (ZME), and Houston (ZHU). Jacksonville (ZJX) and Miami (ZMA) are included for east-west routes only.

To develop a flight plan, select pitch and catch points based upon your desired route across the Phase I airspace. Filing requirements to pitch points, and from catch points, remain unchanged from current procedures. For the portion of the route between the pitch and catch points, non-restrictive routing is permitted.

Where pitch points for a specific airport are not identified, aircraft should file an appropriate departure procedure (DP), or any other user preferred routing prior to the NRR portion of their routing. Where catch points for a specific airport are not identified aircraft should file, after the NRR portion of their routing, an appropriate arrival procedure or other user preferred routing to their destination.

Additionally, information concerning the location and schedule of Special Use Airspace (SUA) and Air Traffic Control Assigned Airspace (ATCAA) can be found on the Web Site: http://sua.faa.gov/sua/Welcome.do. ATCAA refers to airspace in the high altitude structure supporting military and other special operations. Users are encouraged to file around these areas when they are scheduled to be active, thereby avoiding unplanned reroutes around them.

In conjunction with the HAR program RNAV routes have been established to provide for a systematic flow of air traffic in specific portions of the enroute flight environment. The designator for these RNAV routes begin with the letter Q, for example, Q-501. Where those routes aid in the efficient orderly management of air traffic they will be published as preferred IFR routes.


High Altitude Redesign (HAR) Phase One Expansion Airspace
Except as noted, flights entering HAR expansion airspace may pitch at the airspace boundary, at the vertical pitch line, or at the fixes listed on the following page.
86 W
90 W
Vertical Pitch Line: 86 degrees west longitude from the ZMP/ZAU boundary to the ZME/ZID boundary, except between PMM and GSH, then following the ZME east boundary south to the ZHU boundary. Then west to 90 degrees west longitude, the 90 degrees west longitude to the ZHU southern boundary. No westbound traffic between PMM and GSH.
ZBW
ZNY
ZNY
ZDC
ZOB
ZID
ZTL
ZJX
ZMA
ZMP
ZAU
ZKC
ZME
ZFW
ZHU
ZDV
ZAB
ZLC
ZLA
ZOA
ZSE
PMM
GSH
FLM
VHP
CADIZ
IU
PXV
BAE
DLH
GEE
CESNA
SALMS
VUZ
BOYDD

HAR Special High Altitude Pitch (entry) Points for Nonrestrictive Routing for Airports Located Outside HAR Phase I Expansion Airspace

Westbound traffic originating outside of HAR airspace entering ZMP, ZAU, ZKC and ZME can begin non–restrictive routing over any of the following pitch points (listed from north to south):

DLH, CESNA, GEP, BAE, MKG, GRR, PMM, GSH, CADIZ, FWA, VHP, FLM, IIU, PXV, SGF, RZC, BNA, SALMS, VUZ, BOYDD, MIE.

Traffic originating outside of HAR airspace may also begin Nonrestrictive Routing upon crossing the pitch line depicted on the associated graphic.

HAR Special High Altitude Pitch Points for Airports Located Within (below) HAR Phase I Expansion Airspace

This section lists pitch points for airports within the HAR Phase I expansion airspace.

Albuquerque	ABQ, GUP, HANOS or ZUN
Austin	ABI, FUZ, JCT, MQP, NAVYS, SJT or TNV
Boca Raton, FL	TBIRD KPASA Q118 LENIE or TBIRD KPASA Q116 CEEYA or TBIRD KPASA Q110 FEONA or TBIRD SMELZ Q106 BULZI or TBIRD SMELZ Q106 GADAY
Burbank includes Santa Monica and Van Nuys	GMN, MARKS or DAG LAS or HEC EED or PMD BLH
Chicago Terminal Area	IOW, PLL275065, MZV or BAE
Dallas/Fort Worth Terminal Area	ABI, LBB, GTH, CDS, MRMAC, IRW, TUL, MLC, TXK ELD, SWB or Aircraft destined the Chicago terminal area Except MDW EAKER MIDEE BDF BRADFORD–STAR Or MLC J105 SGF BDF BRADFORD–STAR
Denver Terminal Area	PUB, DVC, DBL, RLG, EKR, LAR, MBW, CYS, BFF, HANKI, NATTI, ASHBY, BELKE, CABET, WEEDS, OR BINKE
Fort Lauderdale (or) Fort Lauderdale Executive	THNDR KPASA Q118 LENIE or THNDR KPASA Q116 CEEYA or THNDR KPASA Q110 FEONA or THNDR SMELZ Q106 GADAY or THNDR SMELZ Q106 BULZI
Houston Bush	LIT, ELD, MLC, JCT or Aircraft destined Atlanta Terminal Area LCH Q24 PAYTN HONIE–RNAV STAR or Aircraft joining J37 to the northeast, GUSTI SID GUSTI Q22 CATLN or Aircraft joining J42 to the northeast, EL DORADO SID ELD Q32 J42

Houston Hobby	LIT, ELD, MLC, JCT, or Aircraft joining J42 to the northeast, EL DORADO SID ELD Q32 J42
Jacksonville, FL	TAY
Kansas City Terminal Area	TIFTO, CATTS or KENTN
Los Angeles, includes Ontario	GMN, RZS or DAG LAS or TRM EED or TRM PKE
Las Vegas	DOBNE, MOSBI, NICLE, TRALR or ZELOT
Long Beach includes Orange County	GMN SNS, EHF, LANDO or TRM PKE or TRM EED
Memphis	BNA, HAAWK, SALMS or SQS
Miami Terminal Area	WINCO KPASA Q118 LENIE or WINCO KPASA Q116 CEEYA or WINCO KPASA Q110 FEONA or WINCO SMELZ Q106 GADAY or WINCO SMELZ Q106 BULZI
Milwaukee	GREAS
Minneapolis Terminal Area*	ONL, ABR, FAR, OBH, OVR, FOD
New Orleans Terminal Area	AEX, MEI, SQS, KAPLN
Orlando Terminal Area	WEBBS BRUTS Q118 LENIE or WEBBS GULFR Q116 CEEYA or WEBBS BULZI Q106 GADAY or WEBBS FEONA or WEBBS BULZI
Palm Beach, FL	TBIRD KPASA Q118 LENIE or TBIRD KPASA Q116 CEEYA or TBIRD KPASA Q110 FEONA or TBIRD SMELZ Q106 BULZI or TBIRD SMELZ Q106 GADAY
Palm Springs	TRM JOTNU BLD or TRM EED or TRM PKE
Phoenix	CHILY, CIE, CULTS, RSK, DOVEE, GCN, MESSI, SJN, DRYHT or MOHAK
Portland, OR	PDT, TIMEE

Salt Lake City	HVE, DTA, MLF, BCE, OAL, MTU, BVL, OCS, TWF, DBS, BPI or TCH J56 CHE or TCH J173 EKR
Saint Louis	VIH, MAP, MYERZ, MCM or HLV MCI
San Antonio Terminal Area	FUZ, SJT, MQP, ABI or Aircraft North of LFK, LFK or Aircraft South of HUB, ELA or Aircraft South of LFK and North of HUB LCH
San Diego	TRM EED or TRM PKE or TRM JOTNU BLD
San Francisco Bay Area Oakland San Jose	GALLI, INSLO, HAROL JSICA GALLI, INSLO, HAROL JSICA GALLI or INSLO
Seattle	BLUIT
Southwest Florida Airports (RSW/FMY)	JOCKS KPASA Q118 LENIE or JOCKS KPASA Q116 CEEYA or JOCKS KPASA Q110 FEONA or JOCKS SMELZ Q106 GADAY or JOCKS SMELZ Q106 BULZI
Tampa Terminal Area	FEONA, BULZI or BRUTS Q118 LENIE or GULFR Q116 CEEYA or BULZI Q106 GADAY

*MSP area departures with destinations east of 93 degrees west longitude via preferred IFR routing.

Catch Points for Airports Located Outside HAR Phase I Expansion Airspace

This section lists exit points for aircraft destined to specific destinations which are outside the HAR Phase I airspace.

Atlanta Terminal Area	Aircraft through ZME airspace from ZKC airspace east of FAM, Pless Q19 BNA or Aircraft through ZME airspace from ZKC airspace west of FAM, ARG Q26 DEVAC or MEM or Aircraft through ZME airspace from ZID airspace west of a line from VHP to BWG, BNA or Aircraft through ZME airspace from ZID airspace east of a line from VHP to BWG, BWG or Aircraft through ZME airspace from ZFW airspace, MEM or MEI HONIE (RNAV)–STAR or PATYN HONIE (RNAV)–STAR

Baltimore–Washington*	GIJ, GEP, FLM, IIU, BAE, VHP, WHETT, BNA or VUZ
Boston*	GEP, CRL, ECK, IIU, BNA or VUZ
Buffalo*	GEP, CRL
Hartford Bradley*	GEP, CRL
Canton–Akron*	GIJ, VHP, GEP
Charlotte	BNA, VUZ
Cincinnati Terminal Area	BNA, PXV or Aircraft north of SLC, JOT or Aircraft over or south of SLC, ENL or SLC or SFO departures, ENL, JOT
Cleveland Terminal Area*	OBK
Detroit Terminal Area	BAE MKG POLAR–STAR or VHP FWA MIZAR–STAR
Detroit Young	VHP FWA or LAN SPRTN–STAR
Indianapolis Terminal Area	BIB, SPI, JOT
Louisville	ENL, MEM
Newark*	GEP, VHP, FLM, IIU, BNA, VUZ or IOW GIJ J554 CRL J584 SLT FQM
New York Kennedy*	GEP, VHP, FLM, IIU, BNA, VUZ or DBQ J94 PMM J70 LVZ LENDY–STAR
New York LaGuardia*	GIJ, GEP, VHP, BAE, FLM, IIU, BNA, VUZ
Philadelphia Terminal Area*	GIJ, GEP, VHP, BAE, WHETT, BNA, VUZ
Pittsburgh Terminal Area*	VHP, GIJ, BAE, GEP
Pontiac	LFD, LAN, VHP, FWA, GEP
Providence	JHW, HEMDI, CESNA, GEP, GRB, TVC, ASP, VHP, IIU, BNA, VUZ
Raleigh–Durham	FLM, IIU, BNA, VUZ
Toronto Terminal Area	ECK, SVM, SSM, GEP
Teterboro*	GEP, VHP, CRL, BNA, VUZ
Washington Dulles/National*	GIJ, GEP, FLM, IIU, BAE, VHP, WHETT, BNA, VUZ
White Plains*	GEP, VHP, CRL, FLM, IIU, BNA, VUZ
Willow Run*	LAN, LFD, VHP, FWA, GEP

*Eastbound aircraft over flying ZMP center airspace entering Toronto center airspace, file direct SSM or via J63, J522, Q505, Q504, Q502, Q501
or
Entering ZAU or ZOB airspace from north of DPR J16 MCW, GEP
or
Entering ZAU or ZOB airspace from or south of DPR J16 MCW, CRL.

Catch Points for Airports Located Within (below) HAR Phase I Expansion Airspace

This section lists exit points for aircraft destined to airports which are below HAR Phase I airspace.

Albuquerque Terminal Area	CURLY CURLY–STAR or ESPAN FRIHO–STAR or LAVAN LAVAN–STAR or FTI FRIHO–STAR or MIERA MIERA–STAR
Austin Terminal Area	Aircraft west of a north–south line at LFK, BLEWE or Aircraft east of a north–south line at LFK,IDU or LLO
Boca Raton, FL	CEW DEFUN Q112 INPIN SHDAY (RNAV)–STAR Aircraft through ZHU remain south of ZME and ZTL airspace or DEFUN Q112 INPIN SHDAY (RNAV)–STAR Aircraft through ZHU remain south of ZME and ZTL airspace or SZW INPIN SHDAY (RNAV)–STAR
Chicago Midway	CVA MOTIF–STAR or PIA MOTIF–STAR or DBQ CVA MOTIF–STAR or LMN MOTIF–STAR
Chicago O'Hare Terminal Area	GEP DLL MSN JVL JANESVILLE–STAR or TVC PULLMAN–STAR or FOD DBQ JVL JANESVILLE–STAR or MCW JANESVILLE–STAR or GCK IRK BRADFORD–STAR
Dallas/Fort Worth Terminal Area	IRW, LOSZY, FSM, LIT, SQS, MLU, AEX, JUMBO, TQA, TURKI, HEATR Aircraft through ZME airspace from north and west of PXV, RZC, Q23 FSM or Aircraft through ZME airspace from east of PXV, PXV Q25 MEEOW or Aircraft through ZME airspace from J6 down to, but not including J52, LIT, SQS or Aircraft through ZME airspace from J52 and south of J52, SQS

Denver Terminal Area	OATHE DANDD–STAR or HGO QUAIL–STAR or LOPEC–STAR or ALS LARKS–STAR or HBU POWDR–STAR or EKR TOMSN–STAR or CHE TOMSN–STAR or BFF LANDR–STAR or LBF SAYGE–STAR or HCT SAYGE–STAR or RSK LARKS–STAR or LAA QUAIL–STAR or GCK J154 RYLIE DANDD–STAR or OCS J154 ALPOE RAMMS–STAR or YANKI J114 SNY LANDR–STAR or Aircraft filed BIL or east, MBW RAMMS–STAR
Ft Lauderdale or Ft Lauderdale Executive	CEW DEFUN Q104 PIE SWAGS (RNAV)–STAR Aircraft through ZHU airspace remain south ZME and ZTL airspace or SZW HEVVN Q104 PIE SWAGS (RNAV)–STAR
Houston Bush	CRP, CVE, LLO, LUKIY, SAT or Aircraft south and east of LLA, JEPEG or MISLE Q40 AEX or Aircraft north and east of SJI, SJI or Aircraft east of PXV, PXV Q31 DHART SWB or Aircraft north and west of PXV, PROWL Q33 DHART SWB
Houston Hobby	CRP, ELLVR, SAT, SWB or Aircraft south and east of GIRLY, KCEEE or Aircraft north and east of SJI, SJI or BESOM Q38 ROKIT ROKIT–STAR or Aircraft east of PXV, PXV Q29 HARES SWB or Aircraft north and west of PXV, PROWL Q33 DHART SWB
Jacksonville	GADAY ZOOSS TAY Aircraft through ZHU airspace remain south of ZME and ZTL airspace or ZOOSS TAY

John Wayne–Orange County	HEC, PGS, BLD or Aircraft south of TBC from ZAB airspace, HIPPI
Kansas City Terminal Area	LMN BRAYMER–STAR or PWE ROBINSON–STAR or EMP JHAWK–STAR
Las Vegas	DILCO, LIDAT, IGM or Aircraft over PGA or north of PGA KSINO or Aircraft south of PGA PGS LYNSY
Los Angeles Terminal Area	Aircraft North of TBC, HEC, PGS or Aircraft South of TBC from ZAB airspace, HIPPI, MESSI
Miami Terminal Area	CEW DEFUN Q104 CYY DEEDS (RNAV)–STAR Aircraft through ZHU airspace remain south ZME and ZTL airspace or SZW HEVVN Q104 CYY DEEDS (RNAV)–STAR
Minneapolis Terminal Area	Aircraft from north, west, south, FAR GOPHER–STAR or RWF SKETR–STAR or ALO KASPR–STAR or BRD GOPHER–STAR or BAE EAU CLAIRE–STAR or FOD TWOLF–STAR
Memphis Terminal Area	ARG, BWG, FSM, PXV, LIT, RZC, SQS, VUZ, BNA, GQO, ELD
Naples, FL	CEW DEFUN Q104 PLYER PIKKR (RNAV)–STAR Aircraft through ZHU AIRSPACE remain south of ZME and ZTL airspace or SZW HEVVN Q104 PLYER PIKKR (RNAV)–STAR
Nashville	CCT, GHM, GUITR, TINGS, VOLLS
New Orleans Terminal Area	BLUEZ, GPT, LCH, MCB, TBD, FATSO
Oakland	ILA or KATTS PAMMY or Aircraft over or south of a line ILC J16 DVC REANA KATTS PAMMY or Aircraft from north of ILC, JOPER PAMMY or KATTS PAMMY or Aircraft over or south of ILC, REANA KATTS PAMMY
Orlando Terminal Area	GADAY Q108 CLAWZ LEESE–STAR Aircraft through ZHU airspace remain south of ZME/ZTL airspace or OTK LEESE–STAR

Palm Beach, FL	CEW DEFUN Q112 INPIN GULLO (RNAV)–STAR Aircraft through ZHU airspace remain south of ZME and ZTL airspace or SZW INPIN GULLO (RNAV)–STAR
Phoenix	CORKR DRK or Aircraft from ZDV airspace, GUP or Aircraft from ZAB airspace, ZUN, MOHAK, SSO or VYLLA TUS
Phoenix Satellites	FLG, SSO, MOHAK or VYLLA, TUS
Portland, OR Terminal Area	ARNIT BONVL–STAR or LARNO BONVL–STAR or MOXEE MOXEE–STAR
St. Louis Terminal Area	SGF TRAKE–STAR or BUM TRAKE–STAR or ANX TRAKE–STAR or LMN IRK RIVRS–STAR or RBS VANDALIA–STAR
Salt Lake City Terminal Area	JNC J12 HELPR SPANE–STAR or EKR MTU SPANE–STAR or BCE DTA–TCH or MLF DTA–TCH or BVL BONNEVILLE–STAR or BYI BEARR–STAR or PIH BEARR–STAR or DBS BRIGHAM CITY–STAR or JAC BRIGHAM CITY–STAR or BPI BRIGHAM CITY–STAR or OCS BRIGHAM CITY–STAR
San Diego Terminal Area	EED, LAX, GBN
Santa Ana	HEC, PGS, BLD, HIPPI
San Antonio Terminal Area	IDU, CSI, JCT, LLO, CRP, LRD or West of a north–south line at LFK, BLEWE or East of a north–south line at LFK, IDU

San Francisco	FMG GOLDEN GATE–STAR or MVA MODESTO–STAR or ENI GOLDEN GATE–STAR or OAL MODESTO–STAR or South of a line ILC to DVC, REANA KATTS OAL MODESTO–STAR
San Jose	FMG HYP EL NIDO–STAR or OAL HYP EL NIDO–STAR or ENI GOLDEN GATE–STAR or South of a line ILC to DVC, REANA KATTS KICHI CANDA EL NIDO–STAR
Seattle Terminal Area	Aircraft From northeast, southeast, south, TEMPL GLASR–STAR or SUNED CHINS–STAR or BTG OLMYPIA–STAR
Southwest Florida Airports RSW and FMY	CEW DEFUN Q104 SWABE JOSFF–STAR Aircraft through ZHU airspace remain south of ZME and ZTL airspace or SZW HEVVN Q104 SWABE JOSFF–STAR
Tampa Terminal Area	CEW DEFUN Q104 HEVVN DARBS–STAR Aircraft through ZHU airspace remain south of ZME and ZTL airspace or SZW DARBS–STAR
Tucson	DRK PXR or MOHAK GBN

VISUAL FLIGHT RULES (VFR) WAYPOINTS

VFR Waypoint names consist of five letters beginning with ''VP''. Stand–alone VFR Waypoints are portrayed on VFR Charts using the same four–point star symbol currently used for Instrument Flight Rules (IFR) Waypoints.

VFR Waypoints collocated with Visual Checkpoints (Visual Reporting Points) are portrayed with a Visual Check Point flag. The VFR Waypoint name is shown in parentheses adjacent to the Visual Check Point name.

VFR Waypoint names are not intended to be pronounceable and shall not be used in ATC communications.

CAUTION: GPS accuracy necessitates extra vigilance for other aircraft when navigating near any fix retrieved from a GPS database.

BALTIMORE–WASHINGTON TERMINAL AREA CHART/FLYWAY CHART

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPAXI	_____	N38°34.57′/W076°20.38′
VPONX	_____	N39°06.65′/W076°55.92′
VPOOP	_____	N38°56.32′/W076°36.90′

BOSTON HELICOPTER CHART

VPBAY	_____	N42°16.17′/W070°49.48′
VPBLT	_____	N42°19.67′/W070°53.40′
VPCGS	_____	N42°22.08′/W071°03.13′
VPEVS	_____	N42°23.52′/W071°04.10′
VPFEN	_____	N42°12.58′/W071°08.88′
VPFRE	_____	N42°25.03′/W071°12.32′
VPGVL	_____	N42°21.88′/W070°52.18′
VPHAM	_____	N42°30.13′/W071°07.15′
VPPIK	_____	N42°20.37′/W071°15.93′
VPQUA	_____	N42°12.10′/W071°04.78′
VPQUB	_____	N42°12.60′/W070°59.83′
VPSPF	_____	N42°24.20′/W071°09.47′
VPTOB	_____	N42°31.42′/W070°59.82′
VPWAN	_____	N42°36.88′/W071°19.45′

BOSTON TERMINAL AREA CHART

VPCOH	Cohasset	N42°13.58′/W070°48.94′
VPCUT	Cuttyhunk Harbor	N41°25.50′/W070°55.03′
VPFRA	Framingham Shopping Center	N42°18.16′/W071°23.65′
VPHOL	Woods Hole	N41°31.06′/W070°40.60′
VPHUL	Hull	N42°18.20′/W070°55.30′
VPLPT	Nantucket Great Point	N41°23.41′/W070°02.78′
VPNED	Needham Towers	N42°18.51′/W071°14.64′
VPPEA	Peabody Shopping Center	N42°32.52′/W070°56.69′
VPROC	Rockingham Race Track	N42°46.29′/W071°13.57′
VPSCI	Scituate	N42°11.89′/W070°43.69′
VPTPT	Nantucket Third Point	N41°18.51′/W070°03.37′
VPTUC	Tuckernuck	N41°18.31′/W070°15.43′
VPWAK	Wakefield	N42°30.72′/W071°05.24′
VPWAN	Wang Towers	N42°36.88′/W071°19.45′

CHARLOTTE SECTIONAL CHART

VPATO	_____	N34°37.37′/W076°31.47′
VPAVA	_____	N34°57.00′/W077°16.50′
VPBFE	_____	N32°16.38′/W080°47.50′
VPBRA	_____	N36°13.75′/W076°08.08′
VPGCE	_____	N36°03.90′/W076°36.42′
VPGHI	_____	N35°15.30′/W075°31.25′
VPGIO	_____	N35°32.50′/W076°37.33′
VPKJU	_____	N35°26.58′/W076°10.22′
VPLMN	_____	N34°55.43′/W077°46.42′
VPMAB	_____	N34°42.20′/W077°03.50′
VPNPO	ISLE OF PALMS	N32°47.78′/W079°46.45′
VPOKY	_____	N35°06.53′/W075°59.17′
VPREP	_____	N32°33.98′/W080°21.82′
VPRRS	_____	N33°25.45′/W079°07.60′
VPUMO	_____	N35°35.63′/W075°28.08′
VPWZO	_____	N36°00.87′/W075°40.07′
VPZIE	_____	N32°01.62′/W080°53.42′

CHICAGO SECTIONAL CHART

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPCOH	_____	N31°49.35′/W081°51.07′

DENVER TERMINAL AREA CHART/FLYWAY CHART

VPBEN	_____	N39°44.28′/W104°26.00′
VPFTG	_____	N39°44.35′/W104°32.75′
VPNIC	NORTH INTERCHANGE	N39°58.90′/W104°59.27′

HOUSTON TERMINAL AREA CHART/FLYWAY CHART

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPBWY	_____	N29°46.25′/W095°09.24′
VPDTN	_____	N29°46.59′/W095°22.01′
VPGLA	_____	N30°08.32′/W095°06.62′
VPGLB	_____	N30°07.80′/W094°55.70′
VPKTY	_____	N29°47.05′/W095°44.92′
VPPLN	_____	N30°08.80′/W095°50.42′
VPRSN	_____	N29°30.00′/W095°41.00′
VPSND	_____	N29°23.13′/W095°28.86′
VPSNT	_____	N29°49.29′/W094°53.94′
VPTNE	_____	N29°47.48′/W095°03.34′
VPTNW	_____	N29°47.06′/W095°33.81′
VPTRK	_____	N29°24.06′/W095°10.44′

JACKSONVILLE SECTIONAL CHART

VPAFI	_____	N31°49.35′/W081°51.07′
VPAFY	_____	N30°07.00′/W081°21.33′
VPBEC	_____	N29°46.25′/W081°15.10′
VPCJA	_____	N29°30.00′/W081°06.00′
VPCKY	_____	N28°46.50′/W082°34.00′
VPCNY	_____	N28°30.00′/W080°45.00′
VPDAD	DADE CITY	N28°22.57′/W082°11.25′
VPDAR	_____	N31°22.38′/W081°24.13′
VPDFI	_____	N29°00.17′/W081°20.85′
VPDUT	_____	N27°37.70′/W082°09.10′
VPEAR	CLEARWATER BEACH	N27°58.67′/W082°49.83′
VPEGV	_____	N29°39.97′/W081°24.87′
VPFFU	_____	N28°57.08′/W081°00.33′
VPGPE	ST PETE BEACH	N27°43.50′/W082°44.67′
VPHAA	_____	N30°04.02′/W083°40.02′
VPHUC	_____	N28°19.87′/W082°43.77′
VPIWA	MIDWAY	N31°48.33′/W081°25.85′
VPJMY	_____	N29°26.92′/W081°18.27′
VPKER	LAKE PARKER	N28°04.00′/W081°56.00′
VPLEV	_____	N28°48.00′/W080°52.00′
VPLJA	_____	N29°00.00′/W080°51.00′
VPMAI	_____	N30°50.02′/W084°56.63′
VPTLH	_____	N30°32.70′/W083°52.22′
VPXZY	_____	N29°35.00′/W083°10.00′
VPYIW	_____	N30°42.28′/W081°27.25′
VPZIE	_____	N32°01.62′/W080°53.42′

KANSAS CITY SECTIONAL CHART

VPAGO	_____	N37°50.33′/W090°29.03′
VPBEK	_____	N37°15.07′/W092°30.67′
VPDEN	_____	N37°46.75′/W092°19.20′
VPENE	_____	N37°44.75′/W091°55.78′
VPESS	_____	N36°59.48′/W091°00.88′
VPFME	_____	N37°41.00′/W092°38.33′
VPGXY	_____	N37°15.50′/W091°40.17′
VPMBE	_____	N37°11.08′/W090°27.92′
VPMKE	_____	N37°24.47′/W092°40.00′
VPROV	_____	N38°01.72′/W091°12.81′
VPUTT	_____	N37°52.05′/W092°01.20′

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPWOC	_____	N37°18.03′/W092°18.63′
VPWRO	_____	N37°39.12′/W091°45.68′
VPXIZ	_____	N37°26.60′/W092°05.42′

KANSAS CITY TERMINAL AREA CHART

VPATN	ATCHISON	N39°33.62′/W095°07.65′
VPBGS	BLUE SPRINGS	N39°01.82′/W094°16.32′
VPBSP	BONNER SPRINGS	N39°03.78′/W094°53.10′
VPCHB	CHOUTEAU BRIDGE	N39°08.77′/W094°32.03′
VPDSO	DE SOTO	N38°58.68′/W094°58.48′
VPESG	EXCELSIOR SPRINGS	N39°20.68′/W094°13.77′
VPGTB	GARRETSBURG	N39°40.92′/W094°41.45′
VPLAT	LATHROP WATER TANK	N39°32.87′/W094°20.00′
VPLEN	LENEXA	N38°57.77′/W094°43.68′
VPLVL	LONGVIEW LAKE	N38°54.63′/W094°28.28′
VPMCL	MC LOUTH	N39°11.65′/W095°12.50′
VPNHA	NASHUA	N39°17.83′/W094°34.80′
VPSCX	SPORTS COMPLEX	N39°03.00′/W094°29.02′
VPSKR	SUGAR CREEK REFINERY	N39°07.00′/W094°27.02′
VPSPK	SWOPE PARK	N39°00.47′/W094°31.93′
VPTSK	TWIN STACKS	N39°09.05′/W094°38.22′
VPWOF	WORLDS OF FUN	N39°10.42′/W094°29.12′

KLAMATH FALLS SECTIONAL CHART

VPORO	_____	N43°57.38′/W123°02.22′

LOS ANGELES HELICOPTER CHART

VPANA	_____	N33°44.43′/W117°50.03′
VPART	MAGNOLIA	N33°51.45′/W117°58.92′
VPAUT	HWY 91 & 55	N33°50.63′/W117°49.57′
VPBOB	_____	N33°59.60′/W117°21.45′
VPCAR	_____	N33°49.90′/W118°17.23′
VPCNG	CONEJO GRADE US HWY 101	N34°12.54′/W118°59.61′
VPCOR	_____	N33°52.90′/W117°32.95′
VPCRX	_____	N34°01.40′/W117°44.88′
VPCSU	CSU CHANNEL ISLANDS	N34°09.76′/W119°02.53′
VPDOW	_____	N33°56.47′/W118°05.80′
VPELA	_____	N34°00.98′/W118°10.35′
VPETY	_____	N33°38.70′/W117°44.12′
VPFCB	_____	N34°02.03′/W118°01.63′
VPFPL	OXNARD FINANCIAL PLAZA	N34°13.71′/W119°10.39′
VPGOL	_____	N34°09.33′/W118°17.37′
VPIMP	_____	N33°55.85′/W118°16.85′
VPKAT	_____	N33°48.23′/W117°54.22′
VPKEL	_____	N34°03.92′/W117°48.40′
VPLAC	_____	N34°03.75′/W118°14.93′
VPLLU	_____	N34°03.85′/W117°17.82′
VPLQM	QUEEN MARY	N33°45.17′/W118°11.37′
VPLRT	SANTA ANITA RACE TRACK	N34°08.45′/W118°02.65′
VPLVT	VINCENT THOMAS BRIDGE	N33°44.97′/W118°16.32′
VPMDR	_____	N33°59.27′/W118°23.97′
VPNEW	NEWHALL PASS	N34°20.18′/W118°30.72′
VPNUY	_____	N34°09.63′/W118°28.18′
VPPCH	_____	N33°28.07′/W117°40.32′
VPPKC	_____	N34°03.32′/W118°12.83′
VPPOR	_____	N34°00.10′/W117°50.12′
VPRRT	_____	N33°59.37′/W118°16.83′
VPSEP	_____	N34°05.80′/W118°28.63′
VPSFR	_____	N34°17.45′/W118°28.07′
VPSTC	SATICOY BRIDGE	N34°16.62′/W119°08.34′
VPSTK		N34°13.97′/W118°24.60′

LOS ANGELES SECTIONAL CHART

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPCNG	CONEJO GRADE US HWY 101	N34°12.54′/W118°59.61′
VPCSU	CSU CHANNEL ISLANDS	N34°09.76′/W119°02.53′
VPFPL	OXNARD FINANCIAL PLAZA	N34°13.71′/W119°10.39′
VPSTC	SATICOY BRIDGE	N34°16.62′/W119°08.34′

LOS ANGELES TERMINAL AREA CHART/FLYWAY CHART

VPCNG	CONEJO GRADE US HWY 101	N34°12.54′/W118°59.61′
VPCSU	CSU CHANNEL ISLANDS	N34°09.76′/W119°02.53′
VPGTY	GETTY CENTER	N34°04.84′/W118°28.66′
VPLBP	BANNING PASS	N33°56.05′/W116°59.63′
VPLCC	CHAFFEY COLLEGE	N34°08.87′/W117°34.33′
VPLCP	CAJON PASS	N34°18.07′/W117°27.68′
VPLDL	DISNEYLAND	N33°48.72′/W117°55.13′
VPLDP	DANA POINT	N33°27.62′/W117°42.87′
VPLDS	DODGER STADIUM	N34°04.42′/W118°14.42′
VPLFX	91/605 INTERCHANGE	N33°52.38′/W118°06.08′
VPLGP	GRIFFITH PARK OBSERVATORY	N34°07.10′/W118°18.02′
VPLHF	110/405 FWYS	N33°51.42′/W118°17.10′
VPLHP	HUNTINGTON PIER	N33°39.32′/W118°00.25′
VPLKH	KING HARBOR	N33°50.75′/W118°23.88′
VPLLC	L.A. COLISEUM	N34°00.83′/W118°17.27′
VPLLM	LAKE MATHEWS	N33°50.58′/W117°26.85′
VPLMM	MAGIC MOUNTAIN	N34°26.20′/W118°36.28′
VPLMS	MILE SQUARE PARK	N33°43.40′/W117°56.77′
VPLPD	PRADO DAM	N33°53.40′/W117°38.48′
VPLPP	PACIFIC PALISADES	N34°02.13′/W118°32.15′
VPLQM	QUEEN MARY	N33°45.17′/W118°11.37′
VPLRB	ROSE BOWL	N34°09.67′/W118°10.05′
VPLRT	SANTA ANITA RACE TRACK	N34°08.45′/W118°02.65′
VPLSA	SANTA ANA CANYON	N33°52.03′/W117°42.68′
VPLSB	SANTA FE FLOOD BASIN	N34°07.72′/W117°57.30′
VPLSC	STATE COLLEGE	N33°52.97′/W117°53.13′
VPLSF	SAN FERNANDO RESERVOIR	N34°17.87′/W118°29.00′
VPLSP	SIGNAL PEAK	N33°36.33′/W117°48.63′
VPLSR	HAWTHORNE & 405 FREEWAY	N33°53.07′/W118°21.13′
VPLSS	SANTA SUSANA PASS	N34°16.00′/W118°38.43′
VPLTW	TUJUNGA WASH & FOOTHILL	N34°16.40′/W118°20.30′
VPLVT	VINCENT THOMAS BRIDGE	N33°44.97′/W118°16.32′
VPLWT	WATER TANK	N34°10.82′/W118°46.27′
VPNEW	NEWHALL PASS	N34°20.18′/W118°30.72′
VPSTC	SATICOY BRIDGE	N34°16.62′/W119°08.34′

MIAMI SECTIONAL CHART

VPACH	HOLLYWOOD BEACH	N26°00.92′/W080°06.93′
VPBOV	_____	N27°57.00′/W080°46.75′
VPCLE	_____	N26°27.07′/W082°00.88′
VPCTE	_____	N26°09.28′/W081°20.70′
VPDAD	DADE CITY	N28°22.57′/W082°11.25′
VPDUT	_____	N27°37.70′/W082°09.10′
VPDZE	_____	N27°19.00′/W080°44.17′
VPEAR	CLEARWATER BEACH	N27°58.67′/W082°49.83′
VPEDY	ANDYTOWN TOLLGATE	N26°08.78′/W080°28.00′
VPFAH	_____	N26°25.40′/W081°29.67′
VPGPE	ST PETE BEACH	N27°43.50′/W082°44.67′
VPHRO	_____	N27°05.97′/W082°12.20′
VPHUC	_____	N28°19.87′/W082°43.77′
VPIBR	_____	N27°12.47′/W081°40.22′
VPKER	LAKE PARKER	N28°04.00′/W081°56.00′
VPKOE	_____	N24°40.08′/W081°20.55′
VPLYY	_____	N24°49.07′/W080°49.17′
VPMBO	GULFSTREAM PARK	N25°58.57′/W080°08.17′
VPOBA	PUMPING STATION	N26°28.30′/W080°26.75′
VPRBI	_____	N25°50.67′/W080°55.18′
VPRNL	RANGER STATION	N25°22.92′/W080°36.58′
VPWMO	_____	N27°03.00′/W080°35.00′

MIAMI TERMINAL AREA CHART/FLYWAY CHART

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPACH	HOLLYWOOD BEACH	N26°00.92′/W080°06.93′
VPEDY	ANDYTOWN TOLLGATE	N26°08.78′/W080°28.00′
VPMBO	GULFSTREAM PARK	N25°58.57′W080°08.17′
VPOBA	PUMPING STATION	N26°28.30′/W080°26.75′
VPRBI	_____	N25°50.67′/W080°55.18′
VPRNL	RANGER STATION	N25°22.92′/W080°36.58′

NEW ORLEANS SECTIONAL CHART

VPGPT	_____	N30°25.95′/W089°05.62′
VPLIP	PHILLIPS INLET	N30°16.23′/W085°59.25′
VPMAI	_____	N30°50.02′/W084°56.63′
VPMOB	_____	N30°23.00′/W088°31.72′
VPRAM	_____	N30°18.95′/W089°35.88′
VPRER	_____	N30°13.87′/W085°20.67′
VPRIV	_____	N30°54.85′/W087°57.82′
VPSAW	_____	N30°49.65′/W089°07.42′
VPTHR	_____	N30°19.93′/W087°08.50′

