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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	Airspace Information*
	Cut-off date	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:

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

CONTINUED ON NEXT PAGE

CONTINUED FROM PRECEDING PAGE

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

DIRECTORY LEGEND

SAMPLE

①
CITY NAME

②
AIRPORT NAME (ALTERNATE NAME) (LTS) (KLTS) CIV/MIL 3 N UTC-6(-5DT) N34°41.93' W99°20.20' JACKSONVILLE

③
200 B S4 FUEL 100 OX 1 TPA-1000(800) AOE Class IV, ARFF Index A NOTAM FILE ORL Not insp. COPTER

④
⑤
⑥
⑦
⑧

⑨
H-4G, L-19C IAP, DIAP, AD

⑪
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 displcd 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) AUV 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	TORA	TODA	ASDA	LDA
RWY 18	12004	12704	11704	11504
RWY 36	12004	12004	12004	11704

⑫
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

⑬
MILITARY SERVICE: A-GEAR E-5 connected on dep end, disconnected on
apch end. JASU 3(AM32A-60) 2(A/M32A-86)

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FUEL J8(Mil) (NC-100, A) FLUID W SP PRESAIR LOX ← ㊲

㊳
OIL O-128 TRAN ALERT Avbl 1300-0200Z†, svc limited weekends.

㉑
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.

㉒
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.

㉓
WEATHER DATA SOURCES: AWOS-1 120.3 (202) 426-8000, LLWAS.

㉔
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

㉕
AIRSPACE: CLASS B See VFR Terminal Area Chart.

㉖
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‡)

㉗
COMM/NAV/WEATHER REMARKS: Emerg frequency 121.5 not avbl at twr.

HELIPAD H1: H100X75 (ASPH)

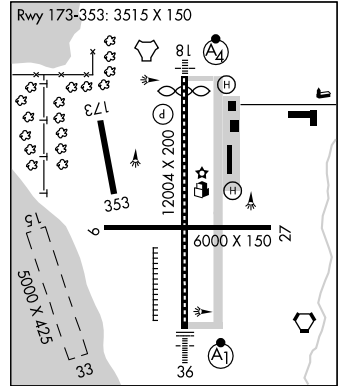
HELIPAD H2: H60X60 (ASPH)

HELIPORT REMARKS: Helipad H1 lctd on general aviation side and H2 lctd on air carrier side of arpt.

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
- Displaced Threshold
- Taxiway, Apron and Stopways . . .

MISCELLANEOUS BASE AND CULTURAL FEATURES

- Buildings
- Power Lines
- Fence
- Towers
- Tanks
- Oil Well
- Smoke Stack
- Obstruction
- Controlling Obstruction
- Trees
- Populated Places
- Cuts and Fills
- 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 (MALS) and RAIL
- (V) Omnidirectional Approach Lighting System (ODALS)
- (D) Navy Parallel Row and Cross Bar
- (F) 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 accommodate 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. Nav aids, 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
ARRG	US Army National Guard	P	US Civil Airport Wherein Permit Covers Use by Transient Military Aircraft
CG	US Coast Guard	PVT	Private Use Only (Closed to the Public)
CIV/MIL	Joint Use Civil/Military		
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. | S5: Major airframe repairs. |
| S2: Minor airframe and minor powerplant repairs. | S6: Minor airframe and major powerplant repairs. |
| S3: Major airframe and minor powerplant repairs. | S7: Major powerplant repairs. |
| S4: Major airframe and major powerplant repairs. | S8: Minor powerplant repairs. |

14 FUEL

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

*(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 3 High Pressure—Replacement Bottles |
| OX 2 Low Pressure | 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 ₂ O
B	1 or 2	≥90', <126'	≥5	Index A + 1500 gal H ₂ O
		----- ≥126', <159'	<5	
C	2 or 3	≥126', <159'	≥5	Index A + 3000 gal H ₂ O
		----- ≥159', <200'	<5	
D	3	≥159', <200'		Index A + 4000 gal H ₂ O
		----- >200'	<5	
E	3	≥200'	≥5	Index A + 6000 gal H ₂ O

> Greater Than; < Less Than; ≥ Equal or Greater Than; ≤ Equal or Less Than; H₂O—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 | (GRVL)—Gravel, or cinders | (PSP)—Pierced steel plank |
| (ASPH)—Asphalt | (MATS)—Pierced steel planking,
landing mats, membranes | (RFSC)—Rubberized friction seal coat |
| (CONC)—Concrete | (PEM)—Part concrete, part asphalt | (TURF)—Turf |
| (DIRT)—Dirt | (PFC)—Porous friction courses | (TRTD)—Treated |
| (GRVD)—Grooved | | (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.
 - R — Rigid
 - F — Flexible
- (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)

<u>TYPE</u>	<u>DESCRIPTION</u>
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

<u>TYPE</u>	<u>DESCRIPTION</u>
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

<u>TYPE</u>	<u>DESCRIPTION</u>	<u>US EQUIVALENT</u>
44B-3H	Rotary Hydraulic (Water Brake)	
CHAG	Chain	E-5

UNI-DIRECTIONAL BARRIER

<u>TYPE</u>	<u>DESCRIPTION</u>
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

<u>TYPE</u>	<u>DESCRIPTION</u>
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 +/- 2 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:

NCP-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 acct 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
0-113	1065, Reciprocating Engine Oil (MIL-L-6082)
0-117	1100, Reciprocating Engine Oil (MIL-L-6082)
0-117+	1100, 0-117 plus cyclohexanone (MIL-L-6082)
0-123	1065, (Dispersant), Reciprocating Engine Oil (MIL-L-22851 Type III)
0-128	1100, (Dispersant), Reciprocating Engine Oil (MIL-L-22851 Type II)
0-132	1005, Jet Engine Oil (MIL-L-6081)
0-133	1010, Jet Engine Oil (MIL-L-6081)
0-147	None, MIL-L-6085A Lubricating Oil, Instrument, Synthetic
0-148	None, MIL-L-7808 (Synthetic Base) Turbine Engine Oil
0-149	None, Aircraft Turbine Engine Synthetic, 7.5c St
0-155	None, MIL-L-6086C, Aircraft, Medium Grade
0-156	None, MIL-L-23699 (Synthetic Base), Turboprop and Turbohaft 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 board 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 remote 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 **(R)** 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.

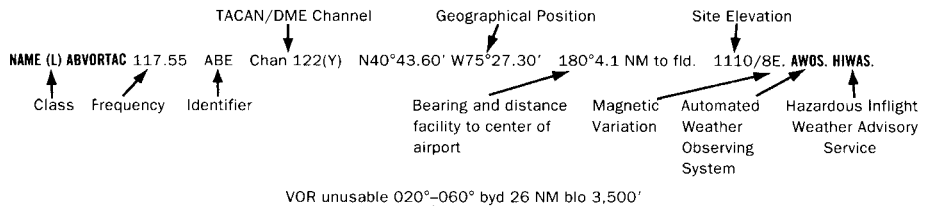
Class E 700' AGL (shown as magenta vignette on sectional charts) and 1200' AGL (blue vignette) areas are designated when necessary to provide controlled airspace for transitioning to/from the terminal and enroute environments. Unless otherwise specified, these 700'/1200' AGL Class E airspace areas remain 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 PERFORMANCE 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.

ABBOTSFORD, BC (CYXX) 2.2 SW UTC-8(-7DT) N49°01.52' W122°21.63'

SEATTLE
H-1B, L-1E

195 B S4 FUEL 100LL, JET A AOE NOTAM FILE CYXX
 RWY 07-25: H9600X200 (ASPH-CONC) HIRL
 RWY 07: SSALR. Rgt tfc. RWY 25: ODALS—PAPI. Thld dsplcd 295'.
 RWY 01-19: H5328X200 (ASPH) MIRL
 RWY 01: REIL. PAPI. Rgt tfc. RWY 19: PAPI(P2L).
 RWY 01A-19A: 1500X100 (TURF)

RUNWAY DECLARED DISTANCE INFORMATION

RWY 01: TORA-5328 TODA-6188 ASDA-5328 LDA-5328
 RWY 01A: TORA-1500 TODA-1500 ASDA-1500 LDA-1500
 RWY 07: TORA-9597 TODA-10101 ASDA-9597 LDA-9597
 RWY 19: TORA-5328 TODA-5854 ASDA-5328 LDA-5328
 RWY 19A: TORA-1500 TODA-1500 ASDA-1500 LDA-1500
 RWY 25: TORA-9600 TODA-10600 ASDA-9600 LDA-9305

AIRPORT REMARKS: Attended continuously. All acft including Jet acft, lcl training flights not permitted from 0600-1500Z± except as otherwise authorized by the arpt manager. These procedures apply to all jet acft including turbo-jets, turbo-fanjets and fanjets. Prior notice required for customs 1600-0800Z± 888-226-7277. IFR training flights PPR ctc 604-586-4592 or 800-668-1333. Helicopter training on fld. Numerous obstructions in helicopter training areas. Turf rwys limited maintenance. Limited winter maintenance 1415-0630Z±. Other times 2 hrs prior notice required call out charge may be levied. Twy D uncontrolled.

COMMUNICATIONS: ATIS 119.8 (1500-0700Z±)

ABBOTSFORD RADIO (CYXX) on arpt. 122.5

VICTORIA TERMINAL APP/DEP CON 132.7

TOWER 119.4 (inner) 121.0 (outer) (1500-0700Z±) **GND CON** 121.8 (1500-0700Z±)

RADIO AIDS TO NAVIGATION: NOTAM FILE BLI.

WHATCOM (H) VORTACW 113.0 HUH Chan 77 N48°56.72' W122°34.76' 41° 9.8 NM to fld. 80/20E.
 HIWAS.

NDB (HW) 344 XX N49°00.93' W122°29.27' 068° 4.3 NM to fld. /19E.

WHITEROCK NDB (MHW) 332 WC N49°00.20' W122°45.02' 067° 14.7 NM to fld. /19E.

CULTUS NDB (HW) 214 LU N49°01.27' W122°02.98' 252° 12.3 NM to fld.

ABERN N46°59.26' W123°47.86'. NOTAM FILE HQM.

SEATTLE

NDB (LOM) 236 HQ 241° 5.8 NM to Bowerman. LOM unusable 150°-180° byd 10 NM.

AJ EISENBERG (See OAK HARBOR)

AMERICAN LAKE SPB (See TACOMA)

ANACORTES

ANACORTES (74S) 2 W UTC-8(-7DT) N48°29.94' W122°39.74'

SEATTLE
L-1E

241 B S4 FUEL 100, JET A LRA NOTAM FILE SEA

RWY 18-36: H3015X60 (ASPH-GRVD) S-12.5 MIRL

RWY 18: REIL. PAPI(P4R)—GA 3.0° TCH 40'. Trees. Rgt tfc.

RWY 36: REIL. PAPI(P4L)—GA 3.0° TCH 40'. Trees.

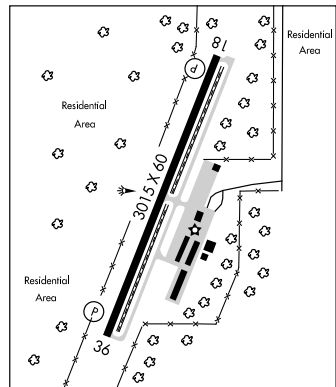
AIRPORT REMARKS: Unattended. Military arrival corridor N and W of arpt. No touch and go lds. Noise abatement procedures in effect, ctc arpt manager 360-293-3134. Rwy 36 preferred calm wind rwy.

ACTIVATE MIRL and REIL Rwy 18 and Rwy 36—CTAF.

COMMUNICATIONS: CTAF 128.25

RADIO AIDS TO NAVIGATION: NOTAM FILE BLI.

WHATCOM (H) VORTACW 113.0 HUH Chan 77 N48°56.72' W122°34.76' 167° 27.0 NM to fld. 83/20E.
 HIWAS.



SKYLINE SPB (21H) 3 W UTC-8(-7DT) N48°28.99' W122°41.08'

SEATTLE

00 NOTAM FILE SEA.

WATERWAY NW-SE: 5000X2500 (WATER)

WATERWAY NW: Hill. **WATERWAY SE:** Hill.

SEAPLANE REMARKS: Unattended. Land to SE. Military arrival corridor N and W of arpt.

COMMUNICATIONS: CTAF 128.25

ANATONE

ROGERSBURG (D69) 8 SE UTC-8(-7DT) N46°04.47' W116°57.97'

SEATTLE

869 NOTAM FILE SEA

RWY 09-27: 1471X50 (TURF)

AIRPORT REMARKS: Unattended. Arpt CLOSED 15 Nov-1 Mar. Be alert for horses, deer, and elk on rwy. Vehicles, pedestrians, or wildlife on or invof rwy. No camping, fires, or parking for more than five acft at any time. Spill kit avbl.

COMMUNICATIONS: CTAF 122.9

ANDERSON FLD (See BREWSTER)

APEX AIRPARK (See SILVERDALE)

ARLINGTON MUNI (AWO) 3 SW UTC-8(-7DT) N48°09.65' W122°09.54'

SEATTLE

142 B S4 **FUEL** 100LL, JET A + TPA—See Remarks NOTAM FILE AWO

H-1B, L-1E

RWY 16-34: H5332X100 (ASPH) S-114, D-150, ST-175, DT-270 MIRL

IAP

RWY 16: REIL. PAPI(P2L)—GA 3.0° TCH 40'. Tree. Rgt tfc.

RWY 34: MALS. PAPI(P2L)—GA 3.0° TCH 46'.

RWY 11-29: H3498X75 (ASPH) S-32, D-34, DT-59

RWY 11: REIL. PAPI(P2L)—GA 3.5° TCH 42'. Rgt tfc.

RWY 29: REIL. PAPI(P2L)—GA 4.0° TCH 40'. Tree.

AIRPORT REMARKS: Attended 1600Z±-dusk. 100LL fuel avbl 24 hr credit card svc. Glider operations at arpt daily. Ultralight opns daily at NW corner of arpt. Occasional hot air balloon activity. Helicopter training area, autorotations in grass and on south parallel twy Rwy 29 and along Twy B. Hovering area near compass rose located area Rwy 29 and Twy E. TPA—1200(1058). TPA for ultralights 500(358), helicopters 637(495). Taxiing acft over 30,000 lbs remain clear of west side of arpt, Twy C and ramps on west side of Twy D. ACTIVATE MALS Rwy 34—122.7. PAPI Rwy 11, 16, 29 and 34 and REIL Rwy 11, 16, and 29 ops 24 hrs. Landing fee for acft over 12,500 lbs.

WEATHER DATA SOURCES: AWOS-3 135.625 (360) 435-8045.

COMMUNICATIONS: CTAF/UNICOM 122.7

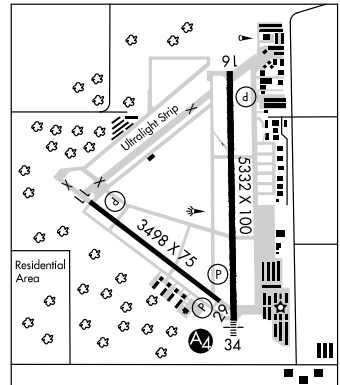
® SEATTLE CENTER APP/DEP CDM 128.5

RADIO AIDS TO NAVIGATION: NOTAM FILE PAE.

PAINÉ (L) VORW/DME 110.6 PAE Chan 43 N47°55.19' W122°16.67' 358° 15.2 NM to fld. 670/20E.

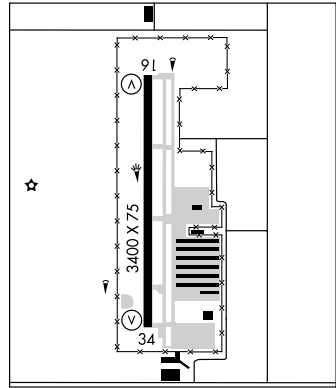
WATON NDB (LOM) 382 AW N48°04.57' W122°09.23' 338° 5.1 NM to fld.

ILS 111.5 I-AWO Rwy 34. LOM WATON NDB. Localizer only. Localizer unmonitored continuously.



AUBURN MUNI (S50) 2 N UTC-8(-7DT) N47°19.66' W122°13.60'
 63 B S4 FUEL 100LL OX 4 TPA-1063(1000) NOTAM FILE SEA
RWY 16-34: H3400X75 (ASPH) S-12.5 MIRL
RWY 16: REIL. VASI(V4R). Building. Rgt tfc.
RWY 34: REIL. VASI(V4L)—GA 4.0° TCH 53'. Parking lot.
AIRPORT REMARKS: Attended 1600-0100Z±. Fuel 24 hrs credit card self svc. Rwy 16 east-west high voltage transmission line, 80' AGL located 1804' N of Rwy 16 thld at 20:1. Sea gulls and other birds using lagoon on W side of arpt. Ultralights and hot air balloons prohibited. Plan apchs and departures to avoid extremely noise sensitive residential area E of the arpt.
COMMUNICATIONS: CTAF/AUNICOM 122.8
 Ⓡ SEATTLE APP/DEP CON 123.85
RADIO AIDS TO NAVIGATION: NOTAM FILE SEA.
SEATTLE (H) VORTACW 116.8 SEA Chan 115 N47°26.12' W122°18.58' 133° 7.3 NM to fld. 354/19E.

SEATTLE
 L-1D
 IAP



AUGSPURGER MOUNTAIN N45°44.06' W121°40.79'
 RCO 122.3 (MC MINNVILLE RADIO)

SEATTLE
 L-1C

AULT FLD (See WHIDBEY ISLAND NAS)

AVEY FLD STATE (See LAURIER)

BADGER MOUNTAIN N47°35.29' W120°08.60'
 RCO 122.3 (SEATTLE RADIO)

SEATTLE
 L-1D, 9A

BANDERA STATE (4W0) 0 W UTC-8(-7DT) N47°23.72' W121°32.19'

SEATTLE

1636 NOTAM FILE SEA
RWY 08-26: 2344X200 (TURF)

RWY 08: Trees **RWY 26:** Trees

AIRPORT REMARKS: Unattended. Arpt CLOSED 1 Oct-1 June. Rwy 08-26 west end extremely rough, rwy soft when wet. Watch for pedestrian, vehicles and animals on rwy. Ctc Washington State Aviation Division 360-651-6300 or 1-800-552-0666 Washington area for facility information prior to use.

COMMUNICATIONS: CTAF 122.9

BATTLE GROUND N45°44.87' W122°35.49' NOTAM FILE PDX.
 (H) VORTACW 116.6 BTG Chan 113 161° 9.6 NM to Portland Intl. 253/21E.
 TACAN azimuth and DME unusable 035°-085° byd 35 NM blo 10,000'.

SEATTLE
 H-1B, L-1C

BATTLE GROUND

CEDARS NORTH AIRPARK (W58) 1 NW UTC-8(-7DT) N45°45.87' W122°30.91'

SEATTLE

275 NOTAM FILE SEA

RWY 08-26: 1960X50 (TURF)

RWY 08: Road. **RWY 26:** Road.

AIRPORT REMARKS: Unattended. Birds on and invof arpt. Transition between rwy and twy on marked twys only.

COMMUNICATIONS: CTAF 122.9

GOHEEN (W52) 3 NW UTC-8(-7DT) N45°49.61' W122°34.61'

SEATTLE

292 B S4 FUEL 100 NOTAM FILE SEA

RWY 15-33: 2565X50 (TURF) LIRL

RWY 15: VASI(NSTD). Trees. **RWY 33:** P-line.

RWY 07-25: 1500X48 (TURF)

RWY 07: Building. **RWY 25:** Tree.

AIRPORT REMARKS: Attended continuously. Rwy 07-25 for emerg only. Rwy 15-33 width of 43' over culvert in center of fld. Rwy 15-33 sfc uneven with an incline. Rwy 15 has NSTD single lgt VASI both sides of rwy. ACTIVATE bcn and LIRL Rwy 15-33—CTAF.

COMMUNICATIONS: CTAF 122.9

BELLINGHAM**BELLINGHAM INTL** (BLI) 3 NW UTC-8(-7DT) N48°47.56' W122°32.25'

SEATTLE

170 B S7 FUEL 100LL, JET A OX 3, 4 TPA—See Remarks AOE Class I, ARFF Index B H-1B, L-1E

NOTAM FILE BLI IAP, AD

RWY 16-34: H6701X150 (ASPH-GRVD) S-75, D-160, ST-175, DT-250 HIRL**RWY 16:** MALSR. PAPI(P4L)—GA 3.0° TCH 50'. Rgt tfc.**RWY 34:** REIL. VASI(V4L)—GA 3.0° TCH 50'. Tree.**RUNWAY DECLARED DISTANCE INFORMATION****RWY 16:** TORA-6701 TODA-6701 ASDA-6701 LDA-6701**RWY 34:** TORA-6701 TODA-6701 ASDA-6701 LDA-6701

AIRPORT REMARKS: Attended continuously. Birds on and in vicinity of airport. PPR for unscheduled air carrier ops with more than 30 passenger seats call arpt manager 360-671-5674. Twr svc not avbl at Twy A invof Twy G, the south hold area and the runup area due to obstructed vision. Twy J, Twy F from Twy A eastward to Twy D, and Twy D from Twy E to Twy F closed to air carrier ops. Commercial ramp clsd to pvt acft. Noise abatement procedures in effect ctc arpt manager at 360-671-5674. TPA-1200 (1030) fixed wing; 700 (530), helicopter; 2000 (1830) turbo. Touchdown rwy visual range available Rwy 16. Ldg fee. When twr clsd ACTIVATE HIRL Rwy 16-34, MALSR Rwy 16 and REIL Rwy 34—CTAF. Flight Notification Service (ADCUS) available.

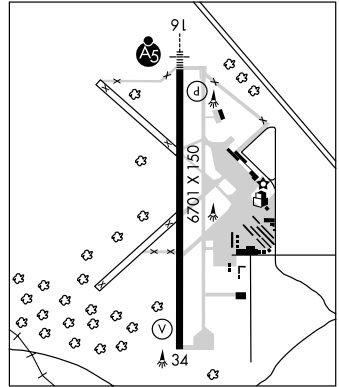
WEATHER DATA SOURCES: ASOS (360) 671-8688.**COMMUNICATIONS:** CTAF 124.9 ATIS 134.45 (360) 647-5939

UNICOM 122.95

RCO 122.15 (SEATTLE RADIO)

Ⓡ VICTORIA APP/DEP CON 132.7

TOWER 124.9 (1500-0630Z±) GND CON 127.4

AIRSPACE: CLASS D svc 1500-0630Z± other times class E.**RADIO AIDS TO NAVIGATION:** NOTAM FILE BLI.**WHATCOM (H) VORTACW** 113.0 HUH Chan 77 N48°56.72' W122°34.76' 150° 9.3 NM to fld.
83/20E. HIWAS.**ILS/DME** 108.5 I-BLI Chan 22 Rwy 16. Class IA.**FLOATHAVEN SPB** (ØW7) 6 SE UTC-8(-7DT) N48°43.69' W122°20.16'

SEATTLE

307 S2 NOTAM FILE SEA

WATERWAY 12-30: 10000X4000 (WATER)

SEAPLANE REMARKS: Attended dalgt hours. Canoe, sailboat, and hang glider activity invof arpt. For airframe repairs call 425-814-2290 prior to arrival to arrange svcs. Land and take off in the center of the lake. Avoid flying over noise sensitive area during tkf and ldg.

COMMUNICATIONS: CTAF 122.9**BOEING FLD/KING CO INTL** (See SEATTLE)**BOWERMAN** (See HOQUIAM)**BOWERS FLD** (See ELLENSBURG)

BREMERTON NATIONAL (PWT) 7 SW UTC-8(-7DT) N47°29.42' W122°45.89'

SEATTLE

444 B S4 FUEL 100LL, JET A TPA-1444(1000) NOTAM FILE PWT

H-1B, L-1D

RWY 01-19: H6000X150 (ASPH) S-66, D-150, ST-113, DT-336 HIRL

IAP

RWY 01: PAPI(P4L)—GA 3.0° TCH 45'. Rgt tfc.

RWY 19: MALSR. PAPI(P4L)—GA 3.0° TCH 48'. Fence.

AIRPORT REMARKS: Attended 1500-0300Z±. 24 hour fuel terminal located 300' WSW of Twy E. Rwy 19 designated calm wind rwy. All acft above 70,000 lb weight class are required to use Twy E and back taxi on rwy when departing Rwy 19. Wildlife fence crosses north end of abandoned rwy. Fee for aircraft over 60,000 pounds. ACTIVATE MALSR Rwy 19 and PAPI Rwy 01 and Rwy 19—CTAF.

WEATHER DATA SOURCES: AWOS-3 121.2 (360) 674-2811.**COMMUNICATIONS:** CTAF/UNICOM 123.05

Ⓡ SEATTLE APP/DEP CON 127.1

AIRSPACE: CLASS E svc continuous.**RADIO AIDS TO NAVIGATION:** NOTAM FILE TCM.

OLYMPIA (H) VORTAC 113.4 OLM Chan 81 N46°58.30' W122°54.11' 351° 31.6 NM to fld. 200/19E. HIWAS.

McCHORD (T) VORTAC 109.6 TCM Chan 33 N47°08.86' W122°28.50' 308° 23.7 NM to fld. 284/22E. No NOTAM MP Thu 0700-1400Z±.

CARNEY NDB (MHW) 274 CAN N47°24.63' W122°50.33'

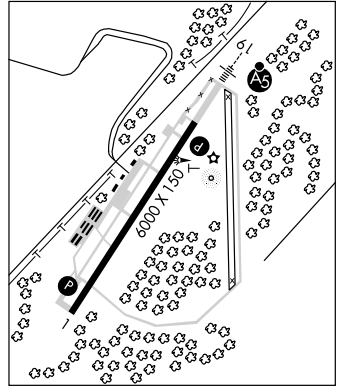
012° 5.7 NM to fld. NOTAM FILE PWT.

NDB unusable 030°-310° beyond 15 NM.

KITSAP NDB (MHW) 206 PWT N47°29.54' W122°45.40' at fld. NOTAM FILE PWT.

NDB unusable 210°-310° byd 12 NM.

ILS 111.1 I-PWT Rwy 19. Class IA.

**BREWSTER****ANDERSON FLD** (S97) 3 E UTC-8(-7DT) N48°06.29' W119°43.24'

SEATTLE

914 B S6 FUEL 100LL NOTAM FILE SEA

L-13A

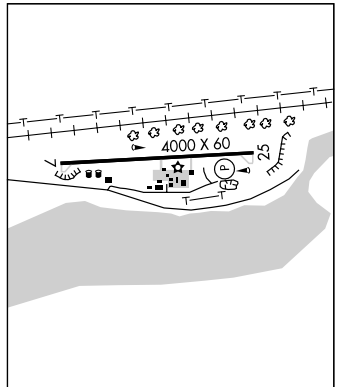
RWY 07-25: H4000X60 (ASPH) S-15 MIRL

RWY 25: PAPI (P2L)—GA 3.0°.

AIRPORT REMARKS: Unattended. Fuel emergency use only. See charter opr who lives on fld. PAPI Rwy 25 OTS indef. ACTIVATE MIRL Rwy 07-25—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8**RADIO AIDS TO NAVIGATION:** NOTAM FILE MWH.

MOSES LAKE (H) VORW/DME 115.0 MWH Chan 97 N47°12.65' W119°19.01' 325° 56.1 NM to fld. 1194/18E.

**BUCKHORN MOUNTAIN** N46°32.49' W123°01.27'

SEATTLE

RCO 122.2 (SEATTLE RADIO)

L-1C

BURLINGTON/MOUNT VERNON

SKAGIT RGNL (BVS) 3 W UTC-8(-7DT) N48°28.25' W122°25.25'

SEATTLE
H-1B, L-1E
IAP

144 B S4 FUEL 100LL, JET A TPA—See Remarks NOTAM FILE BVS

RWY 10-28: H5477X100 (ASPH) S-19 MIRL 0.8% up W

RWY 10: REIL. VASI(V4L)—GA 3.0° TCH 40'.

RWY 28: REIL. VASI(V2L)—GA 3.5° TCH 46'.

RWY 04-22: H3000X60 (ASPH) S-12.5 LIRL 0.4% up NE

RWY 04: PAPI(P2L)—GA 3.0° TCH 40'.

RWY 22: PAPI(P2L)—GA 3.0° TCH 40'.

AIRPORT REMARKS: Attended Mon-Fri 1400-0100Z±. Deer and birds on and in/ov rwys. Helicopter training ops on arpt with autorotations on rwy. NW 2000' of parallel twy Rwy 10-28 for ultralight use. All ultralight patterns E of fld. Use of Twy G by acft with wingspan 49' or greater prohibited when Rwy 04-22 in use. TPA-1144(1000) Ultralight TPA-644(500). Rwy 04-22 compass rose in stopway SW end. ACTIVATE MIRL Rwy 10-28, LIRL Rwy 04-22, VASI Rwy 10 and Rwy 28, and REIL Rwy 10 and Rwy 28—CTAF. PAPI Rwy 04 and Rwy 22 opr continuously.

WEATHER DATA SOURCES: AWOS-3 121.125 (360) 757-7767.

COMMUNICATIONS: CTAF/UNICOM 123.075

Ⓡ WHIDBEY APP/DEP CON 120.7

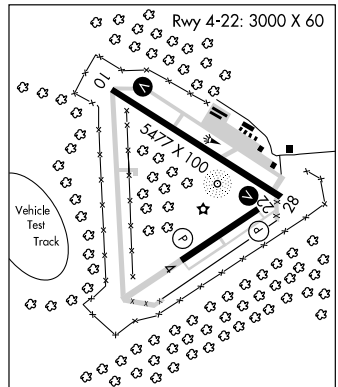
RADIO AIDS TO NAVIGATION: NOTAM FILE SEA.

TATOOSH (H) VORTACW 112.2 TOU Chan 59 N48°17.99'
W124°37.62' 061° 88.8 NM to fld. 1652/22E.

HIWAS.

SKAGIT/BAY VIEW NDB (MHW) 240 BVS N48°28.12' W122°25.10' at fld. NOTAM FILE BVS.

NDB unusable 350°-030° byd 20NM.

**CAMANO ISLAND AIRFIELD** (See STANWOOD)**CAMAS**

GROVE FLD (1W1) 3 N UTC-8(-7DT) N45°37.67' W122°24.26'

SEATTLE

429 B S4 FUEL 100 NOTAM FILE SEA

RWY 07-25: H2710X40 (ASPH) MIRL (NSTD)

RWY 07: PAPI(P2L)—GA 5.0°. Thld dspld 493'. Trees.

RWY 25: PAPI(P2L)—GA 5.0°. Thld dspld 413'. Trees.

AIRPORT REMARKS: Unattended. For fuel after hrs credit card lock. Noise abatement procedures in effect, ctc Port of Camas-Washougal at 360-835-2196. Rwy 07-25 has buildings, telephone poles and trees encroaching in safety areas. Rwy 07 and Rwy 25 have 4 thld stripes falsely indicating 60' width. NSTD MIRL Rwy 07 and Rwy 25 dspld thlds unlighted. ACTIVATE rotating bcn and MIRL Rwy 07-25—CTAF.

COMMUNICATIONS: CTAF 122.9

PORTLAND CLNC DEL 121.65

CARNEY N47°24.63' W122°50.33' NOTAM FILE PWT.

SEATTLE

NDB (MHW) 274 CAN 012° 5.7 NM to Bremerton National.

L-1D

NDB unusable 030°-310° beyond 15 NM.

CASHMERE-DRYDEN (8S2) 0 SW UTC-8(-7DT) N47°30.89' W120°29.08'

SEATTLE

858 B S4 NOTAM FILE SEA

RWY 07-25: H1800X50 (ASPH) S-8 MIRL

RWY 07: Fence. **RWY 25:** PAPI(P2L)—GA 3.0°. Thld dspld 182'. Trees.

AIRPORT REMARKS: Unattended. Ground vehicles and pedestrians use twy for hanger and residential access. Exit rwy at twys only. Radio control model activity permitted on W end of arpt. ACTIVATE MIRL Rwy 07-25—121.7.

COMMUNICATIONS: CTAF 122.9

CEDARS NORTH AIRPARK (See BATTLE GROUND)

CHEHALIS-CENTRALIA (CLS) 1 W UTC-8(-7DT) N46°40.62' W122°58.97'

SEATTLE
H-1B, L-1C
IAP

176 B S4 FUEL 100LL, JET A OX 4 NOTAM FILE SEA

RWY 16-34: H5000X150 (CONC) S-30, D-30, DT-85 MIRL

RWY 16: REIL. PAPI(P4L)—GA 4.0° TCH 51'. Trees. Rgt tfc.

RWY 34: REIL. VASI(V2L)—GA 4.5° TCH 35'. Trees.

AIRPORT REMARKS: Attended Mon-Fri 1500-0100Z†. Fuel avbl 24 hrs by credit card only. No debit cards. Possible wildlife on rwys.

ACTIVATE MIRL Rwy 16-34 and REIL Rwy 16 and Rwy 34—CTAF.

WEATHER DATA SOURCES: AWOS-3 118.025 (360) 740-5164.

COMMUNICATIONS: CTAF/UNICOM 122.8

Ⓡ SEATTLE APP CON 121.1

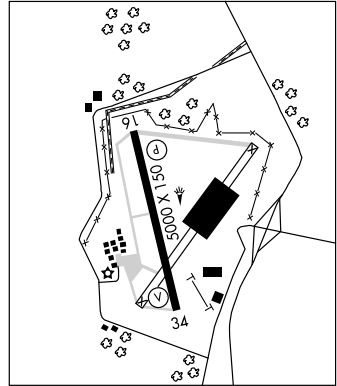
SEATTLE CENTER DEP CON 124.2

RADIO AIDS TO NAVIGATION: NOTAM FILE OLM.

OLYMPIA (H) VORTACW 113.4 OLM Chan 81 N46°58.30'

W122°54.11' 172° 18.0 NM to fld. 200/19E.

HIWAS.



CHELAN

LAKE CHELAN (S1Ø) 3 NE UTC-8(-7DT) N47°51.96' W119°56.56'

SEATTLE
L-13A

1263 B S2 FUEL 100LL, JET A NOTAM FILE SEA

RWY 02-20: H3503X60 (ASPH) S-12 MIRL

RWY 02: Thld dsplcd 447'. Road. Rgt tfc.

RWY 20: PAPI(P2L). Thld dsplcd 197'. Trees.

AIRPORT REMARKS: Attended continuously. Self-service fuel avbl 24 hrs. ACTIVATE MIRL Rwy 02-20 CTAF 122.9.

COMMUNICATIONS: CTAF/UNICOM 122.95

RADIO AIDS TO NAVIGATION: NOTAM FILE EPH.

EPHRATA (H) VORTACW 112.6 EPH Chan 73 N47°22.68' W119°25.44' 303° 36.1 NM to fld. 1250/21E.

CHEWELAH

SAND CANYON (1S9) 2 N UTC-8(-7DT) N48°18.85' W117°44.60'

SEATTLE
L-13B

2084 B NOTAM FILE SEA

RWY 17-35: H3446X48 (ASPH) MIRL

RWY 17: PAPI(P2L)—GA 4.0° TCH 63'. Thld dsplcd 230'. Tree. Rgt tfc.

RWY 35: PAPI(P4L)—GA 3.0°. Thld dsplcd 101'.

AIRPORT REMARKS: Unattended. Deer and wildlife on and invof arprt.

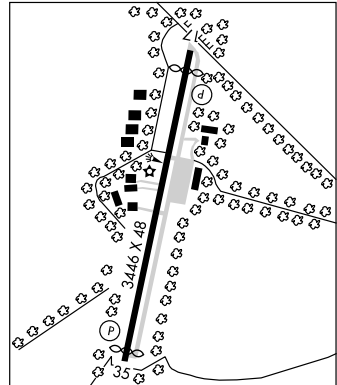
ACTIVATE MIRL Rwy 17-35—CTAF.