NEW YORK HELICOPTER CHART

VPJAY	_____	N40°59.00′/W073°07.00′
VPLYD	_____	N40°57.37′/W073°29.59′
VPROK	_____	N40°52.70′/W073°44.24′

PHOENIX TERMINAL AREA CHART/FLYWAY CHART

VPALL	ALLENVILLE	N33°20.97′/W112°35.20′
VPAQU	AQUEDUCT PUMPING STATION	N33°40.05′/W112°41.38′
VPARM	ARROWHEAD MALL	N33°38.52′/W112°13.48′
VPAWG	AHWATUKEE GOLF COURSE	N33°19.98′/W111°59.08′
VPAZM	ARIZONA MILLS	N33°23.43′/W111°57.88′
VPBAR	BARTLETT DAM	N33°49.10′/W111°37.92′
VPCCC	COUNTRY CLUB & CANAL	N33°30.73′/W111°50.37′
VPCNL	CANAL	N33°33.23′/W111°46.89°
VPFRB	FIREBIRD LAKE	N33°16.35′/W111°58.10′
VPFTN	FOUNTAIN HILLS	N33°36.12′/W111°42.72′
VPGLX	GILA CROSSING	N33°16.55′/W112°10.08′
VPGPP	GLENDALE POWER PLANT	N33°33.27′/W112°13.00′
VPMAR	MARICOPA	N33°03.42′/W112°02.88′
VPMHS	MESQUITE HIGH SCHOOL	N33°20.53′/W111°49.58′
VPNRV	NEW RIVER	N33°55.08′/W112°08.45′
VPNTT	NORTH TEST TRACK	N33°03.50′/W111°55.83′
VPPIR	PIR	N33°22.52′/W112°18.90′
VPQTR	QUINTERO GOLF COURSE	N33°49.53′/W112°23.58′
VPRVC	RIO VERDE COMMUNITY	N33°44.37′/W111°39.62′
VPSMC	SOUTH MOUNTAIN COLLEGE	N33°23.02′/W112°02.12′
VPSQP	SQUAW PEAK	N33°32.83′/W112°01.27′
VPSSS	SUPERSTITION SPRINGS MALL	N33°23.50′/W111°41.37′
VPSTN	SANTAN MOUNTAINS	N33°09.23′/W111°40.92′
VPSTT	SOUTH TEST TRACK	N32°56.25′/W111°59.67′
VPZZZ	_____	N33°20.18′/W111°26.53′

ST LOUIS TERMINAL AREA CHART/FLYWAY CHART

VPAGN	TV ANTENNA	N38°32.08′/W090°22.42′
VPBPE	_____	N38°23.80′/W090°20.38′
VPCJY	HOLIDAY SHORES	N38°55.00′/W089°56.00′
VPCOJ	WINFIELD DAM	N39°00.28′/W090°41.23′
VPDFA	JEFFERSON BARRACKS BRIDGE	N38°29.18′/W090°16.47′
VPEAZ	BUSCH STADIUM	N38°37.43′/W090°11.55′
VPEDZ	WATER TANKS	N38°45.30′/W090°34.87′
VPEGR	GAS TANKS	N38°35.80′/W090°19.32′
VPEOX	ST PETERS	N38°47.17′/W090°39.25′

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPFAI	HOWELL ISLAND	N38°40.00′/W090°43.00′
VPFFY	_____	N38°55.37′/W090°17.30′
VPGPF	_____	N38°35.60′/W090°26.92′
VPGVI	_____	N38°32.30′/W090°27.80′
VPHRQ	CHAIN OF ROCKS BRIDGE	N38°45.88′/W090°10.42′
VPIBO	WATERLOO	N38°20.00′/W090°09.00′
VPJMU	HORSESHOE LAKE	N38°41.00′/W090°05.00′
VPKNY	PACIFIC	N38°29.00′/W090°44.00′
VPLES	ST CHARLES	N38°47.00′/W090°30.00′
VPLIW	SIX FLAGS	N38°30.67′/W090°40.47′
VPLXU	GATEWAY ARCH	N38°37.50′/W090°11.00′
VPNSY	WOOD RIVER REFINERIES	N38°50.00′/W090°05.00′
VPNZY	WENTZVILLE	N38°48.83′/W090°50.98′
VPRAZ	JERSEYVILLE	N39°07.00′/W090°20.00′
VPRMO	FOREST PARK	N38°38.00′/W090°17.00′
VPWKO	COLUMBIA	N38°27.00′/W090°12.00′
VPXXI	MILLSTADT	N38°27.50′/W090°05.68′
VPYID	MOSENTHEIN ISLAND	N38°43.00′/W090°12.25′

SALT LAKE CITY HELICOPTER CHART

VPAIR	SALTAIR	N40°44.85′/W112°11.22′
VPBEE	SOUTH INTERCHANGE	N40°38.18′/W111°54.23′
VPBRN	BARN	N40°54.28′/W112°10.15′
VPCAP	STATE CAPITOL	N40°46.67′/W111°53.25′
VPCHS	_____	N40°42.28′/W112°05.92′
VPCOP	BINGHAM COPPER MINE	N40°31.38′/W112°09.00′
VPCWY	CAUSEWAY	N41°05.37′/W112°07.17′
VPCYN	PARLEYS CANYON	N40°42.67′/W111°48.10′
VPFPC	FREE PORT CENTER	N41°05.92′/W112°02.27′
VPFPK	FRANCIS PEAK	N41°01.98′/W111°50.30′
VPGFS	GARFIELD STACK	N40°43.28′/W112°11.88′
VPHVE	SPAGHETTI BOWL	N40°43.50′/W111°54.22′
VPJRT	JORDAN RIVER TEMPLE	N40°35.02′/W111°55.58′
VPKSL	KSL ANTENNA	N40°46.80′/W112°05.80′
VPLGN	LAGOON AMUSEMENT PARK	N40°59.08′/W111°53.57′
VPMDH	MCKAY DEE HOSPITAL	N41°11.50′/W111°57.08′
VPMMT	MICROWAVE TOWERS	N40°48.50′/W111°53.37′
VPMSH	_____	N41°01.67′/W112°02.47′
VPNSL	_____	N40°50.15′/W111°54.90′
VPNTP	_____	N41°03.57′/W112°14.23′
VPOGE	GRAIN ELEVATOR	N41°13.13′/W112°00.45′
VPOPS	POWER STATION	N41°20.38′/W112°02.78′
VPPEN	STATE PRISON	N40°29.88′/W111°53.62′
VPPPT	PROMONTORY POINT	N41°12.28′/W112°25.73′
VPPTM	POINT OF THE MOUNTAIN	N40°27.42′/W111°54.83′
VPPVO	PROVO CANYON	N40°18.77′/W111°39.45′
VPRWY	_____	N40°48.48′/W112°00.33′
VPSLC	I–15/I–80 INTERCHANGE	N40°45.83′/W111°54.85′
VPTIP	SOUTH TIP	N40°50.93′/W112°10.92′
VPWBR	WEBER CANYON	N41°08.17′/W111°54.83′
VPWBT	_____	N40°38.00′/W112°03.33′

SALT LAKE CITY TERMINAL AREA CHART/FLYWAY CHART

VPAIR	SALTAIR	N40°44.85′/W112°11.22′
VPBEE	SOUTH INTERCHANGE	N40°38.18′/W111°54.23′
VPBRN	BARN	N40°54.28′/W112°10.15′
VPCAP	STATE CAPITOL	N40°46.67′/W111°53.25′
VPCHS	_____	N40°42.28′/W112°05.92′
VPCOP	BINGHAM COPPER MINE	N40°31.38′/W112°09.00′
VPCVI	CENTERVILLE INTERCHANGE	N40°55.30′/W111°53.43′
VPCWY	CAUSEWAY	N41°05.37′/W112°07.17′
VPCYN	PARLEYS CANYON	N40°42.67′/W111°48.10′
VPFPC	FREE PORT CENTER	N41°05.92′/W112°02.27′
VPFPK	FRANCIS PEAK	N41°01.98′/W111°50.30′
VPGFS	GARFIELD STACK	N40°43.28′/W112°11.88′

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPHVE	SPAGHETTI BOWL	N40°43.50′/W111°54.22′
VPJRT	JORDAN RIVER TEMPLE	N40°35.02′/W111°55.58′
VPKSL	KSL ANTENNA	N40°46.80′/W112°05.80′
VPLGN	LAGOON AMUSEMENT PARK	N40°59.08′/W111°53.57′
VPMDH	MCKAY DEE HOSPITAL	N41°11.50′/W111°57.08′
VPMMT	MICROWAVE TOWERS	N40°48.50′/W111°53.37′
VPMSH	_____	N41°01.67′/W112°02.47′
VPNSL	_____	N40°50.15′/W111°54.90′
VPNTP	_____	N41°03.57′/W112°14.23′
VPOGE	GRAIN ELEVATOR	N41°13.13′/W112°00.45′
VPOPS	POWER STATION	N41°20.38′/W112°02.78′
VPPEN	STATE PRISON	N40°29.88′/W111°53.62′
VPPPT	PROMONTORY POINT	N41°12.28′/W112°25.73′
VPPTM	POINT OF THE MOUNTAIN	N40°27.42′/W111°54.83′
VPPVO	PROVO CANYON	N40°18.77′/W111°39.45′
VPRWY	_____	N40°48.48′/W112°00.33′
VPSLC	I–15/I–80 INTERCHANGE	N40°45.83′/W111°54.85′
VPTIP	SOUTH TIP	N40°50.93′/W112°10.92′
VPUOU	U OF U EVENTS CENTER	N40°45.73′/W111°50.28′
VPWBR	WEBER CANYON	N41°08.17′/W111°54.83′
VPWBT	_____	N40°38.00′/W112°03.33′
VPZOO	HOGLE ZOO	N40°45.00′/W111°48.95′

SAN DIEGO TERMINAL AREA CHART/FLYWAY CHART

VPLDP	DANA POINT	N33°27.62′/W117°42.87′
VPLSP	SIGNAL PEAK	N33°36.33′/W117°48.63′
VPOCN	_____	N33°14.15′/W117°26.63′
VPSBC	BARONA CASINO	N32°56.25′/W116°52.60′
VPSBL	_____	N33°05.18′/W117°18.55′
VPSBM	BLACK MOUNTAIN	N32°58.87′/W117°07.00′
VPSCF	_____	N32°48.55′/W117°09.17′
VPSCM	COWLES MOUNTAIN	N32°48.72′/W117°01.97′
VPSCP	CRYSTAL PIER	N32°47.77′/W117°15.42′
VPSCR	_____	N32°39.37′/W117°07.30′
VPSFB	IRON MOUNTAIN	N32°58.25′/W116°57.33′
VPSLJ	LAKE JENNINGS	N32°51.53′/W116°53.28′
VPSMB	_____	N32°45.57′/W117°12.22′
VPSMP	_____	N33°22.70′/W117°36.75′
VPSMS	MOUNT SOLEDAD	N32°50.40′/W117°15.10′
VPSMV	_____	N32°45.75′/W117°09.80′
VPSMW	MOUNT WOODSON	N33°00.52′/W116°58.23′
VPSOP	OTAY MESA PRISON	N32°35.82′/W116°55.28′
VPSOT	LOWER OTAY LAKE	N32°37.73′/W116°55.38′
VPSPL	SOUTH POINT LOMA	N32°39.90′/W117°14.55′
VPSPP	POWER PLANT	N33°08.25′/W117°20.23′
VPSQS	QUALCOMM STADIUM	N32°46.98′/W117°07.23′
VPSRT	DEL MAR RACE TRACK	N32°58.58′/W117°15.95′
VPSSM	SAN MIGUEL MOUNTAIN	N32°41.78′/W116°56.18′
VPSSV	SAN VICENTE ISLAND	N32°55.53′/W116°55.00′
VPSTP	TORREY PINES GOLF COURSE	N32°54.17′/W117°14.68′
VPSVA	_____	N33°11.48′/W117°16.38′

SAN FRANCISCO SECTIONAL CHART

VPKBG	KINGSBURY GRADE	N38°58.75′/W119°53.20′

SAN FRANCISCO TERMINAL AREA CHART/FLYWAY CHART

VPALT	ALTAMONT PASS	N37°44.35′/W121°35.42′
VPANT	ANTIOCH BRIDGE	N38°01.45′/W121°45.02′
VPBBR	BENICIA BRIDGE	N38°02.50′/W122°07.45′
VPCAL	CALAVERAS RESERVOIR	N37°28.16′/W121°48.93′
VPCBT	LAKE CHABOT	N37°43.68′/W122°06.94′
VPCOY	COYOTE HILLS	N37°32.50′/W122°05.06′
VPCQZ	CARQUINEZ BRIDGE	N38°03.66′/W122°13.52′
VPCRL	_____	N37°11.00′/W121°41.06′
VPCRY	CRYSTAL SPRINGS CAUSEWAY	N37°30.56′/W122°21.10′

WAYPOINT IDENT	COLLOCATED VFR CHECKPOINT	LOCATION
VPCSH	CAL STATE UNIVERSITY	N37°39.52′/W122°03.52′
VPDAM	DEL VALLE DAM	N37°36.91′/W121°44.78′
VPDLR	_____	N37°07.00′/W121°47.06′
VPDUB	DUBLIN	N37°42.06′/W121°55.36′
VPEMB	EMBASSY SUITES	N37°26.05′/W121°53.83′
VPGGF	GOLDEN GATE FIELDS	N37°53.07′/W122°18.71′
VPGIL	GILROY	N37°01.37′/W121°33.99′
VPHHH	HAMILTON	N38°03.58′/W122°30.66′
VPKGO	KGO	N37°31.58′/W122°06.10′
VPLEX	LEXINGTON RESERVOIR	N37°11.66′/W121°59.18′
VPMID	MID–SPAN SAN MATEO BRIDGE	N37°36.28′/W122°11.81′
VPMOR	MORMON TEMPLE	N37°48.46′/W122°11.95′
VPNUM	NUMMI PLANT	N37°29.56′/W121°56.58′
VPPAC	_____	N37°38.00′/W122°32.07′
VPPRU	PRUNEYARD	N37°17.33′/W121°56.01′
VPSAR	SARATOGA	N37°15.26′/W122°02.33′
VPSLA	SLAC/LINEAR ACCELERATOR	N37°24.75′/W122°14.35′
VPSTB	STINSON BEACH	N37°54.45′/W122°40.41′
VPSUN	SUNOL GOLF COURSE	N37°34.85′/W121°53.23′
VPUTC	U.T.C.	N37°13.93′/W121°41.35′
VPWAL	WALNUT CREEK	N37°53.78′/W122°04.30′
VPWAM	_____	N37°30.28′/W122°10.00′
VPWFR	CEMENT PLANT	N37°30.88′/W122°12.26′

TAMPA/ORLANDO TERMINAL AREA CHART/FLYWAY CHART

VPBOV	_____	N27°57.00′/W080°46.75′
VPCNY	_____	N28°30.00′/W080°45.00′
VPDAD	DADE CITY	N28°22.57′/W082°11.25′
VPDFI	_____	N29°00.17′/W081°20.85′
VPDUT	_____	N27°37.70′/W082°09.10′
VPEAR	CLEARWATER BEACH	N27°58.67′/W082°49.83′
VPFFU	_____	N28°57.08′/W081°00.33′
VPGPE	ST PETE BEACH	N27°43.50′/W082°44.67′
VPHUC	_____	N28°19.87′/W082°43.77′
VPKER	LAKE PARKER	N28°04.00′/W081°56.00′
VPLEV	_____	N28°48.00′/W080°52.00′
VPLJA	_____	N29°00.00′/W080°51.00′

WASHINGTON SECTIONAL CHART

VPACE	_____	N38°07.82′/W076°48.75′
VPAXI	_____	N38°34.57′/W076°20.38′
VPBRA	_____	N36°13.75′/W076°08.08′
VPGCE	_____	N36°03.90′/W076°36.42′
VPWZO	_____	N36°00.87′/W075°40.07′

VOR RECEIVER CHECKPOINTS AND VOR TEST FACILITIES (VOT)

The use of VOR airborne and ground checkpoints is explained in Aeronautical Information Manual, Basic Flight Information and ATC Procedures.

NOTE: Under columns headed ''Type of Checkpoint'' & ''Type of VOT Facility'' G stands for ground. A/ stands for airborne followed by figures (2300) or (1000–3000) indicating the altitudes above mean sea level at which the check should be conducted. Facilities are listed in alphabetical order, in the state where the checkpoints or VOTs are located.

IDAHO

VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Boise	113.3/BOI	A/5000	090	6.2	Over dam outlet S end Lucky Peak Reservoir
Boise (Boise Air Terminal–Gowen Field)	113.3/BOI	G	275	1.0	On twy C adjacent to the intersection of Twy B at apch end Rwy 28L.
Coeur D'Alene	108.8/COE	A/4000	011	9.0	Over amusement park.
Idaho Falls (Idaho Falls Rgnl)	113.85/IDA	G	208		At intersection of Twys A and A3.
Nez Perce (Lewiston–Nez Perce County)	108.2/MQG	A/3000	247	6.2	Over tetrahedron on arpt.
Pocatello (Pocatello Rgnl)	112.6/PIH	A/5800	034	8.7	Over radio antenna with white storage tanks at base.
Twin Falls (Twin Falls–Sun Valley Reg Joslin Fld)	115.8/TWF	G	065	0.8	On runup area at apch end Rwy 25.

VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
Boise	116.7	G	

MONTANA

RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Billings	114.5/BIL	A/5000	199	10.5	Over refinery at Laurel.
Bozeman (Gallatin Fld)	112.4/BZN	G	272	0.5	Twy at apch end Rwy 12.
	112.4/BZN	G	137	1.0	On runup as at apch end Rwy 30.
Coppertown (Bert Mooney)	111.6/CPN	A/6600	098	11.5	Over intersection of Rwys 11–29 and 15–33.
Dillon	113.0/DLN	A/7000	245	5.0	Over letter 'B' on bluff.
Great Falls (Great Falls Intl)	115.1/GTF	G	030	2.3	On Twy A between A5 and A6.
	115.1/GTF	G	030	2.9	At intersection of Twy A and A3.
Havre	111.8/HVR	A/4000	278	8.0	Over S end of dam.
Helena (Helena Rgnl)	117.7/HLN	G	238	0.7	On Twy E on South side of Rwy 27.
Kalispell (Glacier Park Intl)	108.4/FCA	A/4000	316	6.4	Over apch end Rwy 30.

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Lewistown (Lewistown Muni)	112.0/LWT	A/5200	075	5.6	Over apch end Rwy 07.
Livingston	116.1/LVM	A/6500	237	5.5	Over northern most radio twr NE of city.
Miles City (Frank Wiley Field)	112.1/MLS	G	036	4.2	On twy leading to Rwy 30.
Missoula (Missoula Intl)	112.8/MSO	G	344	0.6	Terminal ramp east of Twy D.

OREGON

VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Astoria (Astoria Regional)	114.0/AST	G	153	.5	East edge of ramp in front of large hangar.
Baker	115.3/BKE	A/6000	136	6.7	Over microwave tower on bluff.
Corvallis (Corvallis Muni)	115.4/CVO	G	049	0.5	On S edge of terminal ramp.
Eugene (Mahlon Sweet Field)	112.9/EUG	G	071	0.5	On ramp immediately W of tower.
Klamath Falls (Klamath Falls)	115.9/LMT	G	298	1.0	On ramp N of Twy E.
North Bend (North Bend Muni)	112.1/OTH	G	254	3.1	On Twy E at compass rose.
Pendleton (Eastern Oregon Rgnl At Pendleton)	114.7/PDT	G	073	3.9	On twy B.
Rogue Valley (Rogue Valley Intl)	113.6/OED	A/3000	213	4.8	Over radio tower.
Roseburg (Roseburg Rgnl)	108.2/RBG	A/2500	337	3.0	Over S end of Rwy 16–34.
Wildhorse	113.8/ILR	A/6500	225	6.0	Over smoke stack.

VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
Portland Intl	111.0	G	
Portland Hillsboro	115.2	G	
Rogue Valley Intl–Medford	117.2	G	Unusable on Twy A–6, hangar area W of Twy A–6 and Twy A NW of Twy C.

WASHINGTON

VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Ellensburg (Bowers Field)	117.9/ELN	A/2300	255	3.5	Over W end of Rwy 07–25.
Ephrata (Ephrata Muni)	112.6/EPH	A/2300	202	5.8	Over intersection of Rwys 02–20 and 11–29.
Hoquiam (Bowerman)	117.7/HQM	A/1100	062	8.4	Over centerline on apch end Rwy 06.
Whatcom (Bellingham Intl)	113.0/HUH	A/1700	162	5.4	Over Nooksack River/Interstate 5 Bridge.

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Moses Lake (Grant County Intl)	115.0/MWH	G	155	1.4	On runup area Rwy 32R.
	115.0/MWH	G	194	1.2	On runup area Rwy 04.
	115.0/MWH	G	313	1.0	On runup area Rwy 14L.
Olympia (Olympia Rgnl)	113.4/OLM	G	350	0.3	On E runup area Rwy 17.
Paine (Snohomish Co (Paine Fld))	110.6/PAE	G	173	0.8	Intersection of Rwy 11 and Twy H.
				1.1	On Twy A–7.
Pasco (Tri–Cities)	108.4/PSC	G	098		Twy Echo at Rwy 30 run-up area.
Seattle	116.8/SEA	A/2000	197	27.0	Over Nisqually River/Interstate 5 bridge.
Seattle	116.8/SEA	A/2500	308	19.5	Over NW end of bridge and Hwy 305.
Seattle (Crest Airpark)	116.8/SEA	A/2000	107	10.3	Over centerline on apch end Rwy 33.
Tatoosh (Sekiu)	112.2/TOU	A/2500	077	12.4	Over AER 08.
Walla Walla (Martin Field)	116.4/ALW	A/1500	225	5.6	Over largest hangar.
Walla Walla (Walla Walla Rgnl)	116.4/ALW	G	035	0.5	At the intersection of Twys A and C.
Wenatchee (Pangborn Mem)	111.0/EAT	G	105	0.6	On Twy at apch end of Rwy 30.
Yakima	116.0/YKM	A/3500	210	4.1	Over single tower on ridge line.

VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
Seattle (Boeing Field/King County Intl)	108.6	G	
Seattle (Seattle Tacoma Intl)	117.5	G	
Spokane (Felts Field)	114.0	G	
Spokane Intl	109.6	G	

WYOMING

VOR RECEIVER CHECKPOINTS

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Boysen Reservoir	117.8/BOY	A/6500	180	25	Over Riverton VOR.
Jackson (Jackson Hole)	115.4/JAC	G	174	0.5	On Twy A, approximately 1,000′ S of AER 19.
Muddy Mountain (Casper/Natrona Co Intl)	116.2/DDY	A/6400	204	13.4	Over intersection Rwys 03–21, 08–26 and 12–30.
Newcastle (Mondell Fld)	108.2 ECS	A/5500	116	4.9	Over radio towers with strobe lights.
Rawlins (Rawlins Muni)	109.4/RWL	A/7500	093	5.5	Bridge over railroad track east of refinery.
	109.4/RWL	G	050	0.8	Runup area Rwy 22.
Rock Springs (Rock Springs–Sweetwater County)	116.0/OCS	G	270	2.3	Intersection twy to Rwy 09–27.
Sheridan (Sheridan County)	115.3/SHR	A/5000	129	5.0	Over centerline approach end Rwy 14.

PARACHUTE JUMPING AREAS

The following tabulation lists all reported parachute jumping sites in the area of coverage of this directory. Unless otherwise indicated, all activities are conducted during daylight hours and under VFR conditions. The busiest periods of activity are normally on weekends and holidays, but jumps can be expected at anytime during the week at the locations listed. Jumps within restricted airspace are not listed.

All times are local and altitudes MSL unless otherwise specified.

Contact facility and frequency is listed at the end of the remarks, when available, in bold face type.

Refer to Federal Aviation Regulations Part 105 for required procedures relating to parachute jumping.

Organizations desiring listing of their jumping activities in this publication should contact the nearest FSS, tower or ARTCC.

Qualified parachute jumping sites will be depicted on the appropriate visual chart(s).

Note: (c) in this publication indicates that the parachute jump area is charted.

To qualify for charting, a jump area must meet the following criteria:

(1) Been in operation for at least 1 year.

(2) Operate year round (at least on weekends).

(3) Log 4,000 or more jumps each year.

In addition, jump sites can be nominated by FAA Regions if special circumstances require charting.

LOCATION	DISTANCE AND RADIAL FROM NEAREST VOR/VORTAC	MAXIMUM ALTITUDE	REMARKS
	IDAHO		
Burley	13 NM; 035° Burley	15,000	Daily SR–SS.
(c) Caldwell Industrial Arpt	20 NM; 269° Boise	17,500	5 NM radius. 1/2 hour before SR–1 hour after SS.
(c) Star Skydiving Center	17 NM; 289° Boise	16,000	5NM radius. SR–2 hrs after SS daily.
	MONTANA		
Bozeman Gallatin Fld Arpt	1 NM; 038° Bozeman	15,000	2 NM radius. SR–SS daily.
(c) Butler Creek	19 NM; 296° Missoula	2,000 AGL	0.5 NM radius. Occasional use.
Dornblaser Fld	5.2 NM; 120° Missoula	12,500 AGL	0.5 NM radius. Occasional use.
(c) Grant Creek	1.5 NM; 053° Missoula	12,500 AGL	0.5 NM radius. Occasional use.
(c) Helena, Ft Harrison	6 NM; 265° Helena	12,000	1 NM radius. Wed–Sun SR–SS.
Kalispell	6 NM; 227° Kalispell	14,000	1 NM radius. 0900–SS daily.
(c) Kalispell, Carson Fld Arpt	28 NM; 238° Kalispell	14,000	2 NM radius. 0800–SS daily.
Kalispell, City Arpt	6 NM; 230° Kalispell	14,000 AGL	2 NM radius. 0800–SS daily.
(c) **Laurel Muni Arpt**	9 NM; 208° Billings	14,500	2 NM radius. Daily SR–SS.
Livingston, MIssion Fld	1 NM; 010° Livingston	14,500	2 NM radius. Daily SR–SS.
(c) Missoula Intl Arpt	1.4 NM; 315° Missoula	1,500 AGL	0.5 NM radius. May–Sep daily SR–SS, Oct–Apr occasional use.
Nine Mile R.S.	17 NM; 289° Missoula	2,000 AGL	0.5 NM radius. Occasional use.
(c) Raser Ranch	2 NM; 357° Missoula	3,000 AGL	0.5 NM radius Apr–Oct occasional use.
Roundup Arpt	40 NM; 351° Billings	14,500	Weekends SR–SS.
(c) Six Mile	15 NM; 300° Missoula	2,000 AGL	0.5 NM radius. Occasional use.
(c) Stevensville Arpt	25 NM; 162° Missoula	14,000	1 NM radius. Wed and weekends SR–SS.
Stoney Creek	17 NM; 296° Missoula	2,000 AGL	0.5 NM radius. Occasional use.
Three Forks Arpt	18 NM; 275° Bozeman	14,500	2 NM radius. Daily SR–SS.
University Campus	5 NM; 108° Missoula	12,500 AGL	0.5 NM radius. Occasional use.
West Yellowstone, Yellowstone Arpt	60 NM; 034° DuBois	1,500 AGL	June–Sep.
	OREGON		
(c) Albany, Northwest Parachute Club	18 NM; 032° Corvallis	13,000	2 NM radius. SR–1 hr after SS Wed–Sun. Occasional hours Mon–Tue.
(c) Creswell, Hobby Fld	15 NM; 120° Eugene	15,000	5 NM radius. SR–SS daily.
(c) Estacada, Beaver Oaks Arpt	25 NM; 076° Newberg	13,000 AGL	1.5 NM radius. 0800–2300 Daily.
(c) Hermiston Muni Arpt	16 NM; 280° Pendleton	15,000	2 NM radius. SR–SS weekends. Occasional hours weekdays.
(c) Medford, Beagle Sky Ranch Arpt	5 NM; 350° Rogue Valley	14,000	Daily SR–2200.
(c) Mollala, Sky Dive Oregon Arpt	19 NM; 110° Newberg	14,500	5 NM radius. 0800–2200, Daily. **Portland Intl Tower 118.1**
(c) Redmond, Cline Falls Air Park Arpt	3 NM; 010° Deschutes	13,000	3 NM radius. 0800–2100.

LOCATION	DISTANCE AND RADIAL FROM NEAREST VOR/VORTAC	MAXIMUM ALTITUDE	REMARKS
	WASHINGTON		
(c) Coupeville NOLF	5 NM; 110° Penn Cove	12,500 AGL	2 NM radius. Occasional use.
Fort Lewis, Abrams Drop Zone	7.5 NM; 200° McChord	10,000	1 NM radius. Occasional use.
Fort Lewis, Anzio Drop Zone	9 NM; 160° McChord	10,000	0.3 NM radius. Occasional use.
Fort Lewis, Dakto Drop Zone	7.5 NM; 175° McChord	10,000	0.3 NM radius. Occasional use.
Fort Lewis, Darby Drop Zone	8.5 NM; 097° Olympia	10,000	0.5 NM radius. Occasional use.
Fort Lewis, El Guettar Drop Zone	7.5 NM; 092° Olympia	10,000	0.3 NM radius. Occasional use.
Fort Lewis, Gray AAF Drop Zone	6 NM; 210° McChord	10,000	1 NM radius. Occasional use.
Fort Lewis, Marion Drop Zone	11 NM; 190° McChord	10,000	1 NM radius. Occasional use.
Fort Lewis, Merrill Drop Zone	9 NM; 092° Olympia	10,000	0.5 NM radius. Occasional use.
Fort Lewis, Mytkina Drop Zone	10 NM; 065° Olympia	10,000	1 NM radius. Occsional use.
Fort Lewis, Point Salinas Drop Zone	7.5 NM; 201° McChord	10,000	1 NM radius. Occasional use.
Fort Lewis, Pointe De Hoc Drop Zone	11.5 NM; 192° McChord	10,000	0.25 NM radius. Occasional use.
Fort lewis, Rogers Drop Zone	7 NM; 155° McChord	10,000	0.5 NM radius. Occasional use.
Fort Lewis, Solo Drop Zone	6.5 NM; 245° McChord	10,000	1 NM radius. Occasional use.
Kennewick, Vista Field	5.1 NM; 217° Pasco	14,500	1 NM radius. SR–SS weekends, 1700–SS weekdays, Apr–Nov.
(c) Larson Drop Zone	17 NM; 217° Moses Lake	3,000	Continuous. Personnel and hvy equip. **Grant Co Intl Tower 126.4**
Monroe, Firstair Fld	14 NM; 091° Paine	12,500	0.5 mi radius. Daily SR–SS.
(c) Richland Arpt	8 NM; 270° Pasco	13,000	2 NM radius. Continuous.
(c) Ritzville, West Plains Skydiving Drop Zone	36.4 NM; 207° Spokane	15,000	2 NM radius. SR–SS weekends, 1700–SS weekdays. Heavy use Apr–Nov.
(c) Shelton, Sanderson Fld Arpt	19 NM; 309° Olympia	14,000	2 NM radius. Daily 0800–2300.
(c) Snohomish, Harvey Fld	7 NM; 078° Paine	15,000	2 NM radius. Continuous.
(c) Snohomish, Harvey Fld	8 NM; 075° Paine	15,000	1 NM radius. Continuous.
(c) Spokane, Hayford Drop Zone	12 NM; 340° Spokane	10,000	0.5 NM radius. Occasional use.
(c) Tacoma, McChord AFB	28 NM, 181° Seattle	15,000	Weekends and occasional nights.
(c) Tekoa, Willard Fld	31 NM; 110° Spokane	12,500	1 NM radius. Daily.
(c) Toledo, Ed Carlson Mem Fld–South Lewis Co	30 NM; 150° Olympia	12,500	5 NM radius. Continuous.

The purpose of this bulletin is to provide major changes in aeronautical information that have occurred since the last publication date of each Sectional Aeronautical, VFR Terminal Area, and Helicopter Route Charts listed. The general policy is to include only those changes to controlled airspace and special use airspace that present a hazardous condition or impose a restriction on the pilot, and major changes to airports and radio navigational facilities, thereby providing the VFR pilot with the essential data necessary to update and maintain chart currency. The data is grouped by type and then by effective date. When a new edition of the Aeronautical Chart is published, the corrective tabulation will be removed from this bulletin. Inasmuch as this Bulletin provides major changes only, pilots should consult the airport listing in this directory for all new information. Users of U.S. World Aeronautical Charts (WAC) and U.S. Gulf Coast VFR Aeronautical Charts should consult the appropriate Sectional and VFR Terminal Area Charts for revisions.

Military Training Routes (MTRs) are shown on Sectional Aeronautical Charts, VFR Terminal Area, and Helicopter Route Charts. Only the route centerline, direction of flight and the route designator are shown — route widths and altitudes are not shown. Since these routes are subject to change every 56 days and the charts are reissued generally every 6 months, routes with a change in the alignment of the charted route centerline will be listed in this Aeronautical Chart Bulletin below. You are advised to contact the nearest FSS for route dimensions and current status for those routes affecting your flight.

BILLINGS SECTIONAL
79th Edition, 11 Mar 2010

OBSTRUCTIONS
8 Apr 2010 Add obst 3780′MSL (350′AGL)UC, 45°30′43″N, 104°28′25″W.

AIRPORTS
8 Apr 2010 Change CTAF freq. 122.9 to 122.8 at SOUTH BIG HORN COUNTY arpt, 44°31′00″N, 108°04′58″W.
Add CTAF freq. 122.8 at POPLAR MUNI arpt, 48°08′04″N, 105°09′43″W.

NAVAIDs
8 Apr 2010 No Major Changes.

AIRSPACE
8 Apr 2010 No Major Changes.

SPECIAL USE AIRSPACE
8 Apr 2010 No Major Changes.

MILITARY TRAINING ROUTES
8 Apr 2010 No Major Changes.

MISCELLANEOUS
8 Apr 2010 No Major Changes.

CHEYENNE SECTIONAL
81st Edition, 14 Jan 2010

OBSTRUCTIONS
11 Feb 2010 Add obst 4844′MSL (350′AGL)UC, 40°21′23″N, 104°08′48″W.
Add obst 6184′MSL (390′AGL)UC, 43°02′26″N, 105°58′50″W.
8 Apr 2010 Add obst 5024′MSL (367′AGL)UC, 44°11′51″N, 106°16′13″W.
Add windmill farm. 7643′ UC is highest MSL, 41°39′33″N, 106°03′26″W.
Add windmill farm. 6269′ UC is highest MSL, 43°01′45″N, 106°00′03″W.
Add obst 4749′MSL (500′AGL)UC, 44°23′17″N, 105°27′34″W.
Add obst 2485′MSL (306′AGL)UC, 44°02′17″N, 101°41′15″W.
Add obst 7189′MSL (270′AGL)UC, 41°40′47″N, 107°03′49″W.
Add obst 5832′MSL (300′AGL)UC, 43°18′20″N, 107°41′37″W.
Add obst 8603′MSL (270′AGL)UC, 41°31′41″N, 107°22′18″W.
Add obst 5591′MSL (389′AGL)UC, 42°53′04″N, 106°13′59″W.
Add obst 7062′MSL (407′AGL)UC, 41°08′21″N, 105°01′30″W.
Add obst 4489′MSL (350′AGL)UC, 41°31′40″N, 103°13′48″W.

AIRPORTS
11 Feb 2010 No Major Changes.
8 Apr 2010 Change CTAF 122.9 to 122.8 at SOUTH BIG HORN CO arpt, 44°31′01″N, 108°04′58″W.

NAVAIDs
11 Feb 2010 – 8 Apr 2010 No Major Changes.

AIRSPACE
11 Feb 2010 Revise RIVERTON, WY Class E: That airspace extending upward from 700 feet above the surface within an 8.7-mile radius of the Riverton Regional Airport and within 4 miles each side of the Riverton VOR/DME 291° radial extending from the 8.7-mile radius to 16.6 miles west of the VOR/ DME, and within 3.1 miles each side of the Riverton VOR/DME 123° radial extending from the 8.7-mile radius to 10.5 miles southeast of the VOR/DME; that airspace extending upward from 1200 feet above the surface within a 21.8-mile radius of the Riverton VOR/DME within 8.7 miles east and 6.1 miles west of the Riverton VOR/DME 016° radial extending from the 21.8-mile radius to 33.1 miles north of the VOR/DME, and within 6.1 miles northeast and 12.7 miles southwest of the Riverton VOR/DME 301° radial extending from the 21.8-mile radius to 32.2 miles northwest of the VOR/DME, on the east within an area bounded by a point beginning at 42°56′30″N, 107°59′45″W; to 42°54′53″N, 107°44′31″ W; to 42°42′35″N, 107°53′00″W; to 42°49′00″N, 108°06′00″W; thence to the point of beginning.
8 Apr 2010 No Major Changes.

SPECIAL USE AIRSPACE
11 Feb 2010 – 8 Apr 2010 No Major Changes.

MILITARY TRAINING ROUTES
11 Feb 2010 – 8 Apr 2010 No Major Changes.

MISCELLANEOUS
11 Feb 2010 – 8 Apr 2010 No Major Changes.

GREAT FALLS SECTIONAL
78th Edition, 14 Jan 2010

OBSTRUCTIONS
11 Feb 2010 No Major Changes.
8 Apr 2010 Add obst 4540′MSL (320′AGL)UC, 47°15′21″N, 110°30′08″W.
Add obst 4664′MSL (315′AGL)UC, 47°15′41″N, 110°42′18″W.
Add obst 4235′MSL (320′AGL)UC, 47°20′17″N, 110°53′21″W.
Add obst 3504′MSL (295′AGL)UC, 48°32′17″N, 110°59′40″W.
Add obst 3973′MSL (315′AGL)UC, 47°24′38″N, 111°09′05″W.
Add obst 4291′MSL (320′AGL)UC, 47°56′31″N, 112°17′06″W.
Add obst 4467′MSL (320′AGL)UC, 47°29′54″N, 112°24′31″W.
Add obst 3567′MSL (255′AGL)UC, 48°23′22″N, 114°01′35″W.
Add obst 3860′MSL (255′AGL)UC, 46°59′45″N, 114°07′12″W.
Add obst 5545′MSL (345′AGL)UC, 45°53′51″N, 109°32′41″W.
Add obst 5048′MSL (306′AGL)UC, 46°41′17″N, 109°44′32″W.

AIRPORTS
11 Feb 2010 – 8 Apr 2010 No Major Changes.