COMMUNICATIONS: CTAF 122.9

RADIO AIDS TO NAVIGATION: NOTAM FILE GEG.

SPOKANE (H) VORTACW 115.5 GEG Chan 102 N47°33.90'

W117°37.61' 333° 45.2 NM to fld. 2755/21E. HIWAS.



CLAYTON**CROSS WINDS** (C72) 2 SE UTC-8(-7DT) N47°58.99' W117°32.56'

SEATTLE

2150 TPA—See Remarks NOTAM FILE SEA

RWY 13L-31R: 3800X125 (TURF)**RWY 13L:** P-line. **RWY 31R:** Thld dsplcd 170'. Road. Rgt tfc.**RWY 13R-31L:** 2065X50 (TURF)**RWY 13R:** Fence. Rgt tfc. **RWY 31L:** Road.**AIRPORT REMARKS:** Unattended. Arpt CLOSED winters, open only to ski equipped acft. Use care during high wind due to turbulence and crosswind. Rwy not useable during heavy snow and spring mud. Radio controlled model acft on and invof arpt. Watch out for mole holes on rwy, rwy rough. Rwy 13L-31R edges marked with red traffic cones, Rwy 13R-31L ultralight rwy. Ultralight tfc on arpt. TPA—3150 (1000); Ultralight—2650 (500).**COMMUNICATIONS:** CTAF 122.9**CLE ELUM****CLE ELUM MUNI** (S93) 1 E UTC-8(-7DT) N47°11.66' W120°53.01'

SEATTLE

1944 B TPA—2944(1000) NOTAM FILE SEA

RWY 07-25: H2552X40 (ASPH) MIRL**RWY 07:** REIL. PAPI (P2L)—GA 4.0° TCH 20'. Thld dsplcd 130'. Rgt tfc.**RWY 25:** REIL. PAPI (P-2L)—GA 4.0° TCH 20'. Thld dsplcd 130'. Tree.**AIRPORT REMARKS:** Unattended. Wildlife on and invof rwy. Gliders use CTAF freq 122.3. ACTIVATE rotating bcn, MIRL Rwy 07-25 and REIL Rwy 07 and Rwy 25—CTAF. PAPI Rwy 07 and Rwy 25 opr continuously.**COMMUNICATIONS:** CTAF 122.9**DE VERE FLD** (2W1) 3 E UTC-8(-7DT) N47°10.66' W120°51.16'

SEATTLE

1800 NOTAM FILE SEA

RWY 08-26: H2055X30 (ASPH) LIRL(NSTD)**RWY 08:** Trees. Rgt tfc. **RWY 26:** Trees.**AIRPORT REMARKS:** Attended dalgt hours. Field occasionally CLOSED in winter. Wildlife on and invof rwy. Rwy 08-26 has 2 inch dropoff along entire rwy both sides. For LIRL Rwy 08-26 call 509-674-2627. Rwy 08-26 LIRL(NSTD)—thld lgts 360° green.**COMMUNICATIONS:** CTAF 122.9**COLFAX****LOWER GRANITE STATE** (ØØW) 12 S UTC-8(-7DT) N46°40.41' W117°26.56'

SEATTLE

719 NOTAM FILE SEA

RWY 14-32: 3400X50 (GRVL)**RWY 14:** Trees. **RWY 32:** Hill.**AIRPORT REMARKS:** Unattended. CLOSED 1 Oct-1 June. Pedestrians, vehicles and animals on and invof rwy. P-lines west and north; Portions of rwy sfc rough and soft.**COMMUNICATIONS:** CTAF 122.9**PORT OF WHITMAN BUSINESS AIR CENTER** (S94) 3 SW UTC-8(-7DT) N46°51.52' W117°24.85'

SEATTLE

2181 B **FUEL** 100LL TPA—3010(829) NOTAM FILE SEA

L-13B

RWY 07-25: H3209X60 (ASPH) S-17 MIRL (NSTD)**RWY 07:** Thld dsplcd 492'. Road. **RWY 25:** Thld dsplcd 319'. Hills.**AIRPORT REMARKS:** Attended dawn-dusk. 100LL fuel avbl for emergencies. Call 509-397-3791. Rwy 07-25 farm machinery may be operating in fields on both sides of rwy and off both rwy ends. Rwy 07-25 NSTD MIRL only center 2240' lgtd. 30' bldg 250' S AER 25. ACTIVATE MIRL Rwy 07-25—CTAF.**COMMUNICATIONS:** CTAF/UNICOM 122.8**RADIO AIDS TO NAVIGATION:** NOTAM FILE PUW.**PULLMAN (L) VOR/DME** 109.0 PUW Chan 27 N46°40.46' W117°13.41' 305° 13.6 NM to fld. 2720/20E.
HIWAS. DME unmonitored.

COLLEGE PLACE

MARTIN FLD (S95) 1 W UTC-8(-7DT) N46°02.82' W118°25.03' SEATTLE
 746 S4 FUEL 100LL, MOGAS OX 4 NOTAM FILE SEA L-13A
RWY 05-23: H3819X60 (ASPH) S-12 LIRL(NSTD)
RWY 05: VASI(V2L). **RWY 23:** VASI(V2L). Road.
AIRPORT REMARKS: Attended Mon-Fri 1600-0100Z†. Attended evenings and Sat-Sun as required, on call 509-522-1847. Private road crosses 700' from southwest end of rwy. ACTIVATE NSTD LIRL Rwy 05-23 and VASI Rwys 05 and 23—CTAF. Rwy 05-23 NSTD LIRL SW 1240' medium ints. Airport lighting operates from dusk until 1000Z†. 24 hr self service credit card fueling facility. Ldg fee.
COMMUNICATIONS: CTAF/UNICOM 122.8
RADIO AIDS TO NAVIGATION:NOTAM FILE SEA.
WALLA WALLA (L) VORW/DME 116.4 ALW Chan 111 N46°05.22' W118°17.55 225° 5.7 NM to fld. 1150/20E.

COLVILLE MUNI (63S) 1 E UTC-8(-7DT) N48°32.63' W117°53.03' SEATTLE
 1882 B S4 FUEL 100LL NOTAM FILE CQV
RWY 01-19: H2695X40 (ASPH) S-11 MIRL
RWY 01: PAPI(P2L)—GA 4.0°. **RWY 19:** Thld dsplcd 255'. Fence.
AIRPORT REMARKS: Attended Mon-Fri 1600-0100Z†. Watch for deer on and in/ov arpt. When ldg Rwy 19, bright lgts around high school stadium, approximately ¾ miles S of arpt. ACTIVATE MIRL Rwy 01-19—CTAF. Car avbl.
COMMUNICATIONS: CTAF/UNICOM 122.8

CONCRETE

MEARS FLD (3W5) 1 S UTC-8(-7DT) N48°31.79' W121°45.50' SEATTLE
 267 NOTAM FILE SEA
RWY 07-25: H2609X60 (ASPH) S-12
RWY 07: Trees. Rgt tfc. **RWY 25:** Trees.
AIRPORT REMARKS: Unattended. All patterns south of arpt.
COMMUNICATIONS: CTAF 122.9

HELIPAD H1: H40X40 (CONC)

COPALIS STATE (S16) 2 NW UTC-8(-7DT) N47°07.49' W124°11.08' SEATTLE
 1 NOTAM FILE SEA
RWY 14-32: 4500X150 (SAND)
RWY 14: Rgt tfc.
AIRPORT REMARKS: Unattended. Arpt CLOSED to vehicles Apr 15 thru the day after Labor Day. Vehicles, pedestrians and animals on and in/ov arpt. River course change may alter rwy length. Stream crossing 1500' from the end of Rwy 14.
COMMUNICATIONS: CTAF 122.9

CREST AIRPARK (See KENT)

CROSS WINDS (See CLAYTON)

DARRINGTON MUNI (1S2) 0 N UTC-8(-7DT) N48°15.52' W121°36.61' SEATTLE
 553 B NOTAM FILE SEA
RWY 10-28: H2491X40 (ASPH) MIRL
RWY 10: Fence. **RWY 28:** Road.
AIRPORT REMARKS: Unattended. CLOSED when snow on rwy. Rwy 28 has no markings. Rwy 10 has small numbers only. Turbulence on hot days landing west between rows of trees. Taxiways marked with blue reflectors. MIRL Rwy 10-28 OTS indef. ACTIVATE MIRL Rwy 10-28—CTAF.
COMMUNICATIONS: CTAF 122.9

DAVENPORT (68S) 1 W UTC-8(-7DT) N47°39.21' W118°10.13' SEATTLE
 2421 B FUEL 100LL NOTAM FILE SEA
RWY 05-23: H2747X50 (ASPH) MIRL
RWY 23: Trees. Rgt tfc.
RWY 03-21: 2271X45 (GRVL)
RWY 03: Trees. P-line. **RWY 21:** Trees. Rgt tfc.
AIRPORT REMARKS: Attended Mar-Jun dawn-dusk, Jul-Feb Mon-Fri on call. Rwy 03-21 very soft in spring. Rwy 03-21 not marked.
COMMUNICATIONS: CTAF 122.9

DEER PARK (DEW) 3 NE UTC-8(-7DT) N47°58.02' W117°25.72'
 2211 B S4 FUEL 100LL, JET A TPA—See Remarks NOTAM FILE DEW
 RWY 16-34: H6100X75 (ASPH) S-21 MIRL 0.4% up NW
 RWY 16: REIL. PAPI (P4L)—GA 3.5° TCH 38'. Trees.
 RWY 34: REIL. PAPI(P4L)—GA 3.0° TCH 40'.

RWY 04-22: H3200X60 (ASPH) S-12.5

AIRPORT REMARKS: Attended Apr-Oct 1600-0100Z±, Nov-Mar 1800-0000Z±. 100LL avbl 24 hrs credit card self service facility. Call ahead for Jet A svc 509-276-3379. Rwy 04-22 heavy glider activity weekends. Glider pattern TPA 3211(1000). Ultralight activity on arpt. Model airplane activity on arpt. Farming opr active on land adjacent to rwns. Deer and coyotes on and in/ov runways. 175' twr 2000' W of Rwy 16-34. Noise abatement procedures in effect ctc arpt manager 509-276-3379. Rwy 16 preferred calm wind rwy. ACTIVATE MIRL Rwy 16-34—CTAF.

WEATHER DATA SOURCES: ASOS 135.175 (509) 276-2303.

COMMUNICATIONS: CTAF/UNICOM 123.0

® **SPOKANE APP/DEP CON** 123.75

RADIO AIDS TO NAVIGATION: NOTAM FILE GEG.

SPOKANE (H) VORTACW 115.5 GEG Chan 102 N47°33.90'
 W117°37.61' 358° 25.4 NM to fld. 2755/21E. **HIWAS.**

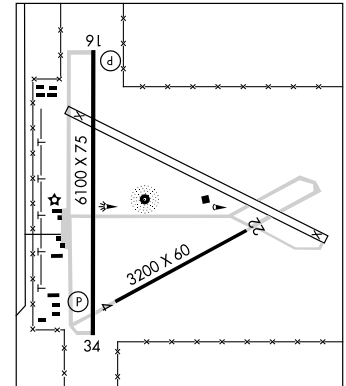
NDB (MHW) 216 DPY N47°58.07' W117°25.58' at fld. NOTAM FILE DEW. NDB unmonitored.

NDB unusable:

360°-070° byd 11 NM blo 5,700'

360°-070° byd 16 NM

070°-110° byd 8 NM



110°-280° byd 15 NM

280°-310° byd 8 NM

310°-360° byd 15 NM

COMM/NAV/WEATHER REMARKS: Monitor glider tfc on CTAF above 5,000 MSL.

DESERT AIRE (See MATTAWA)

DE VERE FLD (See CLE ELUM)

DONNY N46°31.54' W120°22.33'. NOTAM FILE YKM.

NDB (LOM) 371 YK 274° 7.6 NM to Yakima Air Terminal/McAllister Fld.

DOROTHY SCOTT (See OROVILLE)

DUNEZ N46°20.29' W119°00.75'. NOTAM FILE PSC.

NDB (LOM) 331 PS 205° 6.3 NM to Tri-Cities. Unmonitored when twr clsd.

EASTON STATE (ESW) 2 N UTC-8(-7DT) N47°15.25' W121°11.13'

2226 NOTAM FILE SEA

RWY 09-27: 2640X100 (TURF) MIRL

RWY 09: Trees **RWY 27:** Trees

AIRPORT REMARKS: Unattended. Arpt CLOSED Oct 1 thru Jun 1. Wind cone mounted on 50' self supporting tower. Vehicles, pedestrians and wildlife on and in/ov arpt.

COMMUNICATIONS: CTAF 122.9

EASTSOUND

ORCAS ISLAND (ORS) 1 N UTC-8(-7DT) N48°42.50' W122°54.64'

31 B S3 FUEL 100LL TPA—1031(1000) NOTAM FILE ORS

RWY 16-34: H2900X60 (ASPH-AFSC) S-12.5 MIRL

RWY 16: REIL. VASI(V4L)—GA 2.9° TCH 35'.

RWY 34: REIL. PAPI(P2L)—GA 4.0° TCH 28'. Trees. Rgt tfc.

AIRPORT REMARKS: Attended 1600-0030Z±. Self svc 24 hr fuel avbl with credit card. Deer on and in/ov rwy. Noise abatement procedures in effect, ctc arpt manager 360-376-5285. Additional transient tiedowns south of segmented circle. PAPI baffled W of centerline, lateral coverage has been narrowed to avoid obstacles, during decent close alignment to rwy centerline is necessary. ACTIVATE VASI Rwy 16, REIL Rwy 16 and Rwy 34 and twy lghts—128.25.

WEATHER DATA SOURCES: AWOS-3 135.425 (360) 376-6045.

COMMUNICATIONS: CTAF 128.25

VICTORIA NORTH APP/DEP CON 132.7

WHIDBEY SOUTH APP/DEP CON 118.2

SEATTLE

H-1C, L-13B

IAP

SEATTLE

SEATTLE

SEATTLE

SEATTLE

L-1E

IAP

EATONVILLE

SWANSON (2W3) 1 NE UTC-8(-7DT) N46°52.30' W122°15.43'

SEATTLE

843 TPA-1643(800) NOTAM FILE SEA

RWY 16-34: H2990X36 (ASPH) MIRL

RWY 16: Trees. Rgt tfc. **RWY 34:** Ground.

AIRPORT REMARKS: Attended 1600-0400Z±. CAUTION: Deer on and in vicinity of arpt. Buildings are in close proximity to rwy. Gravel svc road around Rwy 16-34 not avbl for acct ops. Taxi on rwy. Rwy 16-34 trees in apch and transitional surfaces both sides of rwy. Arpt lgts opr dusk-0800Z±. After 0800Z±, ACTIVATE MIRL Rwy 16-34-CTAF.

COMMUNICATIONS: CTAF 122.9

ED CARLSON MEMORIAL FLD-SOUTH LEWIS CO (See TOLEDO)

ELECTRIC CITY

GRAND COULEE DAM (3W7) 2 SW UTC-8(-7DT) N47°55.32' W119°04.98'

SEATTLE
L-13A

1588 B NOTAM FILE SEA

RWY 03-21: H4199X75 (ASPH) S-26 MIRL

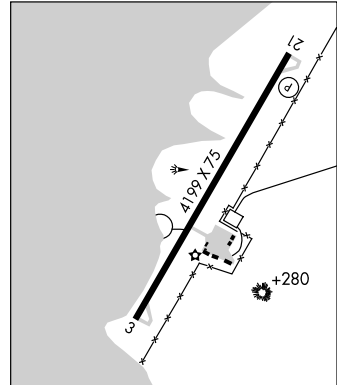
RWY 03: Hill. **RWY 21:** PAPI(P2L). Ground. Rgt tfc.

AIRPORT REMARKS: Unattended. ACTIVATE MIRL Rwy 03-21-CTAF.

COMMUNICATIONS: CTAF 122.9

RADIO AIDS TO NAVIGATION: NOTAM FILE EPH.

EPHRATA (H) VORTACW 112.6 EPH Chan 73 N47°22.68'
W119°25.44' 002° 35.5 NM to fld. 1250/21E.



ELLENSBURG N47°01.46' W120°27.50' NOTAM FILE ELN.

SEATTLE

(H) VORTACW 117.9 ELN Chan 126 259° 3.0 NM to Bowers Fld. 1770/21E. **HIWAS.**

H-1B, L-13A

VORTAC unusable:

090°-158° byd 10 NM 163°-268° byd 33 NM

158°-163° byd 27 NM

VOR portion unusable:

300°-040° byd 25 NM 040°-080° byd 34 NM

DME unusable:

055°-070° byd 21 NM 163°-268° byd 33 NM

070°-090° byd 34 NM 300°-055° byd 21 NM

090°-158° byd 10 NM 350°-025° byd 15 NM

158°-163° byd 27 NM

RCO 122.2 (SEATTLE RADIO)

ELLENSBURG

BOWERS FLD (ELN) 2 N UTC-8(-7DT) N47°01.98' W120°31.84'
 1764 B S4 FUEL 100LL, JET A TPA-2598(834) NOTAM FILE ELN
RWY 07-25: H5590X150 (ASPH) S-28 0.8% up E
RWY 07: Tree. **RWY 25:** P-line.

RWY 11-29: H4301X150 (CONC) S-35, D-57, DT-100
 MIRL 0.4% up NW

RWY 29: REIL. PAPI(P2R)—GA 3.0° TCH 40'.

AIRPORT REMARKS: Attended Mon-Fri 1500-0300Z†, Sat-Sun 1500-0200Z†. Rwy 07-25 CLOSED Dec 15-Feb 28, no maintenance avail. Rwy 07-25 has weeds growing through cracks in pavement first 2000'. ACTIVATE MIRL Rwy 11-29—123.0.

WEATHER DATA SOURCES: ASOS 118.375 (509) 925-2040. HIWAS 117.9 ELN.

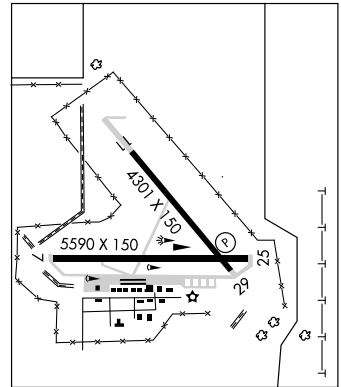
COMMUNICATIONS: CTAF/UNICOM: 123.0

ELLENSBURG RCO 122.2 (SEATTLE RADIO)

SEATTLE CENTER APP/DEP CON 132.6

RADIO AIDS TO NAVIGATION: NOTAM FILE ELN.

ELLENSBURG (H) VORTACW 117.9 ELN Chan 126 N47°01.46'
 W120°27.50' 259° 3.0 NM to fld. 1770/21E. HIWAS.



SEATTLE
 H-1B, L-13A
 IAP

ELMA MUNI (4W8) 1 SW UTC-8(-7DT) N46°59.43' W123°25.78'

SEATTLE

35 B TPA-835(800) NOTAM FILE SEA

RWY 07-25: H2280X30 (ASPH) MIRL (NSTD)

RWY 07: Trees, Rgt tfc. **RWY 25:** Thld dspcd 180' Trees.

AIRPORT REMARKS: Unattended. Rwy 07-25 NSTD MIRL. Rwy 25 dspcd thld unlgtd, 2095' of Rwy 07-25 avbl for ngt ops. Rwy 07-25 disregard white X's on rwy. Rwy 07-25 very narrow faded centerline stripe, rwy 1D NSTD dimensions. ACTIVATE NSTD MIRL Rwy 07-25—CTAF.

COMMUNICATIONS: CTAF/UNICOM 122.8

ELWHA N48°09.01' W123°40.22'. NOTAM FILE CLM.

SEATTLE

NDB (MHW/LOM) 515 CL 083° 7.1 NM to William R. Fairchild Intl.

L-1E

NDB unusable 100°-235° beyond 12 NM.

EPHRATA MUNI (EPH) 2 SE UTC-8(-7DT) N47°18.48' W119°31.01'

SEATTLE

1276 B FUEL 100LL, JET A TPA—See Remarks NOTAM FILE EPH

H-18, L-13A

RWY 03-21: H5500X75 (ASPH) S-60, D-90, ST-114, DT-115 MIRL

IAP

RWY 03: PAPI (P4R)—GA 3.0° TCH 40'. Ground. Rgt tfc. 0.3% up.

RWY 21: PAPI (P4R)—GA 3.0° TCH 40'.

RWY 11-29: H3843X60 (ASPH) S-40, D-53, DT-105 MIRL

RWY 11: REIL. Ground.

RWY 29: REIL. PAPI(P2L)—GA 3.0°. TCH 40'.

RWY 04-22: H3467X150 (ASPH)

RWY 22: Rgt tfc.

AIRPORT REMARKS: Attended 1530-0000Z±. Credit card fuel avbl 1400-0600Z±. Rwy 04-22 for gliders only. Parallel twy to Rwy 11-29 and 3 connector twys non air carrier movement area. Be alert aerobatic acft activity over center of arpt. Ultralight activity invof arpt. TPA for ultralight acft 1526(250). Heavy glider activity from apron area Apr-Oct. Landings on Rwy 11 by all acft are discouraged during glider opns due to tfc conflicts. ACTIVATE MIRL Rwy 03-21 and MIRL Rwy 11-29 and REIL Rwy 11 and Rwy 29—CTAF. PAPI Rwy 29, Rwy 03 and Rwy 21 opr continuously. UNICOM monitored intermittently.

WEATHER DATA SOURCES: ASOS 135.775 (509) 754-3761.

COMMUNICATIONS: CTAF/UNICOM 122.8

RCO 122.2 (SEATTLE RADIO)

GRANT COUNTY APP/DEP CON 126.4 (1400-0600Z±)

SEATTLE CENTER APP/DEP CON 126.1 (0600-1400Z±)

AIRSPACE: CLASS E svc 1400-0600Z± other times CLASS G.

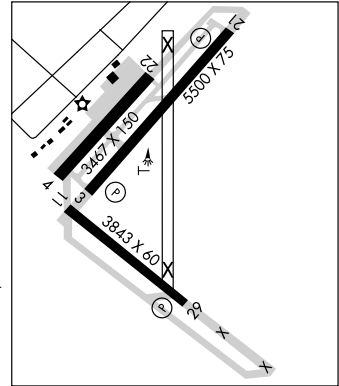
RADIO AIDS TO NAVIGATION: NOTAM FILE EPH.

(H) VORTACW 112.6 EPH Chan 73 N47°22.68' W119°25.44' 201° 5.7 NM to fld. 1250/21E.

VOR unusable 310°-350° byd 25 NM blo 6,500'.

DME portion unusable:

280°-295° byd 25 NM blo 7,000'.



310°-350° byd 25 NM blo 6,500'.

EVERETT

SNOHOMISH CO (PAINE FLD) (PAE) 6 SW UTC-8(-7DT) N47°54.42' W122°16.89'

606 B S4 FUEL 100LL, JET A OX 1, 3 TPA-See Remarks LRA

SEATTLE
H-1B, L-1D
IAP, AD

ARFF Index—See Remarks NOTAM FILE PAE

RWY 16R-34L: H9010X150 (ASPH-CONC-GRVD) S-100, D-200,

ST-175, DT-350, DDT-830 HIRL CL

RWY 16R: MALSR. PAPI(P4R)—GA 2.8°. Rgt tfc.

RWY 34L: MALSF. PAPI(P4L) GA 3.0° TCH 75'. Trees.

RWY 11-29: H4514X75 (ASPH) S-30 MIRL 0.9% up SE

RWY 11: VASI(V2L)—GA 3.25° TCH 60'. Thld displcd 799'. Trees.

RWY 29: VASI(V2R)—GA 4.0° TCH 57'. Trees.

RWY 16L-34R: H3000X75 (ASPH) S-12.5 MIRL

RWY 16L: REIL. PAPI(P2L)—GA 3.0°. Pole.

RWY 34R: REIL. PAPI(P2R)—GA 3.0°. Pole. Rgt tfc.

AIRPORT REMARKS: Attended 1500-0500Z†. For jet and helicopter fuel after hrs call 425-355-6600. Helicopters prohibited at fueling islands. Flocks of large and small birds in vicinity of arpt. Class I, ARFF Index B. Arpt CLOSED to air carrier ops with more than 30 passenger seats 0500-1500Z† except PPR ctc arpt ops 425-388-5110/5480. For additional ARFF capability ctc arpt ops 425-388-5110/5480. Rwy 11-29 and Rwy 16L-34R CLOSED between 0500-1500Z†. First 1000' of Rwy 16R is concrete. Large acft fly W pattern over water, small acft fly E pattern over arpt. Be alert for converging tfc on base to final legs Rws 16R-34L 0500-1500Z†. Training flights discouraged after 0600Z†. Twy A-2 restricted to 30,000 lbs. Avoid overflight of Boeing ramp NE corner of arpt due to JET blast. Rwy 34L departures discouraged in calm wind conditions. Avoid intersection departures from Rwy 16L-34R and Rwy 29. Avoid intersection departures from Rwy 11 except from Twy Delta 1 intersection. Twy Echo lghts OTS indef. Areas not visible from twr include E edge of S 1200' of Twy A, Twy E from SE corner of west hangars to Twy A, mid section of outer terminal ramp, Twy H from NW edge of west hangars to Twy E, NE edge of inner terminal ramp. When twr clsd ACTIVATE HIRL Rwy 16R-34L, MALSR Rwy 16R and PAPI Rwy 34L—CTAF. Noise sensitive arpt, for noise abatement procedures and tfc procedures call arpt ops 425-388-5110. It is requested that pilots adhere to the following noise abatement procedures unless otherwise instructed by twr, itinerant arrival and low apch of small acft over 250 horsepower authorized on Rwy 29, Rwy 16L and Rwy 34R. Itinerant departure of small acft over 250 horsepower on Rwy 11 and Rwy 34R. If access to Boeing ramp required ctc Boeing Flight Dispatch 206-655-3421 for approval during normal duty hours. TPA-1606 (1000) for light acft, 2006 (1400) for heavy acft. Landing fee for acft over 30,000 lbs GWT.

WEATHER DATA SOURCES: ASOS (425) 355-6192. LAWRS.

COMMUNICATIONS: CTAF 132.95 ATIS 128.65 (425)355-9797. UNICOM: 122.95

PAINE RCD 122.55 (SEATTLE RADIO)

Ⓡ SEATTLE CENTER APP/DEP CON 128.5

PAINE TOWER 132.95 (acft arrival W of centerline or departure Rwy 16R-34L) 120.2 (acft arrival E of centerline or departure Rwy 16L-34R) (1500-0500Z†) GND CON 121.8 CLNC DEL 126.75

AIRSPACE: CLASS D svc 1500-0500Z† other times CLASS G.

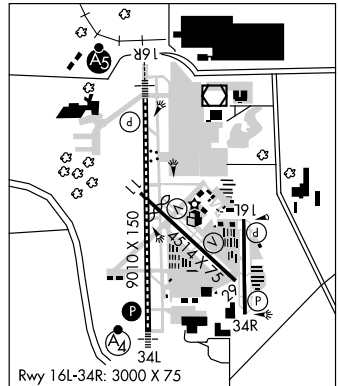
RADIO AIDS TO NAVIGATION: NOTAM FILE PAE.

PAINE (L) VORW/DME 110.6 PAE Chan 43 N47°55.19' W122°16.67' at fld. 670/20E.

RITTS NDB (LOM) 396 PA N48°03.17' W122°17.33' 158° 8.8 NM to fld.

ILS 109.3 I-PAE Rwy 16R Class IE. LOM RITTS NDB. LOC/GS unmonitored (0500-1500Z†)

COMM/NAV/WEATHER REMARKS: Emerg frequency 121.5 not avbl at twr.



FAIRCHILD AFB (SKA)(KSKA) AF (ANG) 10 SW UTC-8(-7DT) N47°36.90' W117°39.35' SEATTLE
 2461 B TPA—See Remarks AOE Class I, ARFF Index A NOTAM FILE SKA Not insp. H-1C, L-13B
RWY 05-23: H13899X200 (CONC) PCN 51 R/B/W/T HIRL CL DIAP, AD
RWY 05: ALSF1. TDZL. PAPI(P4L)—GA 3.0° TCH 51'. **RWY 23:** ALSF1. TDZL. PAPI(P4L). Rgt tfc.
MILITARY SERVICE: LGT Rwy 05 PAPI not coincidental with ILS/GS. Apch lighting system Rwy 05-23 NSTD. JASU (MA-1A)
 (A/M32A-86) (MC-1A) **FUEL J8 FLUID SP PRESAIR;** De-ice Not avbl for C5, C17; LPOX **OIL 0-148-156**
JOAP TRAN ALERT Svc weekdays 1500-0700Z†, weekends clsd. Ctc Base Ops not later than 15 minutes out for
 svc required. Fleet svc avbl. No potable water svc.
MILITARY REMARKS: See FLIP AP/1 Supplementary Arpt Information. **RSTD** PPR includes scheduled AMC mission. 24 hr
 prior coordination required. Base ops DSN 657-9593 (SECURE), DSN 657-5439, C509-247-5439. All inbound
 passenger/cargo acft must ctc Command Post no later than 30 min prior to ldg. AMC acft opr rstd during Bird
 Watch Condition Moderate (tkf or ldg permission only when dep/arr route avoid identified bird activity, no local
 IFR/VFR tfc pattern activity) and Severe (tkf and ldg prohibited without Operation Group Commander approval
 practice circling apch not authorized for tran acft) ctc twr, PTD, or Command Post for current Bird Watch
 condition. Acft configured with explosives are not authorized. Cargo acft transporting explosives are authorized.
 First 1300' Rwy 23/last 1300' Rwy 05 rated poor. Use Twy F int for Rwy 23 dep unless mission requires full
 length. To max extent possible exit Twy F when ldf Rwy 05. Avoid ldg on first 1300' of Rwy 23 unless wx dictates
 use of instrument apch. Dur taxi acft are to use idle thrust and limit the use of reverse thrust when opr on first
 1300' Rwy 23/last 1300' Rwy 05. Practice circling apch not authorized for tran acft. Parachute jumping activity
 Fri 2030-2130Z†, Ellington Drop Zone, 5000' south of rwy. **CAUTION** Rwy edge lgts located 60' from outside of
 side stripe. Uncontrolled vehicles on all twys and ramps. Helicopter transition area located east of apch end Rwy
 23 opr 400' and blo. Tran acft will not climb abv 3700' on dep during VFR conditions until the end of rwy unless
 specifically cleared by ATC. Do not mistake Spokane Intl 4.5 NM east for Fairchild AFB. Phase II (the high bird
 potential haz time period) of the Bird Aircraft Safety Hazard program is in effect annually from May to Oct. Rwy
 05-23 overruns rated poor. **TFC PAT** TPA—Rectangular 3700 (1239), overhead 4200(1739). **MISC** Air Evac/Tran
 acft ctc PTD 20 minutes prior to arrival. Base OPS DSN 657-5439/5202, C509-247-5439/5202. **ANG** Opr
 Mon-Fri 1515-2345Z†, clsd weekend and holidays.
COMMUNICATIONS: SFA ATIS 257.625 PTD 130.0 372.2
 (R) **SPOKANE APP/DEP CON** 133.35 263.0 (026°-204°) 123.75 282.25 (205°-025°)
TOWER 120.35 233.7 **GND CON** 123.6 275.8
COMD POST (STRIKEHAWK) 311.0 321.0 **PMSV METRO** 234.8 Wx stn opr Mon-Thu 1300-1700Z†. Fri hrs vary
 based on lcl flying, clsd weekend and hol. Full svc PMSV avbl via 25 OWS. AWOS in use. DSN 657-9010.
 C509-247-9010. Tran aircrew may ctc 25 OWS DSN 228-6598, or C520-228-6598 for wx briefing. When
 possible provide 2hr PN for all rqr briefings. **WASHINGTON ANG OPS** 293.7
AIRSPACE: CLASS C svc ctc **APP CON**.
RADIO AIDS TO NAVIGATION: NOTAM FILE SKA.
 (L) **TACAN** SKA Chan 51 N47°36.64' W117°39.74' at fld. 2438/19E. No NOTAM MP Tue 1400-1700Z†
 (2000/3+1).
 TACAN unusable:
 110°-220° byd 20 NM blo 7,000' 220°250° byd 30 NM blo 5,500'
 110°-220° byd 30 NM blo 9,500'
ILS 110.3 I-FRC Rwy 05. Back course unusable. No NOTAM MP Wed and Thu 1400-1700Z†
 (2000/3+1).
ILS 110.3 I-SKA Rwy 23. Class IT. Back course unusable. No NOTAM MP Wed and Thu
 1400-1700Z† (2000/3+1).
COMM/NAV/WEATHER REMARKS: Acft rqr SFA notify Seattle Center or Spokane App Con 20 minutes out on all published
 frequency.

FELTS FLD (See SPOKANE)

FERRY CO (See REPUBLIC)

FIRSTAIR FLD (See MONROE)

FLOATHAVEN SPB (See BELLINGHAM)

FLY FOR FUN (See VANCOUVER)

FORKS (S18) 1 SW UTC-8(-7DT) N47°56.26' W124°23.76' SEATTLE
 299 NOTAM FILE SEA
RWY 04-22: H2400X75 (ASPH) MIRL
RWY 04: REIL. Tree. **RWY 22:** REIL. Tree. Rgt tfc.
AIRPORT REMARKS: Unattended. Wildlife on and invof arpt.
COMMUNICATIONS: CTAF 122.9

FORT LEWIS (See GRAY AAF)

FRIDAY HARBOR**FRIDAY HARBOR** (FHR) 0 SW UTC-8(-7DT) N48°31.32' W123°01.46'

SEATTLE

113 B S4 FUEL 100 LRA NOTAM FILE FHR

L-1E

RWY 16-34: H3402X75 (ASPH) S-12.5 MIRL 0.8% up N

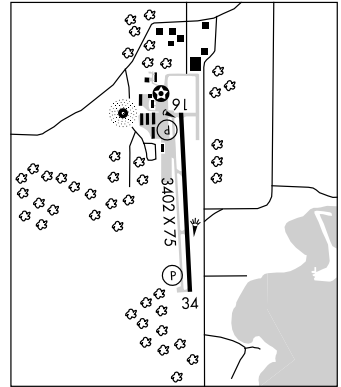
IAP

RWY 16: PAPI(P4R)—GA 4.0° TCH 38'. Building. Rgt tfc.**RWY 34:** REIL. PAPI(P4L)—GA 3.5° TCH 40'. Trees. Rgt tfc.

AIRPORT REMARKS: Attended 1600-0100Z±. Fuel system self svc with credit card. Noise abatement procedures in effect ctc arpt manager 360-378-4724. Preferred Rwy 16 in calm wind conditions. Due to high concentration of tfc invof arpt recommend ldg lgts or forward visibility lgts turned on while utilizing arpt. Rwy 16 PAPI baffled W of centerline, lateral coverage has been narrowed to avoid obstacles during descent, maintain highest possible altitude and close alignment to rwy centerline. Acft in excess of 12,500 lbs charged fee based on weight and time of year—ctc arpt manager for information. Soft ground between tiedowns west parking area. Limited transient parking avbl during summer. ACTIVATE MIRL Rwy 16-34 and REIL Rwy 34—CTAF. ACTIVATE rotating bcn—CTAF. Ldg fee—Acft in excess of 12,500 lbs charged, fee based on weight—ctc arpt manager for info.