NAVAIDs
11 Feb 2010 – 8 Apr 2010 No Major Changes.

AIRSPACE
11 Feb 2010 – 8 Apr 2010 No Major Changes.

SPECIAL USE AIRSPACE
11 Feb 2010 – 8 Apr 2010 No Major Changes.

MILITARY TRAINING ROUTES
11 Feb 2010 – 8 Apr 2010 No Major Changes.

MISCELLANEOUS
11 Feb 2010 – 8 Apr 2010 No Major Changes.

KLAMATH FALLS SECTIONAL
82nd Edition, 8 Apr 2010

OBSTRUCTIONS
8 Apr 2010 No Major Changes.

AIRPORTS
8 Apr 2010 No Major Changes.

NAVAIDs
8 Apr 2010 No Major Changes.

AIRSPACE
8 Apr 2010 No Major Changes.

SPECIAL USE AIRSPACE
8 Apr 2010 No Major Changes.

MILITARY TRAINING ROUTES
8 Apr 2010 No Major Changes.

MISCELLANEOUS
8 Apr 2010 No Major Changes.

SALT LAKE CITY HELICOPTER ROUTE CHART
3rd Edition, 26 Oct 2006

OBSTRUCTIONS
23 Nov 2006 – 8 Apr 2010 No Major Changes.

AIRPORTS
23 Nov 2006 – 10 Apr 2008 No Major Changes.
5 Jun 2008 Delete PAYNE arpt, 41°05′54″N, 112°06′56″W.
Delete WARD heli, 40°35′59″N, 111°48′03″W.
31 Jul 2008 – 25 Sep 2008 No Major Changes.
20 Nov 2008 Delete CHANNEL 4 heli, 40°43′57″N, 111°57′20″W.
15 Jan 2009 – 8 Apr 2010 No Major Changes.

NAVAIDs
23 Nov 2006 – 8 Apr 2010 No Major Changes.

AIRSPACE
23 Nov 2006 – 8 Apr 2010 No Major Changes.

SPECIAL USE AIRSPACE
23 Nov 2006 – 8 Apr 2010 No Major Changes.

MILITARY TRAINING ROUTES
23 Nov 2006 – 8 Apr 2010 No Major Changes.

MISCELLANEOUS
23 Nov 2006 – 8 Apr 2010 No Major Changes.

SALT LAKE CITY SECTIONAL
83rd Edition, 8 Apr 2010

OBSTRUCTIONS
8 Apr 2010 No Major Changes.

AIRPORTS
8 Apr 2010 No Major Changes.

NAVAIDs
8 Apr 2010 No Major Changes.

AIRSPACE
8 Apr 2010 No Major Changes.

SPECIAL USE AIRSPACE
8 Apr 2010 No Major Changes.

MILITARY TRAINING ROUTES
8 Apr 2010 No Major Changes.

MISCELLANEOUS
8 Apr 2010 No Major Changes.

SALT LAKE CITY TERMINAL AREA CHART
42nd Edition, 8 Apr 2010

OBSTRUCTIONS
8 Apr 2010 No Major Changes.

AIRPORTS
8 Apr 2010 No Major Changes.

NAVAIDs
8 Apr 2010 No Major Changes.

AIRSPACE
8 Apr 2010 No Major Changes.

SPECIAL USE AIRSPACE
8 Apr 2010 No Major Changes.

MILITARY TRAINING ROUTES
8 Apr 2010 No Major Changes.

MISCELLANEOUS
8 Apr 2010 No Major Changes.

SEATTLE SECTIONAL
78th Edition, 17 Dec 2009

OBSTRUCTIONS
17 Dec 2009 No Major Changes.
11 Feb 2010 Add obst 2640′MSL (262′AGL), 45°44′58″N, 120°47′57″W.
8 Apr 2010 Add obst 2003′MSL (263′AGL)UC, 45°54′40″N, 118°27′42″W.
Change windmill farm highest MSL from 2272′MSL to 2516′MSL, 45°53′30″N, 118°31′51″W.

AIRPORTS
17 Dec 2009 No Major Changes.
11 Feb 2010 Delete RP 17 at TACOMA NARROWS arpt, 47°16′05″N, 122°34′41″W.
Delete CAMP RILEA heliport, 46°06′59″N, 123°55′54″W.
8 Apr 2010 Delete TAMARACK SPRINGS arpt, 45°30′04″N, 117°28′18″W.
SIMTAG arpt abandoned, 45°45′07″N, 119°56′45″W.

NAVAIDs
17 Dec 2009 – 8 Apr 2010 No Major Changes.

AIRSPACE
17 Dec 2009 No Major Changes.
11 Feb 2010 Change SEATTLE Class B freq from 391.9 to 377.15.
8 Apr 2010 No Major Changes.

SPECIAL USE AIRSPACE
17 Dec 2009 – 8 Apr 2010 No Major Changes.

MILITARY TRAINING ROUTES
17 Dec 2009 – 8 Apr 2010 No Major Changes.

MISCELLANEOUS
17 Dec 2009 – 8 Apr 2010 No Major Changes.

SEATTLE TERMINAL AREA CHART
73rd Edition, 17 Dec 2009

OBSTRUCTIONS
17 Dec 2009 – 8 Apr 2010 No Major Changes.

AIRPORTS
17 Dec 2009 No Major Changes.
11 Feb 2010 Delete RP 17 at TACOMA NARROWS arpt, 47°16′05″N, 122°34′41″W.
8 Apr 2010 No Major Changes.

NAVAIDs
17 Dec 2009 – 8 Apr 2010 No Major Changes.

AIRSPACE
17 Dec 2009 No Major Changes.
11 Feb 2010 Change SEATTLE Class B freq from 391.9 to 377.15.
8 Apr 2010 No Major Changes.

SPECIAL USE AIRSPACE
17 Dec 2009 – 8 Apr 2010 No Major Changes.

MILITARY TRAINING ROUTES
17 Dec 2009 – 8 Apr 2010 No Major Changes.

MISCELLANEOUS
17 Dec 2009 – 8 Apr 2010 No Major Changes.

SUPPLEMENTAL COMMUNICATION REFERENCE

Contained within this tabulation, and listed alphabetically by airport name, are all private–use airports charted on the U.S. IFR Enroute Low and High Altitude charts in the United States, having terminal approach and departure control facilities. Additionally, listed by country, are all Canadian and Mexican airports that appear on the U.S. IFR Enroute charts with approach and departure control services. All frequencies transmit and receive unless otherwise noted. Radials defining sectors are outbound from the facility.

UNITED STATES

FACILITY NAME	CHART & PANEL
Frankfort, IL (LL4Ø) Chicago App/Dep Con 133.1 285.6	L–28H
Glasgow Industrial, MT (Ø7MT) Salt Lake Center App/Dep Con 126.85 305.2	H–1E, 2F, L–13D
USAF Academy Bullseye Aux Airstrip, CO (CO9Ø) ASOS 118.325	L–10F
West Kentucky Airpark, KY (5KY3) Memphis Center App/Dep Con 133.65 292.15	L–16I
William P Gwinn, FL (Ø6FA) Gwinn Tower 120.4 279.25 (Mon–Fri 1300–2100Z‡) Gnd Con 121.65 279.25	H–8I, L–23C

CANADA

FACILITY NAME	CHART & PANEL
Abbotsford, BC (CYXX) ATIS 119.8 (1500–0700Z‡) Victoria Trml App/Dep Con 132.7 (Avbl on ground) 290.8 Tower 119.4 (Inner) 121.0 (Outer) 295.0 (1500–0700Z‡) Gnd Con 121.8 MF 119.4 295.0 (0700–1500Z‡) (Shape irregular to 4500′)	H–1B, L–12F
Amos/Magny, QC (CYEY) Montreal Center App/Dep Con 125.9	H–11B
Atikokan Muni, ON (CYIB) MF 122.3 (5 NM to 4500′ No ground station)	L–14I
Barrie–Orillia (Lake Simcoe Rgnl), ON (CYLS) AWOS 122.55 (Pvt) Toronto Center App/Dep Con 124.025	H–11B, L–31D
Bar River, ON (CPF2) Toronto Center App/Dep Con 132.65	L–31C
Bathurst, NB (CZBF) Moncton Center App/Dep Con 134.25	L–32J
Boundary Bay, BC (CZBB) ATIS 125.5 (1500–0700Z‡) Vancouver App/Dep Con 132.3 363.8 Tower 118.1 (Inner) 127.6 (Outer) (1500–0700Z‡) Gnd Con 124.3 MF 118.1 (0700–1500Z‡ to 2000′. Vancouver Trml 125.2 above 2000′. Shape irregular to 2500′.)	H–1B, L–1E
Brampton, ON (CNC3) Toronto Trml App/Dep Con 119.3 253.1	L–31D
Brandon Muni, MB (CYBR) Winnipeg Center App/Dep Con 132.25 285.4 MF 122.1 (5 NM to 4000′)	H–2H
Brantford, ON (CYFD) Toronto Trml App/Dep Con 128.27	L–31D
Brockville–Thousand Islands Rgnl Tackaberry, ON (CNL3) Montreal Center App/Dep Con 134.675	L–32G
Bromont, QC (CZBM) Montreal Center App/Dep Con 132.35 MF 122.15 (5 NM to 3400′)	L–32G
Burlington Airpark, ON (CZBA) Toronto Center App/Dep Con 119.3 253.1	L–31D
Castlegar/West Kootenay Rgnl, BC (CYCG) Vancouver Center App/Dep Con 134.2 227.3 MF 122.1 (5 NM to 6500′)	H–1C
Centralia/James T. Fld Muni, ON (CYCE) Toronto Center App/Dep Con 135.30	H–10G, 11B, L–31D
Charlottetown, PE (CYYG) Moncton Center App/Dep Con 135.65 384.8 MF 118.0 (5 NM to 3200′)	H–11E, L–32J
Chatham–Kent, ON (CNZ3) Cleveland Center App/Dep Con 132.25	H–10G, L–30G

FACILITY NAME	CHART & PANEL
Collingwood, ON (CNY3)	H–11B, L–31D
Toronto Center App/Dep Con 124.02	
Cornwall Rgnl, ON (CYCC)	L–32G
Boston Center App/Dep Con 135.25 377.1	
Cranbrook/Canadian Rockies Intl, BC (CYXC)	H–1C
Vancouver Center App/Dep Con 133.6 MF 122.3 (5 NM to 6100′)	
Debert, NS (CCQ3)	H–11E, L–32J
Halifax Trml App/Dep Con 119.2	
Digby, NS (CYID)	L–32J
Moncton Center App/Dep Con 123.9	
Downsview, ON (CYZD)	H–11B, L–31E
Toronto Center App Con 133.4	
Toronto Center Dep Con 133.4	
MF 126.2 (1300–2300Z‡, 3 NM to 1700′)	
Drummondville, QC (CSC3)	L–32H
Montreal Center App/Dep Con 132.35	
Earlton (Timiskaming Rgnl), ON (CYXR)	H–11B
MF 122.0 (5 NM to 3800′)	
AWOS 128.6	
Elliot Lake Muni, ON (CYEL)	L–31C
Toronto Center App/Dep Con 135.4	
Fort Frances Muni, ON (CYAG)	L–14H
Minneapolis Center App/Dep Con 120.9	
Fredericton Intl, NB (CYFC)	H–11E, L–32I
ATIS 127.55	
Moncton Center App/Dep Con 124.3 135.5 270.8	
Tower 119.0 (1200–2000Z‡) Gnd Con 121.7 (Ltd hrs)	
MF 119.0 (2000–1200Z‡, 5 NM to 3500′)	
Goderich, ON (CYGD)	H–11B, L–31D
Toronto Center App/Dep 135.3 266.3	
Greenwood, NS (CYZX)	H–11E, L–32J
ATIS 128.85 244.3 (1100–0000Z‡)	
App/Dep Con 120.6 335.9 Tower 119.5 126.2 236.6 324.3	
Gnd Con 133.75 289.4 Clnc Del 128.05 283.9	
Grimsby Air Park, ON (CNZ8)	L–31E
Toronto Trml App/Dep Con 128.27 268.75 Tower 125.0 308.475	
Halifax/Shearwater, NS (CYAW)	H–11E, L–32J
ATIS 129.175 (Ltd hrs)	
App/Dep Con 119.2 Tower 119.0 126.2 340.2 360.2 (Ltd hrs)	
Gnd Con 121.7 250.1	
Halifax/Stanfield Intl, NS (CYHZ)	H–11E, L–32J
ATIS 121.0	
Moncton Center App/Dep Con 118.7 119.2 128.55 135.3 225.2 363.8	
Tower 118.4 236.6 Gnd Con 121.9 275.8 Clnc Del 123.95	
Apron Advisory 122.125	
Hamilton, ON (CYHM)	H–10H, 11B, L–11B
ATIS 128.1	
Toronto Trml App/Dep Con 128.27 268.75 Tower 119.7 125.0	
Gnd Con 121.6	
Kingston, ON (CYGK)	H–11C, L–31E, 32F
Montreal Center App/Dep Con 135.05 398.4 (0400–1115Z‡)	
MF 122.5 (1115–0400Z‡ 5 NM to 3300′)	
Kitchener/Waterloo, ON (CYKF)	H–11B, L–31D
ATIS 125.1 (1200–0400Z‡)	
Toronto Trml App/Dep Con 128.275	
Waterloo Tower 126.0 118.55 (1200–0400Z‡) Gnd Con 121.8	
MF 126.0 (0400–1200Z‡ 5 NM to 4000′)	
Lachute, QC (CSE4)	L–32G
Montreal Center App Con 124.65 132.85 268.3	
Montreal Center Dep Con 132.85 268.3	
La Tuque, QC (CYLQ)	H–11C
Montreal Center App/Dep Con 134.5	
Langley, BC (CYNJ)	L–1E
ATIS 124.5 (1630–0230Z, DT 1530–0330Z)	
Victoria Trml 132.7 290.8 Tower 119.0 (1630–0230Z, DT 1530–0330Z)	
Gnd Con 121.9 MF 119.0 (0230–1630Z, DT 0330–1530Z 3 NM to 1900′)	

FACILITY NAME	CHART & PANEL
Leamington, ON (CLM2) Cleveland Center App/Dep Con 132.45	L–30F
Lethbridge, AB (CYQL) ATIS 124.4 (1300–0545Z‡) Edmonton Center App/Dep Con 132.75 265.2 MF 121.0 (5 NM to 6000′)	H–1D
Lindsay, ON (CNF4) Toronto Center App/Dep 134.25	L–31E, L–32F
Liverpool/South Shore Rgnl, NS (CYAU) Moncton Center App/Dep Con 123.9	L–32J
London, ON (CYXU) ATIS 127.8 (1120–0345Z‡) Toronto Center App/Dep 135.3 135.625 Tower 119.4 125.65 (1120–0345Z‡) Gnd Con 121.9 MF 119.4 (0345–1120Z‡ 5 NM to 3000′)	H–10G, 11B, L–30G, 31D
Manitowaning/Manitoulin East Muni, ON (CYEM) Toronto Center App/Dep 135.4 260.9	L–31C
Maniwaki, QC (CYMW) Montreal Center App/Dep Con 126.57	L–32G
Mascouche, QC (CSK3) MF 122.35 (5 NM to 2500′. No gnd station. Excluding the portion S of the N shore of Riviere des Milles–Iles and 1 NM around Lac Agile Mascouche arpt.)	L–32G
Medicine Hat, AB (CYXH) AWOS 124.875 (0345–1245Z‡) MF 122.2 (1245–0345Z‡ 5 NM to 5400′)	H–1D
Midland/Huronia, ON (CYEE) Toronto Center App/Dep 124.025	L–31D
Miramichi, NB (CYCH) Moncton Center App/Dep Con 123.7	H–11E, L–32J
Moncton/Greater Moncton Intl, NB (CYQM) ATIS 128.65 App/Dep 124.4 Tower 120.8 236.6 Gnd Con 121.8 275.8 Apron Advisory 122.075	H–11E, L–32J
Mont–Laurier, QC (CSD4) Montreal Center App/Dep Con 126.57	L–32G
Montreal Intl (Mirabel), QC (CYMX) ATIS 125.7 Montreal Center App Con 124.65 132.85 268.3 Montreal Dep Con 132.85 MF 119.1 (7 NM shape irregular to 2000′) VFR Advisory 134.15	H–11C, 12K, L–32G
Montreal/Pierre Elliott Trudeau Intl, QC (CYUL) ATIS 133.7 Montreal Trml App Con 118.9 124.65 126.9 132.85 268.3 Tower 119.9 267.1 Gnd Con 121.9 275.8 Clnc Del 125.6 Apron 122.075 Montreal Trml Dep Con 118.9 (SE–S–SW) 124.65 268.3 (W–NW–NE) VFR Advisory 134.15	H–11C, 12K, L–32G
Montreal/St–Hubert, QC (CYHU) ATIS 124.9 (Apr–Oct 1045–0500Z‡, Nov–Mar 1045–0400Z) AWOS 124.9 Montreal Center App/Dep Con 125.15 268.3 St. Hubert Tower 118.4 (Apr–Oct 1045–0500Z‡, Nov–Mar 1045–0400Z) Gnd Con 126.4 MF 118.4 (Apr–Oct 0500–1045Z‡, Nov–Mar 0400–1045Z 5 NM shape irregular to 2500′) VFR Advisory 134.15	H–11C, L–32G
Muskoka, ON (CYQA) AWOS 124.575 MF 122.3 (5 NM to 3900′)	H–11B, L–31D
Nanaimo, BC (CYCD) Victoria Trml App/Dep 120.8 133.95 252.3 MF 122.1 1330–0530Z‡ (5 NM to 2500′)	H–1B, L–1E
North Bay, ON (CYYB) ATIS 124.9 (1130–0300Z‡) Toronto Center App/Dep 121.225 127.25 MF 118.3 (1130–0330Z‡ 7 NM to 5000′)	H–11B, L31D
Oshawa, ON (CYOO) ATIS 125.675 (1130–0330Z‡) Toronto Trml App Con 133.4 Tower 120.1 (1130–0330Z‡) Gnd Con 118.4 Toronto Trml Dep Con 133.4 MF 120.1 (0330–1130Z‡ 5 NM to 3000′)	L–31E

FACILITY NAME	CHART & PANEL
Ottawa/Carp, ON (CYRP) ATIS 121.15 Ottawa Trml App/Dep Con 128.175 252.5	L–31E, 32F
Ottawa/Gatineau, QC (CYND) Ottawa Trml App/Dep Con 127.7 128.175 252.5 MF 122.3 (5 NM shape irregular to 2500′) VFR Advisory Ottawa Trml 127.7	H–11C, L–32G
Ottawa/MacDonald–Cartier Intl, ON (CYOW) ATIS 121.15 Ottawa App Con 135.15 Tower 118.8 120.1 341.3 Gnd Con 121.9 Clnc Del 119.4 Ottawa Dep Con 128.175	L–11C
Owen Sound/Billy Bishop Rgnl, ON (CYOS) Toronto Center App/Dep 132.575 290.6	L–31D
Pelee Island, ON (CYPT) Cleveland Center App/Dep Con 126.35 360.0	L–30F
Pembroke, ON (CYTA) Montreal Center App/Dep Con 135.2 Petawawa Advisory 126.4 250.1 (Mon–Fri 1300–2130Z‡, OT PPR)	H–11C, L–31E, 32F
Penticton, BC (CYYF) Vancouver Center App/Dep Con 133.5 351.3 MF 118.5 (5 NM to 4100′)	H–1B
Peterborough, ON (CYPQ) AWOS 126.925 Toronto Center App/Dep 134.25	H–11B, L–31E, 32F
Pincher Creek, AB (CZPC) Edmonton Center App/Dep Con 132.75 265.2	H–1D
Pitt Meadows, BC (CYPK) ATIS 125.0 (1500–0700Z‡) Vancouver Center App Con 128.6 352.7 (Outer) Pitt Tower 126.3 (1500–0700Z‡) Gnd Con 123.8 Vancouver Center Dep Con 132.3 363.8 (South) MF 126.3 (0700–1500Z‡) (3NM to 2500′)	L–1E
Quebec/Jean Lesage Intl, QC (CYQB) ATIS 134.6 AWOS 122.025 (Pvt) Montreal Center App/Dep Con 124.0 127.85 135.025 270.9 322.8 Tower 118.65 236.6 Gnd Con 121.9 250.0	H–11D, L–32H
Riviere Du Loup, QC (CYRI) AWOS 122.025 (Pvt) Montreal Center App/Dep Con 125.1 299.6	H–11D
Rouyn Noranda, QC (CYUY) Montreal Center App/Dep Con 125.9 MF 122.2 (5 NM to 4000′)	H–11B
Saint John, NB (CYSJ) Moncton Center App/Dep Con 124.3 135.5 270.8 MF 118.5 (5 NM to 3400′)	H–11E, L–32J
Sarnia (Chris Hadfield), ON (CYZR) Toronto Center 134.375	H–10G, 11B, L–30F
Sault Ste Marie, ON (CYAM) ATIS 133.05 (1300–0100Z‡) Toronto Center App/Dep Con 132.65 344.5 Tower 118.8 (1300–0100Z‡) Gnd Con 121.7 MF 118.8 (0100–1300Z‡ 5 NM irregular shape to 3000′)	H–2K, L–31B
Sherbrooke, QC (CYAM) AWOS 126.25 Montreal Center App/Dep Con 132.55 MF 123.5 (Ltd hrs 5 NM to 3800′)	H–11D, L–32H
South Renfrew Muni, ON (CNP3) Montreal Center App/Dep 124.275	L–31E, 32F
Southport, MB (CYPG) ATIS 120.85 (Mon–Fri 1400–2300Z‡ except holidays) Tower 126.2 384.2 (Mon–Fri 1400–2300Z‡ except holidays) Gnd Con 121.7 275.8	H–2H

FACILITY NAME	CHART & PANEL
Springwater Barrie Airpark, ON (CNA3) Toronto Center App/Dep Con 124.025	L–31D
St. Catherines/Niagara District, ON (CYSN) ATIS 128.525 (1215–0200Z‡) Toronto Trml App/Dep Con 133.4 253.1 MF 123.25 (1215–0200Z‡ 5 NM to 3300′)	H–10H, 11B, L–31E
St. Frederic, QC (CSZ4) Montreal Center App/Dep Con 135.025 270.9	L–32H
St. Georges, QC (CYSG) Montreal Center App/Dep Con 132.35 MF 122.15 (5 NM 3900′ ASL)	H–32H, L–11D
St. Jean, QC (CYJN) Montreal Center App/Dep Con 125.15 268.3 Tower 118.2 (Apr–Oct 1230–0230Z‡ Nov–Mar 1300–0200Z‡) Gnd Con 121.7	L–32G
Sudbury, ON (CYSB) ATIS 127.4 Toronto Center App/Dep Con 135.5 MF 125.5 (7 NM to 4000′)	H–31B, 10G, L–31D
Summerside, PE (CYSU) AWOS 122.55 (Pvt) Moncton Center App/Dep Con 124.4 384.8	H–11E, L–32J
Thunder Bay, ON (CYQT) ATIS 128.8 (1100–0400Z‡) Winnipeg Center App/Dep Con 132.125 (0400–1100Z‡) Tower 118.1 (1100–0400Z‡) Gnd Con 121.9 App/Dep 119.2 MF 118.1 (0400–1100Z‡ 5 NM to 4000′)	H–2J, L–14J
Timmins/Victor M. Power, ON (CYTS) ATIS 124.95 (1000–0500Z‡) Toronto Center App/Dep Con 128.3 MF 122.3 (5 NM to 4000′)	H–11B
Toronto/Buttonville Muni, ON (CYKZ) ATIS 127.1 (1200–0400Z‡) Toronto Center App Con 133.4 Toronto Center Dep Con 133.4 Tower 124.8 119.9 (1200–0400Z‡) Gnd Con 121.8 MF 124.8 (0400–1200Z‡ No gnd station. 5 NM shape irregular to below 2500′)	L–31E
Toronto/Billy Bishop Toronto City Airport, ON (CYTZ) ATIS 133.6 (1130–0400Z‡) App Con 133.4 Dep Con 133.4 Tower 118.2 119.2 (1130–0400Z‡) Gnd Con 121.7	L–31E
Toronto/Lester B Pearson Intl, ON (CYYZ) ATIS 120.825 App Con 124.475 125.4 132.8 Dep Con 127.575 128.8 Tower 118.35 118.7 Gnd Con 118.0 119.1 121.65 121.9 Clnc Del 121.3 (1200–0400Z‡)	H–11B, L–31D
Trenton, ON (CYTR) ATIS 135.45 257.7 App/Dep Con 128.4 324.3 Tower 128.7 236.6 Gnd Con 121.9 275.8 Clnc Del 124.35 286.4	H–11C, L–31E, 32F
Trenton/Mountain View, ON (CPZ3) Trenton Mil Advisory 268.0	H–11C, L–31E, 32F
Trois–Rivieres, QC (CYRQ) Montreal Center App/Dep Con 128.225 229.2 MF 123.0 (5 NM to 3200′)	H–11C, L–32H
Val–D'or, QC (CYVO) Montreal Center App/Dep Con 125.9 308.3 MF 118.5 (1030–0325Z‡ 5 NM to 4000′)	H–11B
Vancouver Intl, BC (CYVR) ATIS 124.6 124.75 App Con 128.6 128.17 352.7 (Outer) 133.1 134.225 352.7 (Inner) Dep Con 126.125 (north) 132.3 (south) 363.8 Tower 118.7 (south) 119.55 (north) VFR 124.0 125.65 226.5 236.6 Gnd Con 121.7 (south) 127.15 (north) 275.8 Clnc Del 121.4	H–1B, L–1E

FACILITY NAME	CHART & PANEL
Victoria Intl, BC (CYYJ) ATIS 118.8 (1400–0800Z‡) App Con 125.95 308.4 Dep Con 133.85 308.4 Tower 119.1 (Outer) 119.7 (Inner) 239.6 Gnd Con 121.9 361.4 (1400–0800Z‡ OT ctc Kamloops 119.7) Clnc Del 126.4 (1400–0800Z‡)	H–1B, L–1E
Victoriaville, QC (CSR3) Montreal Center App Con 132.35	L–32H
Waterville/Kings Co Muni, NS (CCW3) Greenwood Trml App/Dep Con 120.6 335.9 Greenwood Tower 119.5 324.3	L–32J
Wiarton, ON (CYVV) Toronto Center App/Dep Con 132.575 MF 122.2 (5 NM to 3700′)	H–11B, L–31D
Windsor, ON (CYQG) ATIS 134.5 (1130–0330Z‡) Detroit App/Dep Con 126.85 127.5 134.3 348.3 363.2 Tower 124.7 (1130–0330Z‡) Gnd Con 121.7 MF 124.7 (0330–1130Z‡ 6 NM irregular shape to below 3000′) VFR Advisory Detroit App Con 134.3	H–10G, L–8J
Yarmouth, NS (CYQI) Moncton Center App/Dep Con 123.9 368.5 MF 123.0 (5 NM to 3100′)	H–11E, L–32I

MEXICO

FACILITY NAME	CHART & PANEL
Abraham Gonzalez Intl (MMCS) Juarez App Con 119.9 Juarez Tower 118.9	H–4K, L–6F
Del Norte Intl (MMAN) ATIS 127.55 (1300–0300Z‡) Monterrey App 119.75 120.4 Tower 118.6	H–7B, L–20G
Durango Intl (MMDO) ATIS 132.1 Tower 118.1 Durango Info 122.3	H–7A
General Abelardo L Rodriguez Intl (MMTJ) ATIS 127.9 Tijuana App Con 119.5 120.3 Tijuana Tower 118.1 Clnc Del 122.35 Tijuana Info 132.1	H–4H, L–4H
General Lucio Blanco Intl (MMRX) Reynosa App Con 118.8 Reynosa Tower 118.8	H–7B, L–20H
General Mariano Escobedo Intl (MMMY) ATIS 127.7 Monterrey App Con 119.75 120.4 Monterrey Tower 118.1 Gnd Con 121.9	H–7B, L–20G
General R Fierro Villalobos Intl (MMCU) ATIS 127.9 Chihuahua App Con 121.0 Chihuahua Tower 118.4	L–6I
General Rodolfo Sanchez Taboada Intl (MMML) ATIS 127.6 Mexicali App Con 118.2 Mexicali Tower 118.2 Mexicali Info 123.9 122.3	H–4H, L–4J, 5A
General Servando Canales (MMMA) Matamoros App Con 118.0 Matamoros Tower 118.0	H–7C, L–21A
Plan De Guadalupe Intl (MMIO) Saltillo App Con 127.4 Saltillo Tower 118.4	H–7B
Quetzalcoatl Intl (MMNL) Nuevo Laredo App Con 118.3 Nuevo Laredo Tower 118.3	H–7B, L–20G
Torreon Intl (MMTC) App Con 119.6 Tower 118.5	H–7A

INTENTIONALLY
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In support of the Federal Aviation Administration's Runway Incursion Program, selected towered airport diagrams have been published in the Airport Diagram section of the A/FD. Diagrams will be listed alphabetically by associated city and airport name. Airport diagrams, depicting runway and taxiway configurations, will assist both VFR and IFR pilots in ground taxi operations. The airport diagrams in this publication are the same as those published in the U.S. Terminal Procedures Publications. For additional airport diagram legend information see the U.S. Terminal Procedures Publication.

NOTE: Some text data published under the individual airport in the front portion of the A/FD may be more current than the data published on the Airport Diagrams. The airport diagrams are updated only when significant changes occur.

GENERAL INFORMATION

PILOT CONTROLLED AIRPORT LIGHTING SYSTEMS

Available pilot controlled lighting (PCL) systems are indicated as follows:

1. Approach lighting systems that bear a system identification are symbolized using negative symbology, e.g., (A1), (V), (✪)
2. Approach lighting systems that do not bear a system identification are indicated with a negative "(L)" beside the name. A star (★) indicates non-standard PCL, consult the individual airport in the front portion of the A/FD, e.g., (L★)

To activate lights use frequency indicated in the communication section of the chart with a (L) or the appropriate lighting system identification e.g., UNICOM 122.8 (L), (A1), (V)

KEY MIKE	FUNCTION
7 times within 5 seconds	Highest intensity available
5 times within 5 seconds	Medium or lower intensity (Lower REIL or REIL-off)
3 times within 5 seconds	Lowest intensity available (Lower REIL or REIL-off)

CHART CURRENCY INFORMATION

FAA procedure amendment number — Amdt 11A 99365 / Orig 00365 — Date of latest change

The Chart Date indentifies the Julian date the chart was added to the volume or last revised for any reason. The first two digits indicate the year, the last three digits indicate the day of the year (001 to 365/6) in which the latest addition or change was first published.

The Procedure Amendment Number precedes the Chart Date, and changes any time instrument information (e.g., DH, MDA, approach routing, etc.) changes. Procedure changes also cause the Chart Date to change.

MISCELLANEOUS

★ Indicates a non-continuously operating facility, see the individual airport in the front portion of the A/FD.
# Indicates control tower temporarily closed UFN.

10042
LEGEND

INSTRUMENT APPROACH PROCEDURES (CHARTS)

AIRPORT DIAGRAM/AIRPORT SKETCH

Runways

Hard Surface | Other Than Hard Surface | Stopways,Taxiways, Parking Areas, Water Runways | Displaced Threshold

Closed Runway | Closed Taxiway | Under Construction | Metal Surface

ARRESTING GEAR: Specific arresting gear systems; e.g., BAK12, MA-1A etc., shown on airport diagrams, not applicable to Civil Pilots. Military Pilots refer to appropriate DOD publications.

uni-directional | bi-directional | Jet Barrier

ARRESTING SYSTEM

REFERENCE FEATURES

Buildings.....
Tanks.....
Obstructions.....
Airport Beacon #.....
Runway
Radar Reflectors.....
Control Tower #.....
Hot Spot .....

When Control Tower and Rotating Beacon are co-located, Beacon symbol will be used and further identified as TWR.

Runway length depicted is the physical length of the runway (end-to-end, including displaced thresholds if any) but excluding areas designated as stopways.

A D symbol is shown to indicate runway declared distance information available, see appropriate A/FD, Alaska or Pacific Supplement for distance information.

Helicopter Alighting Areas

Negative Symbols used to identify Copter Procedures

landing point.....

Runway Threshold elevation.....THRE 123
Runway TDZ elevation.....TDZE 123
0.3% DOWN
Runway Slope.....0.8% UP
(shown when runway slope is greater than or equal to 0.3%)

NOTE:
Runway Slope measured to midpoint on runways 8000 feet or longer.

U.S. Navy Optical Landing System (OLS) "OLS" location is shown because of its height of approximately 7 feet and proximity to edge of runway may create an obstruction for some types of aircraft.

Approach light symbols are shown in the Flight Information Handbook.

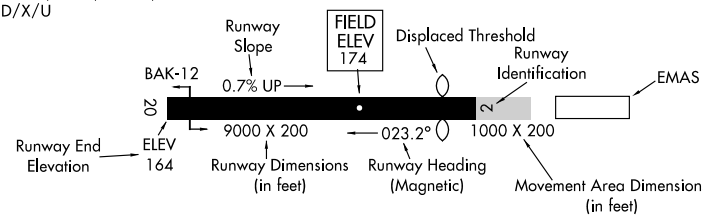
Airport diagram scales are variable.

True/magnetic North orientation may vary from diagram to diagram

Coordinate values are shown in 1 or ½ minute increments. They are further broken down into 6 second ticks, within each 1 minute increments.

NOTE:
All new and revised airport diagrams are shown referenced to the World Geodetic System (WGS) (noted on appropriate diagram), and may not be compatible with local coordinates published in FLIP. (Foreign Only)

Runway Weight Bearing Capacity/or PCN Pavement Classification Number is shown as a codified expression.
Refer to the appropriate Supplement/Directory for applicable codes e.g.,
RWY 14-32 S75, T185, ST175, TT325
PCN 80 F/D/X/U



SCOPE

Airport diagrams are specifically designed to assist in the movement of ground traffic at locations with complex runway/taxiway configurations and provide information for updating Computer Based Navigation Systems (I.E., INS, GPS) aboard aircraft. Airport diagrams are not intended to be used for approach and landing or departure operations. For revisions to Airport Diagrams: Consult FAA Order 7910.4.

HOT SPOTS

An ''airport surface hot spot'' is a location on an aerodrome movement area with a history or potential risk of collision or runway incursion, and where heightened attention by pilots/drivers is necessary.

A ''hot spot'' is a runway safety related problem area on an airport that presents increased risk during surface operations. Typically it is a complex or confusing taxiway/taxiway or taxiway/runway intersection. The area of increased risk has either a history of or potential for runway incursions or surface incidents, due to a variety of causes, such as but not limited to: airport layout, traffic flow, airport marking, signage and lighting, situational awareness, and training. Hot spots are depicted on airport diagrams as open circles or polygons designated as ''HOT[1]'', ''HOT[2]'', etc. and tabulated in the list below with a brief description of each hot spot. Hot spots will remain charted on airport diagrams until such time the increased risk has been reduced or eliminated.

CITY/AIRPORT	HOT SPOT	DESCRIPTION
IDAHO		
IDAHO FALLS		
IDAHO FALLS RGNL (IDA)	HOT[1]	Pilots should use caution and look carefully for runway hold line when using Twy C. Rwy 17–35 does not have runway edge markings and can be mistaken for a twy.
	HOT[2]	Aircraft departing Rwy 20 often miss left turn on A–1 and taxi past A–1 entrance. Do not mistake Rwy 20 apch hold line on Twy A for entrance to Rwy 20.
	HOT[3]	Do not cross hold line for Rwy 17 without authorization.
LEWISTON		
LEWISTON-NEZ PERCE CO (LWS)	HOT[1]	Twy C and Twy G intersection close proximity to Rwy 12–30.
	HOT[2]	Twy G between Rwy 08–26 and Rwy 30 thld. Short distance between rwys.
MONTANA		
BILLINGS		
BILLINGS LOGAN INTL (BIL)	HOT[1]	Rwy 28R hold line is at east edge of run up area, more than 900′ taxi distance from the rwy edge. Use extreme caution to stop.
	HOT[2]	Twy H crosses Rwy 07 protected area. Do not proceed across Rwy 07 without an ATCT clearance.
GREAT FALLS		
GREAT FALLS INTL (GTF)	HOT[1]	Acft departing Rwy 21 often miss left turn at Twy A1. There is no rwy access beyond Twy A1.
	HOT[2]	Twy A3 aligned with Rwy 25. Acft departing Rwy 21 at Twy A3 must verify heading prior to tkf due to wrong rwy departure risk.
MISSOULA		
MISSOULA INTL (MSO)	HOT[1]	Intersection of Twy A and Twy F. Critical turn for eastbound ramp access.
OREGON		
EUGENE		
MAHLON SWEET FIELD (EUG)	HOT[1]	Acft taxiing to Rwy 34L often miss right turn at Twy A8 or Twy A9. Do not mistake Rwy 34L apch hold sign on Twy A south of Twy A9 for rwy entrance.
PORTLAND		
PORTLAND INTL (PDX)	HOT[1]	Limited wing-tip clearance at taxiway convergence point. Pilots taxiing eastbound on Twy B should hold at the taxiway holding position marking when directed by ATC.

WASHINGTON

EVERETT		
SNOHOMISH COUNTY (PAINE FIELD) PAE	HOT[1]	Pilots holding short of Rwy 11–29 at Twy A4 or Twy A5 should use caution to stop prior to the rwy holding position marking. Rwy hold position signs are located 230′ to the right and 350′ to the left of the Twy A5 centerline and may be difficult to locate.
	HOT[2]	Rwy 29 thld in close proximity to ramp areas.
	HOT[3]	Twy A between Twy A8 and Twy A9 not visible from ATCT.
SEATTLE		
BOEING FIELD/KING COUNTY INTL (BFI)	HOT[1]	Twy Z restricted access area.
	HOT[2]	Rwy 13R–31L and Twy A9. Wrong rwy departure risk.
SEATTLE		
SEATTLE-TACOMA INTL (SEA)	HOT[1]	Aircraft landing Rwy 34C and exiting Twy H who turn right on Twy J must clear the Twy C hold bar completely, while using vigilance not to cross the hold bar for Rwy 34R (34C–34R hold bar separation distance 189′).

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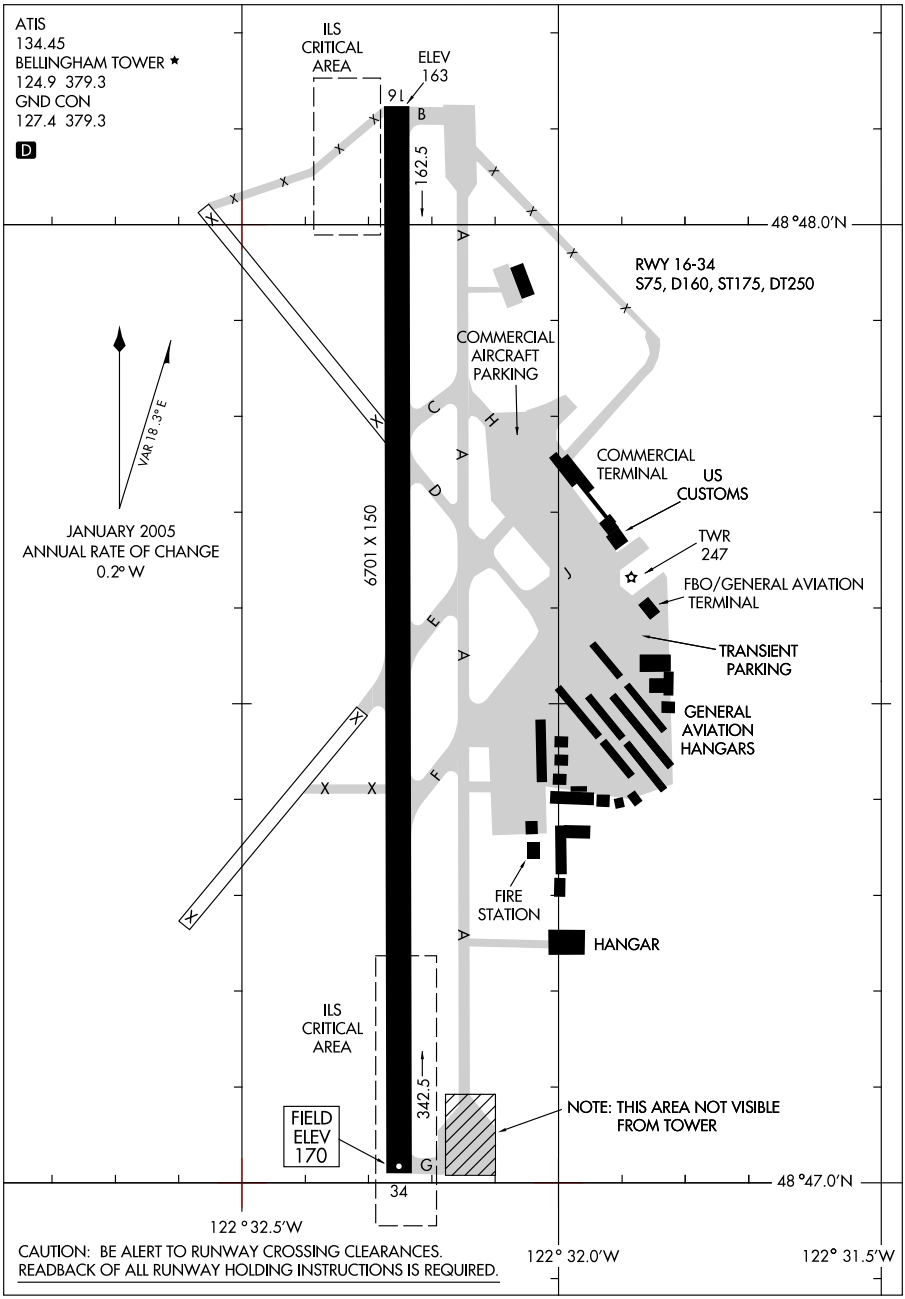
AIRPORT DIAGRAM

AL-45 (FAA)

BELLINGHAM INTL (BLI)
BELLINGHAM, WASHINGTON



AIRPORT DIAGRAM

10098

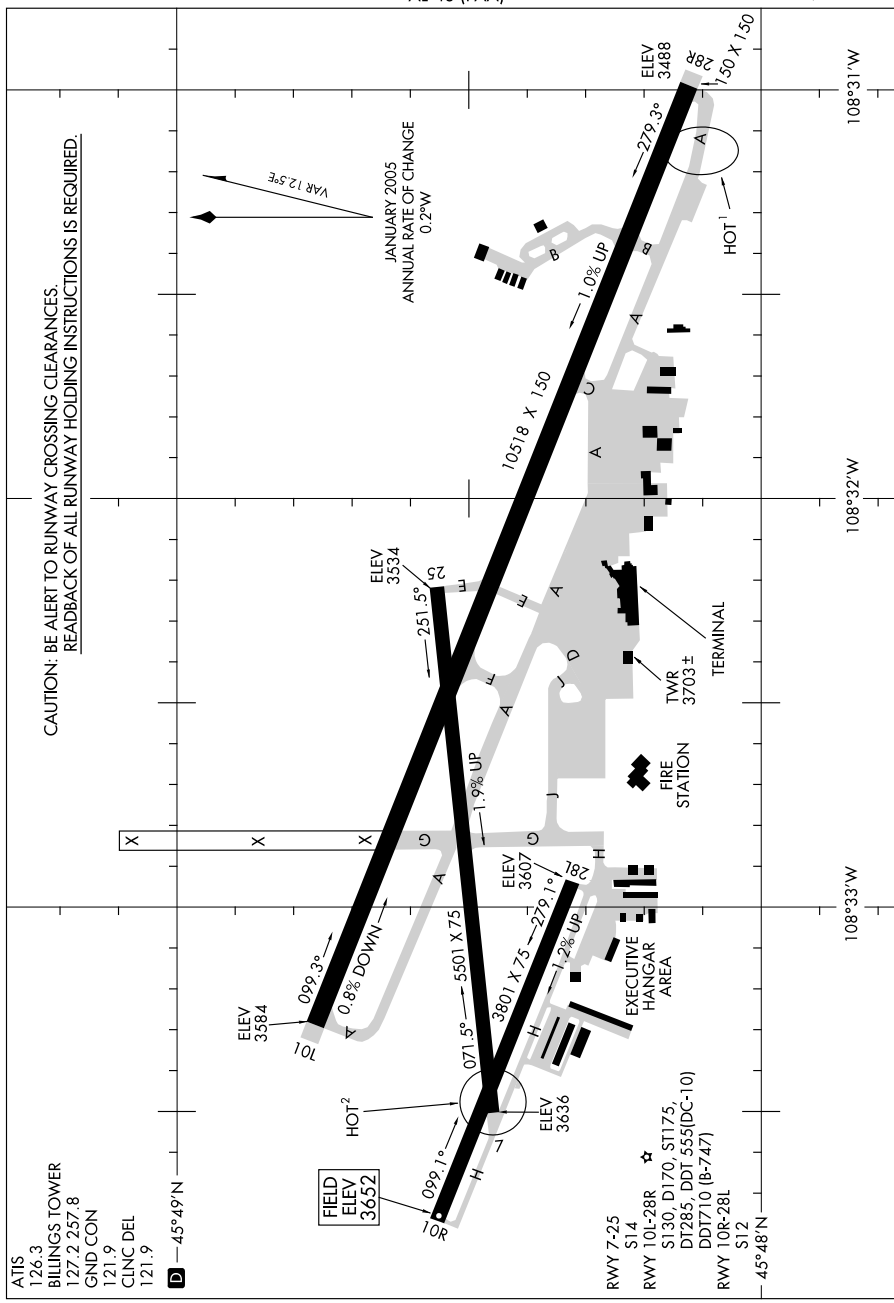
BELLINGHAM, WASHINGTON
BELLINGHAM INTL (BLI)

10042

AIRPORT DIAGRAM

BILLINGS LOGAN INTL (BIL)
BILLINGS, MONTANA

AL-48 (FAA)



AIRPORT DIAGRAM

10042

BILLINGS, MONTANA
BILLINGS LOGAN INTL (BIL)

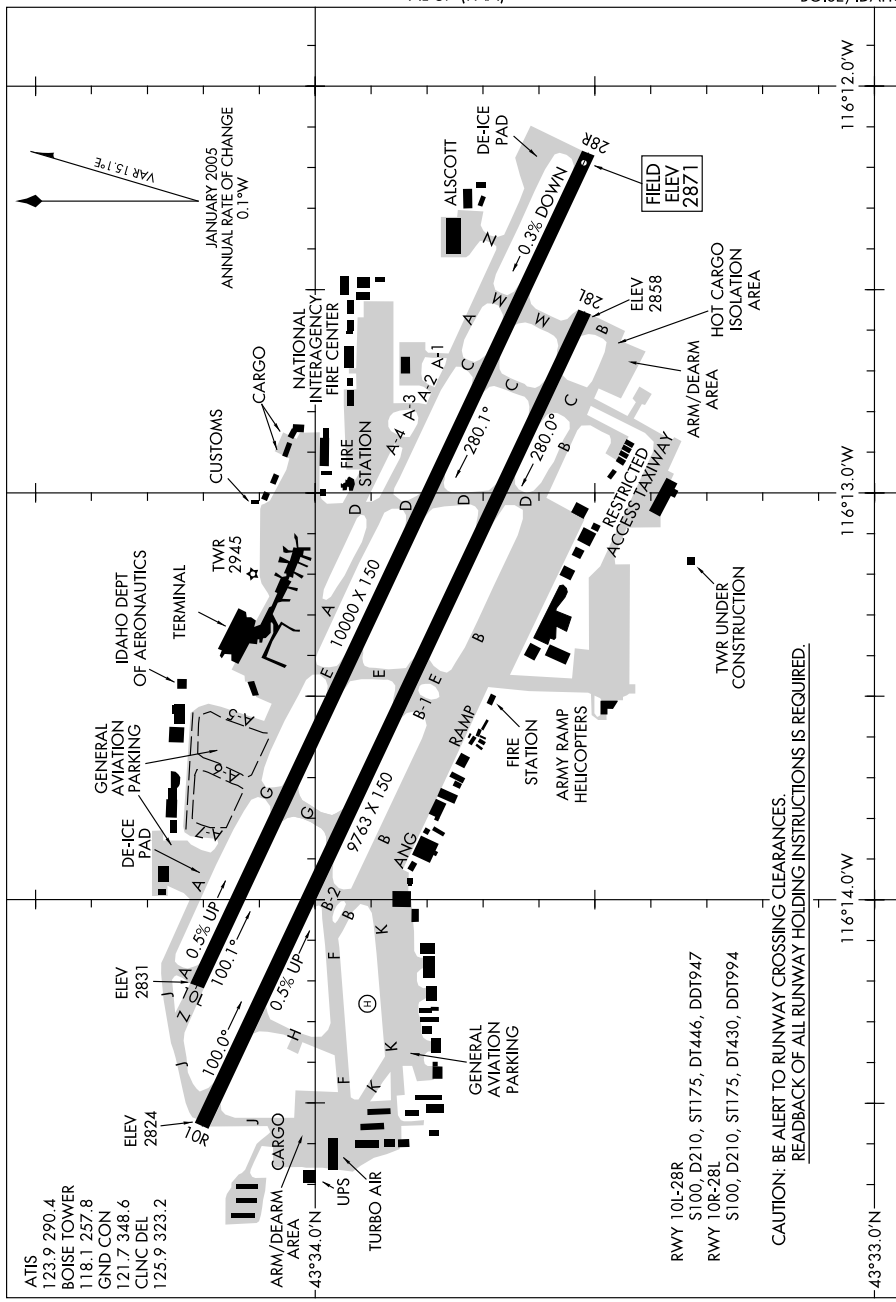
10042

AIRPORT DIAGRAM

BOISE AIR TERMINAL (GOWEN FIELD) (BOI)

AL-57 (FAA)

BOISE, IDAHO



AIRPORT DIAGRAM

BOISE, IDAHO

BOISE AIR TERMINAL (GOWEN FIELD) (BOI)

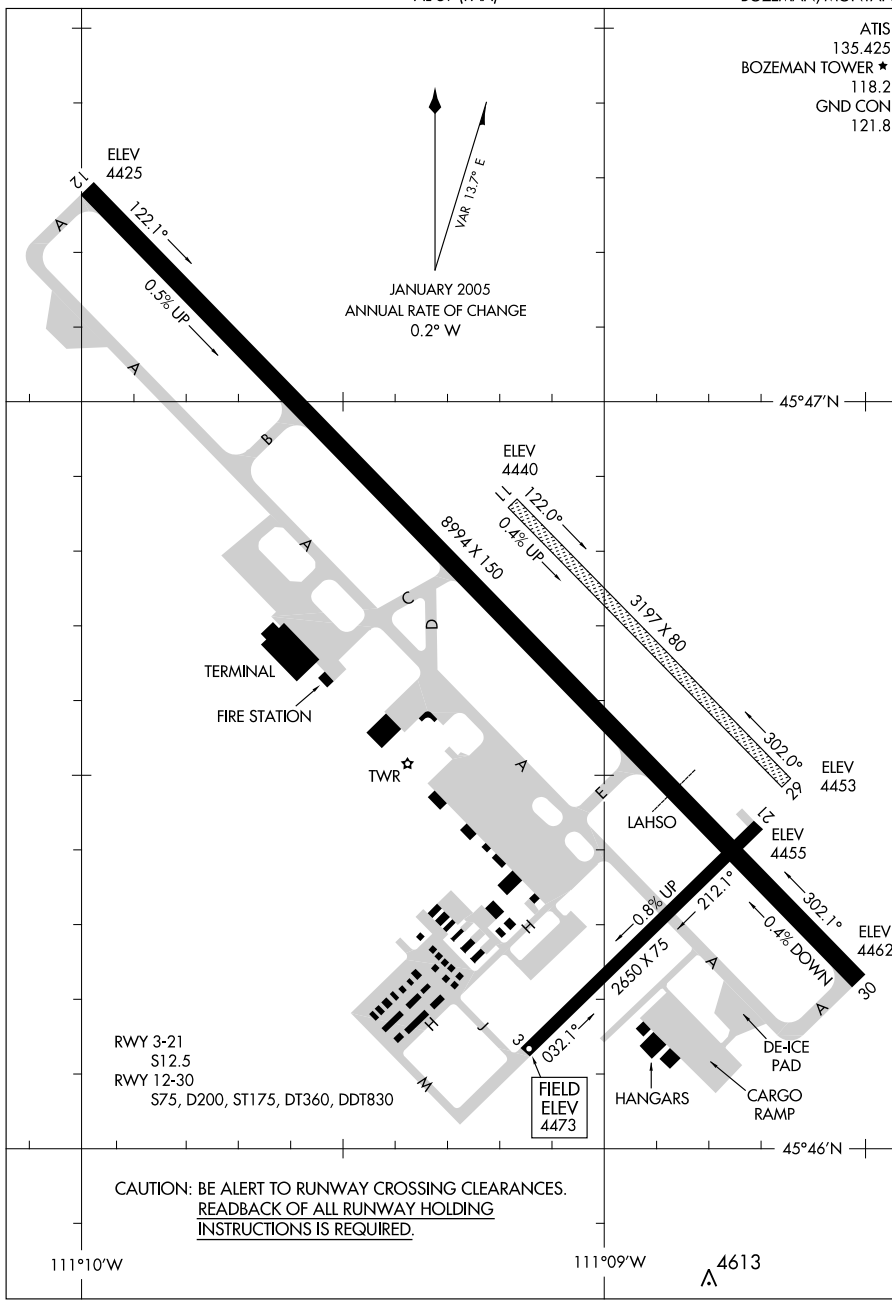
10042

10098

AIRPORT DIAGRAM

AL-59 (FAA)

BOZEMAN/GALLATIN FIELD (BZN)
BOZEMAN, MONTANA



AIRPORT DIAGRAM

10098

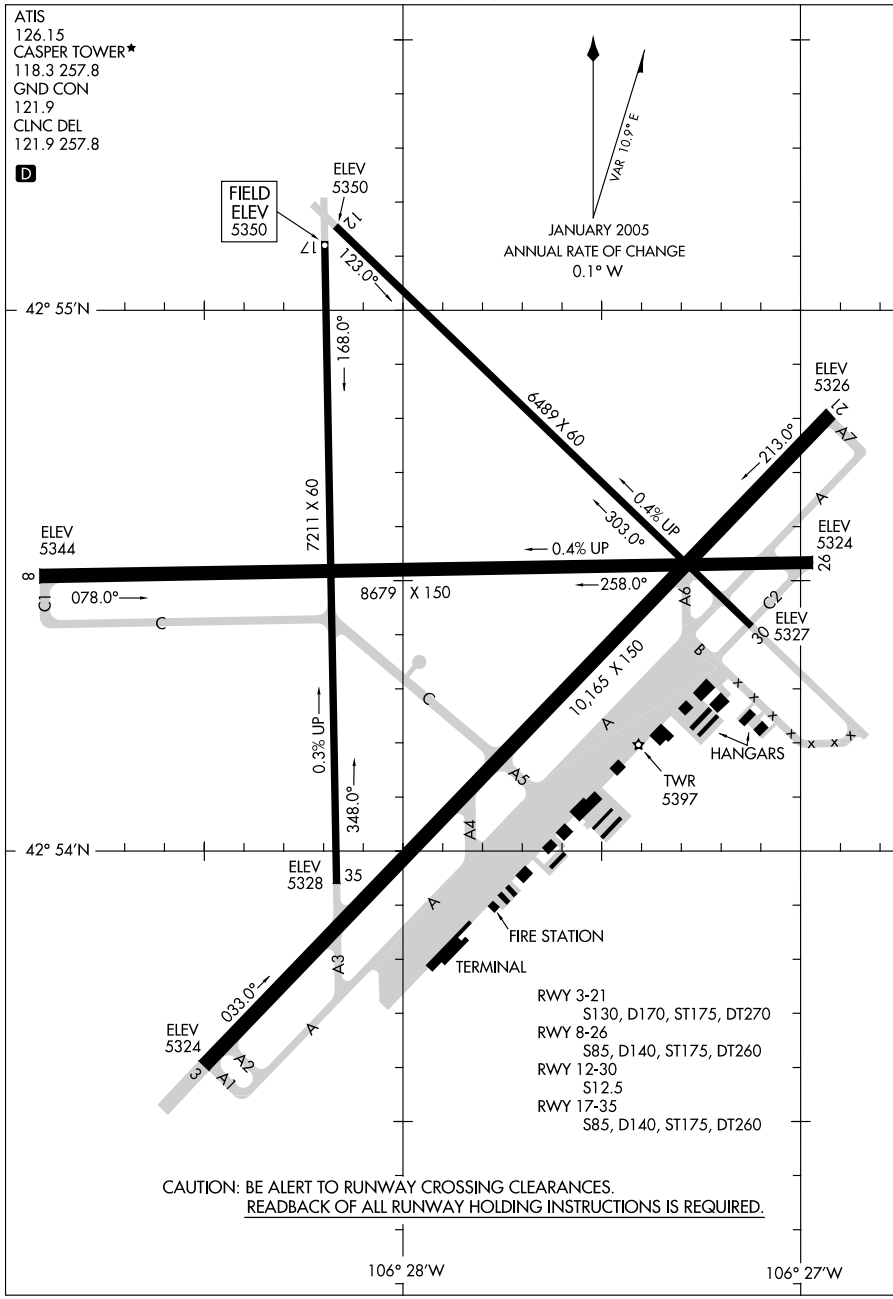
BOZEMAN, MONTANA
BOZEMAN/GALLATIN FIELD (BZN)

09351

AIRPORT DIAGRAM

CASPER/NATRONA COUNTY INTL (CPR)

CASPER, WYOMING



AIRPORT DIAGRAM

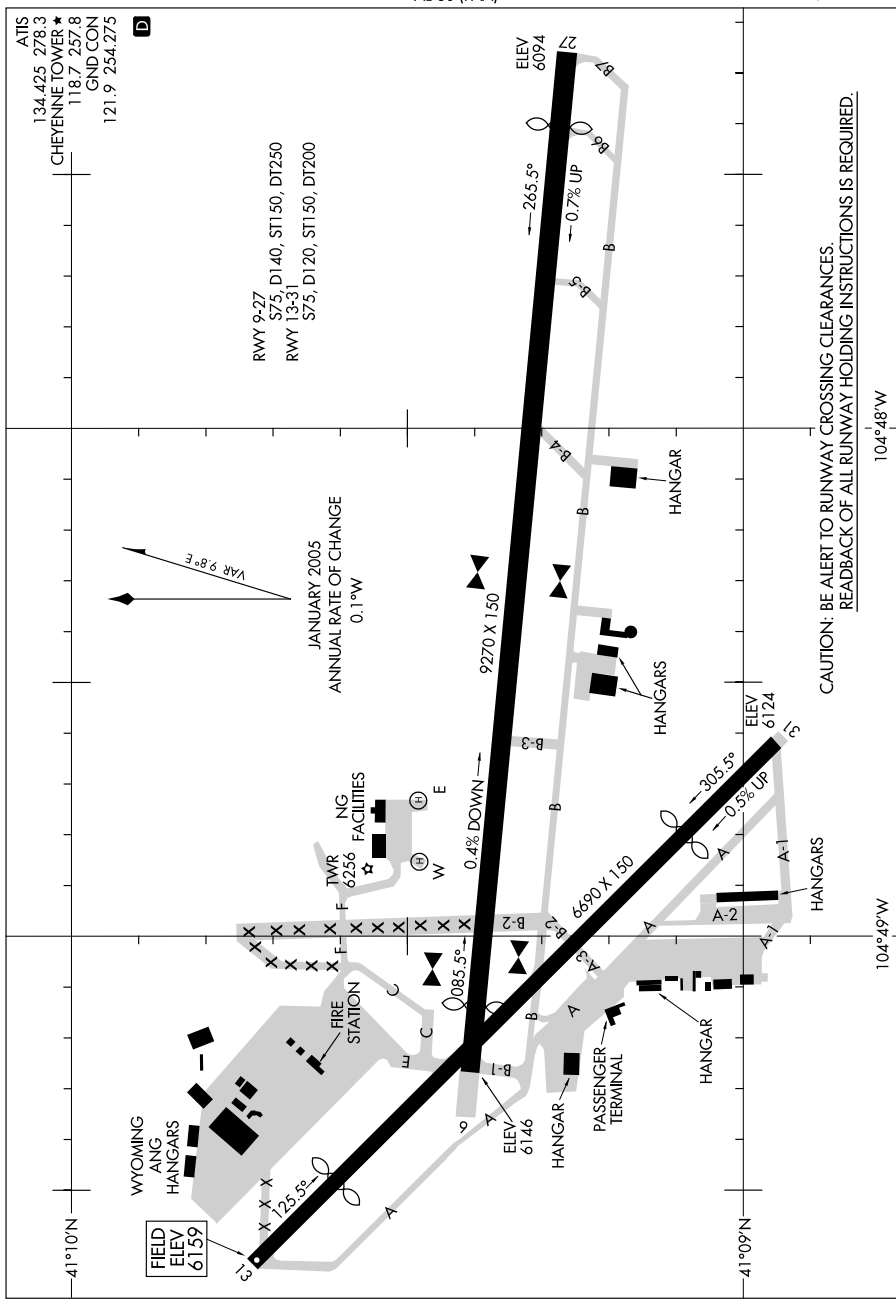
09351

CASPER, WYOMING
CASPER/NATRONA COUNTY INTL (CPR)

09015

AIRPORT DIAGRAM

CHEYENNE RGNL/JERRY OLSON FIELD (CYS)
CHEYENNE, WYOMING



AIRPORT DIAGRAM

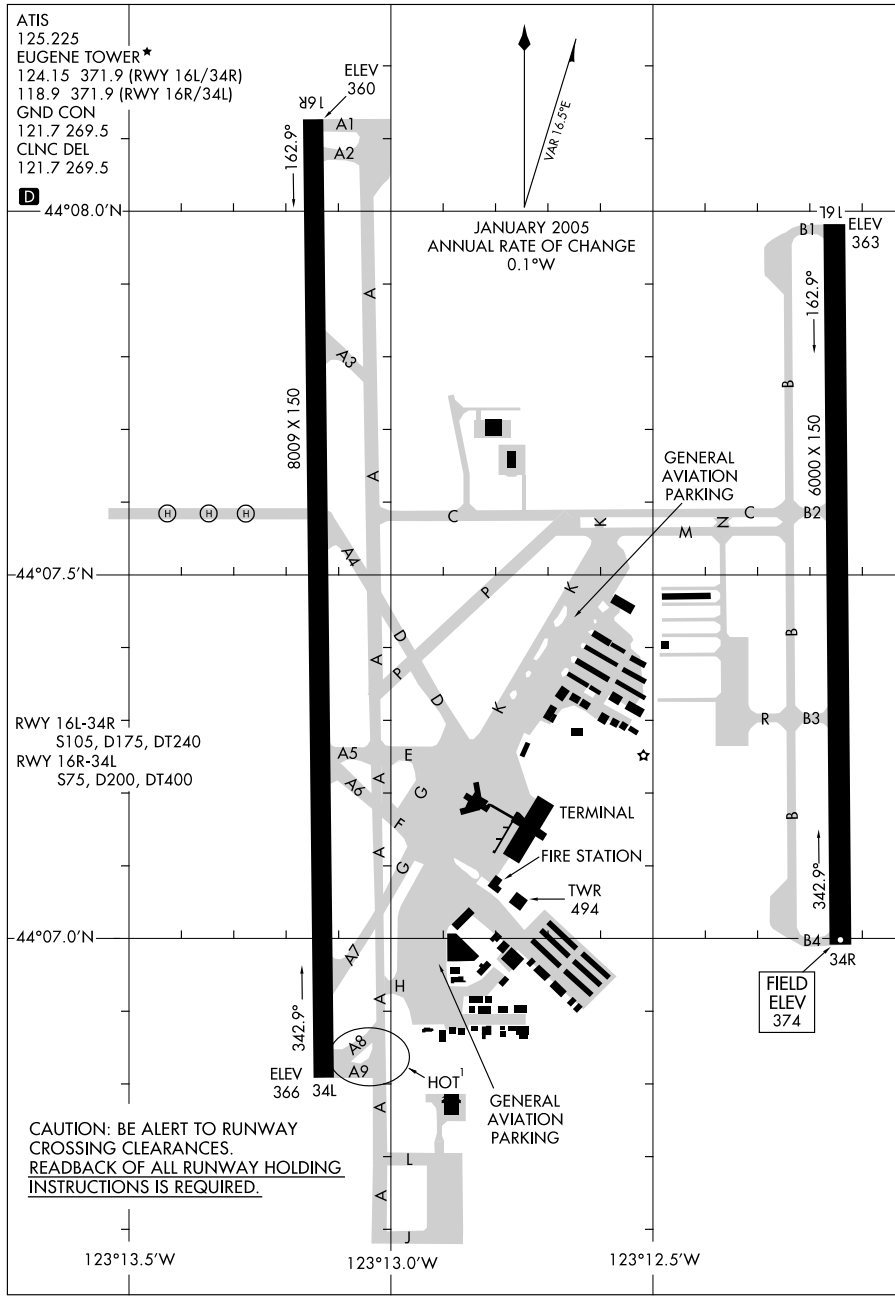
CHEYENNE, WYOMING
CHEYENNE RGNL/JERRY OLSON FIELD (CYS)

09015

10098

AIRPORT DIAGRAM

EUGENE/MAHLON SWEET FIELD (EUG)
EUGENE, OREGON



AIRPORT DIAGRAM

EUGENE, OREGON
EUGENE/MAHLON SWEET FIELD (EUG)

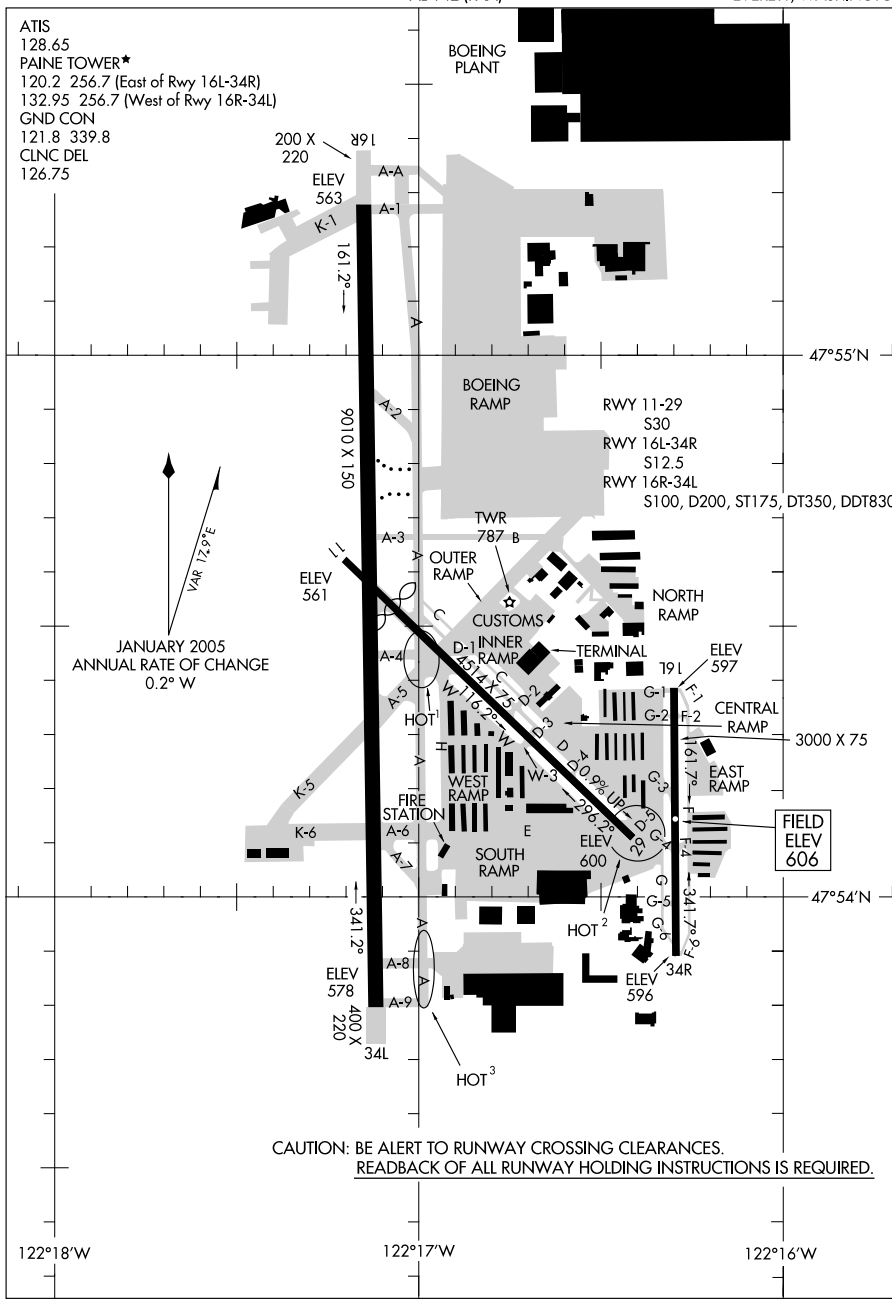
10098

10098

AIRPORT DIAGRAM

EVERETT/ SNOHOMISH COUNTY (PAINE FIELD) (PAE)

AL-142 (FAA) EVERETT, WASHINGTON

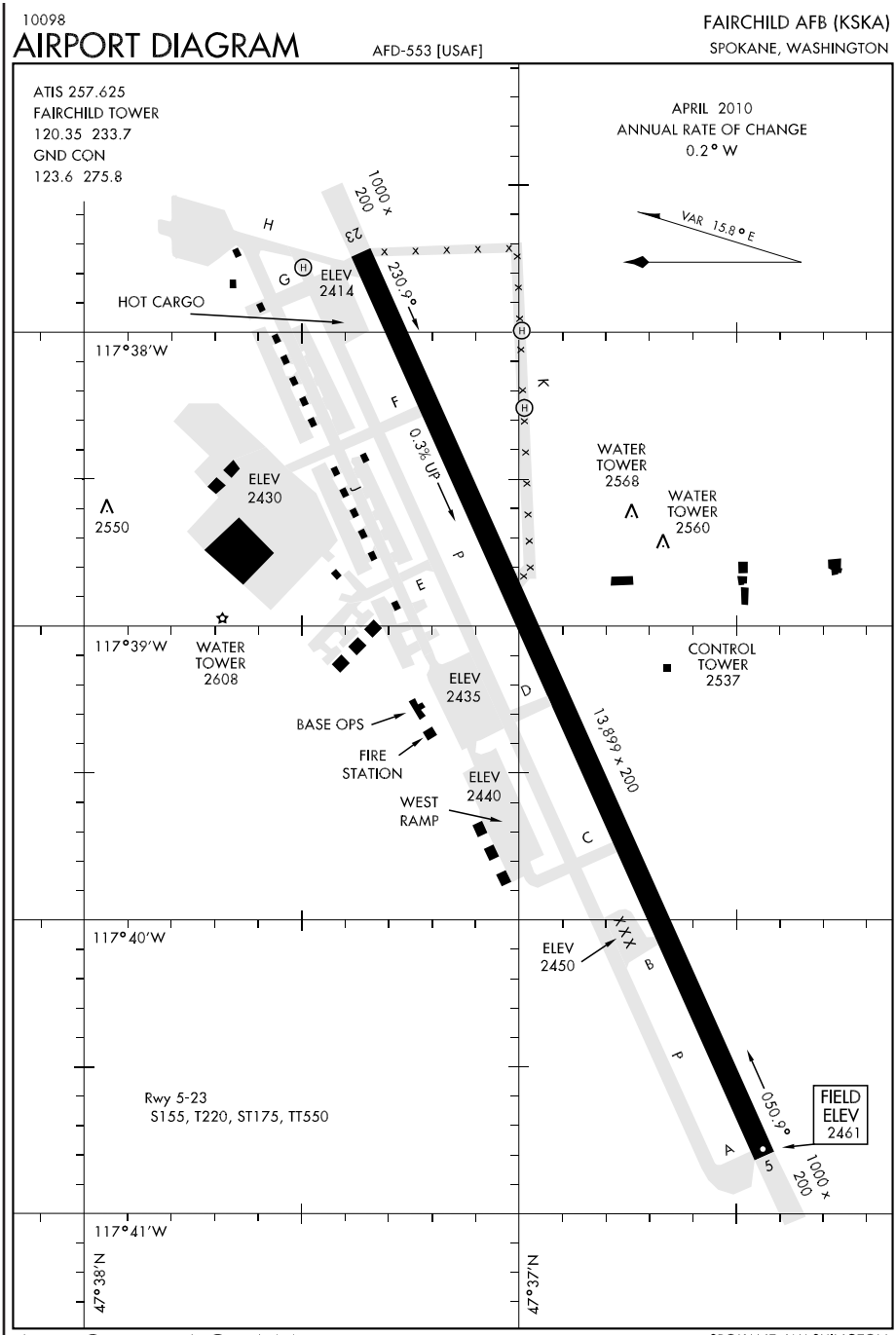


AIRPORT DIAGRAM

10098

EVERETT, WASHINGTON

EVERETT/ SNOHOMISH COUNTY (PAINE FIELD) (PAE)


10098
AIRPORT DIAGRAM
AFD-553 [USAF]
FAIRCHILD AFB (KSKA)
SPOKANE, WASHINGTON
ATIS 257.625
FAIRCHILD TOWER
120.35 233.7
GND CON
123.6 275.8
APRIL 2010
ANNUAL RATE OF CHANGE
0.2° W
VAR 15.8° E
1000 x 200
23
230.9°
H
G
ELEV 2414
HOT CARGO
117°38'W
F
0.3% UP
K
WATER TOWER 2568
WATER TOWER 2560
ELEV 2430
2550
J
E
P
117°39'W
WATER TOWER 2608
CONTROL TOWER 2537
ELEV 2435
D
BASE OPS
FIRE STATION
13,899 x 200
ELEV 2440
WEST RAMP
C
117°40'W
ELEV 2450
XXX
B
P
050.9°
FIELD ELEV 2461
A
5
1000 x 200
Rwy 5-23
S155, T220, ST175, TT550
117°41'W
47°38'N
47°37'N
AIRPORT DIAGRAM
SPOKANE, WASHINGTON
FAIRCHILD AFB (KSKA)