WEATHER DATA SOURCES: ASOS 135.675 (360) 378-8491.**COMMUNICATIONS:** CTAF 128.25

® WHIDBEY APP/DEP CON 118.2

RADIO AIDS TO NAVIGATION: NOTAM FILE BLI.**WHATCOM (H) VORTACW** 113.0 HUH Chan 77 N48°56.72' W122°34.76' 195° 31.0 NM to fld. 83/20E. HIWAS.**NDB (MHW)** 284 FHR N48°31.61' W123°01.68' at fld. NOTAM FILE FHR.**FRIDAY HARBOR SPB** (W33) 0 NE UTC-8(-7DT) N48°32.24' W123°00.58'

SEATTLE

00 LRA NOTAM FILE SEA

WATERWAY 03-21: 10000X2000 (WATER)**WATERWAY 12-30:** 6000X1000 (WATER)**SEAPLANE REMARKS:** Unattended. All tkfs should be performed N of Browns Island. Seaplanes ops warning lgts OTS indef. US customs user fee arpt. Flight Notification Service (ADCUS) available.**COMMUNICATIONS:** CTAF 128.25**GOHEEN** (See BATTLE GROUND)**GOLDENDALE** (S2Ø) 1 NW UTC-8(-7DT) N45°49.93' W120°50.72'

SEATTLE

1678 B NOTAM FILE SEA

L-13A

RWY 07-25: H3491X40 (ASPH) S-4 MIRL**RWY 07:** REIL. Fence. **RWY 25:** REIL. SAVASI (S2L). Thld dsplcd 330'. Trees.**AIRPORT REMARKS:** Unattended. NSTD white line crosses rwy near Rwy 07 marking. NSTD white line crosses rwy near Rwy 25 marking.**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' 035° 12.9 NM to fld. 3220/21E. HIWAS.**GRAND COULEE DAM** (See ELECTRIC CITY)**GRANT CO** (See MOSES LAKE)

GRAY AAF (FORT LEWIS) (GRF)(KGRF) A (AR ARNG) 1 E UTC-8(-7DT) SEATTLE
 N47°04.75' W122°34.85' H-1B, L-1D
 300 B TPA—See Remarks Class I, ARFF Index Ltd. NOTAM FILE SEA Not insp. DIAP, AD
RWY 15-33: H6125X150 (ASPH) PCN 55 F/A/W/T HIRL
RWY 15: SSALR. PAPI. **RWY 33:** SSALR.
MILITARY SERVICE: FUEL J8—Ltd supply.
MILITARY REMARKS: See FLIP AP/1 Supplementary Arpt Remarks. **RSTD** 48 hr PPR transient acft, DSN 357-6628/5998, C253-967-6628/5998. **CAUTION** High volume of personnel/vehicles with negative radio communication on ground control crossing Twy G and Twy H. Numerous small arms 0.8 NM E of afld. **TFC PAT** TPA—E/W tfc, multi-engine fixed wing 1500(1200), single engine fixed wing 1300(1000), rotary wing 1000(700). Unmanned aerial vehicles 1000(700), west tfc only. **MISC** Special VFR Day fixed wing 700-1, rotary wing 300-½. Night fixed wing not authorized, rotary wing 500-1. Acft conducting tactical opr on Fort Lewis military reservation ctc OPS prior to opr. Ctc Gray tfc on CTAF when twr closed. No hangar for transient acft. Runway condition reading will be reported Mon-Fri, 1500-2300Z† via NOTAM and ATIS during inclement winter weather. WX observation visibility is limited to 2 SM in some directions. Wx observation automated by AN/FMQ-19, WX observation augmented/backup as required. Twy E unusable to C-17 and larger acft. East ramp parking limited to C-12/UC-35/C-21 and smaller acft. **AR** Ctc OPS DSN 357-3036, C253-967-3036. **ARNG** Opr Tue-Fri 1430-0100Z† except holidays. Transient alert not avbl. Ltd parking. PPR for acft rq fuel and parking, DSN 323-3805, C253-912-3805.
COMMUNICATIONS: CTAF 119.325 ATIS 124.65 306.2 **BULLSEYE RADIO** 34.6 Opr continuously, exc holidays
 Ⓜ **SEATTLE APP/DEP** 120.1 290.9
TOWER 119.325 256.8 276.4 (continuous, except holidays) **GND CON** 121.9 290.2 **CLNC DEL** 121.9 290.2
PMSV METRO 134.1 38.45 Full svc continuous, except holidays. Full svc may vary with local flight schedule. WX briefings for transient air crews avbl from 25 Operational Weather Squadron, Davis-Monthan AFB, DSN 228-6598) **OPS** 32.30 138.6 **AR OPS** 36.10 **ARNG OPS** 32.6
AIRSPACE: CLASS D svc continuous, except holidays, other times CLASS E.
RADIO AIDS TO NAVIGATION: NOTAM FILE GRF
LACOMAS NDB (MHW) 328 LAC N47°00.48' W122°33.39' 329° 4.4 NM to fld. Unmonitored holidays.
GRAYE NDB (MHW/LOM) 216 GR N47°09.02' W122°36.28' 151° 4.4 NM to fld. Unmonitored holidays.
ILS/DME 108.3 I-GRF Chan 20 Rwy 15. LOM GRAYE NDB Unmonitored holidays.
PAR Opr Mon-Fri 1600-0759Z† except federal holidays.
COMM/NAV/WEATHER REMARKS: All rotary wing acft ctc Bullseye Radio prior to entry R6703A-D.

GRAYE N47°09.02' W122°36.28'. NOTAM FILE GRF. SEATTLE
NDB (MHW/LOM) 216 GR 351° 7.2 NM to Tacoma Narrows. Unmonitored holidays. L-1D

GREENWATER

RANGER CREEK (21W) 10 SE UTC-8(-7DT) N47°00.77' W121°32.02' SEATTLE
 2650 NOTAM FILE SEA
RWY 15-33: H2875X30 (ASPH)
RWY 15: Trees. **RWY 33:** Trees.
AIRPORT REMARKS: Unattended. Arpt CLOSED Oct 1 to Jun 1. Pedestrians, vehicles and animals on and invof rwy.
 Rwy 15-33 pavement has cracks and loose rocks on rwy. USFS campgrounds east and north of rwy.
COMMUNICATIONS: CTAF 122.9

GROVE FLD (See CAMAS)

HARVEY FLD (See SNOHOMISH)

HOQUIAM N46°56.82' W124°08.96' NOTAM FILE HQM. SEATTLE
 (H) **VORTACW** 117.7 HQM Chan 124 062° 8.9 NM to Bowerman. 10/19E. HIWAS. H-1A, L-1D
RCD 122.2 (SEATTLE RADIO)

HOQUIAM**BOWERMAN** (HQM) 2 W UTC-8(-7DT) N46°58.27' W123°56.19'SEATTLE
H-1A, L-1D
IAIP

18 B S4 FUEL 100LL, JET A1+ LRA NOTAM FILE HQM

RWY 06-24: H5000X150 (ASPH) S-30, D-40, DT-80 HIRL

RWY 06: REIL. VASI(V4R)—GA 3.0° TCH 52'. Tree. Rgt tfc.

RWY 24: MALSR. VASI(V4L)—GA 3.0° TCH 50'.

AIRPORT REMARKS: Attended Mon-Fri 1700-0100Z†. 100LL avbl 24 hrs a day with Credit Card. For Jet A call 360-533-6655 between 1700-0100Z† or call 360-310-0201 between 0100-1700Z†. Flocks of waterfowl on and in vicinity of arpt. Service road south of rwy in primary surface. Ultralights prohibited without written permission from arpt manager. ACTIVATE HIRL Rwy 06-24, MALSR Rwy 24 and REIL Rwy 06—CTAF.

WEATHER DATA SOURCES: ASOS 135.775 (360) 538-7021. HIWAS 117.7 HQM.

COMMUNICATIONS: CTAF/UNICOM 122.7

RCO 122.2 (SEATTLE RADIO)

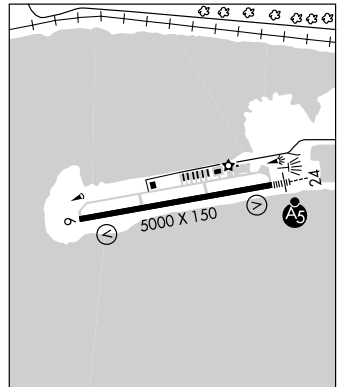
SEATTLE CENTER APP/DEP CON 128.3

AIRSPACE: CLASS E svc 1400-0600Z† other times CLASS G.**RADIO AIDS TO NAVIGATION:** NOTAM FILE HQM.**HOQUIAM (H) VORTACW** 117.7 HQM Chan 124 N46°56.82'

W124°08.96' 062° 8.9 NM to fld. 10/19E. HIWAS.

ABERN NDB (LOM) 236 HQ N46°59.26' W123°47.86' 241° 5.8 NM to fld. LOM unusable 150°-180° byd 10 NM.

ILS/DME 108.7 I-HQM Chan 24 Rwy 24 LOM ABERN NDB. LOM unusable 150°-180° byd 10 NM.

**HOSKINS FLD** (See OLYMPIA)**ILWACO****PORT OF ILWACO** (7W1) 2 E UTC-8(-7DT) N46°18.90' W124°00.23'

SEATTLE

13 B NOTAM FILE SEA

RWY 10-28: H2080X50 (ASPH) S-5 MIRL

RWY 10: Road RWY 28: PAPI(P2L)—GA 4.0°. Thld dspcd 300'. Road.

AIRPORT REMARKS: Unattended. ACTIVATE MIRL Rwy 10-28—CTAF.**COMMUNICATIONS:** CTAF 122.9**ION MUNI** (S23) 2 S UTC-8(-7DT) N48°42.48' W117°24.78'

SEATTLE

2108 B NOTAM FILE SEA

L-13B

RWY 15-33: H4059X45 (ASPH) MIRL

RWY 15: Fence. RWY 33: PAPI(P2L)—GA 3.0° TCH 35'. Road.

AIRPORT REMARKS: Unattended. Wildlife invof rwy. MIRL Rwy 15-33 pilot controlled lighting med and high ints out of svc indefinitely. ACTIVATE MIRL Rwy 15-33—CTAF.

COMMUNICATIONS: CTAF 122.9**RADIO AIDS TO NAVIGATION:** NOTAM FILE GEG

SPOKANE (H) VORTACW 115.5 GEG Chan 102 N47°33.90' W117°37.61' 346° 69.2 NM to fld. 2755/21E. HIWAS.

NDB (MHW) 379 ION N48°42.61' W117°24.82' at fld. NOTAM FILE SEA. VFR use only.

• • • • •
HELIPAD H1: H60X60 (CONC) MIRL

JEFFERSON CO INTL (See PORT TOWNSEND)**JUMP-OFF-JOE** N46°06.24' W119°07.92'

SEATTLE

RCO 122.4 (SEATTLE RADIO)

L-13A

KAHLOTUS**LOWER MONUMENTAL STATE** (WØ9) 5 S UTC-8(-7DT) N46°33.03' W118°32.18'

SEATTLE

813 NOTAM FILE SEA

RWY 01-19: 3300X50 (GRVL)

RWY 01: Tower. RWY 19: P-line.

AIRPORT REMARKS: Unattended. CLOSED Oct 1 thru Jun 1. Multiple power lines 0.4 mi NNE of arpt. Rwy marked with retro reflective devices. Rwy 01-19 has steep canyon walls N, E and S. Pedestrians, vehicles and animals on and invof rwy. Portions of rwy sfc rough and soft. Contact Washington State Aviation Division 360-651-6300 or 1-800-552-0666 for facility information prior to using.

COMMUNICATIONS: CTAF 122.9

KELSO N46°09.33' W122°54.76' NOTAM FILE KLS
NDB (MHW) 256 LSO 148° 2.3 NM to Southwest Washington Rgnl.
 NDB unusable 020°–120°, 120°–180° byd 15 NM, 180°–340° byd 10 NM.

SEATTLE

KELSO

SOUTHWEST WASHINGTON RGNL (KLS) 2 SE UTC–8(–7DT) N46°07.08' W122°53.90'

SEATTLE
L-1C
IAP

20 B S4 FUEL 100LL, JET A LRA NOTAM FILE KLS
RWY 12–30: H4391X100 (ASPH) S–38, D–46, DT–74 MIRL (NSTD)

RWY 12: REIL. PAPI(P4L)—GA 4.0° TCH 37'. Trees. Rgt tfc.
RWY 30: REIL. PAPI(P4R)—GA 4.0° TCH 40'. Trees.

AIRPORT REMARKS: Attended Winter 1600–0100Z†, Summer 1600–0200Z†. 24 hr self-service credit card fuel facility. Numerous flocks of birds on and in/ovf arpt. Rwy 12–30 NSTD spacing MIRL. ACTIVATE MIRL Rwy 12–30—CTAF. Flight Notification Service (ADCUS) available.

WEATHER DATA SOURCES: AWOS–3 135.075 (360) 577–1964.

COMMUNICATIONS: CTAF/UNICOM 122.8

RCO 122.25 (SEATTLE RADIO)

RCO 122.55 (SEATTLE RADIO)

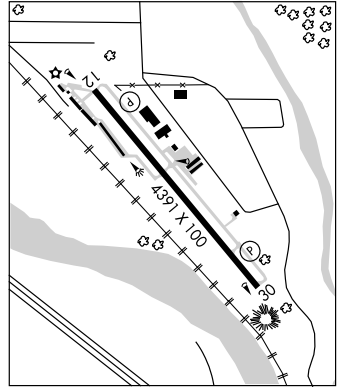
(R) SEATTLE CENTER APP/DEP CON 124.2

RADIO AIDS TO NAVIGATION: NOTAM FILE PDX.

BATTLE GROUND (H) VORTACW 116.6 BTG Chan 113 N45°44.87' W122°35.49' 309° 25.7 NM to fld. 253/21E.

KELSO NDB (MHW) 256 LSO N46°09.33' W122°54.76' 148° 2.3 NM to fld. NOTAM FILE KLS.

NDB unusable 020°–120°, 120°–180° byd 15 NM, 180°–340° byd 10 NM.



KENMORE AIR HARBOR SPB (See SEATTLE)

KENMORE AIR HARBOR INC SPB (S60) 1 S UTC–8(–7DT) N47°45.29' W122°15.56'

SEATTLE

14 S4 FUEL 100LL, JET A LRA NOTAM FILE SEA

WATERWAY 16–34: 10000X1000 (WATER)

WATERWAY 18–36: 3000X1000 (WATER)

SEAPLANE REMARKS: Attended dawn–dusk. Unlighted crane 75' AGL and pilings 6' above water Waterway 18 8 buoys mark 5 miles per hour speed limit area. Landing zone–unlgt; seaplanes exempt from 5 miles per hour speed limit. Surface watercraft entering operating area from within channel E of waterway 16–34. Flight Notification Service (ADCUS) available.

COMMUNICATIONS: CTAF/UNICOM 122.7

KENNEWICK

VISTA FLD (S98) 3 NW UTC–8(–7DT) N46°13.12' W119°12.60'

SEATTLE

534 B S4 FUEL 100LL, JET A TPA–1334 (800) NOTAM FILE SEA

L-13A

RWY 02–20: H4008X150 (ASPH) S–26 MIRL

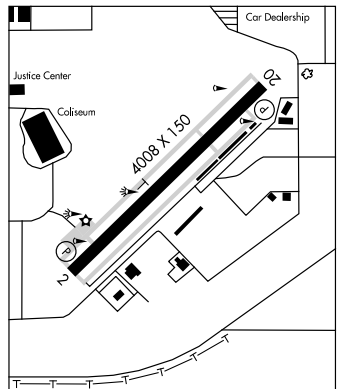
RWY 02: PAPI(P2L). P–line. **RWY 20:** PAPI(P2L). Pole.

AIRPORT REMARKS: Attended Mon–Sat 1600–0200Z†. Use Rwy 02 when wind 5 knots or less. ACTIVATE MIRL Rwy 02–20—CTAF. Parachute Jumping.

COMMUNICATIONS: CTAF 122.9

RADIO AIDS TO NAVIGATION: NOTAM FILE PSC.

PASCO (L) VORW/DME 108.4 PSC Chan 21 N46°15.78' W119°06.94' 216° 4.8 NM to fld. 400/20E.



KENT**CREST AIRPARK** (S36) 5 SE UTC-8(-7DT) N47°20.23' W122°06.21'

472 B S4 FUEL 100LL TPA-1472(1000) NOTAM FILE SEA

RWY 15-33: H3288X40 (ASPH) S-12 LIRL

RWY 15: Trees. RWY 33: Thld dsplcd 281'. Trees.

AIRPORT REMARKS: Attended Apr-May Sep-Oct 1600-0230Z†, Jun-Aug 1600-0330Z†, Nov-Mar 1600-0130Z†. 24 hr credit card fuel avbl. Arpt CLOSED when snow on rwy. Night ops use Rwy 15, wind and weather permitting. Trees on both sides of Rwy 15-33.

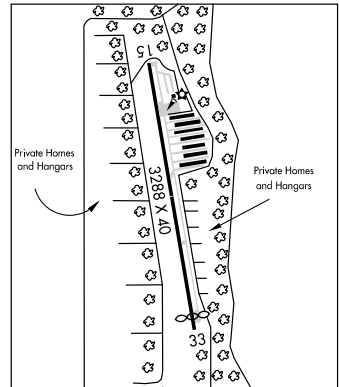
COMMUNICATIONS: CTAF/UNICOM 123.0**RADIO AIDS TO NAVIGATION:** NOTAM FILE SEA.

SEATTLE (H) VORTACW 116.8 SEA Chan 115 N47°26.12'

W122°18.58' 106°10.3 NM to fld. 354/19E.

SEATTLE

L-1D

**KITSAP** N47°29.54' W122°45.40' NOTAM FILE PWT.

NDB (MHW) 206 PWT at Bremerton National.

NDB unusable 210°-310° byd 12 NM.

SEATTLE

L-1D

KLICKITAT N45°42.81' W121°06.05' NOTAM FILE DLS.