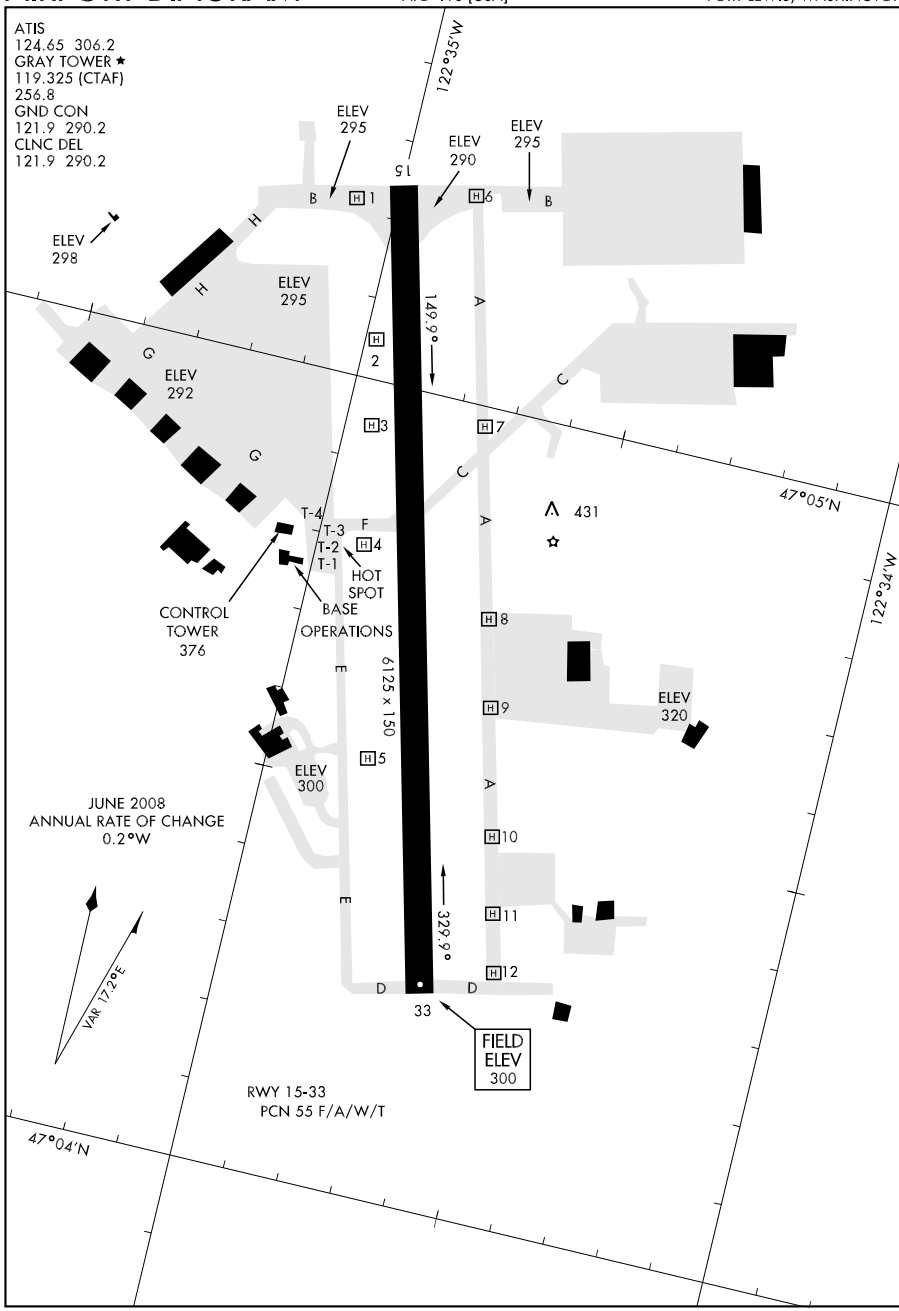
08157

AIRPORT DIAGRAM

GRAY AAF (KGRF)

AFD-413 [USA]

FORT LEWIS, WASHINGTON



AIRPORT DIAGRAM

FORT LEWIS, WASHINGTON

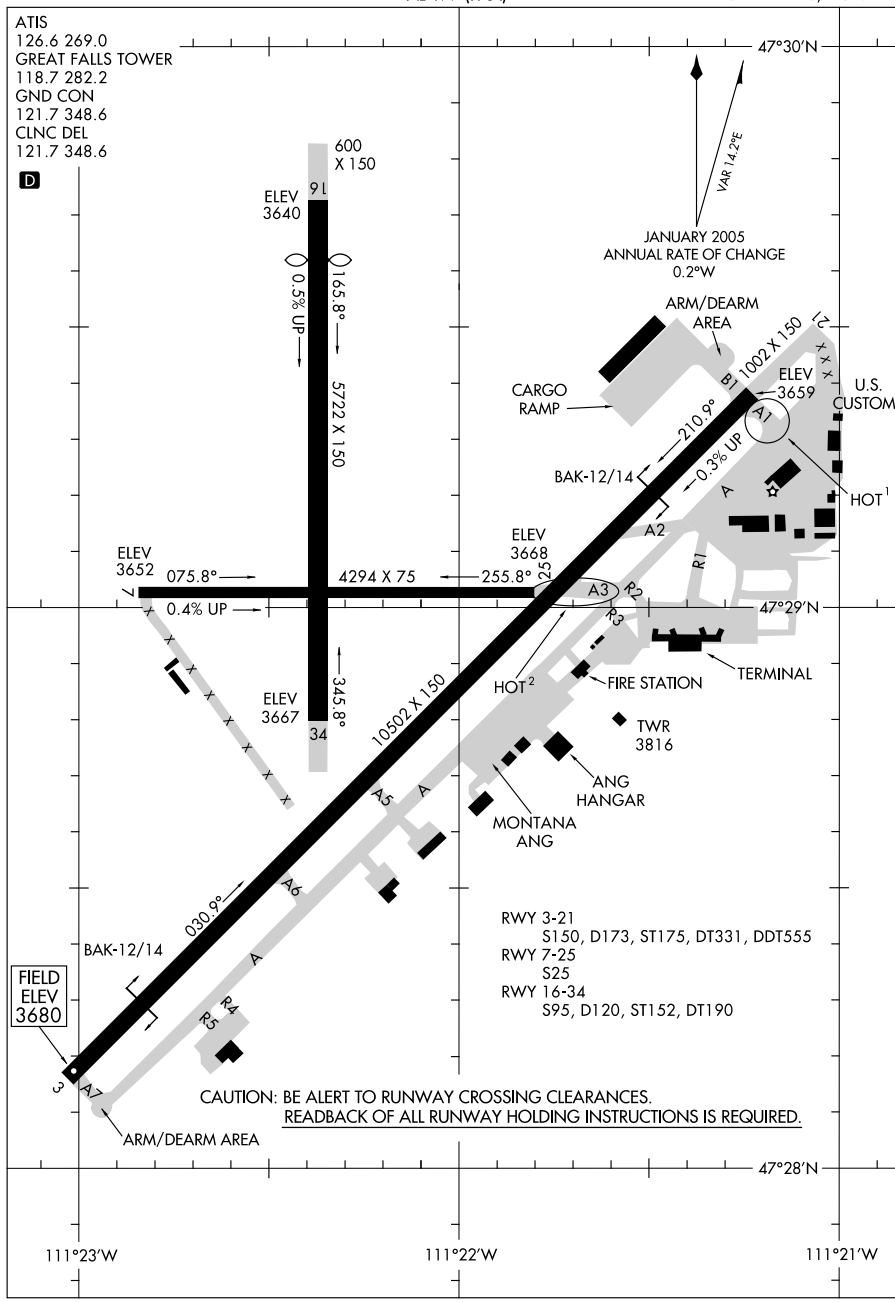
GRAY AAF (KGRF)

10098

AIRPORT DIAGRAM

AL-177 (FAA)

GREAT FALLS INTL (GTF)
GREAT FALLS, MONTANA

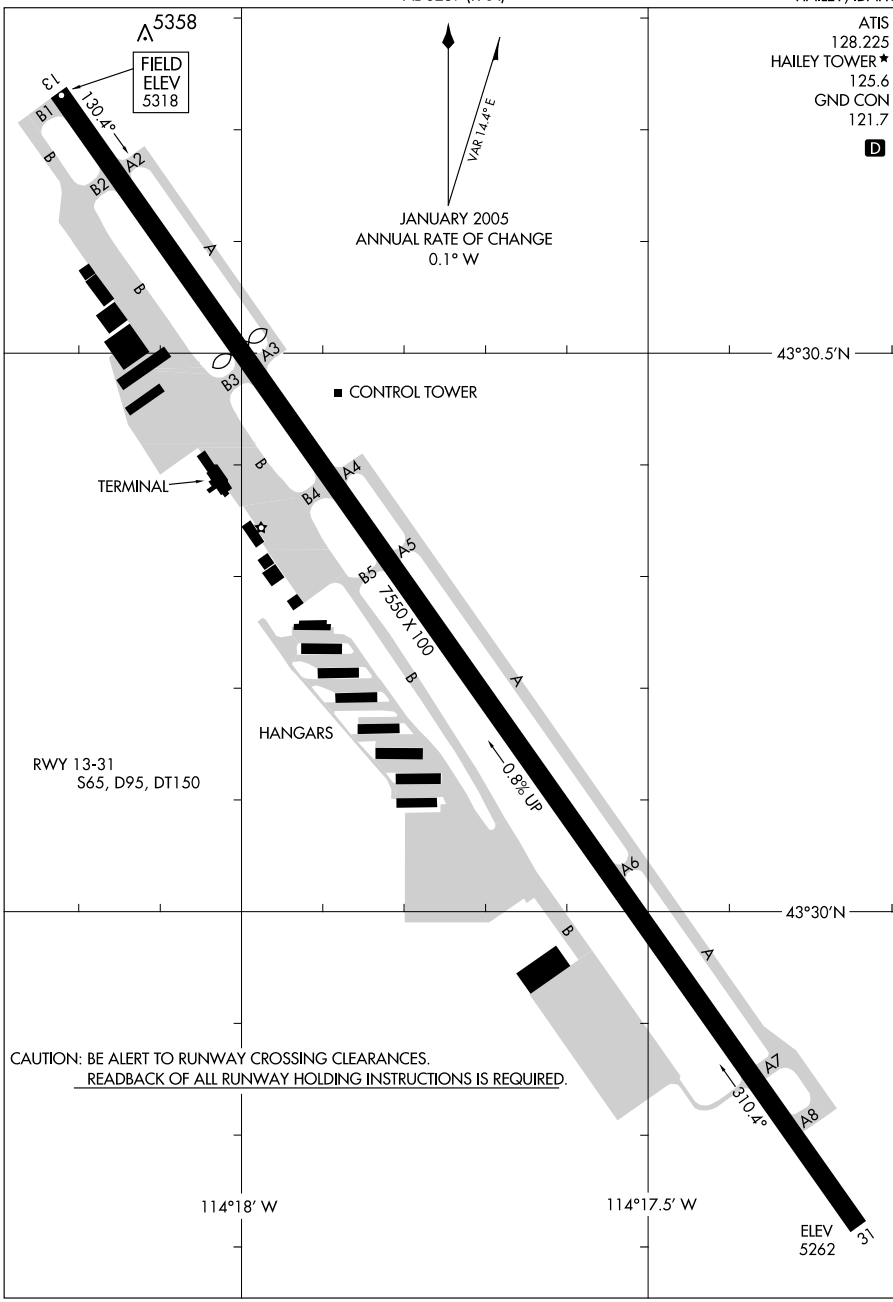


AIRPORT DIAGRAM
10098
GREAT FALLS, MONTANA
GREAT FALLS INTL (GTF)

09015

AIRPORT DIAGRAM

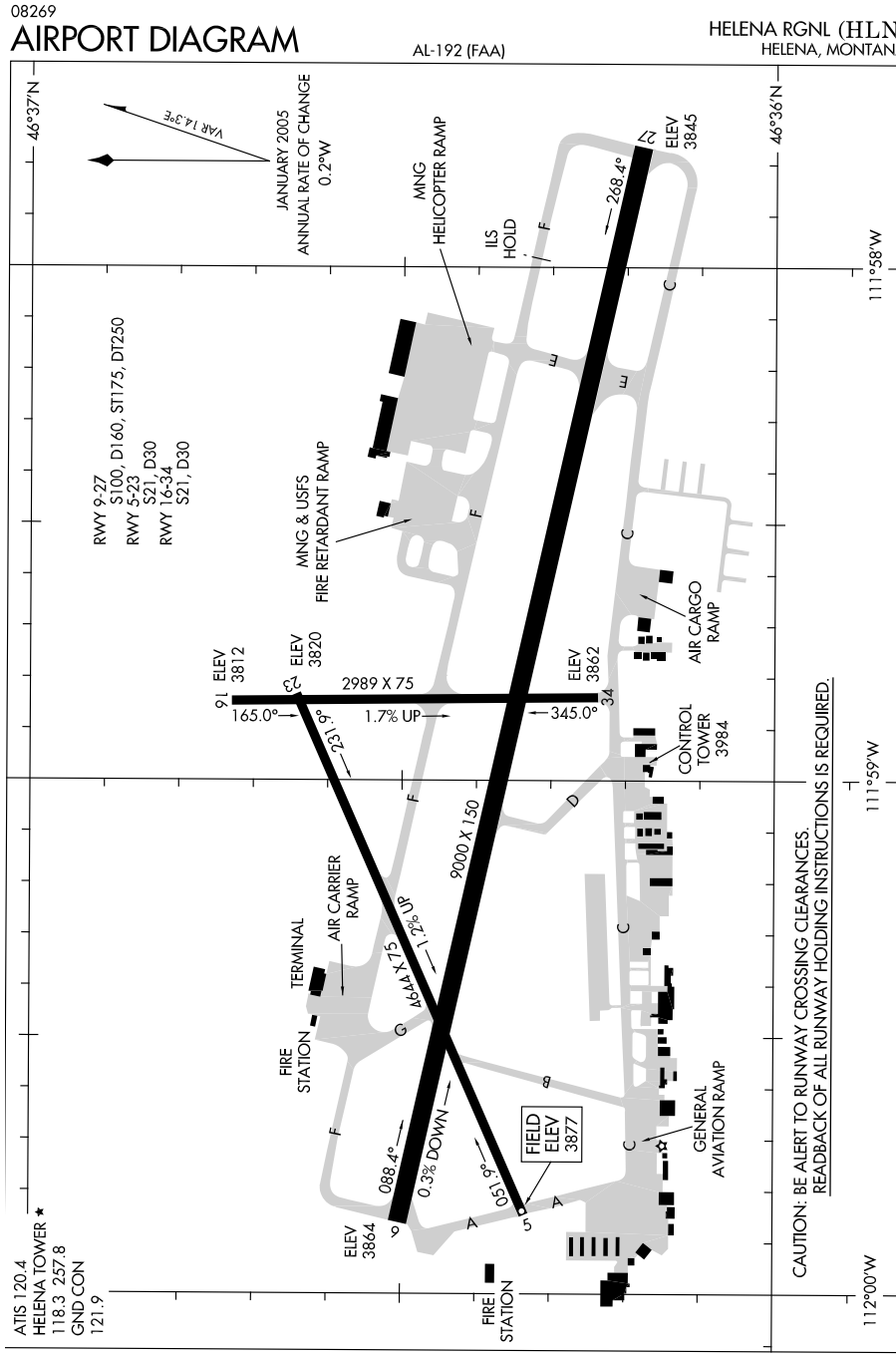
HAILEY/ FRIEDMAN MEMORIAL (SUN)
HAILEY, IDAHO



AIRPORT DIAGRAM

09015

HAILEY, IDAHO
HAILEY/ FRIEDMAN MEMORIAL (SUN)

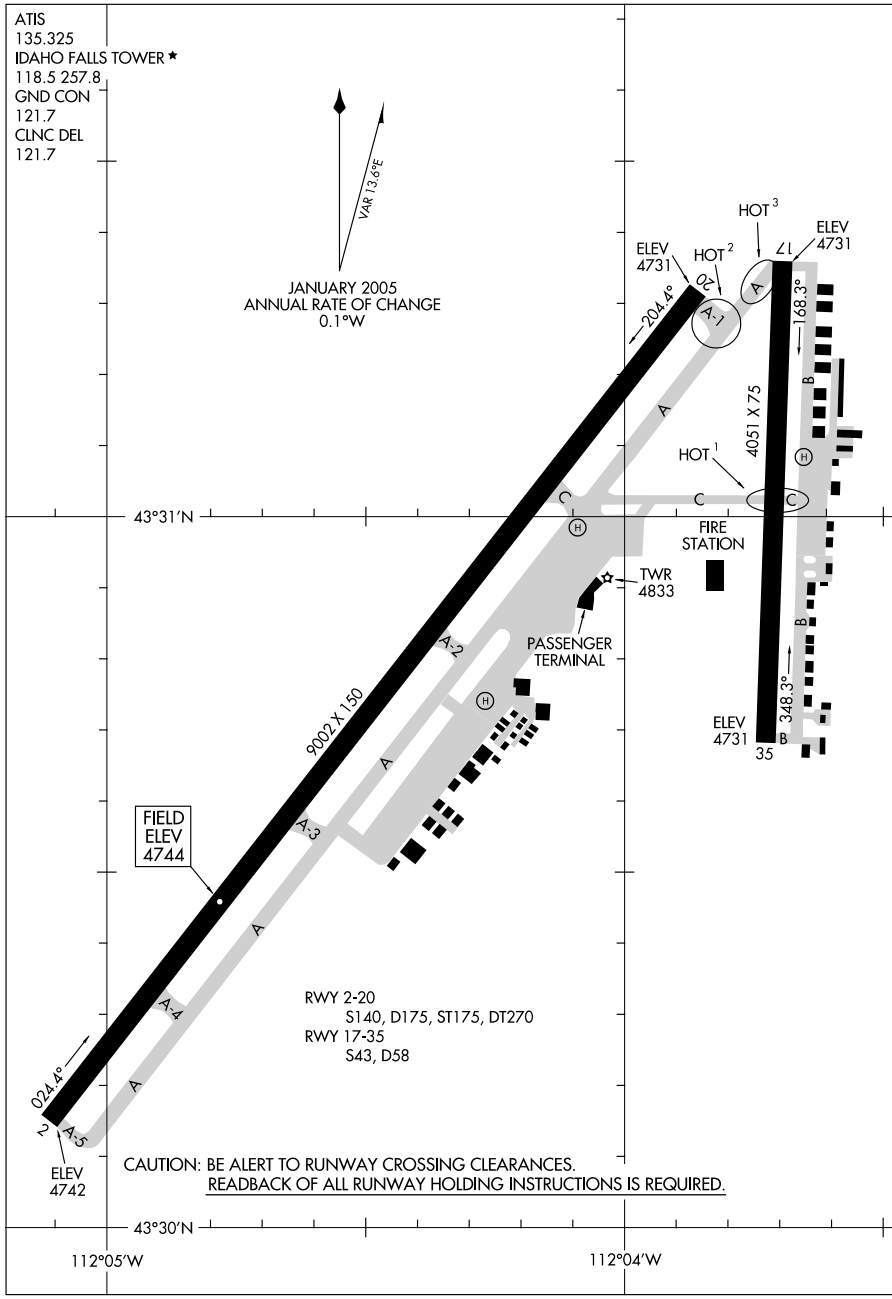

08269
AIRPORT DIAGRAM
HELENA RGNL (HLN)
HELENA, MONTANA
AL-192 (FAA)
46°37'N
46°36'N
111°58'W
111°59'W
112°00'W
VAR 14.3°E
JANUARY 2005
ANNUAL RATE OF CHANGE
0.2°W
MNG
HELICOPTER RAMP
ILS
HOLD
27
ELEV
3845
268.4°
RWY 9-27
S100, D160, ST175, DT250
RWY 5-23
S21, D30
RWY 16-34
S21, D30
MNG & USFS
FIRE RETARDANT RAMP
AIR CARGO
RAMP
ELEV
3812
ELEV
3820
ELEV
3862
9
23
2989 X 75
165.0°
1.7% UP
345.0°
34
CONTROL
TOWER
3984
9000 X 150
TERMINAL
AIR CARRIER
RAMP
4644 X 75
1.2% UP
FIRE
STATION
088.4°
0.3% DOWN
051.9°
FIELD
ELEV
3877
GENERAL
AVIATION RAMP
ELEV
3864
5
ATIS 120.4
HELENA TOWER
118.3 257.8
GND CON
121.9
FIRE
STATION
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
AIRPORT DIAGRAM
08269
HELENA, MONTANA
HELENA RGNL (HLN)

10098

AIRPORT DIAGRAM

AL-590 (FAA)

IDAHO FALLS RGNL (IDA)
IDAHO FALLS, IDAHO



AIRPORT DIAGRAM

IDAHO FALLS, IDAHO
IDAHO FALLS RGNL (IDA)

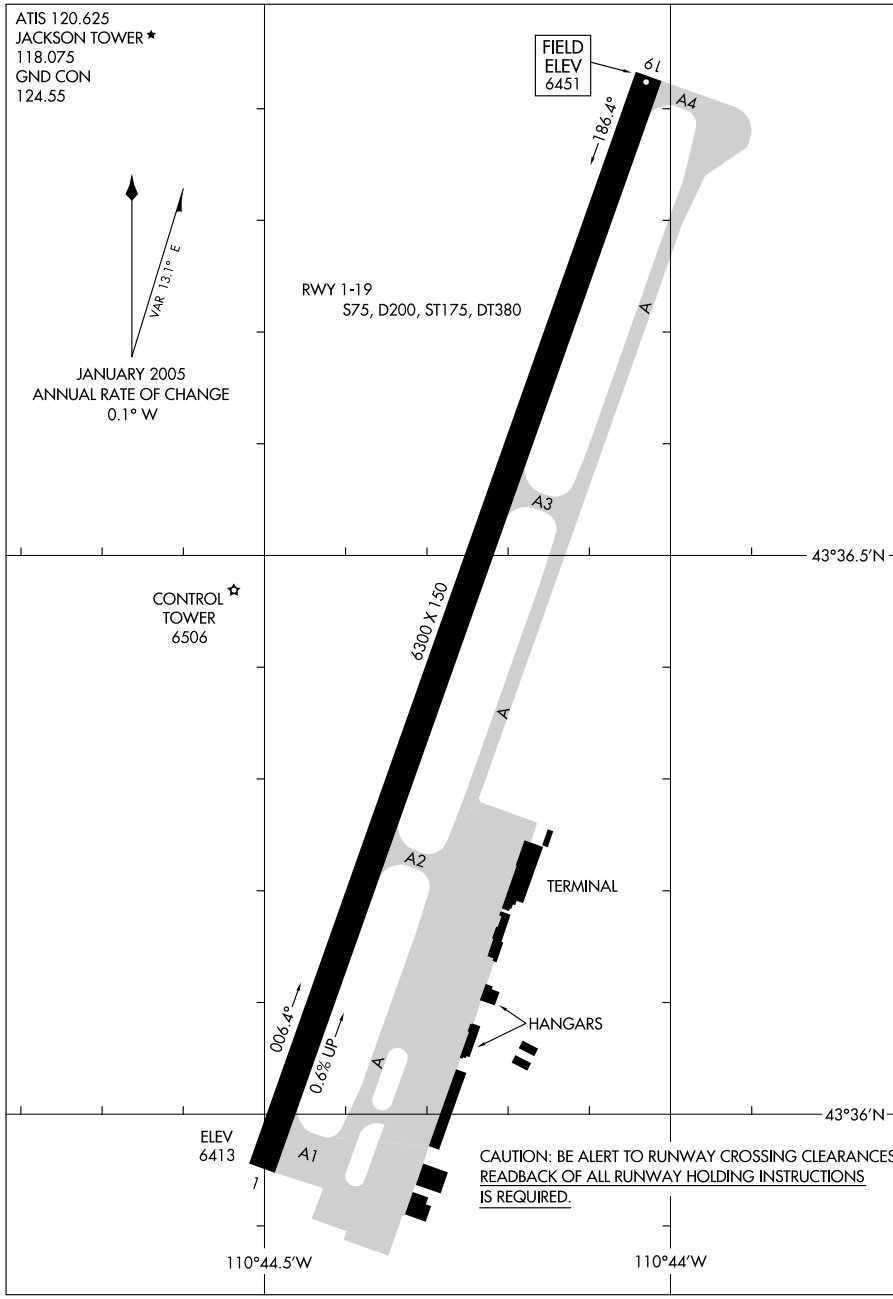
10098

08157

AIRPORT DIAGRAM

AL-504 (FAA)

JACKSON HOLE (JAC)
JACKSON, WYOMING



AIRPORT DIAGRAM

08157

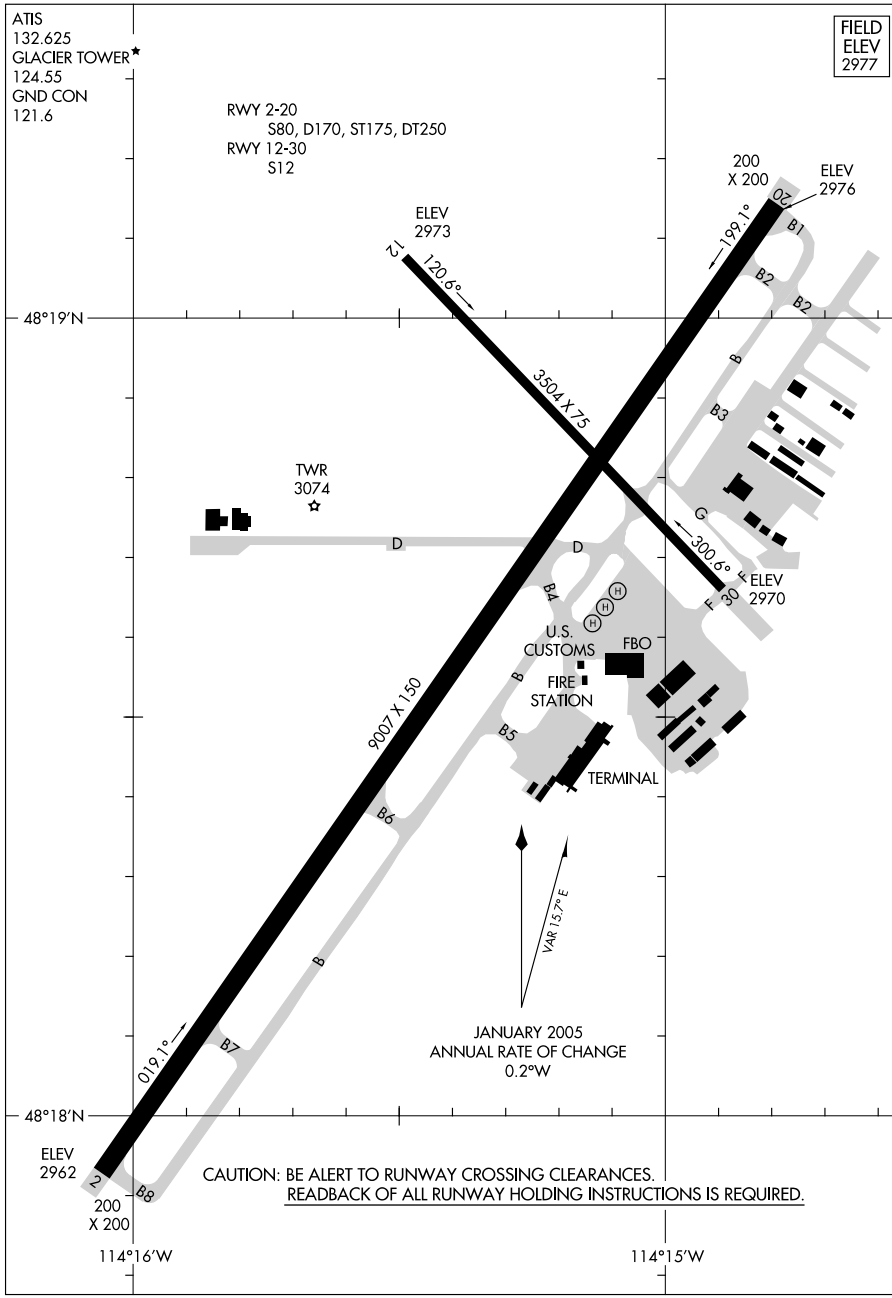
JACKSON, WYOMING
JACKSON HOLE (JAC)

10098

AIRPORT DIAGRAM

AL-887 (FAA)

KALISPELL/GLACIER PARK INTL (GPI)
KALISPELL, MONTANA



AIRPORT DIAGRAM

10098

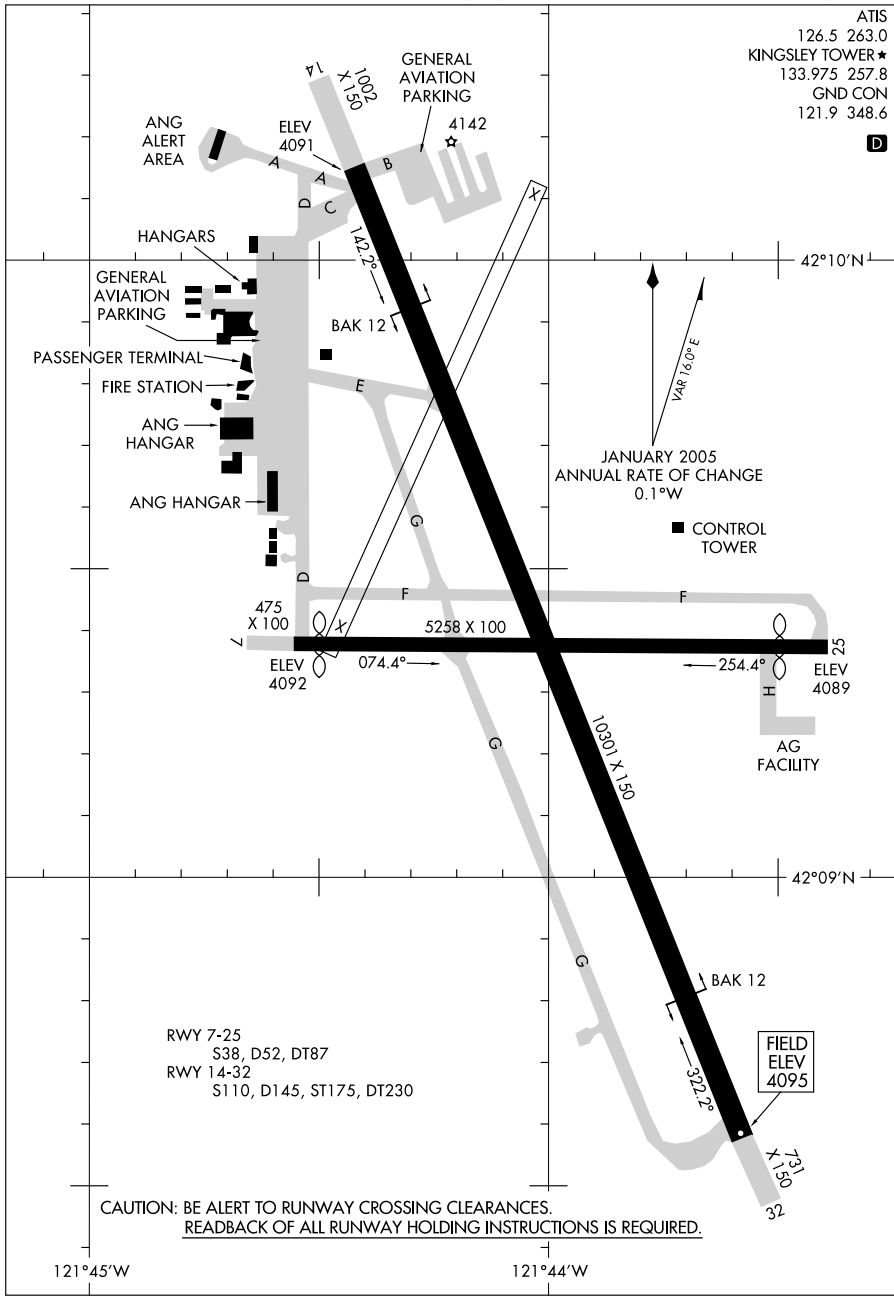
KALISPELL, MONTANA
KALISPELL/ GLACIER PARK INTL (GPI)

09127

AIRPORT DIAGRAM

AL-473 (FAA)

KLAMATH FALLS (LMT)
KLAMATH FALLS, OREGON



AIRPORT DIAGRAM

09127

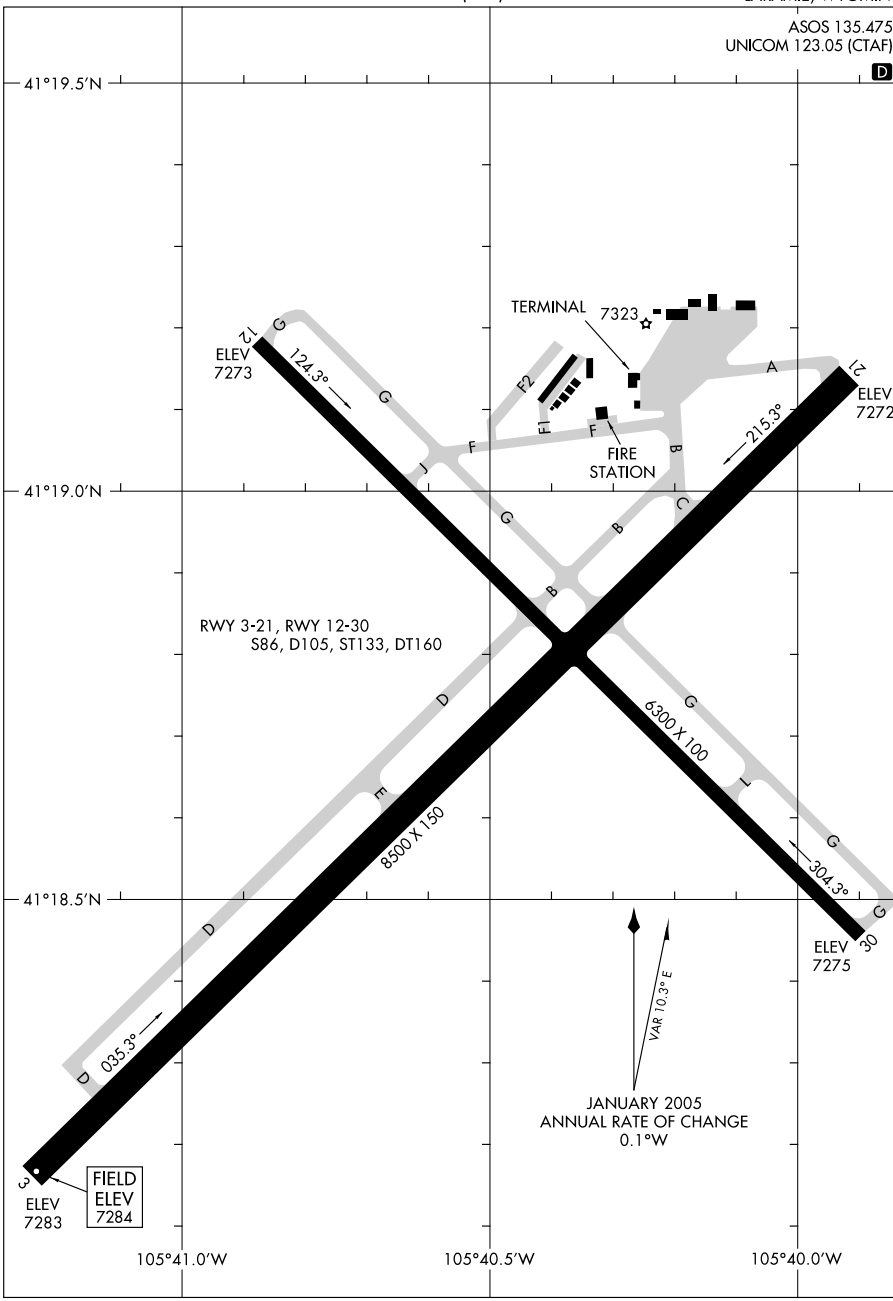
KLAMATH FALLS, OREGON
KLAMATH FALLS (LMT)

09351

AIRPORT DIAGRAM

AL-225 (FAA)