(H) VORW/DME 112.3 LTJ Chan 70 185° 6.4 NM to Columbia Gorge Rgnl/The Dalles Muni. 3220/21E. HIWAS.

SEATTLE

H-1B, L-13A

LACOMAS N47°00.48' W122°33.39'. NOTAM FILE GRF.

NDB (MHW) 328 LAC 339° 15.6 NM to Tacoma Narrows. Unmonitored holidays.

SEATTLE

L-1D

LAKE CHELAN (See CHELAN)**LAKE WENATCHEE STATE** (See LEAVENWORTH)**LANGLEY****WHIDBEY AIR PARK** (W1Ø) 2 SW UTC-8(-7DT) N48°01.05' W122°26.26'

271 NOTAM FILE SEA

RWY 16-34: H2470X25 (ASPH)

RWY 16: Hill. RWY 34: Tree.

AIRPORT REMARKS: Unattended.**COMMUNICATIONS:** CTAF 122.9

SEATTLE

Laurier**AVEY FLD STATE** (69S) 2 SW UTC-8(-7DT) N48°59.90' W118°13.36'

1655 LRA NOTAM FILE SEA

RWY 17-35: 1975X40 (GRVL)

RWY 17: Trees. RWY 35: Trees.

AIRPORT REMARKS: Unattended. CLOSED yearly 1 Oct-1 June. Vehicles, pedestrians and animals on and in vicinity of rwy. Rwy marked with retro-reflective devices. Shoulders very soft and rough both sides of rwy. Ctc Washington State Division of Aeronautics 360-651-6300 or 1-800-552-0666 for facility information prior to use. Canadian and U.S. customs available on hwy to the west. U.S. based acft should park on the U.S. side of ramp (south) and Canadian based acft should park on north side of ramp.

COMMUNICATIONS: CTAF 122.9

SEATTLE

LEAVENWORTH

LAKE WENATCHEE STATE (27W) 14 NW UTC-8(-7DT) N47°49.17' W120°43.19' SEATTLE
 1939 NOTAM FILE SEA
 RWY 09-27: 2473X100 (TURF)
 RWY 09: Road. RWY 27: Road.
 AIRPORT REMARKS: Unattended. CLOSED 1 Oct-1 June. Pedestrians, vehicles and animals on and in/ovf rwy. Contact Washington State Aviation Division 360-651-6300 or 800-552-0666 for facility information prior to use.
 COMMUNICATIONS: CTAF 122.9

LESTER STATE (15S) 2 E UTC-8(-7DT) N47°12.91' W121°27.74' SEATTLE
 1693 NOTAM FILE SEA
 RWY 05U-23U: 400X100 (TURF)
 RWY 05U: Tree. RWY 23U: Tree.
 AIRPORT REMARKS: Unattended. Arpt CLOSED to fixed wing acft indef. Rwy 05U-23U CLOSED indef due to severe erosion from river. Vehicles, pedestrians and animals on and in vicinity of rwy. Ctc Washington State Division of Aeronautics 206-764-4131 or 1-800-552-0666 for facility information prior to use. Rwy 05U-23U sfc rough. Rwy surface not maintained—very tall grass and weeds.
 COMMUNICATIONS: CTAF 122.9
 • • • • •
 HELIPAD H1: H100X100 (TURF)

LIND (ØSØ) 2 NE UTC-8(-7DT) N46°58.61' W118°35.23' SEATTLE
 1507 B NOTAM FILE SEA L-13A
 RWY 05-23: H3197X50 (ASPH) MIRL
 RWY 23: Hill.
 AIRPORT REMARKS: Unattended. Brush encroachment along rwy edges. Brush around rwy lights. Intersection of twy and entrance road breaking up. Rwy 05-23 spalling along rwy edges, Rwy 23 turnaround area broken up and obscured by brush. East end of rwy has 800' by 50' dirt graded safety area. Rwy 05-23 MIRL OTS indef. Arpt rotating bcn OTS indefinitely.
 COMMUNICATIONS: CTAF 122.9
 RADIO AIDS TO NAVIGATION: NOTAM FILE MWH.
 MOSES LAKE (H) VORW/DME 115.0 MWH Chan 97 N47°12.65' W119°19.01' 097° 33.0 NM to fld. 1194/18E.

LITTLE GOOSE LOCK AND DAM (See STARBUCK)

LOPEZ ISLAND (S31) 3 S UTC-8(-7DT) N48°29.04' W122°56.26' SEATTLE
 209 B NOTAM FILE SEA
 RWY 16-34: H2904X60 (ASPH) S-12.5 LIRL
 RWY 16: PAPI(P2L)—GA 4.0° TCH 40'. Trees. Rgt tfc. RWY 34: REIL. PAPI(P2L)—GA 4.0° TCH 32'. Trees.
 AIRPORT REMARKS: Unattended. Rwy 16-34 soft shoulders and thlds.
 COMMUNICATIONS: CTAF 128.25
 RADIO AIDS TO NAVIGATION: NOTAM FILE SEA.
 NDB (MHW) 356 OPZ N48°28.76' W122° 55.26' at fld. VFR only.

LOST RIVER RESORT (See MAZAMA)

LOWER GRANITE STATE (See COLFAX)

LOWER MONUMENTAL STATE (See KAHLOTUS)

LYNDEN (38W) 1 N UTC-8(-7DT) N48°57.35' W122°27.49' SEATTLE
 106 B FUEL 100LL NOTAM FILE SEA
 RWY 07-25: H2425X40 (ASPH) S-12 MIRL (NSTD)
 RWY 07: PAPI(P2L)—GA 3.0° TCH 15'. Thld dspld 262'. Fence.
 RWY 25: PAPI(P2R)—GA 6.0° TCH 15'. Thld dspld 433'. Road.
 AIRPORT REMARKS: Unattended. Automated credit card system for fuel. 1850' between thld lgts, Rwy 07 thld lgts located 134' prior to dspld thld. No white/red lgts past dspld thld. Rwy 07 thld relocated 155' for ngt ops, Rwy 25 thld relocated 434' for ngt ops. 1871' usable for ngt ops. Ngt ldgts should be performed on Rwy 07—winds permitting. ACTIVATE MIRL Rwy 07-25 and rotating beacon—CTAF.
 COMMUNICATIONS: CTAF 122.9

MANSFIELD (8W3) 0 E UTC-8(-7DT) N47°48.56' W119°38.22' SEATTLE
 2272 B NOTAM FILE SEA
RWY 03-21: H2570X46 (ASPH) MIRL
RWY 03: Pole. **RWY 21:** Road.
AIRPORT REMARKS: Unattended. Possible turbulence from grain elevators N side of arpt.
COMMUNICATIONS: CTAF 122.9

MARTIN FLD (See COLLEGE PLACE)

MASON CO N47°14.89' W123°05.18'. NOTAM FILE SHN. SEATTLE
NDB (MHW) 348 MNC 232° 2.7 NM to Sanderson Fld. Unmonitored. L-1D
NDB unusable 280°-340°beyond 20 NM.

MATTAWA

DESERT AIRE (M94) 3 SW UTC-8(-7DT) N46°41.24' W119°55.18' SEATTLE
 586 B NOTAM FILE SEA L-13A
RWY 10-28: H3665X34 (ASPH) MIRL
RWY 10: Building. **RWY 28:** PAPI(P2L) GA 4.0° TCH 45'. Ground. Rgt tfc.
AIRPORT REMARKS: Unattended. Rwy 10 preferred low wind rwy (less than 5 kts). No touch and go landings prior to 0800. Noise abatement take-off procedure posted at arpt. Twy marked with retro-reflective devices. ACTIVATE MIRL Rwy 10-28 and rotating bcn—CTAF.
COMMUNICATIONS: CTAF/UNICOM 122.8
RADIO AIDS TO NAVIGATION: NOTAM FILE MWH.
MOSES LAKE (H) VOR/DME 115.0 MWH Chan 97 N47°12.65' W119°19.01' 200° 40 NM to fld.
 1194/18E.

MAZAMA

LOST RIVER RESORT (W12) 5 NW UTC-8(-7DT) N48°38.98' W120°30.12' SEATTLE
 2415 NOTAM FILE SEA
RWY 11-29: 3150X85 (TURF-GRVL)
RWY 11: Road. Rgt tfc. **RWY 29:** Road.
AIRPORT REMARKS: Unattended. CAUTION: Watch for vehicles on rwy. Arpt CLOSED 1 Nov thru 1 Apr. Rwy 29 white arrow in clear areas approximately 100' from thld.
COMMUNICATIONS: CTAF 122.9

MC CHORD AFB (TCM)(KTCM) AF 3 S UTC-8(-7DT) N47°08.26' W122°28.59' SEATTLE
 322 B TPA—See Remarks AOE Class I, ARFF Index Ltd. NOTAM FILE SEA Not insp. H-1B, L-1D
RWY 16-34: H10108X150 (ASPH-CONC-GRVD) S-155, D-220, DT-390, DDT-800 DIAP, AD
 PCN 55 R/B/W/T HIRL (NSTD) CL
RWY 16: ALSF1. PAPI(P4L). 0.4% up. **RWY 34:** ALSF2. TDZL. PAPI(P4R). Rgt tfc.
RWY 160-340: H3000X60 (ASPH) ST-175
ARRESTING GEAR/SYSTEM
RWY 16 ← HOOK E5 (240' OVRN) HOOK BAK-12B(B) (2450')
 HOOK BAK-12B(B) (1668') HOOK E5 (102' OVRN) → **RWY 34**

MILITARY SERVICE: LGT Visual TCH set for height group 3 acft only. Rwy 16-34 center 72' thld lgt removed. PAPI GS not coincidental with ILS GS. AMP-1/AMP-3 Overt/Covert assault strip lights installed in middle 5000' Rwy 16-34. **A-GEAR** When Rwy 16-34 activated, apch end E5 is removed. Rwy 16-34 BAK-12B 30 minute prior notice rqr to connect cable. **JASU** (MD-3M) 1(MD-3) 1(MA-1A) (AM32A-60) 1(MC-11) **FUEL J8 FLUID SP PRESAIR** De-ice—Expect 3 hr delay. LHOX LOX OIL O-128-133-148-156 SOAP. SOAP results rqr 24 hr, weekdays (1530-0030Z±) except holidays, results not avbl other times. Tran acft req SOAP will arrive with historical engine SOAP data for trend analysis. **TRAN ALERT** Opr 24 hr. Delays can be expected. Parking limited.

MILITARY REMARKS: See FLIP AP/1 Supplementary Arpt Information. **RSTD** PPR includes scheduled AMC missions due to limited ramp space, tran acft parking extremely ltd. 24 hr prior coordination req. Base OPS DSN 382-5611, C253-982-5611. All inbound acft must ctc Command Post no later than 30 min prior to ldg. AMC acft opr rstd during Bird Watch Condition Moderate (tkf and ldg permission only when dep/arr route avoid identified bird activity, no local IFR/VFR tfc pattern activity) and Severe (tkf and ldg prohibited without OG/CC approval), ctc PTD/ATIS/Command Post for current Bird Watch Condition. Tran aircrews conducting local area low-level training missions must receive local procedure/rstd briefing from 62 OSS/OSK at DSN 382-3615, C253-982-3615. **CAUTION** When performing pre-tkf engine runup, align acft so that debris is not blown toward ADTAC alert hangar or adjacent acft parking ramp. During VFR conditions, acft making low apch, normal tkf, touch and go ldg, or missed apch remain at or below 1800' until dep end of the rwy. Bird hazard. South end rwy not visible from official wx station obsn point. When fog/low clouds are present over apch end Rwy 34, condition report from obsn point may not be representative. **TFC PAT** Before ldg maintain tfc pattern altitude commensurate with safety as long as practicable. TPA—Rectangular 1800' (1478) overhead 2300' (1978). **MISC** Aircrews notify PTD anytime they plan to delay in local IFR pattern on separate clearance prior to or departure on filed flt plan. Base OPS DSN 382-5611, C253-982-5611. South 1000' Rwy 16-34 is concrete, rwy is grvd. Afltd wx monitored by the AN/FMQ-19 Automated Observing System and augmented by human observer when wx flt fcst on duty. DSN 312-382-3434/5005 C 253-982-3434/5005. Opr Wx Squadron 25 OWS, Davis-Monahan AFB. DSN 312-228-6596/6599 C 520-228-6598/6599. Toll free 1-877-451-8367.

COMMUNICATIONS: SFA D-ATIS 109.6 270.1 (DSN 382-2847 C 253-982-2847.) **PTD** 372.2
 (R) SEATTLE APP/DEP CON 126.5 377.15
TOWER 124.8 259.3 109.6T **GND CON** 118.175 279.65
COMD POST 134.1 349.4 (134.1 Commercial contract acft only) **PMSV METRO** 342.3 PMSV svc avbl only when wx flt fcst on duty. Wx obsn avbl H24 via automated obsn sys. Wx flt fcst on duty normal wing flying hrs and msn C-17 limiting criteria DSN 253-382-3434, C253-982-3434. During wx flt closures remote briefing svc avbl from 25 Op Wx Flt Squadron DSN 312-228-6598/6599/6588.
 Unusable 095°-102° byd 34 NM blo 9400'.

RADIO AIDS TO NAVIGATION: NOTAM FILE TCM.
 (T) **VORTAC** 109.6 TCM Chan 33 N47°08.86' W122°28.50' at fld. 284/22E. No NOTAM MP Thu 0700-1400Z±. VOR unusable 235°-325° byd 10 NM.
ILS 109.9 I-MAR Rwy 16. Back course unusable. No NOTAM MP Wed and Fri 0700-1400Z±.
ILS X 108.5 I-TCM Rwy 34. Back course unusable. Rwy 34 localizer critical area not protected. No NOTAM MP Wed and Fri 0700-1400Z±.
ILS Y 108.5 I-TCM Rwy 34. Back course unusable. Rwy 34 localizer critical area not protected. No NOTAM MP Wed and Fri 0700-1400Z±.

MEAD FLYING SERVICE (7ØS) 1 N UTC-8(-7DT) N47°47.23' W117°21.49' SEATTLE
 1905 TPA—2505(600) NOTAM FILE SEA
RWY 16-34: H2481X30 (ASPH)
RWY 16: Trees. **RWY 34:** Trees
AIRPORT REMARKS: Attended continuously. No winter maintenance.
COMMUNICATIONS: CTAF 122.9

MEARS FLD (See CONCRETE)

METALINE FALLS**SULLIVAN LAKE STATE** (Ø9S) 3 SE UTC-8(-7DT) N48°50.45' W117°17.04'

SEATTLE

2614 NOTAM FILE SEA

RWY 16-34: 1765X150 (TURF)**RWY 16:** Trees. **RWY 34:** Road.**AIRPORT REMARKS:** Unattended. Arpt CLOSED 1 Oct-1 June. Pedestrians, vehicles and wildlife on and invof arpt.

Watch for ground squirrel holes in rwy. Rwy 16-34 surface rough. For rwy conditions prior to use call 360-651-6300 or 1-800-552-0666. Ground drops rapidly beyond Rwy 16-34 ends.

COMMUNICATIONS: CTAF 122.9**METHOW VALLEY STATE** (See WINTHROP)**MONROE****FIRSTAIR FLD** (W16) 2 NW UTC-8(-7DT) N47°52.28' W121°59.72'

SEATTLE

50 S4 **FUEL** 100 NOTAM FILE SEA**RWY 07-25:** H2087X34 (ASPH)**RWY 07:** Tree. Rgt tfc. **RWY 25:** Thld dsplcd 500'. Pole.**AIRPORT REMARKS:** Attended Oct-Mar 1700Z±-dark, Apr-Sept 1700-0300Z±. Parachute Jumping. Transient tie downs have no ropes—pilots must supply own. Additional transient parking avbl SE corner of rwy. Rwy 25 acft parked in primary surface.**COMMUNICATIONS:** CTAF 122.9**MORTON****STROM FLD** (39P) 0 SE UTC-8(-7DT) N46°33.02' W122°16.00'

SEATTLE

941 B NOTAM FILE SEA

RWY 07-25: H1810X40 (ASPH) MIRL**RWY 07:** Thld dsplcd 200'. Trees. **RWY 25:** Trees.**AIRPORT REMARKS:** Unattended. Trees near Rwy. Deer and elk on and invof rwy. ACTIVATE MIRL Rwy 07-25—CTAF.

ACTIVATE rotating bcn—CTAF.

COMMUNICATIONS: CTAF 122.9**MOSES LAKE** N47°12.65' W119°19.01' NOTAM FILE MWH.

SEATTLE

(H) **VORW/DME** 115.0 MWH Chan 97 at Grant Co. Intl. 1194/18E.

H-1B, L-13A

RCO 122.4 (SEATTLE RADIO)

MOSES LAKE

GRANT CO INTL (MWH) 5 NW UTC-8(-7DT) N47°12.52' W119°19.15'

SEATTLE

1189 B S4 FUEL 100, 100LL, JET A1 OX 1 ARFF Index—See Remarks NOTAM FILE MWH H-1B, L-13A
 RWY 14L-32R: H13503X200 (ASPH-CONC-GRVD) S-85, D-155, ST-175, DT-320, DDT-600 IAP, AD

HIRL (NSTD)

RWY 14L: REIL. VASI(V6L)—GA 3.0° TCH 52'. Bldg.

RWY 32R: MALSR. PAPI(P4L)—GA 3.0° TCH 75'. Rgt tfc.

RWY 04-22: H10000X100 (ASPH-CONC-GRVD) S-75, D-100, ST-127, DT-175, DDT-475 MIRL

RWY 04: REIL. PAPI(P4L)—GA 3.0° TCH 50'. 0.4% down.

RWY 22: REIL. VASI(V4L)—GA 3.0° TCH 50'. Rgt. tfc. 0.3% up

RWY 09-27: H3500X90 (CONC-GRVD) S-100, D-150, DT-270, DDT-475 RWY LGTS (NSTD) 0.3% up NW

RWY 27: Rgt tfc.

RWY 18-36: H3327X75 (ASPH) S-75, D-170, ST-175, DT-300, DDT-400 MIRL

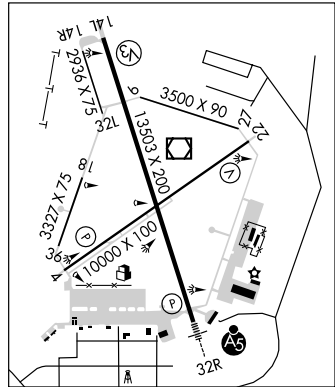
RWY 18: Rgt tfc.

RWY 14R-32L: H2936X75 (CONC) S-100, D-200, ST-175, DT-400, DDT-400

RWY 14R: Ground. Rgt tfc.

LAND AND HOLD SHORT OPERATIONS

LANDING	HOLD SHORT POINT	DIST AVBL
RWY 04	14L-32R	4700
RWY 14L	04-22	7550
RWY 22	14L-32R	4650
RWY 32R	04-22	5050



AIRPORT REMARKS: Attended continuously. Rwy 09-27 CLOSED except military ops. Rwy 14R-32L is CLOSED to all night ops except taxiing. Rwy 14L-32R is CLOSED nights 0600-1400Z except for special military night training operations. Flocks of large birds in vicinity of arpt. Class I, ARFF Index A. PPR for air carrier ops with more than 30 passenger seats 0600-1400Z or for additional ARFF index level svc call arpt manager 509-762-5363/5304. Rwy 09-27 used as assault strip by C-17 acft. Rwy 09-27 and Twy F not visible from the twr. Rwy 18-36 available as air carrier twy movement area only. Rwy 09-27 military landing zone lights only. Rwy distance markers Rwy 14L-32R and Rwy 04-22. Rwy 14L-32R first 10,000' apch end of Rwy 32R grvd 150' wide. Twy G unlighted. Extensive heavy military jet acft night training 1900 PM-0300 AM local daily. Announce landing intentions on CTAF after twr closed. Heavy jet training surface to 5000' within 25 miles of arpt, possible wake turbulence from larger acft using Rwy 14L-32R. Rwy 14L-32R NSTD HIRL located 50' from rwy edge markings. ACTIVATE MALSR Rwy 32R—CTAF.

WEATHER DATA SOURCES: ASOS (509) 762-5082. LAWRS.

COMMUNICATIONS: CTAF 118.25 ATIS 119.05 UNICOM 122.95

MOSES LAKE RCO 122.4 (SEATTLE RADIO)

Ⓡ APP/DEP CON 126.4 134.35 (1400-0600Z) SEATTLE CENTER APP/DEP CON 126.1 (0600-1400Z)

TOWER 128.0 (WEST) 118.25 (EAST) (1400-0600Z) GND CON 121.9

AIRSPACE: CLASS D svc 1400-0600Z other times CLASS E.

RADIO AIDS TO NAVIGATION: NOTAM FILE MWH.

MOSES LAKE (H) VOR/DME 115.0 MWH Chan 97 N47°12.65' W119°19.01' at fld. 1194/18E.

PELLY NDB (MHW/LOM) 408 MW N47°06.94' W119°16.47' 324° 5.9 NM to fld. Unmonitored when tower closed.

ILS 109.5 I-MWH Rwy 32R. Class IE LOM PELLY NDB. Unmonitored when tower closed.

MOSES LAKE MUNI (W2Ø) 2 NE UTC-8(-7DT) N47°08.52' W119°14.27'

SEATTLE

1203 B S4 FUEL 100LL NOTAM FILE SEA

RWY 16-34: H2513X50 (ASPH) S-8 MIRL

RWY 16: PAPI (P2L)—GA 3.0° Thld dspld 466'. Tree.

RWY 34: PAPI (P2L)—GA 3.0°. Thld dspld 253'. Rgt

tfc.

AIRPORT REMARKS: Attended 1600-0100Z. Fuel avbl only Mon-Fri 1600-0100Z. Extensive ultralight traffic using 500' pattern. Extensive agriculture opr in progress. Bird hazard. Agricultural ops traffic and ultralight traffic on field. Ultralight opr requested to obtain airport safety briefing from airport management prior to initial use of airport.

COMMUNICATIONS: CTAF/UNICOM 123.0

MT CONSTITUTION N48°40.79' W122°50.48'

SEATTLE

RCO 122.3 (SEATTLE RADIO)

L-10

MT VERNON (See BURLINGTON/MT VERNON)

NOLLA N47°37.95' W122°23.37'. NOTAM FILE BFI.
 NDB (LOM) 362 BF 130° 7.1 NM to Boeing Fld/King Co Intl.

SEATTLE
L-1D

OAK HARBOR

AJ EISENBERG (OKH) 3 SW UTC-8(-7DT) N48°15.09' W122°40.42'

SEATTLE
L-1E
IAIP

193 B S2 FUEL 100LL, MOGAS NOTAM FILE 76S
 RWY 07-25: H3265X25 (ASPH) S-5 LIRL (NSTD) 1.6% up E
 RWY 07: PAPI(P2L)—GA 4.5'. Thid displcd 507'. Fence. Rgt tfc.
 RWY 25: PAPI(P2L)—GA 4.5'. Trees.

AIRPORT REMARKS: Unattended. Rwy 07-25 NSTD LIRL only W 2620'
 rwy lgtd. Rwy 07-25 severely cracked, spalling in some areas.
 PPR for Ultralights and Gliders etc arpt manager phone
 360-929-6802 or 1-866-429-2132. ACTIVATE NSTD LIRL Rwy
 07-25—CTAF. PAPI Rwy 07 and Rwy 25 opr 24 hrs.

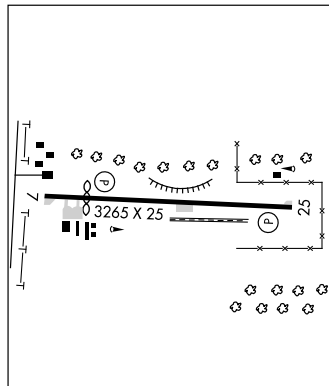
WEATHER DATA SOURCES AWOS-3 132.775 (360) 675-8431

COMMUNICATIONS: CTAF/UNICOM 122.8 ATIS 134.15 (Thru Whidbey
 Island NAS/Ault Fld)

Ⓡ WHIDBEY APP/DEP CON 118.2

RADIO AIDS TO NAVIGATION: NOTAM FILE SEA.

PENN COVE (L) VOR/WME 117.2 CVV Chan 119 N48°14.68'
 W122°43.47' 060° 2.1 NM to fld. 200/19E.



OCEAN SHORES N47°00.49' W124°09.33'
 RCO 122.4 (SEATTLE RADIO)

SEATTLE
L-1D

OCEAN SHORES MUNI (W04) 2 NE UTC-8(-7DT) N46°59.95' W124°08.54'

SEATTLE
L-1D

15 B NOTAM FILE SEA

RWY 15-33 H3100X50 (ASPH) S-12.5 MIRL

RWY 15: PAPI(P2L)—GA 3.0° TCH 40'. RWY 33: PAPI(P2L)—GA 3.0° TCH 40'. Trees. Rgt tfc.

AIRPORT REMARKS: Unattended. Seabirds in safety and taxi areas and adjacent wetland. Rwy 15-33 has asph 50'
 wide with 12.5' gravel shoulders. Parking ramp loose gravel on surface. MIRL OTS indef. ACTIVATE MIRL Rwy
 15-33 and PAPI Rwy 15 and Rwy 33—122.8.

COMMUNICATIONS: CTAF 122.9

RCO 122.4 (SEATTLE RADIO)

RADIO AIDS TO NAVIGATION: NOTAM FILE HQM.

HQWAM (H) VORTACW 117.7 HQM Chan 124 N46°56.82' W124°08.96' 346° 3.1 NM to fld. 10/19E.
 HIWAS.

ODESSA MUNI (43D) 1 N UTC-8(-7DT) N47°20.85' W118°40.63'

SEATTLE
L-13A

1737 B NOTAM FILE SEA

RWY 02-20: H3125X60 (ASPH) S-5 MIRL

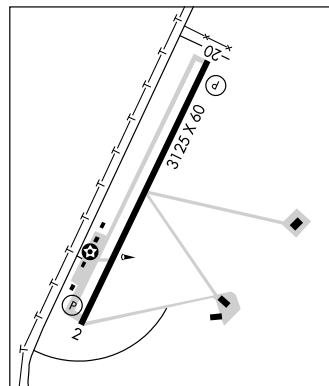
RWY 02: PAPI(P2L). RWY 20: PAPI(P2L). Brush.

AIRPORT REMARKS: Unattended. ACTIVATE MIRL Rwy 02-20 and rotating
 bcn—122.8.

COMMUNICATIONS: CTAF 122.9

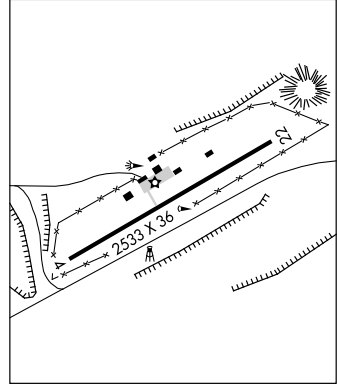
RADIO AIDS TO NAVIGATION: NOTAM FILE EPH.

EPHRATA (H) VORTACW 112.6 EPH Chan 73 N47°22.68'
 W119°25.44' 072° 30.5 NM to fld. 1250/21E.



OKANOGAN LEGION (S35) 1 E UTC-8(-7DT) N48°21.72' W119°34.05'
 1042 B S2 FUEL 100LL NOTAM FILE SEA
 RWY 04-22: H2533X36 (ASPH) S-6 MIRL
 RWY 22: Rgt tfc.
AIRPORT REMARKS: Unattended. Fuel by request, call 509-429-2597,
 206-915-4433, 509-422-3071, 509-322-4710. ACTIVATE
 MIRL Rwy 04-22 CTAF.
COMMUNICATIONS: CTAF/UNICOM 122.8
RADIO AIDS TO NAVIGATION: NOTAM FILE GEG.
SPOKANE (H) VORTACW 115.5 GEG Chan 102 N47°33.90'
 W117°37.61' 281° 91.7 NM to fld. 2755/21E. HIWAS.

SEATTLE
L-13A



OLYMPIA

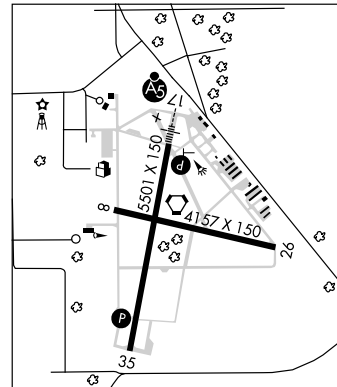
HOSKINS FLD (44T) 5 SE UTC-8(-7DT) N46°59.56' W122°49.66'
 213 NOTAM FILE SEA
 RWY 07-25: 2015X116 (TURF)
 RWY 07: Trees. RWY 25: Trees.
AIRPORT REMARKS: Unattended. No helicopters. No ultralights. Noise abatement procedures in effect; call arpt
 manager 360-491-6723. Geese and ducks on and invof arpt. Mole hills west end. Recommend land Rwy 07,
 depart 25 when wind condition permits. Rwy 07-25 no line of sight between rwy ends.
COMMUNICATIONS: CTAF 122.9

SEATTLE

OLYMPIA RGNL (OLM) 4 S UTC-8(-7DT) N46°58.16' W122°54.15'
 209 B S4 FUEL 80, 100, 100LL, JET A OX 1, 3, 4 LRA NOTAM FILE OLM
 RWY 17-35: H5501X150 (ASPH-GRVD) S-75, D-94, ST-87, DT-142 HIRL
 RWY 17: MALSR. PAPI(P4L)—GA 3.0° TCH 54'.
 RWY 35: REIL. PAPI(P4L)—GA 3.0° TCH 54'. Rgt tfc.
 RWY 08-26: H4157X150 (ASPH) S-30
 RWY 08: Rgt tfc. RWY 26: Tree.
AIRPORT REMARKS: Attended 1600-0200Z±. Twy lgts on Twy W, Twy A,
 Twy G, Twy L and Twy B. When twr clsd ACTIVATE HIRL Rwy 17-35,
 MALSR Rwy 17, PAPI Rwy 17 and Rwy 35, REIL Rwy 35, twy lgts
 and directional signage—CTAF. Landing fee.
WEATHER DATA SOURCES: ASOS 135.725 (360) 943-1278. HIWAS 113.4
 OLM.
COMMUNICATIONS: CTAF 124.4 ATIS 135.725 UNICOM 122.95

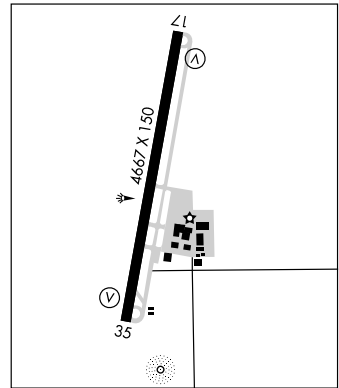
SEATTLE
H-1B, L-1D
IAP, AD

Ⓡ SEATTLE APP/DEP CON 121.1
 TOWER 124.4 (1600-0400Z±) GND CON 121.6
AIRSPACE: CLASS D svc 1600-0400Z± other times CLASS E.
RADIO AIDS TO NAVIGATION: NOTAM FILE OLM.
(H) VORTACW 113.4 OLM Chan 81 N46°58.30'
 W122°54.11' at fld. 200/19E. HIWAS.
 DME unusable:
 223°-258° byd 20 NM blo 4,100'
 258°-283° byd 30 NM blo 4,100'
 358°-043° byd 10 NM blo 6,000'
 358°-043° byd 20 NM blo 7,000'
ILS 111.9 I-OLM Rwy 17. Unmonitored during hours twr closed. LOC unusable byd 25° right of
 course.
COMM/NAV/WEATHER REMARKS: Emerg frequency 121.5 not avbl at twr.



OMAK (OMK) 3 N UTC-8(-7DT) N48°27.87' W119°31.08'
 1305 B S4 FUEL 100LL, JET A NOTAM FILE OMK
RWY 17-35: H4667X150 (ASPH) S-75, D-200, DT-400 HIRL
RWY 17: REIL. VASI(V2L)—GA 3.0° TCH 43'.
RWY 35: REIL. VASI(V2L)—GA 3.0° TCH 46'.
AIRPORT REMARKS: Attended Mon-Fri 1500-0000Z \ddagger . Fuel avbl 24
 hrs—credit card. ACTIVATE HIRL Rwy 17-35—CTAF.
WEATHER DATA SOURCES: ASOS 118.325 (509) 826-2655.
COMMUNICATIONS: CTAF/UNICOM 122.8
 RCO 122.2 (SEATTLE RADIO)
 SEATTLE CENTER APP/DEP CON 126.1
RADIO AIDS TO NAVIGATION: NOTAM FILE GEG.
SPOKANE (H) VORTACW 115.5 GEG Chan 102 N47°33.90'
 W117°37.61' 306° 93.4 NM to fld. 2755/21E. **HIWAS.**
NDB (MHW) 219 OMK N48°27.20' W119°31.02' at fld.
 NOTAM FILE OMK. Unusable byd 15 NM.

SEATTLE
 L-13A
 IAP

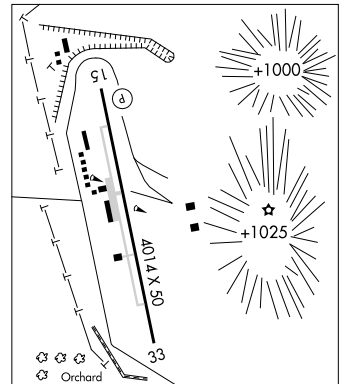


ORCAS ISLAND (See EAST SOUND)

OROVILLE

DOROTHY SCOTT (ØS7) 2 NE UTC-8(-7DT) N48°57.54' W119°24.72'
 1064 B S4 FUEL 100LL AOE NOTAM FILE SEA
RWY 15-33: H4014X50 (ASPH) S-5 MIRL
RWY 15: PAPI(P2L)—GA 3.0° TCH 45'. Rgt tfc.
RWY 33: Road.
AIRPORT REMARKS: Attended dawn-dusk. Wildlife adjacent to rwy and
 twy. ACTIVATE MIRL Rwy 15-33—CTAF. Customs telephone
 509-476-2955. Flight Notification Service (ADCUS) available.
COMMUNICATIONS: CTAF 122.9
RADIO AIDS TO NAVIGATION: NOTAM FILE MWH.
MOSES LAKE (H) VORW/DME 115.0 MWH Chan 97 N47°12.65'
 W119°19.01' 340° 105.0 NM to fld. 1194/18E.

SEATTLE
 L-13A



OTHELLO MUNI (S70) 4 SE UTC-8(-7DT) N46°47.69' W119°04.75'

SEATTLE
L-13A

1139 B FUEL 100LL, JET A NOTAM FILE SEA

RWY 07-25: H3564X45 (ASPH) MIRL

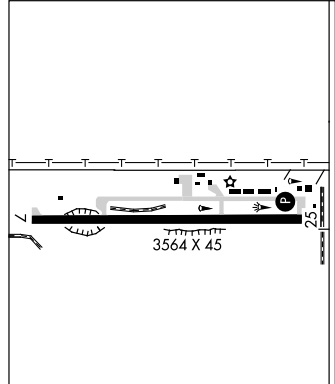
RWY 25: REIL. PAPI(P2R). Road.

AIRPORT REMARKS: Unattended. For fuel after hours call 509-488-2544. Rwy 07 berm both sides of rwy. Farm machinery parked in primary sfc S of centerline. ACTIVATE MIRL Rwy 07-25 and PAPI Rwy 25-CTAF. REIL Rwy 25 operates 24 hrs.

COMMUNICATIONS: CTAF 122.9

RADIO AIDS TO NAVIGATION: NOTAM FILE PSC.