LARAMIE RGNL (LAR)
LARAMIE, WYOMING



AIRPORT DIAGRAM

09351

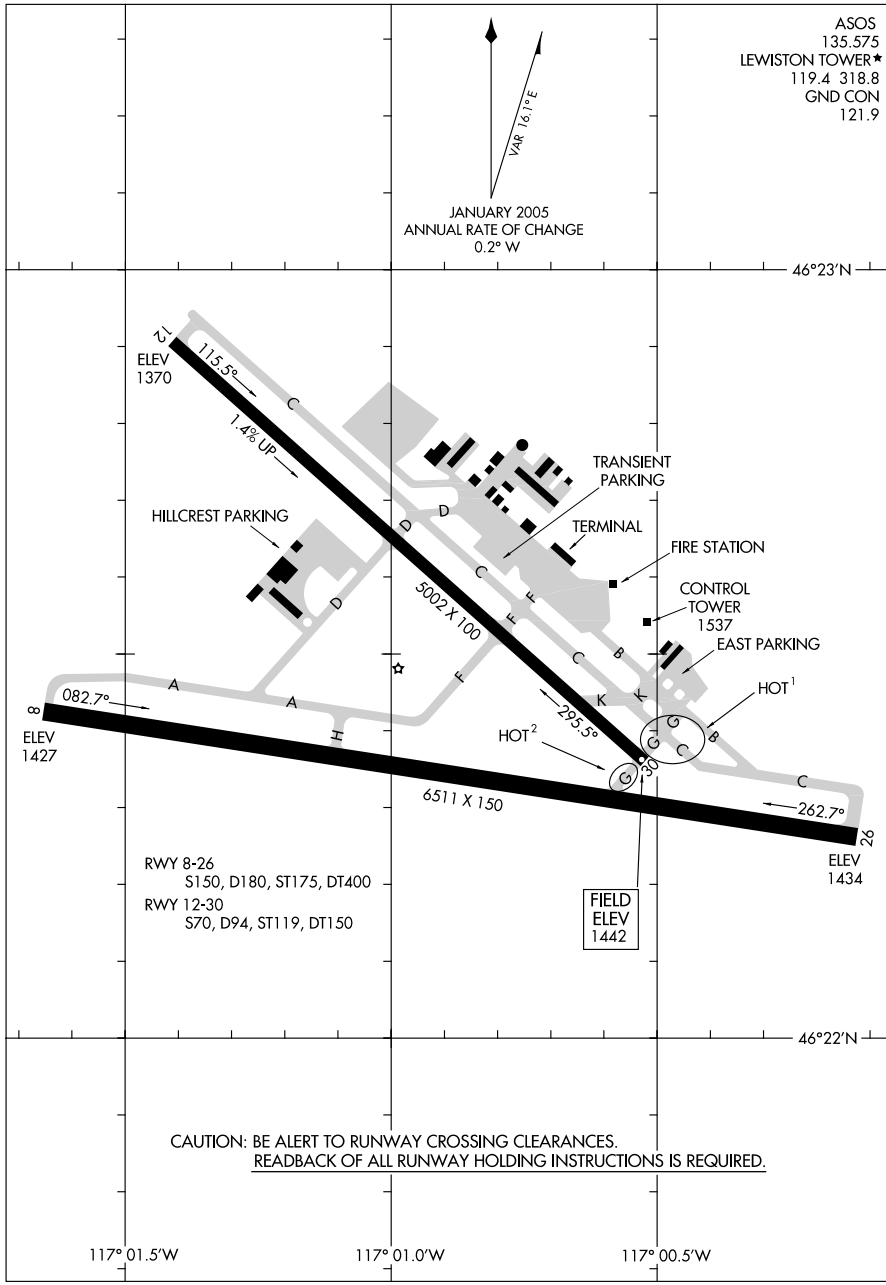
LARAMIE, WYOMING
LARAMIE RGNL (LAR)

09295

AIRPORT DIAGRAM

LEWISTON-NEZ PERCE COUNTY (LWS)
LEWISTON, IDAHO

AL-515 (FAA)



AIRPORT DIAGRAM

09295

LEWISTON, IDAHO
LEWISTON-NEZ PERCE COUNTY (LWS)

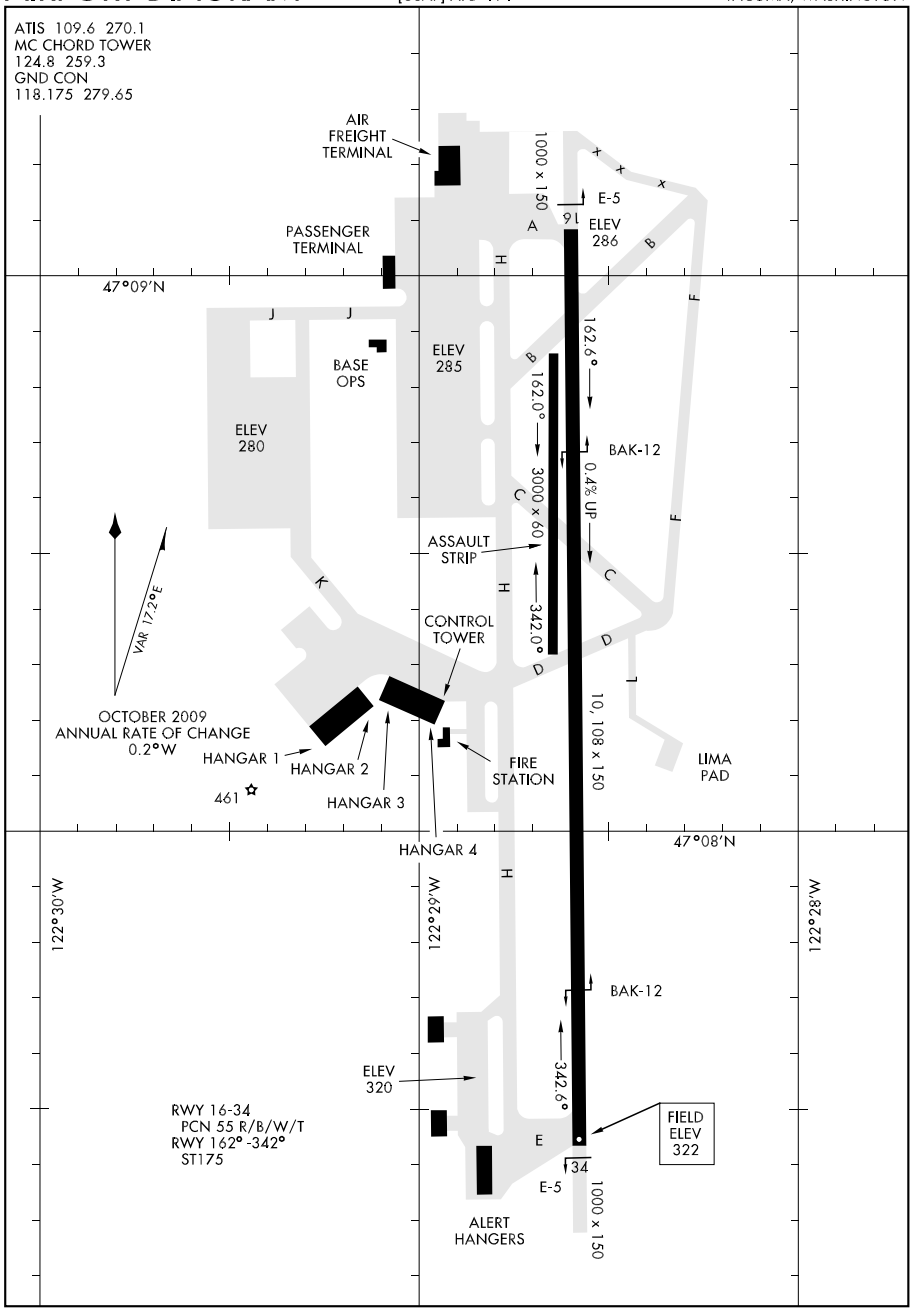
09295

AIRPORT DIAGRAM

MC CHORD AFB (KTCM)

[USAF] AFD-414

TACOMA, WASHINGTON



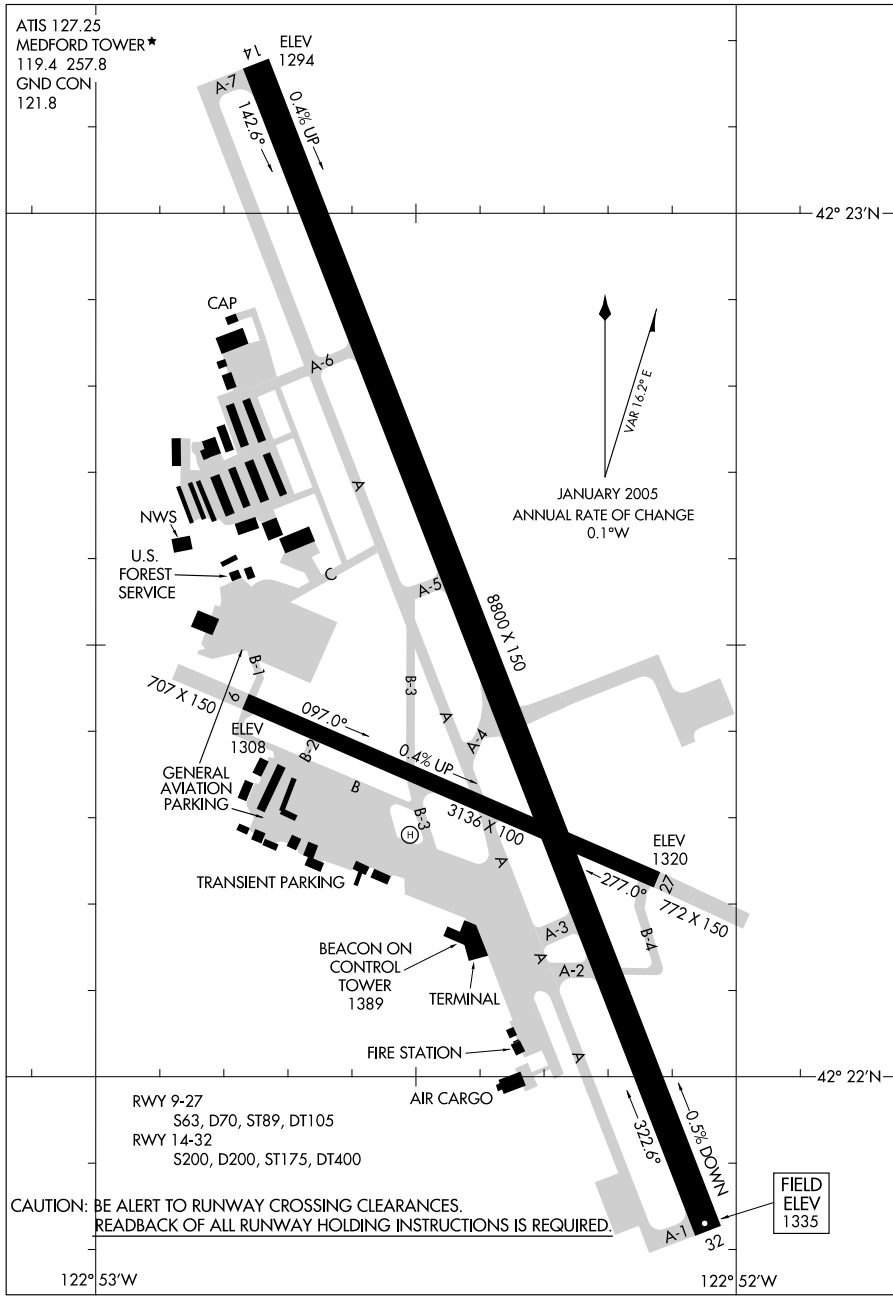
AIRPORT DIAGRAM

TACOMA, WASHINGTON
MC CHORD AFB (KTCM)

06215

AIRPORT DIAGRAM

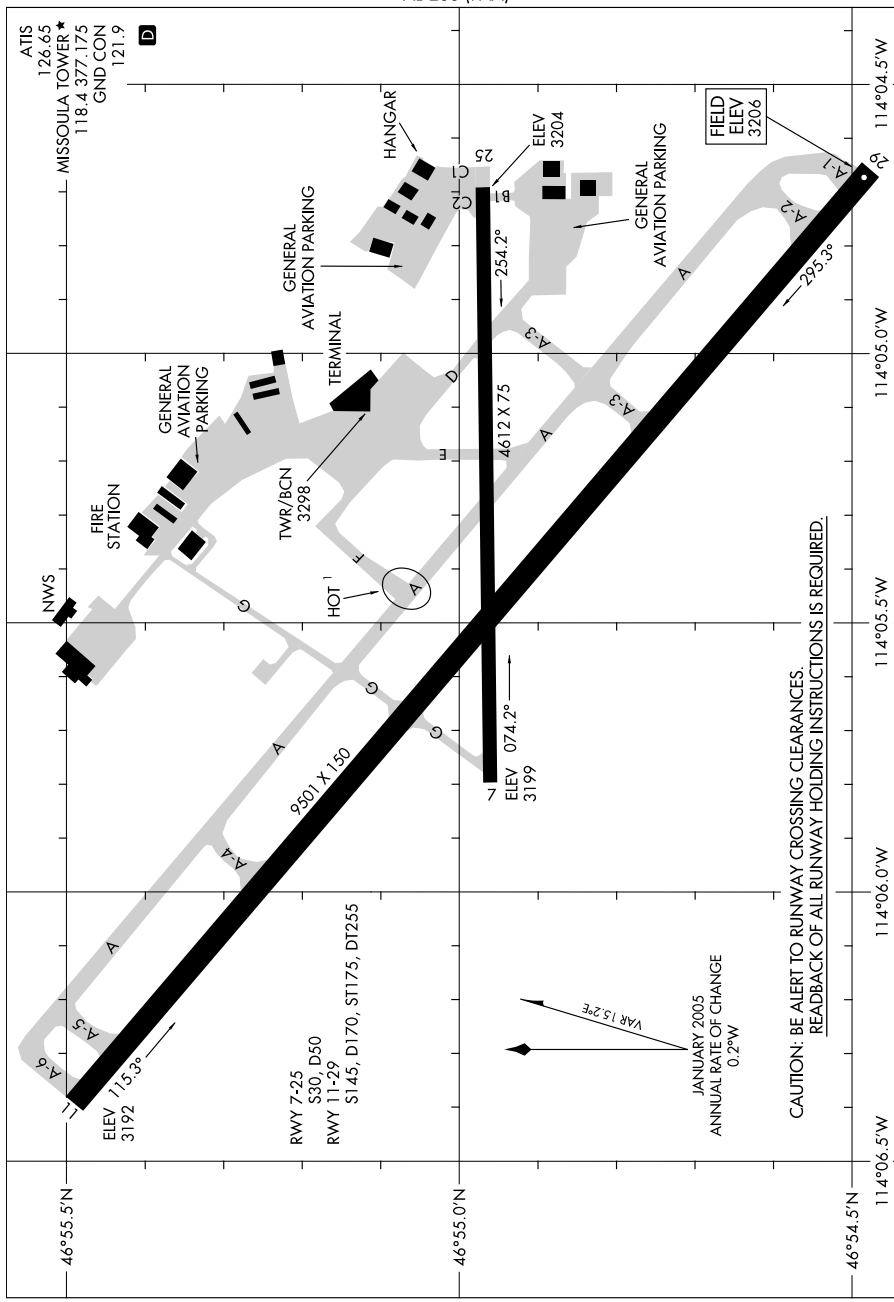
MEDFORD/ ROGUE VALLEY INTL-MEDFORD (MFR)
AL-251 (FAA)
MEDFORD, OREGON



AIRPORT DIAGRAM

06215

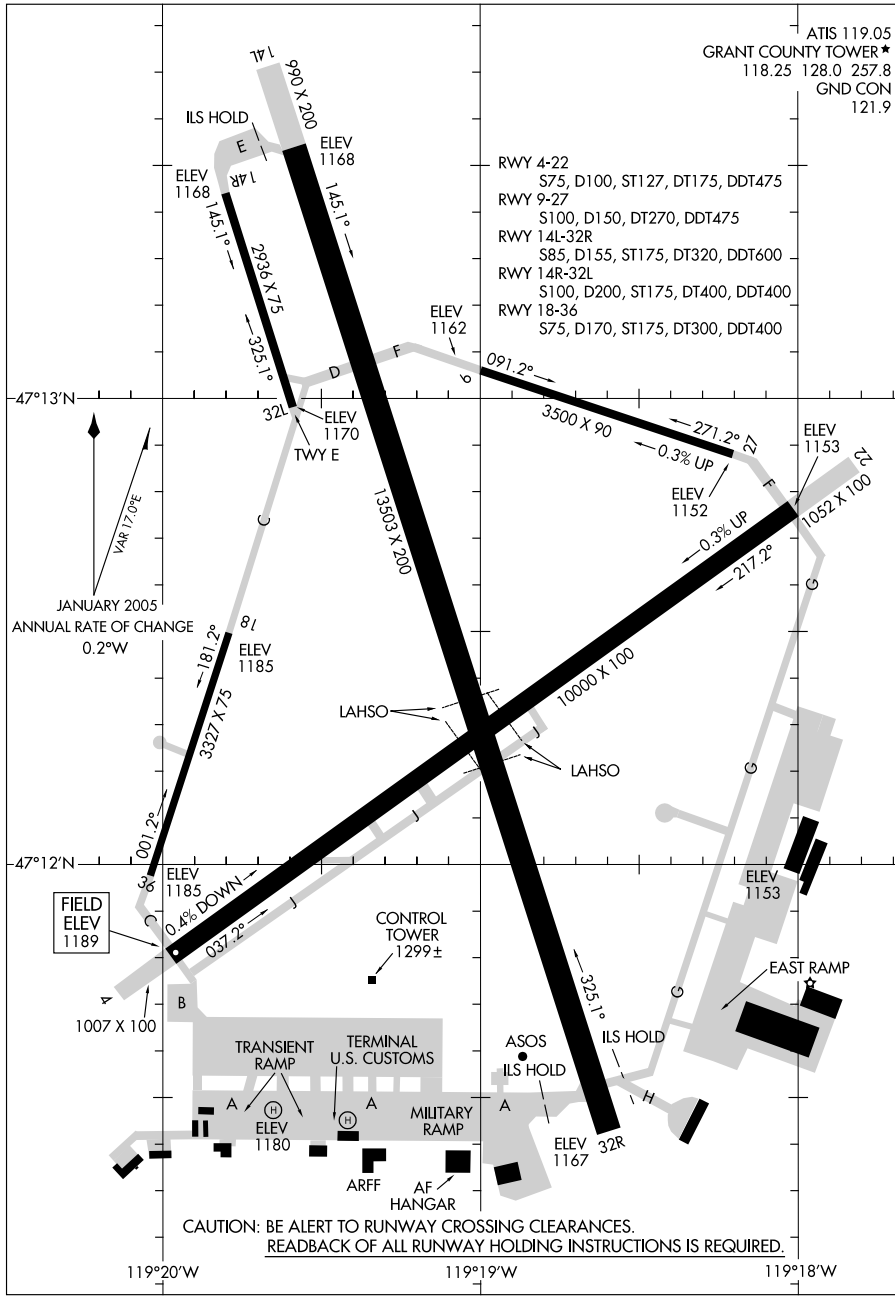
MEDFORD, OREGON
MEDFORD/ROGUE VALLEY INTL-MEDFORD (MFR)


10098
AIRPORT DIAGRAM
AL-266 (FAA)
MISSOULA INTL (MSO)
MISSOULA, MONTANA
ATIS 126.65
MISSOULA TOWER 118.4 377.175
GND CON 121.9
HANGAR
ELEV 3204
GENERAL AVIATION PARKING
FIELD ELEV 3206
TERMINAL
GENERAL AVIATION PARKING
GENERAL AVIATION PARKING
FIRE STATION
TWR/BCN 3298
NWS
HOT 1
4612 X 75
254.2°
074.2°
295.3°
115.3°
9501 X 150
ELEV 3199
ELEV 3192
RWY 7-25 S30, D50
RWY 11-29 S145, D170, ST175, DT255
VAR 15.2°E
JANUARY 2005
ANNUAL RATE OF CHANGE 0.2°W
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
46°55.5'N
46°55.0'N
46°54.5'N
114°04.5'W
114°05.0'W
114°05.5'W
114°06.0'W
114°06.5'W
AIRPORT DIAGRAM
10098
MISSOULA, MONTANA
MISSOULA INTL (MSO)

08157

AIRPORT DIAGRAM

MOSES LAKE/GRANT COUNTY INTL (MWH)
AL-961 (FAA)
MOSES LAKE, WASHINGTON



AIRPORT DIAGRAM
08157
MOSES LAKE, WASHINGTON
MOSES LAKE/GRANT COUNTY INTL (MWH)

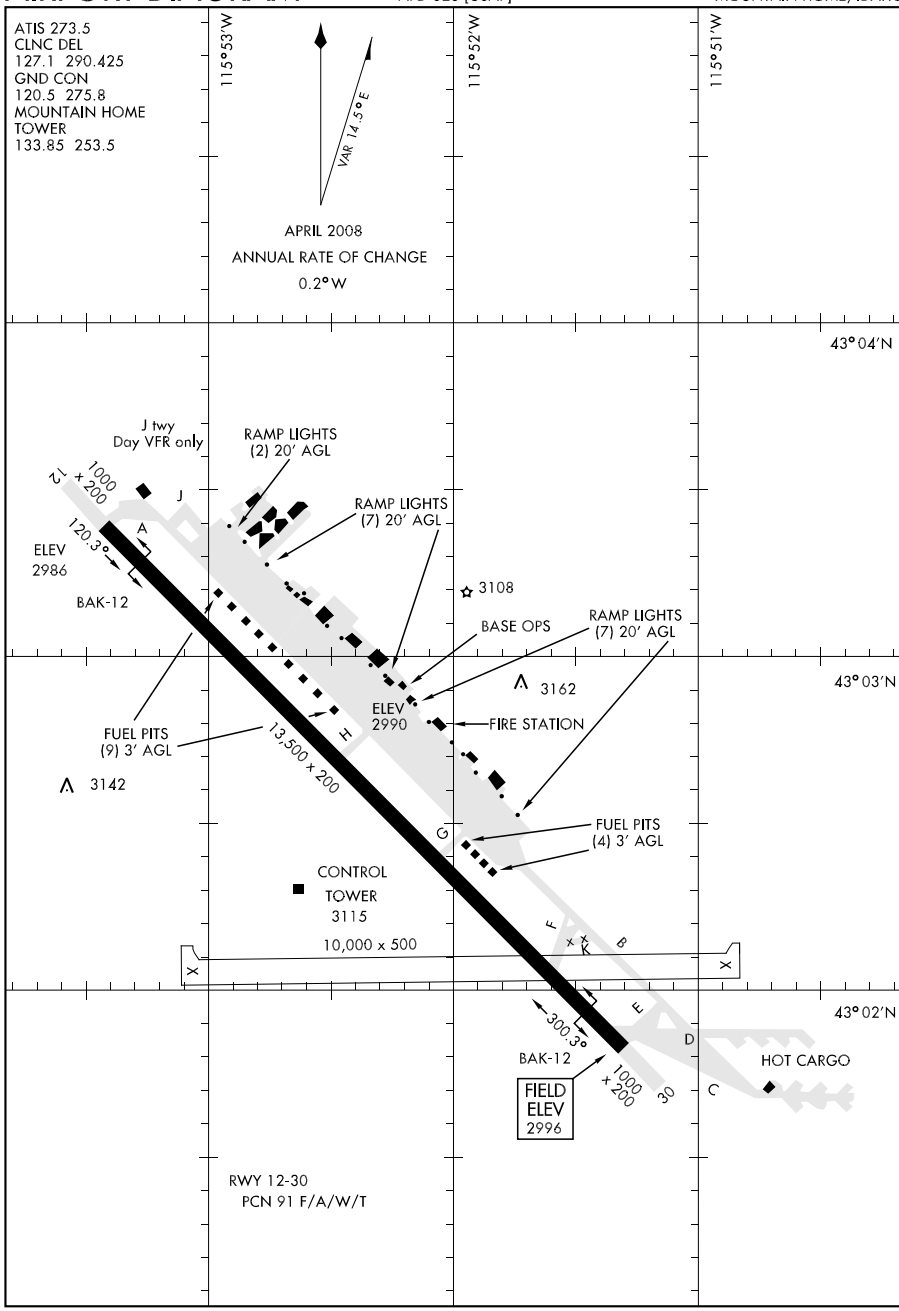
08101

AIRPORT DIAGRAM

MOUNTAIN HOME AFB (KMUO)

AFD-323 [USAF]

MOUNTAIN HOME, IDAHO



AIRPORT DIAGRAM

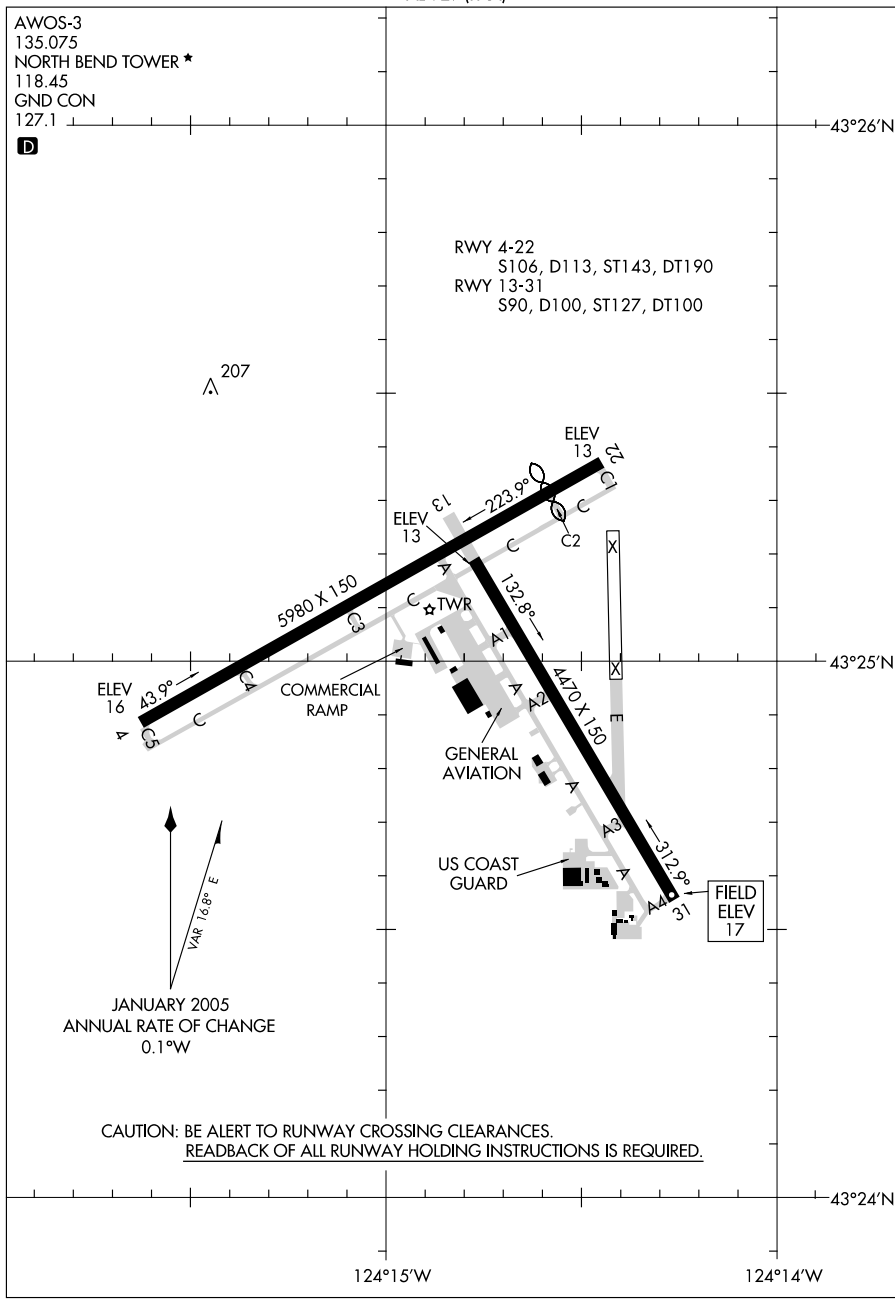
MOUNTAIN HOME, IDAHO

MOUNTAIN HOME AFB (KMUO)

09351

AIRPORT DIAGRAM

NORTH BEND/SOUTHWEST OREGON RGNL (OTH)
AL-929 (FAA)
NORTH BEND, OREGON



AIRPORT DIAGRAM

09351

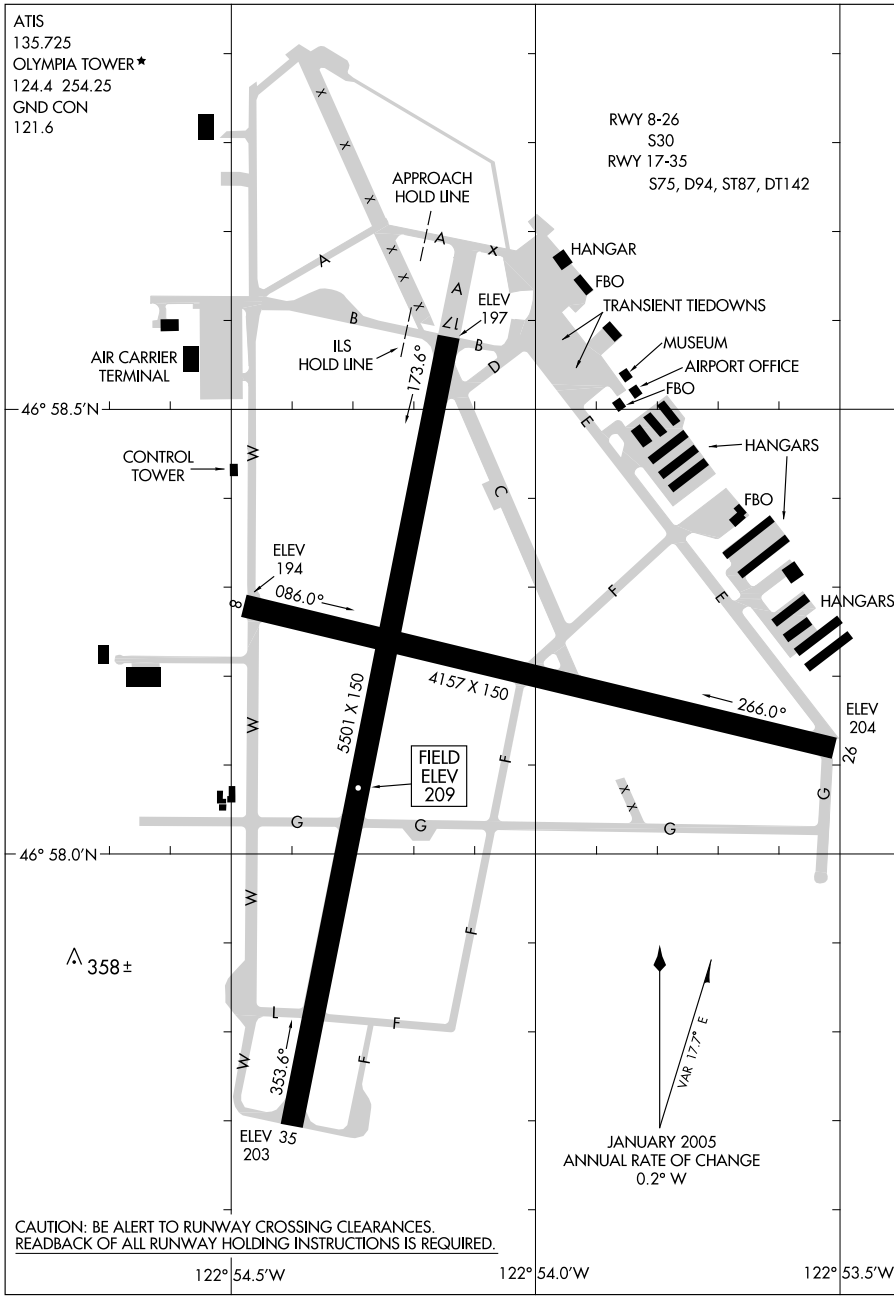
NORTH BEND, OREGON
NORTH BEND/SOUTHWEST OREGON RGNL (OTH)

09127

AIRPORT DIAGRAM

AL-645 (FAA)

OLYMPIA RGNL (OLM)
OLYMPIA, WASHINGTON



AIRPORT DIAGRAM

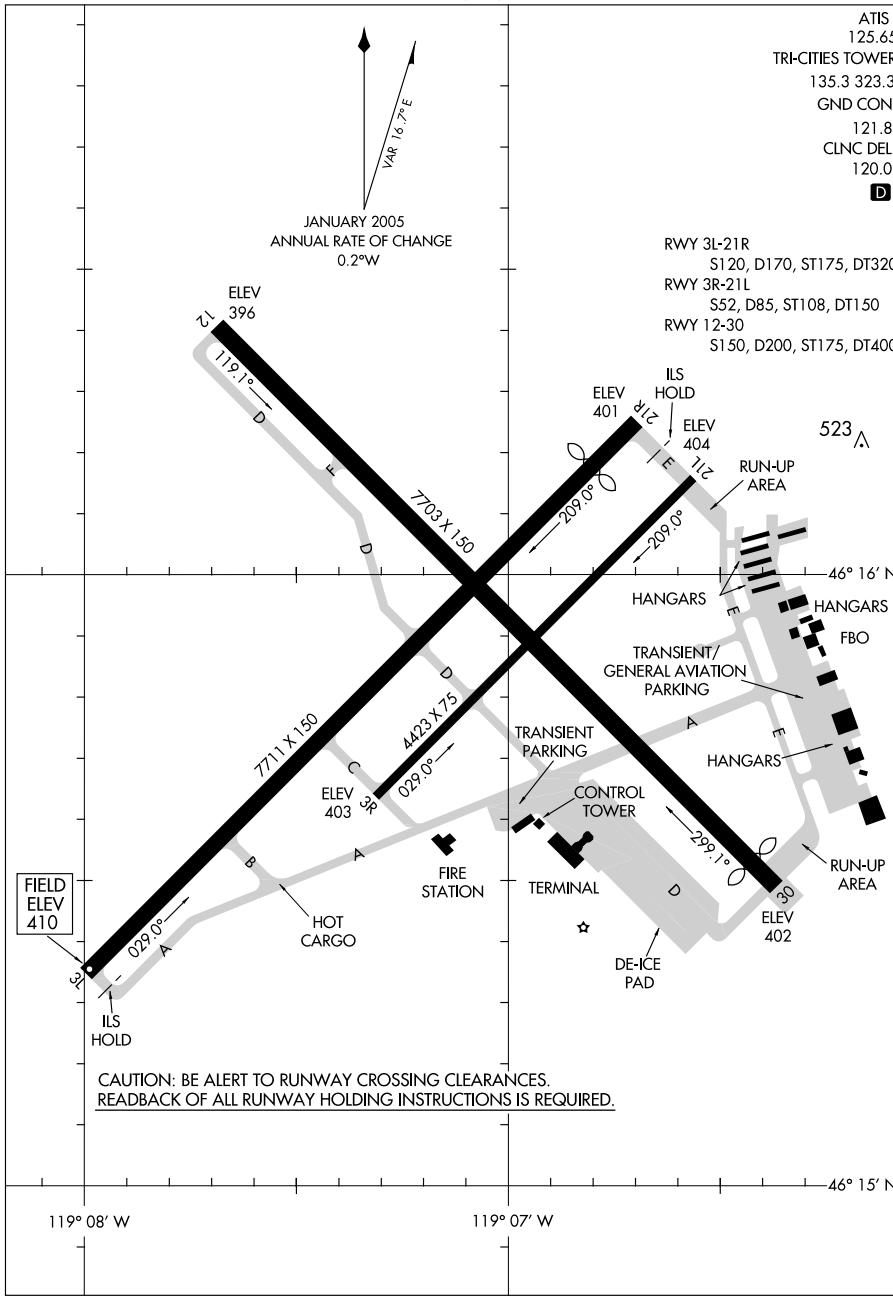
09127

OLYMPIA, WASHINGTON
OLYMPIA RGNL (OLM)

09015

AIRPORT DIAGRAM

PASCO/TRI-CITIES (PSC)
PASCO, WASHINGTON



AIRPORT DIAGRAM

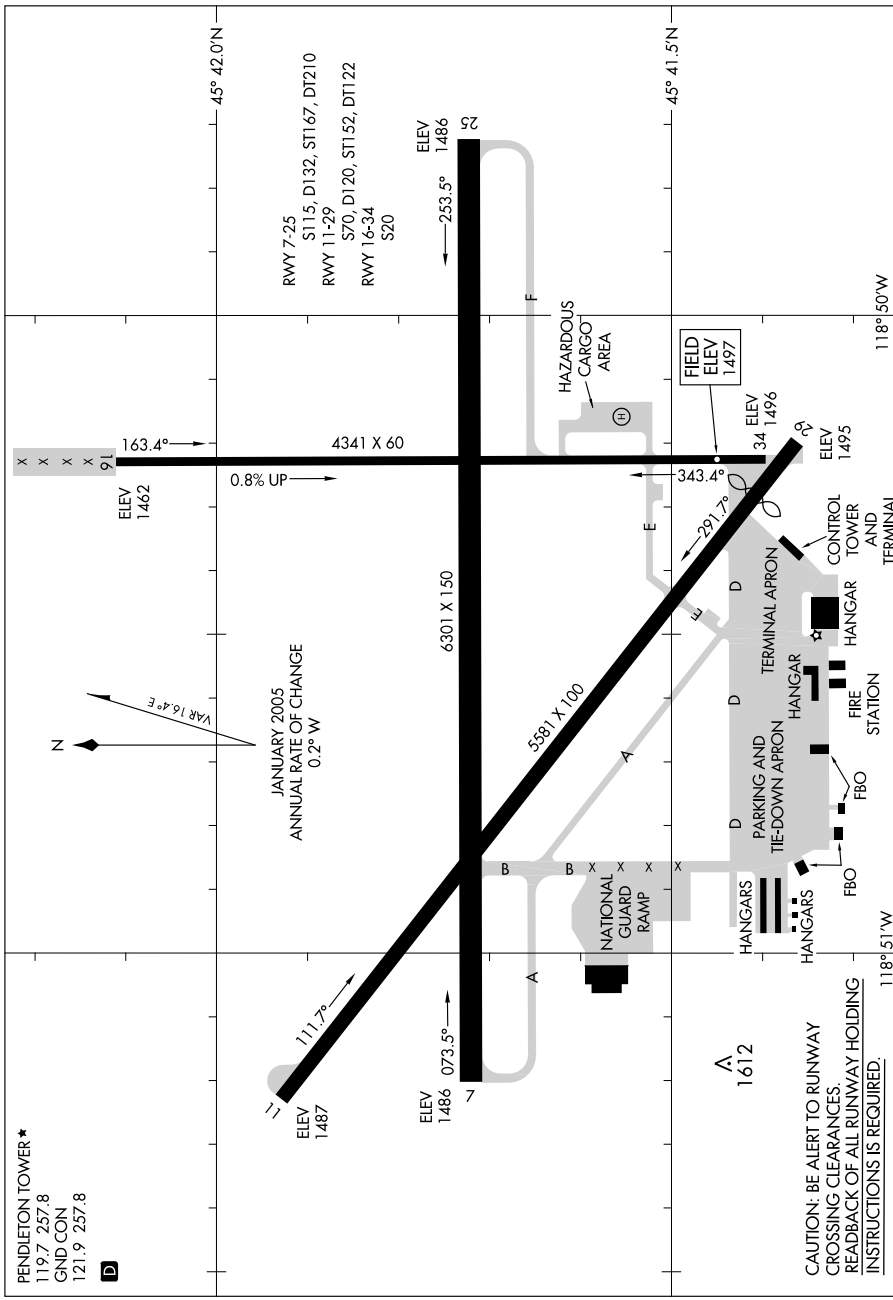
09015

PASCO, WASHINGTON
PASCO/TRI-CITIES (PSC)

09015

AIRPORT DIAGRAM

PENDLETON/ EASTERN OREGON RGNL AT PENDLETON (PDT)
AL-316 (FAA)
PENDLETON, OREGON



PENDLETON, OREGON
PENDLETON/ EASTERN OREGON RGNL AT PENDLETON (PDT)

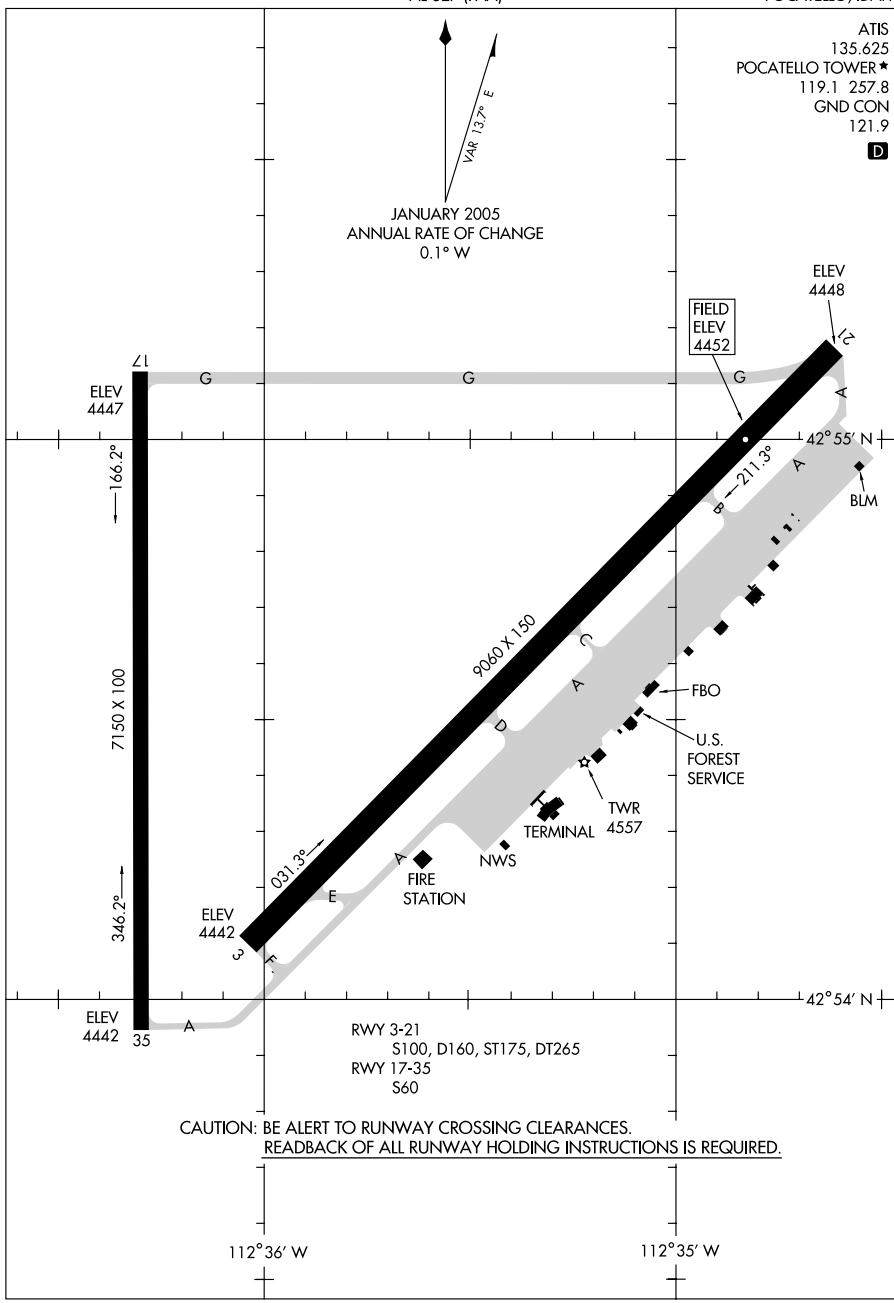
AIRPORT DIAGRAM

09015

09351

AIRPORT DIAGRAM

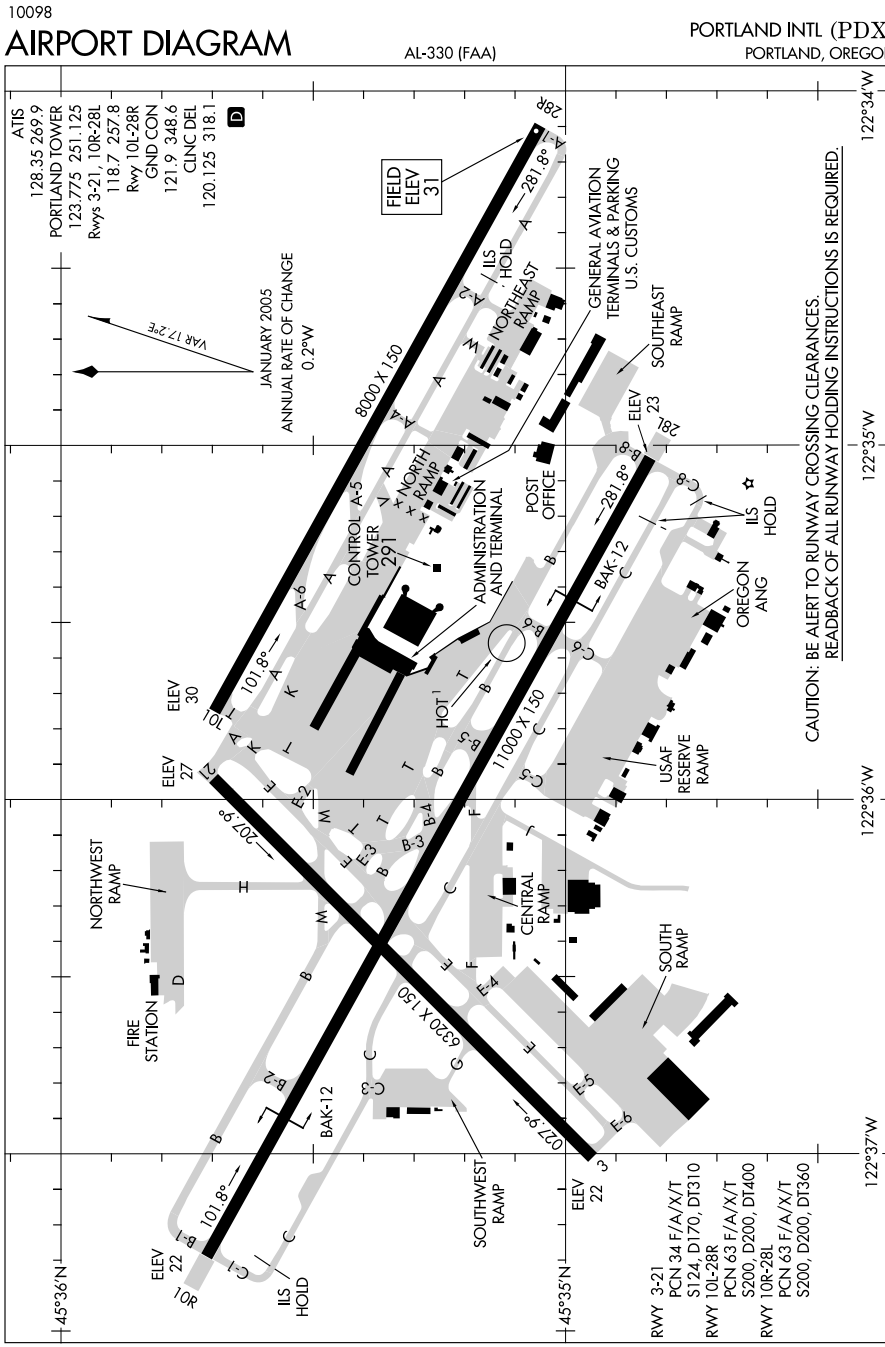
POCATELLO RGNL (PIH)
POCATELLO, IDAHO



AIRPORT DIAGRAM

09351

POCATELLO, IDAHO
POCATELLO RGNL (PIH)

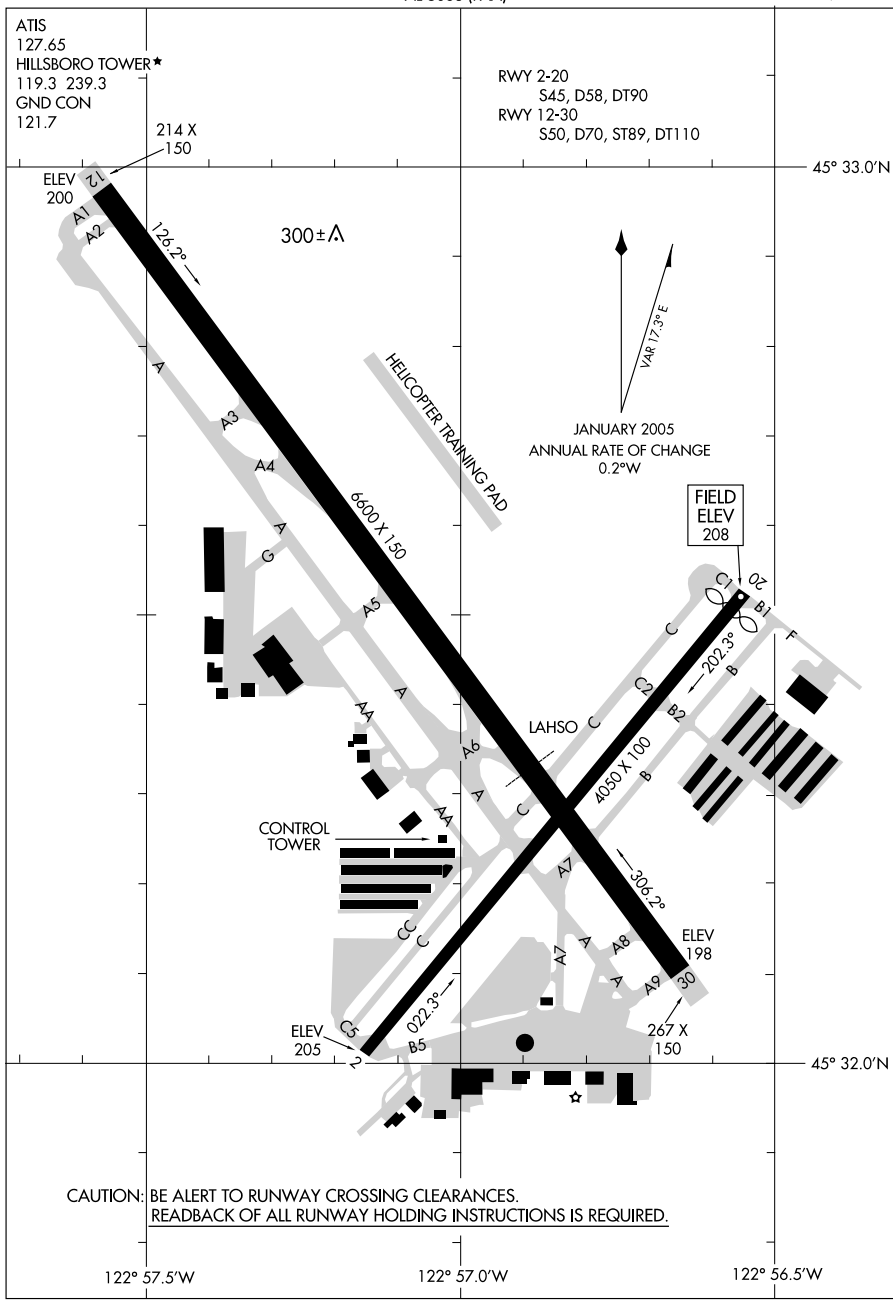

10098
AIRPORT DIAGRAM
AL-330 (FAA)
PORTLAND INTL (PDX)
PORTLAND, OREGON
ATIS 128.35 269.9
PORTLAND TOWER 123.775 251.125
Rwys 3-21, 10R-28L 118.7 257.8
Rwy 10L-28R GND CON 121.9 348.6
CLNC DEL 120.125 318.1
VAR 17.2°E
JANUARY 2005
ANNUAL RATE OF CHANGE 0.2°W
FIELD ELEV 31
8000 X 150
11000 X 150
6320 X 150
ILS HOLD
NORTHEAST RAMP
GENERAL AVIATION TERMINALS & PARKING
U.S. CUSTOMS
SOUTHEAST RAMP
NORTH RAMP
CONTROL TOWER 291
ADMINISTRATION AND TERMINAL
POST OFFICE
ELEV 23
OREGON ANG
USAF RESERVE RAMP
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
ELEV 30
ELEV 27
ELEV 22
NORTHWEST RAMP
FIRE STATION
CENTRAL RAMP
SOUTH RAMP
SOUTHWEST RAMP
BAK-12
281.8°
207.9°
027.9°
101.8°
RWY 3-21
PCN 34 F/A/X/T
S124, D170, DT310
RWY 10L-28R
PCN 63 F/A/X/T
S200, D200, DT400
RWY 10R-28L
PCN 63 F/A/X/T
S200, D200, DT360
45°36'N
45°35'N
122°34'W
122°35'W
122°36'W
122°37'W
AIRPORT DIAGRAM
10098
PORTLAND, OREGON
PORTLAND INTL (PDX)

09351

AIRPORT DIAGRAM

AL-5063 (FAA)

PORTLAND-HILLSBORO (HIO)
PORTLAND, OREGON



AIRPORT DIAGRAM

09351

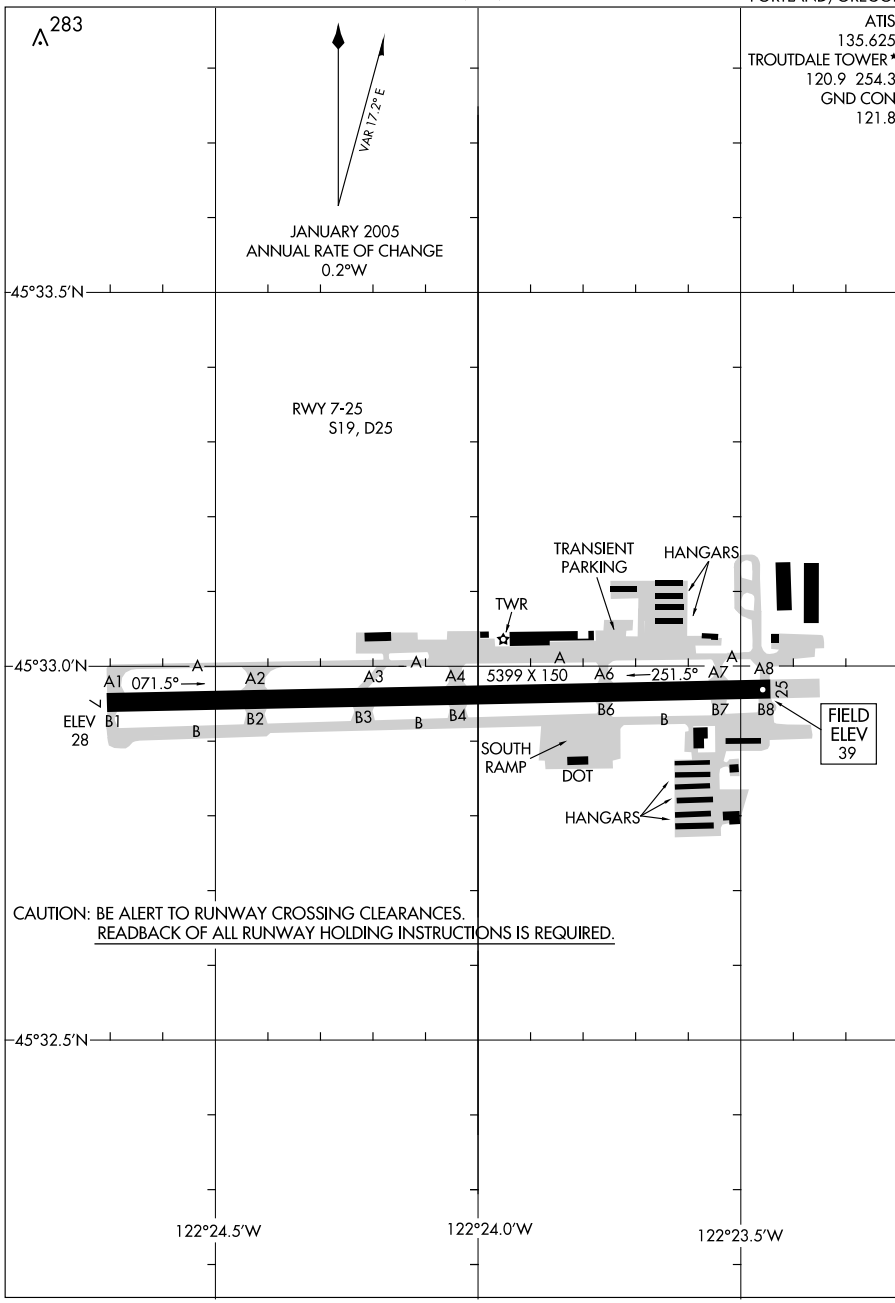
PORTLAND, OREGON
PORTLAND-HILLSBORO (HIO)

10098

AIRPORT DIAGRAM

AL-649 (FAA)

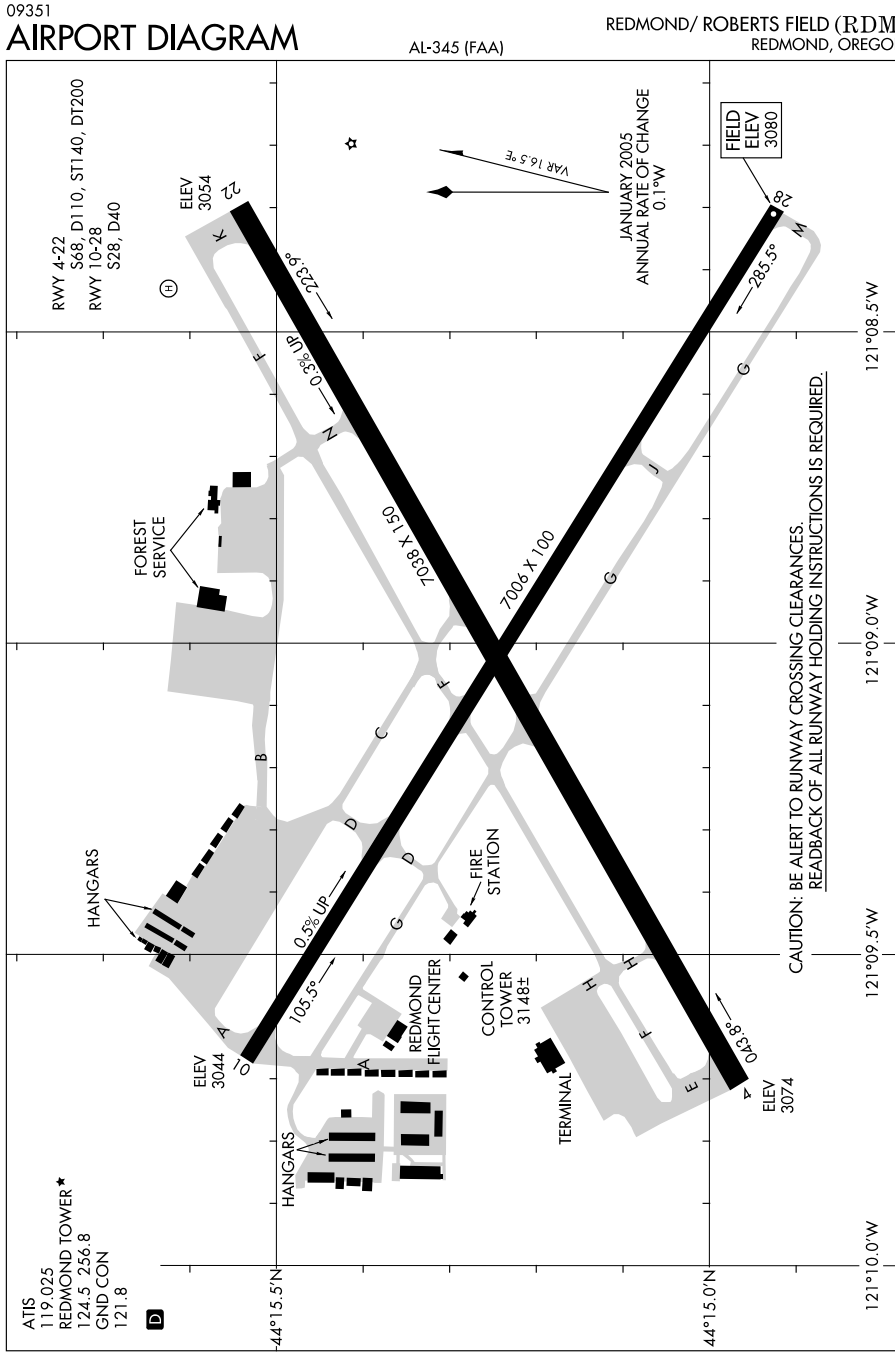
PORTLAND-TROUTDALE (TTD)
PORTLAND, OREGON



AIRPORT DIAGRAM

10098

PORTLAND, OREGON
PORTLAND-TROUTDALE (TTD)

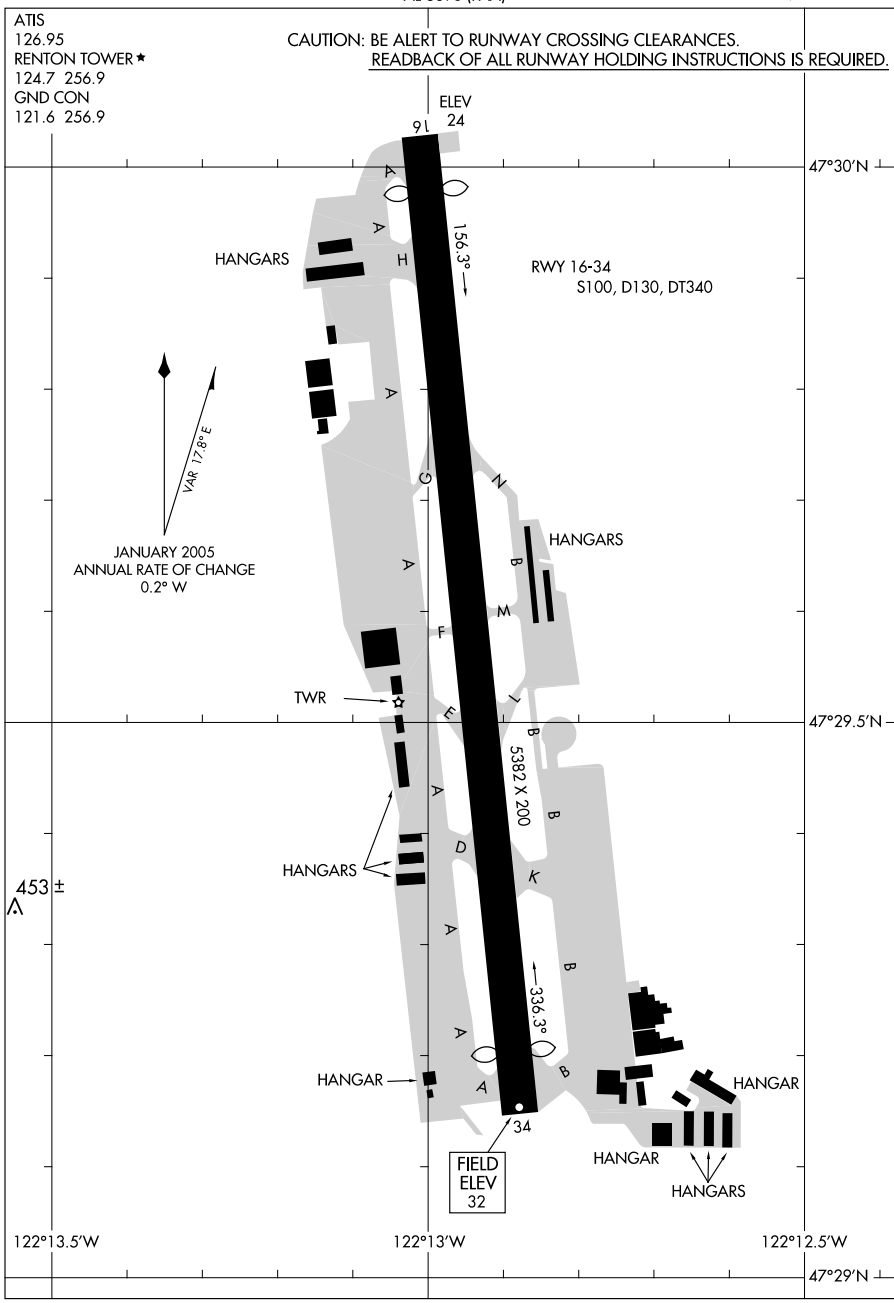

09351
AIRPORT DIAGRAM
REDMOND/ ROBERTS FIELD (RDM)
REDMOND, OREGON
AL-345 (FAA)
RWY 4-22
S68, D110, ST140, DT200
RWY 10-28
S28, D40
ELEV
3054
22
JANUARY 2005
ANNUAL RATE OF CHANGE
0.1°W
VAR 16.5°E
FIELD
ELEV
3080
28
223.9°
285.5°
0.5% UP
7006 X 100
7068 X 150
FOREST
SERVICE
HANGARS
0.5% UP
105.5°
FIRE
STATION
REDMOND
FLIGHT CENTER
CONTROL
TOWER
3148±
TERMINAL
ELEV
3044
ELEV
3074
043.8°
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
ATIS
119.025
REDMOND TOWER★
124.5 256.8
GND CON
121.8
44°15.5'N
44°15.0'N
121°10.0'W
121°09.5'W
121°09.0'W
121°08.5'W
AIRPORT DIAGRAM
09351
REDMOND, OREGON
REDMOND/ ROBERTS FIELD (RDM)

09239

AIRPORT DIAGRAM

RENTON MUNI (RNT)
RENTON, WASHINGTON

AL-5396 (FAA)



AIRPORT DIAGRAM
09239

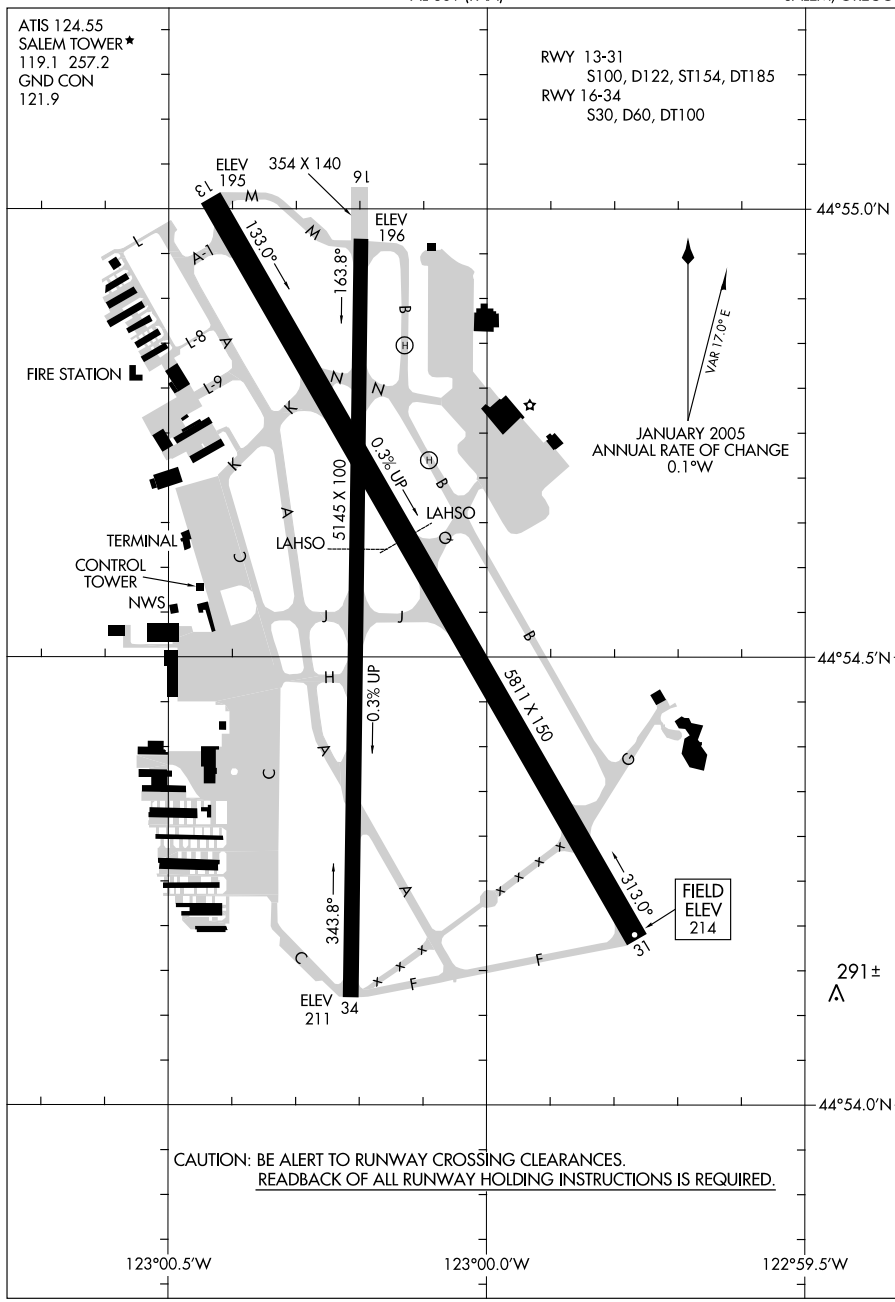
RENTON, WASHINGTON
RENTON MUNI (RNT)

06215

AIRPORT DIAGRAM

SALEM/MCNARY FIELD (SLE)
SALEM, OREGON

AL-361 (FAA)



AIRPORT DIAGRAM

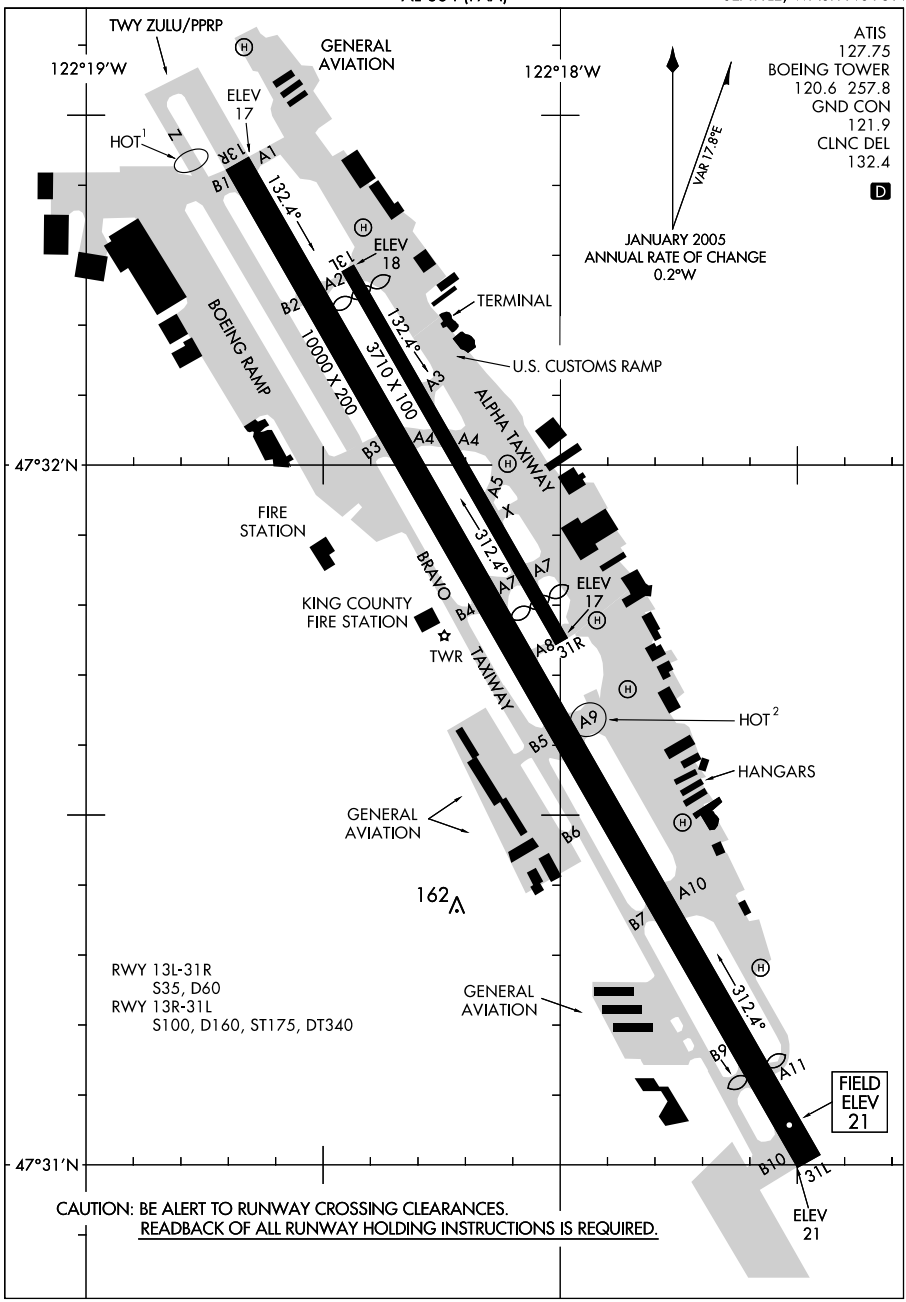
06215

SALEM, OREGON
SALEM/MCNARY FIELD (SLE)

09239

AIRPORT DIAGRAM

SEATTLE/ BOEING FIELD/KING COUNTY INTL (BFI)
AL-384 (FAA)
SEATTLE, WASHINGTON



AIRPORT DIAGRAM

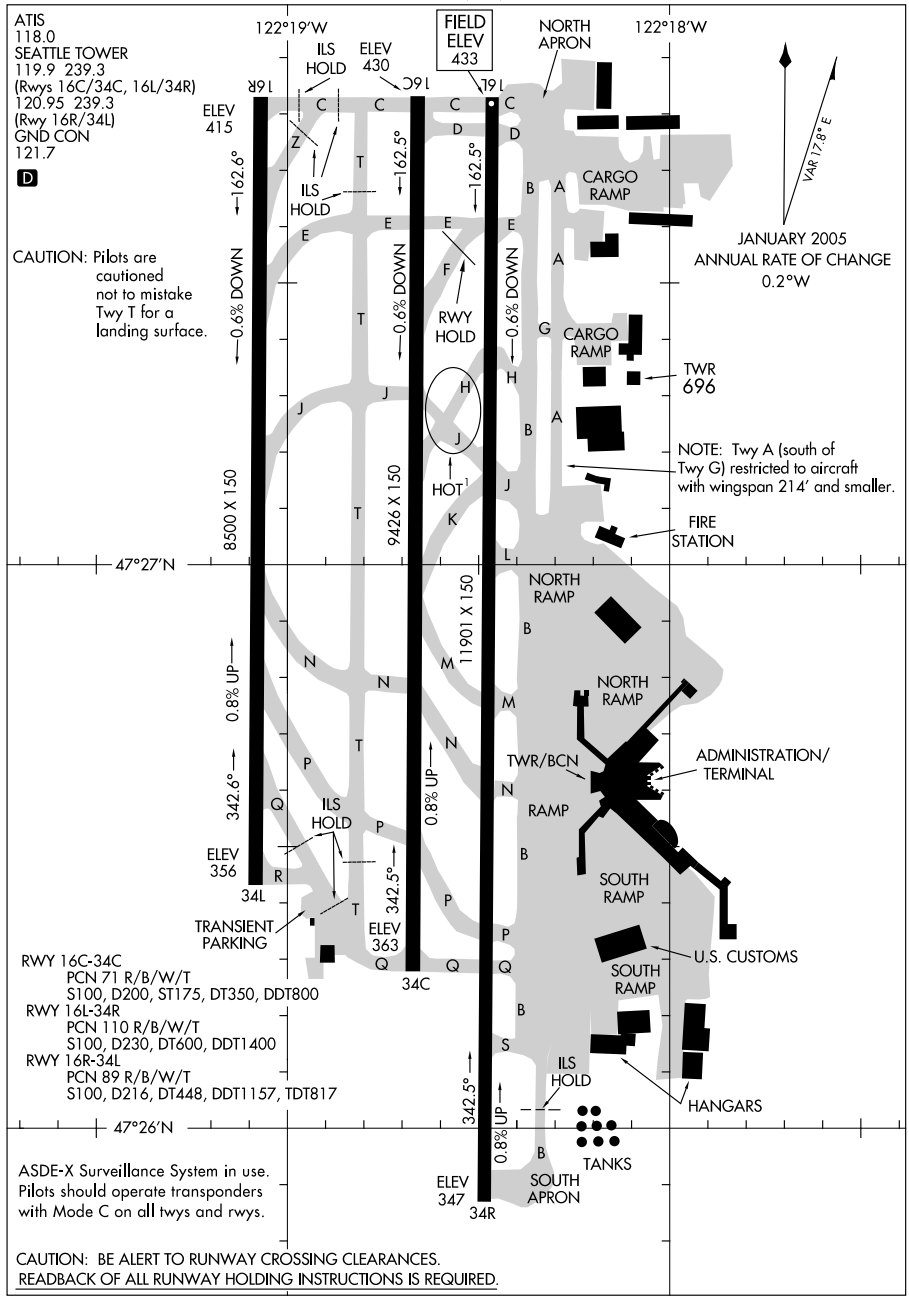
SEATTLE, WASHINGTON
SEATTLE/ BOEING FIELD/KING COUNTY INTL (BFI)

09239

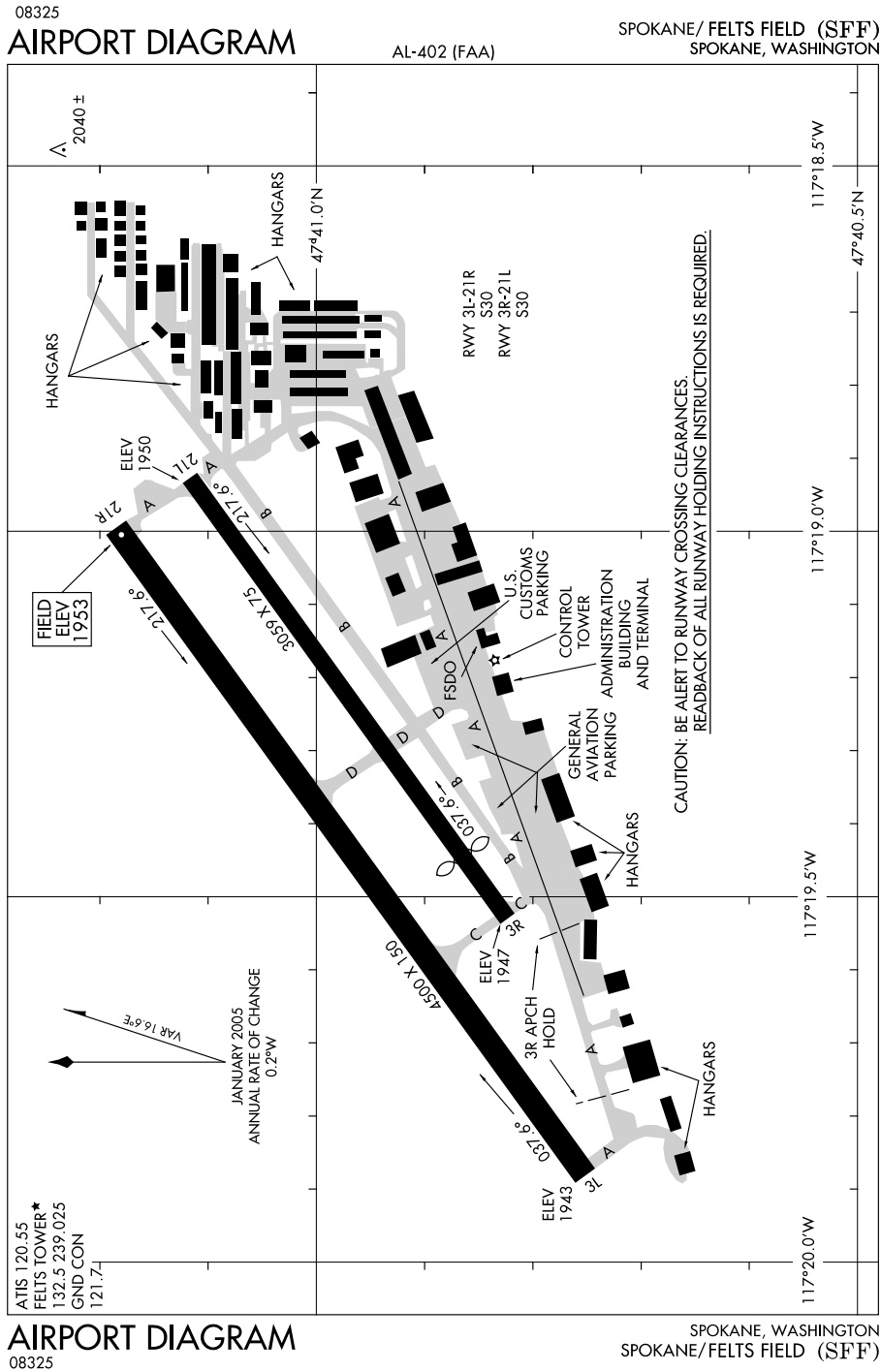
10098

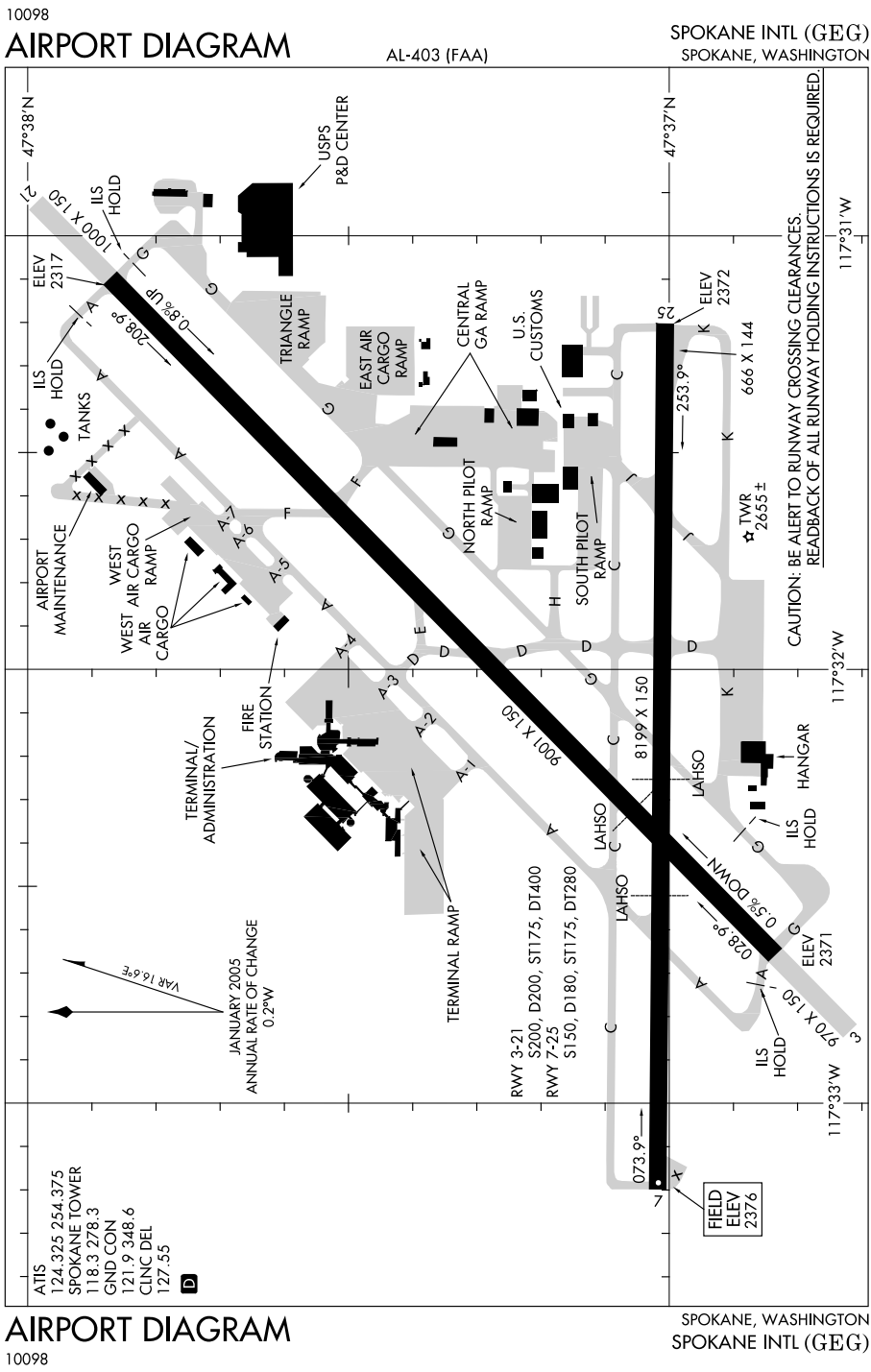
AIRPORT DIAGRAM

SEATTLE-TACOMA INTL (SEA)
SEATTLE, WASHINGTON



AIRPORT DIAGRAM
10098
SEATTLE, WASHINGTON
SEATTLE-TACOMA INTL (SEA)


08325
AIRPORT DIAGRAM
AL-402 (FAA)
SPOKANE/ FELTS FIELD (SFF)
SPOKANE, WASHINGTON
2040 ±
HANGARS
HANGARS
47°41.0'N
47°40.5'N
117°18.5'W
117°19.0'W
117°19.5'W
117°20.0'W
RWY 3L-21R S30
RWY 3R-21L S30
ELEV 1950
21L
21R
FIELD ELEV 1953
217.6°
3059 X 75
037.6°
4500 X 150
035.6°
ELEV 1947
3R
ELEV 1943
3L
3R APCH HOLD
FSDO
U.S. CUSTOMS PARKING
CONTROL TOWER
ADMINISTRATION BUILDING AND TERMINAL
GENERAL AVIATION PARKING
HANGARS
HANGARS
HANGARS
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES. READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
VAR 16.6°E
JANUARY 2005
ANNUAL RATE OF CHANGE
0.2°W
ATIS 120.55
FELTS TOWER* 132.5 239.025
GND CON 121.7
AIRPORT DIAGRAM
08325
SPOKANE, WASHINGTON
SPOKANE/FELTS FIELD (SFF)

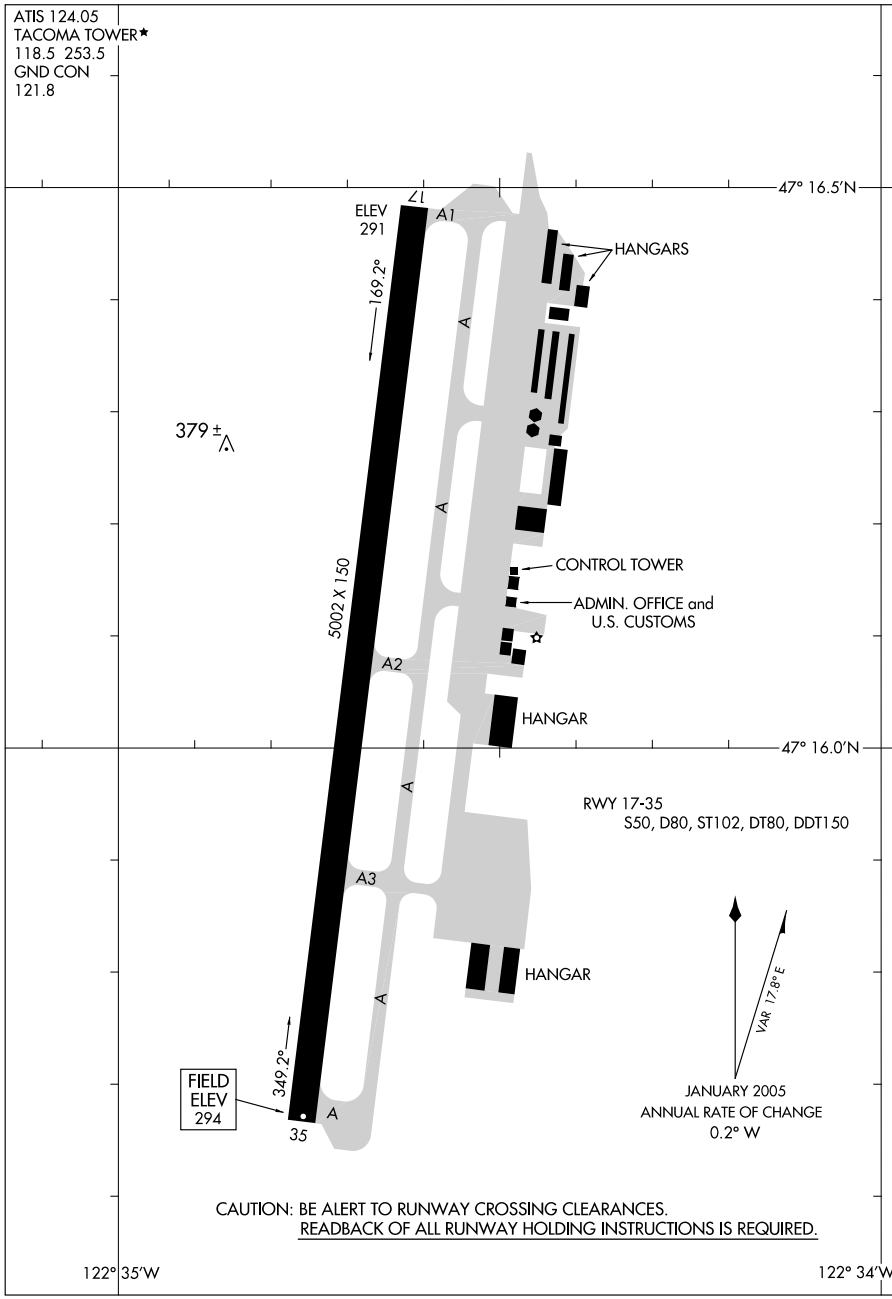

10098
AIRPORT DIAGRAM
AL-403 (FAA)
SPOKANE INTL (GEG)
SPOKANE, WASHINGTON
47°38'N
47°37'N
117°31'W
117°32'W
117°33'W
USPS P&D CENTER
ILS HOLD
1000 X 150
ELEV 2317
208.9°
0.8% UP
TRIANGLE RAMP
EAST AIR CARGO RAMP
CENTRAL GA RAMP
U.S. CUSTOMS
ELEV 2372
25
253.9°
666 X 144
TANKS
AIRPORT MAINTENANCE
WEST AIR CARGO RAMP
WEST AIR CARGO
NORTH PILOT RAMP
SOUTH PILOT RAMP
TWR 2655 ±
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
FIRE STATION
TERMINAL/ ADMINISTRATION
9001 X 150
8199 X 150
LAHSO
HANGAR
ILS HOLD
0.5% DOWN
028.9°
ELEV 2371
TERMINAL RAMP
RWY 3-21 S200, D200, ST175, DT400
RWY 7-25 S150, D180, ST175, DT280
JANUARY 2005
ANNUAL RATE OF CHANGE
0.2°W
VAR 16.6°E
970 X 150
073.9°
7
25
FIELD ELEV 2376
ATIS 124.325 254.375
SPOKANE TOWER 118.3 278.3
GND CON 121.9 348.6
CLNC DEL 127.55
D
AIRPORT DIAGRAM
10098
SPOKANE, WASHINGTON
SPOKANE INTL (GEG)

07074

AIRPORT DIAGRAM

AL-5186 (FAA)

TACOMA NARROWS (TIW)
TACOMA, WASHINGTON



AIRPORT DIAGRAM

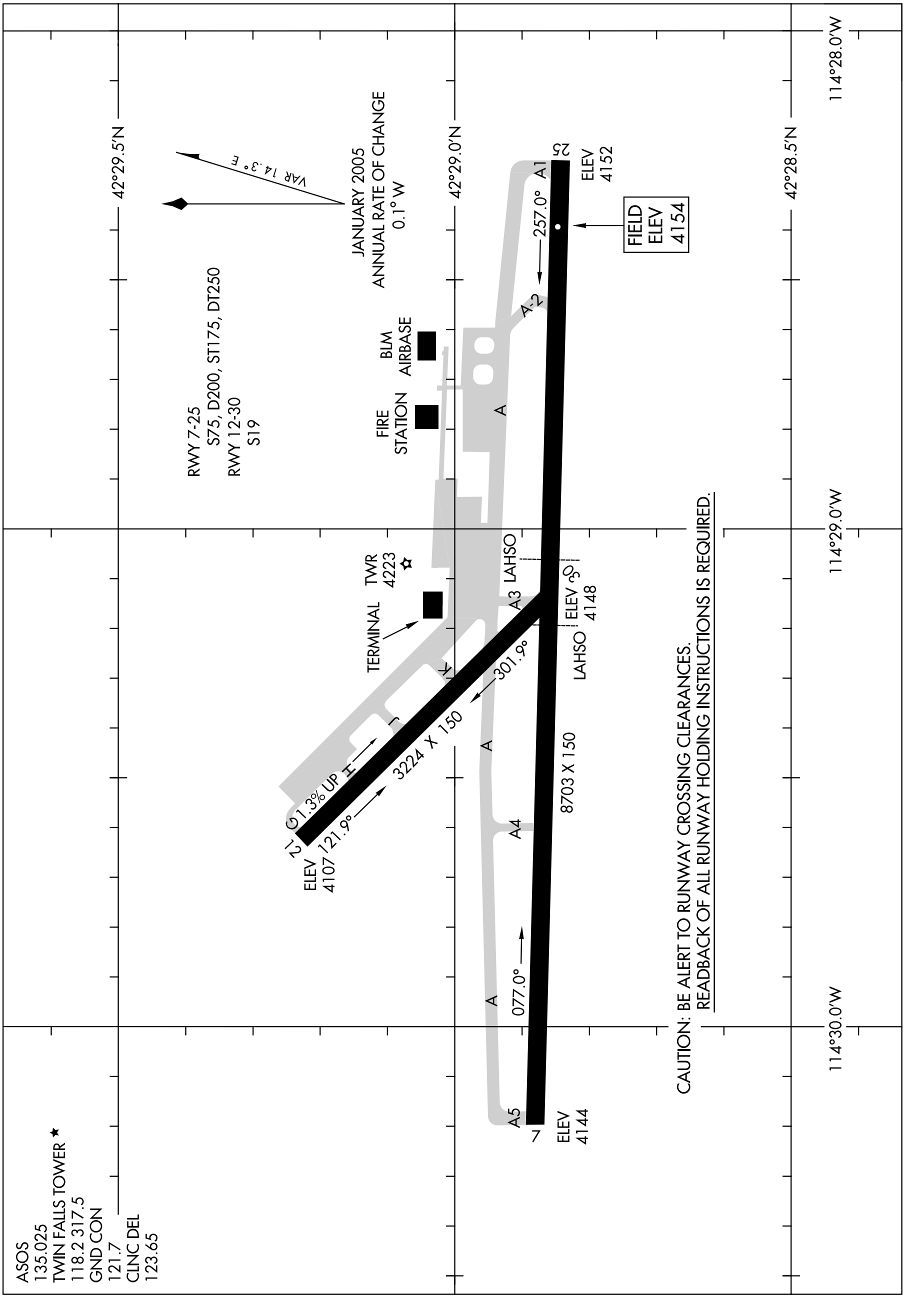
07074

TACOMA, WASHINGTON
TACOMA NARROWS (TIW)

10098

AIRPORT DIAGRAM

TWIN FALLS/JOSLIN FIELD-MAGIC VALLEY RGNL (TWF)
AL-885 (FAA)
TWIN FALLS, IDAHO



AIRPORT DIAGRAM

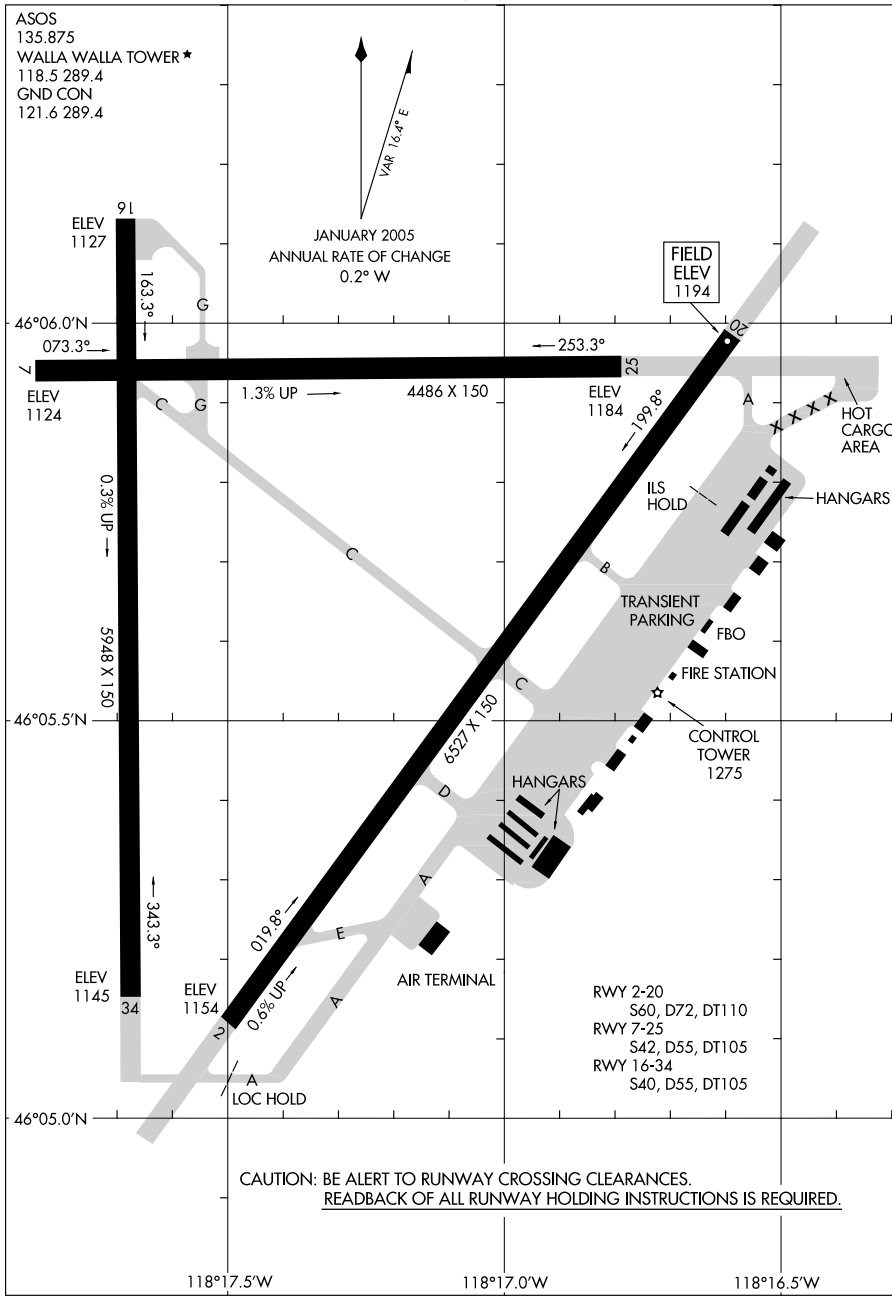
10098

TWIN FALLS, IDAHO
TWIN FALLS/JOSLIN FIELD-MAGIC VALLEY RGNL (TWF)

09127

AIRPORT DIAGRAM

WALLA WALLA RGNL (ALW)
WALLA WALLA, WASHINGTON



AIRPORT DIAGRAM
09127
WALLA WALLA, WASHINGTON
WALLA WALLA RGNL (ALW)

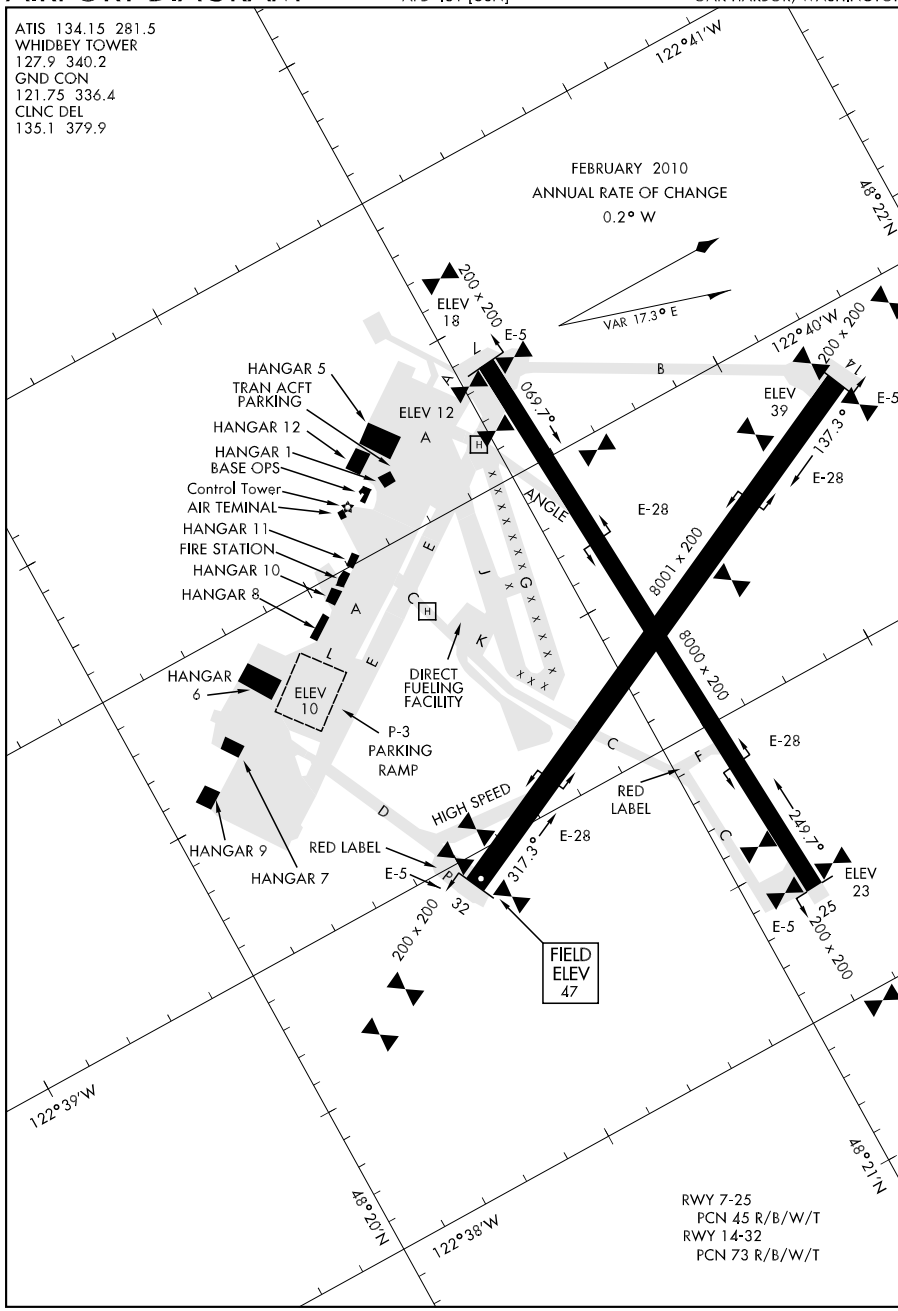
10042

AIRPORT DIAGRAM

WHIDBEY ISLAND NAS (AULT FLD) (KNUW)

AFD-451 [USN]

OAK HARBOR, WASHINGTON



AIRPORT DIAGRAM

OAK HARBOR, WASHINGTON

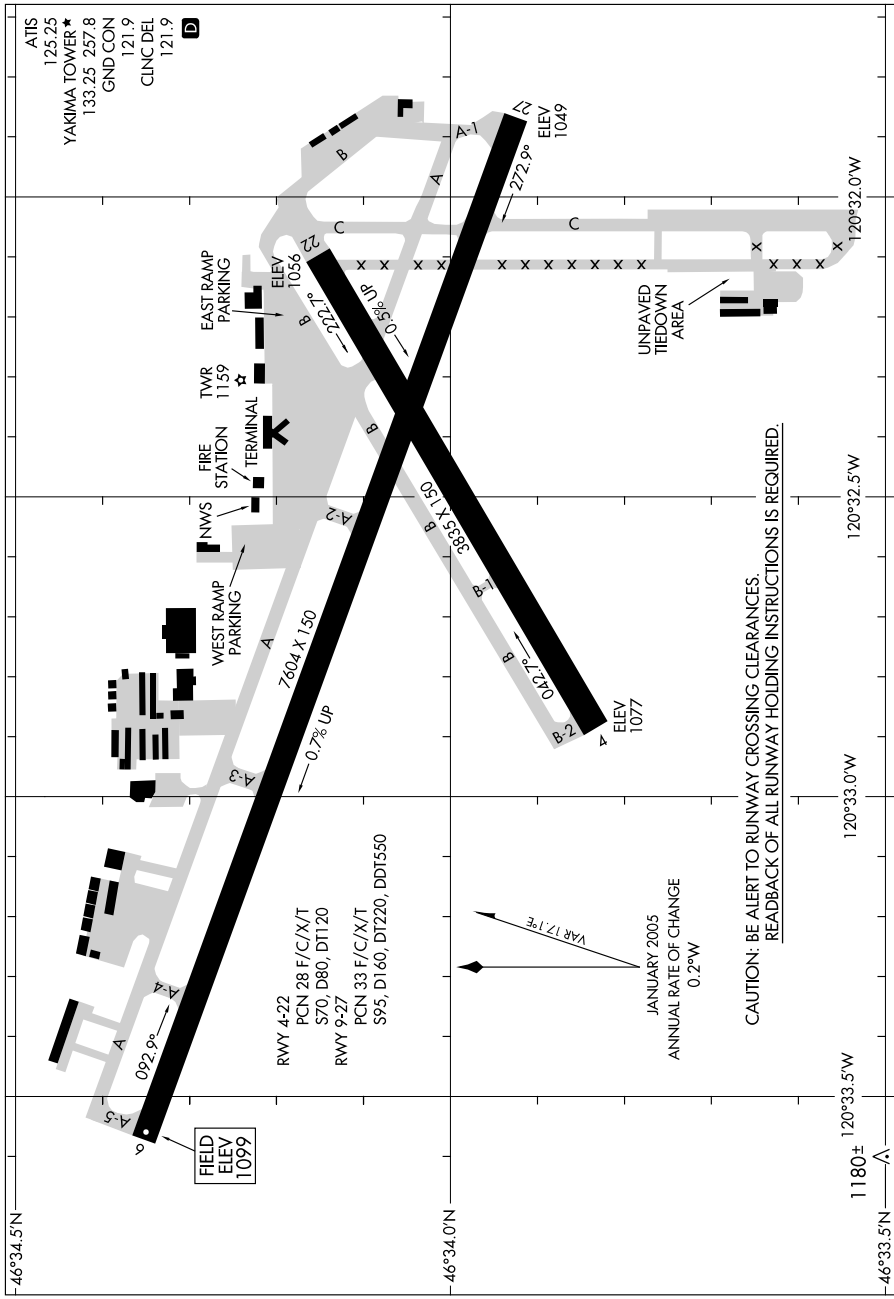
WHIDBEY ISLAND NAS (AULT FLD) (KNUW)

09351

AIRPORT DIAGRAM

YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)
YAKIMA, WASHINGTON

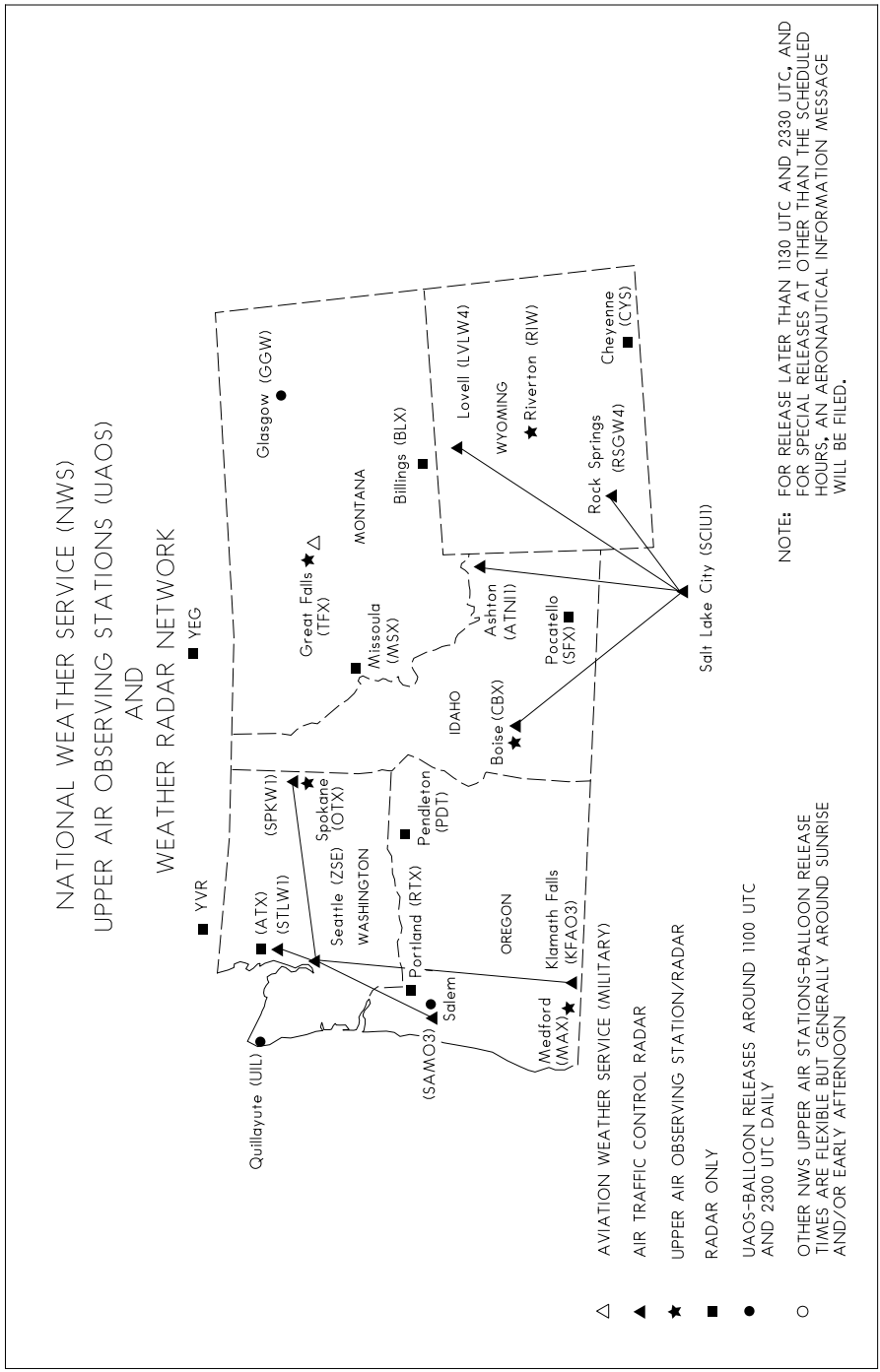
AL-465 (FAA)



AIRPORT DIAGRAM

YAKIMA, WASHINGTON
YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)

09351


NATIONAL WEATHER SERVICE (NWS)
UPPER AIR OBSERVING STATIONS (UAOS)
AND
WEATHER RADAR NETWORK
YEG
YVR
(ATX)
(STLW1)
(SPKW1)
Quillayute (UIL)
Seattle (ZSE)
Spokane (OTX)
WASHINGTON
Portland (RTX)
Pendleton (PDT)
Salem
(SAMO3)
OREGON
Klamath Falls (KFAO3)
Medford (MAX)
IDAHO
Boise (CBX)
Glasgow (GGW)
Great Falls (TFX)
Missoula (MSX)
MONTANA
Billings (BLX)
Ashton (ATNII)
Pocatello (SFX)
Lovell (LVLW4)
WYOMING
Riverton (RIW)
Rock Springs (RSGW4)
Cheyenne (CYS)
Salt Lake City (SCIU1)
AVIATION WEATHER SERVICE (MILITARY)
AIR TRAFFIC CONTROL RADAR
UPPER AIR OBSERVING STATION/RADAR
RADAR ONLY
UAOS-BALLOON RELEASES AROUND 1100 UTC AND 2300 UTC DAILY
OTHER NWS UPPER AIR STATIONS-BALLOON RELEASE TIMES ARE FLEXIBLE BUT GENERALLY AROUND SUNRISE AND/OR EARLY AFTERNOON
NOTE: FOR RELEASE LATER THAN 1130 UTC AND 2330 UTC, AND FOR SPECIAL RELEASES AT OTHER THAN THE SCHEDULED HOURS, AN AERONAUTICAL INFORMATION MESSAGE WILL BE FILED.

ENROUTE FLIGHT ADVISORY SERVICE (EFAS)

See Aeronautical Information Manual (AIM) for available services