PASCO (L) VORW/DME 108.4 PSC Chan 21 N46°15.78' W119°06.94' 343° 32.0 NM to fld. 400/20E.



PACKWOOD (55S) 0 W UTC-8(-7DT) N46°36.25' W121°40.67'

SEATTLE

1057 B NOTAM FILE SEA

RWY 01-19: H2356X38 (ASPH) MIRL

RWY 01: Fence. RWY 19: Trees.

AIRPORT REMARKS: Unattended. Rwy 01-19 soft shoulders both sides, use rwy for back taxi. ACTIVATE MIRL Rwy 01-19-CTAF.

COMMUNICATIONS: CTAF 122.9

PAGE (See WALLA WALLA)

PAINÉ N47°55.19' W122°16.67' NOTAM FILE PAE.

SEATTLE
H-1B, L-1D

(L) VORW/DME 110.6 PAE Chan 43 at Snohomish Co (Paine Fld). 670/20E.

RCD 122.55 (SEATTLE RADIO)

PANGBORN MEM (See WENATCHEE)

PASCO N46°15.78' W119°06.94' NOTAM FILE PSC.

SEATTLE
L-13A

(L) VORW/DME 108.4 PSC Chan 21 at Tri-Cities. 404/20E.

DME portion unusable:

150°-195° beyond 35 NM below 5500';

195°-220° beyond 35 NM below 4500'.

PASCO**TRI-CITIES** (PSC) 2 NW UTC-8(-ZDT) N46°15.88' W119°07.14'410 B S4 FUEL 100LL, JET A1 + OX2 TPA—See Remarks Class I, ARFF Index B
NOTAM FILE PSC**SEATTLE**
H-1B, L-13A
IAP, AD**RWY 03L-21R:** H7711X150 (ASPH-GRVD) S-120, D-170, ST-175, DT-320 HIRL**RWY 03L:** REIL PAPI(P4L)—GA 3.0° TCH 50'. Tree.**RWY 21R:** MALSR. PAPI(P4L)—GA 3.0° TCH 54'. Thld dsplcd 600'. Pole. Rgt tfc.**RWY 12-30:** H7703X150 (ASPH-GRVD) S-150, D-200, ST-175, DT-400 MIRL**RWY 12:** REIL. VASI(V4L)—GA 3.0° TCH 56'.**RWY 30:** ODALS. PAPI(P4L)—GA 3.0° TCH 54'. Thld dsplcd 200'. Tree.**RWY 03R-21L:** H4423X75 (ASPH) S-52, D-85, ST-108, DT-150**RWY 03R:** Rgt tfc. **RWY 21L:** Pole.**RUNWAY DECLARED DISTANCE INFORMATION****RWY 03L:** TORA-7711 TODA-7711 ASDA-7711 LDA-7711**RWY 03R:** TORA-4423 TODA-4423 ASDA-4423 LDA-4423**RWY 12:** TORA-7703 TODA-7703 ASDA-7503 LDA-7503**RWY 21L:** TORA-4423 TODA-4423 ASDA-4423 LDA-4423**RWY 21R:** TORA-7711 TODA-7711 ASDA-7711 LDA-7111**RWY 30:** TORA-7703 TODA-7703 ASDA-7703 LDA-7503**AIRPORT REMARKS:** Attended 1600-0400Z†. After hrs fuel call

509-547-6271 or 509-545-5524. Call out fee. Fuel 24 hour

credit card svc avbl. Waterfowl on and in vicinity of arpt spring and fall. PPR to unscheduled air carrier ops with more than 30 passenger seat call arpt manager 509-547-6352. TPA—1910(1500) turbine powered acft, all others 1410(1000). Rwy 21L and Rwy 03R not avbl as movement area for air carrier acft with more than 9 passenger seats or greater for ldg and tkf. Rwy 03R-21L is avbl for air carrier acft for taxiing during daylight and VFR conditions only. Touchdown rwy visual range avbl for Rwy 21R. When twr clsd HIRL Rwy 03L-21R and MIRL Rwy 12-30 preset on low intensity to increase intensity and ACTIVATE MALSR Rwy 21R and ODALS Rwy 30—CTAF.

WEATHER DATA SOURCES: ASOS (509) 547-7379. LAWRS. SAWRS.**COMMUNICATIONS:** CTAF 135.3 ATIS 125.65 UNICOM 122.95

JUMP-OFF-JOE RCO 122.4 (SEATTLE RADIO)

Ⓡ CHINOOK APP/DEP CON 128.75 N and W 133.15 S and E (1400-0600Z†).

Ⓡ SEATTLE CENTER APP/DEP CON 132.6 (0600-1400Z†).

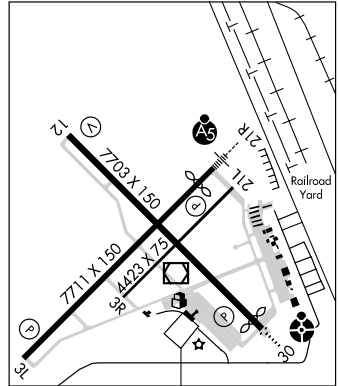
TOWER 135.3 (1400-0600Z†) GND CON 121.8 CLNC DEL 120.0

AIRSPACE: CLASS D svc 1400-0600Z† other times CLASS G.**RADIO AIDS TO NAVIGATION:** NOTAM FILE PSC.

PASCO (L) VORW/DME 108.4 PSC Chan 21 N46°15.78' W119°06.94' at fld. 404/20E.

DUNEZ NDB (LOM) 331 PS N46°20.29' W119°00.75' 205° 6.3 NM to fld. Unmonitored when twr clsd.

ILS 108.7 I-PSC Rwy 21R. Class IE. LOM DUNEZ NDB. Unmonitored when tower closed.

**PEARSON FLD** (See VANCOUVER)**PELLY** N47°06.94' W119°16.47'. NOTAM FILE MWH.

NDB (MHW/LOM) 408 MW 324° 5.9 NM to Grant Co. Intl. Unmonitored when tower closed.

SEATTLE
L-13A**PENN COVE** N48°14.68' W122°43.47'. NOTAM FILE SEA.

(L) VORW/DME 117.2 CVV Chan 119 N48°14.68' W122°43.47' 060° 2.1 NM to AJ Eisenberg. L-1E 200/19E.

SEATTLE
L-1E

DME portion unusable:

126°-160° 30 NM blo 2,200'.

250°-260° byd 30 NM blo 3,400'.

330°-360° byd 30 NM blo 2,200'.

PHORT N47°40.61' W117°27.01'. NOTAM FILE GEG.

NDB (LOM) 388 GE 207° 4.8 NM to Spokane Intl.

SEATTLE**PIERCE CO-THUN** (See PUYALLUP)

POINT ROBERTS AIRPARK (1RL) 1 SW UTC-8(-7DT) N48°58.78' W123°04.73' SEATTLE
 10 NOTAM FILE SEA
RWY 16-34: 2265X125 (TURF)
RWY 16: Brush. Rgt tfc.
RWY 34: Brush.
AIRPORT REMARKS: Attended Apr-Oct continuously. When able land to the N and depart to the S. Traffic pattern W of fld over water. Noise abatement procedures in effect, contact airport manager for details at 360-945-3139.
COMMUNICATIONS: CTAF/UNICOM 122.8

PORT ANGELES N48°06.99' W123°29.13' SEATTLE
 RCO 122.6 (SEATTLE RADIO) L-1E

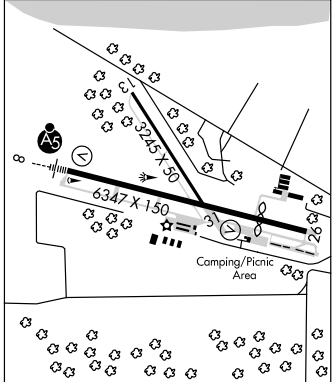
PORT ANGELES CGAS (NOW) (KNOW) CG 2 N UTC-8(-7DT) N48°08.49' W123°24.84' SEATTLE
 13 B FUEL J5 NOTAM FILE SEA L-1E
RWY 07-25: H4500X150 (ASPH) MIRL IAP, DIAP
MILITARY SERVICE: JASU 1(MD-3) FUEL J5. Avbl 1500-0000Z, other times ltd to search and rescue and CG missions. **TRAN ALERT** Tran acft arrive between 1500-0000Z only. Ctc Port Angeles Air on 345.0 or 127.7 15 min prior to ldg.
MILITARY REMARKS: RSTD CLOSED to non-CG fixed wing acft. 24 hr PPR C360-417-5840. **CAUTION** 150' twr 75 yards south of rwy, marked by strobe lgt.
COMMUNICATIONS: CTAF/UNICOM 122.975
 SEATTLE RADIO 122.6
WHIDBEY APP/DEP 118.2 285.65 **CLNC DEL** 124.15
PORT ANGELES AIR 127.7 345.0
RADIO AIDS TO NAVIGATION: NOTAM FILE SEA
EDIZ HOOK NDB (MHW) 317 K N48°08.39' W123°24.13' at fld.
 NDB unusable:
 085°-110° byd 20 NM 180°-245° byd 15 NM
 110°-140° byd 15 NM 245°-340° byd 10 NM
 140°-180° byd 10 NM
COMM/NAV/WEATHER REMARKS: Advisory information avbl at Port Angeles Air on prior notice; other CG frequencies avbl on request.

HELIPAD H1: H100X100 (ASPH)

PORT ANGELES

WILLIAM R FAIRCHILD INTL (CLM) 3 NW UTC-8(-7DT) N48°07.21' W123°29.98' SEATTLE
 291 B S4 FUEL 100LL, JET A OX 2 LRA NOTAM FILE CLM H-1B, L-1E
RWY 08-26: H6347X150 (ASPH-GRVD) S-55, D-66, ST-83, DT-115 MIRL IAP

RWY 08: MALSR. VASI(V4L)—GA 3.0° TCH 47'. Trees.
RWY 26: REIL. SAVASI(S2L)—GA 4.0° TCH 49'. Thld dspld 1354'. Antenna. Rgt tfc.
RWY 13-31: H3245X50 (ASPH) S-30 LIRL 1.4% up SE
RWY 13: Trees. **RWY 31:** Trees. Rgt tfc.
AIRPORT REMARKS: Attended 1500-0100Z. For after hours Jet A call 360-452-6206. Waterfowl and birds on and invof arpt. Increased bird activity due to waste landfill located ½ mile northwest AER 08. No air carrier ops. Arpt surrendered arpt opr certificate 12/9/05. ACTIVATE MIRL Rwy 08-26 and MALSR Rwy 08—CTAF.
WEATHER DATA SOURCES: ASOS 135.175 (360) 457-1070.
COMMUNICATIONS: CTAF/UNICOM 122.975



PORT ANGELES RCO 122.6 (SEATTLE RADIO)
 (R) **WHIDBEY APP/DEP CON** 118.2 **CLNC DEL** 124.15
AIRSPACE: CLASS E svc 1300-0730Z, other times CLASS G.
RADIO AIDS TO NAVIGATION: NOTAM FILE SEA.
TATOOSH (H) VORTACW 112.2 TOU Chan 59 N48°17.99' W124°37.62' 081° 46.5 NM to fld. 1652/22E. **HIWAS.**
ELWHA NDB (MHW/LOM) 515 CL N48°09.01' W123°40.22' 083° 7.1 NM to fld. NOTAM FILE CLM.
 NDB unusable 100°-235° beyond 12 NM.
ILS 108.9 I-CLM Rwy 08. Class IA. LOM ELWHA NDB. Localizer unusable inside thld.

PORT OF ILWACO (See ILWACO)

PORT OF POULSBO MARINA MOORAGE SPB (See POULSBO)

PORT OF WHITMAN BUSINESS AIR CENTER (See COLFAX)**PORT TOWNSEND****JEFFERSON CO INTL** (ØS9) 4 SW UTC-8(-7DT) N48°03.23' W122°48.64'

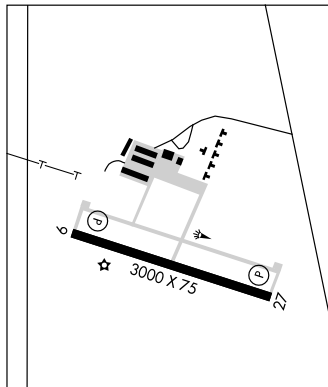
SEATTLE

108 B S4 FUEL 100LL TPA-998(890) AOE NOTAM FILE SEA

L-10

RWY 09-27: H3000X75 (ASPH) S-12.5 MIRL**RWY 09:** REIL. PAPI(P2L)—GA 3.0° TCH 30'. Hill. Rgt tfc.**RWY 27:** REIL. PAPI(P2R)—GA 3.0° TCH 30'. Tree.**AIRPORT REMARKS:** Attended 1700-0100Z±. 100LL fuel avbl 24 hrs with credit card. No cash sales. Noise abatement procedures in effect ctc arpt manager 360-385-0656. Tkf and ldg prohibited on turf next to rwy. ACTIVATE MIRL Rwy 09-27—CTAF.**COMMUNICATIONS:** CTAF/AUNICOM 123.0**RADIO AIDS TO NAVIGATION:** NOTAM FILE PAE.**PAINÉ (L) VOR/DME** 110.6 PAE Chan 43 N47°55.19'

W122°16.67' 271° 22.9 NM to fld. 670/20E.

**POULSBO****PORT OF POULSBO MARINA MOORAGE SPB** (83Q) 0 N UTC-8(-7DT)

SEATTLE

N47°44.04' W122°38.84'

00 NOTAM FILE SEA

WATERWAY 13-31: 12000X4000 (WATER)**SEAPLANE REMARKS:** Attended May-Sep 1600-0330Z±, Oct-Apr 1600-0030Z±. Orange buoy 100' southwest of tran dock marks low tide rocks.**COMMUNICATIONS:** CTAF 122.9**PROSSER** (S4Ø) 1 NW UTC-8(-7DT) N46°12.80' W119°47.48'

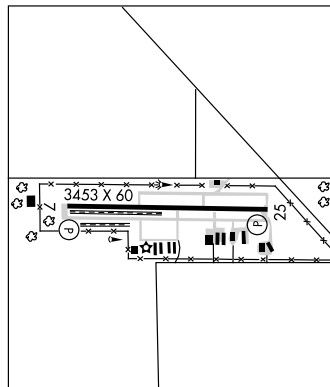
SEATTLE

697 B S4 FUEL 100LL TPA-1497(800) NOTAM FILE SEA

L-13A

RWY 07-25: H3453X60 (ASPH) S-16 MIRL**RWY 07:** REIL. PAPI(P2R)—GA 3.0° TCH 20'. Trees.**RWY 25:** REIL. PAPI(P2L)—GA 4.0° TCH 26'. Tree. Rgt tfc.**AIRPORT REMARKS:** Attended 1700-0100Z±. Twys marked for night operations with retro-reflective devices. ACTIVATE MIRL Rwy 07-25 and REIL Rwy 07 and Rwy 25—CTAF.**COMMUNICATIONS:** CTAF/UNICOM 122.8**RADIO AIDS TO NAVIGATION:** NOTAM FILE PSC.**PASCO (L) VOR/DME** 108.4 PSC Chan 21 N46°15.78'

W119°06.94' 244° 28.3 NM to fld. 400/20E.

**PRU FLD** (See RITZVILLE)**PULLMAN/MOSCOW RGNL** (See PULLMAN/MOSCOW)

PULLMAN/MOSCOW, ID

PULLMAN/MOSCOW RGNL (PUW) 3 NE UTC-8(-7DT) N46°44.63' W117°06.58'

SEATTLE

2556 B S4 FUEL 100LL, JET A Class I, ARFF Index A NOTAM FILE PUW

H-1C, L-13B

RWY 05-23: H6730X100 (ASPH) S-57, D-75, ST-95, DT-135 HIRL

IAP

RWY 05: REIL. PAPI(P2L)—GA 3.0° TCH 55'. Thld dspicd 290'.
Fence.

RWY 23: REIL. PAPI(P4L)—GA 4.0° TCH 60'. Thld dspicd 801'.
Ground.

RUNWAY DECLARED DISTANCE INFORMATION:

RWY 05: TORA-6730 TODA-6730 ASDA-6490 LDA-6200

RWY 23: TORA-6730 TODA-6730 ASDA-6040 LDA-5240

AIRPORT REMARKS: Attended 1600-0200Z†. CLOSED to unscheduled air carrier ops with more than 30 passenger seats except PPR call arpt manager 509-338-3223. Non-paved areas soft. Acft must delay taxiing and remain behind the intermediate holding position line when large acft ops are in progress. No parking between rwy and taxiway and within 30' of taxiway to the north west. ACTIVATE HIRL Rwy 05-23, and REIL Rwy 05 and Rwy 23—CTAF. Landing fee for all commercial acft.

WEATHER DATA SOURCES: ASOS 135.675 (509)334-3222. HIWAS 109.0 PUW.

COMMUNICATIONS: CTAF/UNICOM 122.8

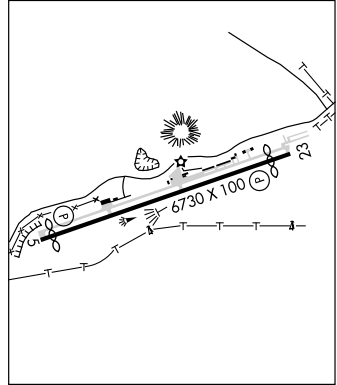
RCO 122.6 (SEATTLE RADIO)

SEATTLE CENTER APP/DEP CON 123.95

AIRSPACE: CLASS E svc Mon-Fri 1400-0600Z†, Sat 1700-0000Z†, Sun 1900-0600Z† other times CLASS G.

RADIO AIDS TO NAVIGATION: NOTAM FILE PUW.

(L) VOR/DME 109.0 PUW Chan 27 N46°40.46' W117°13.41' 028° 6.3 NM to fld. 2720/20E. HIWAS.
DME unmonitored.



PUYALLUP

PIERCE CO-THUN FLD (PLU) 5 S UTC-8(-7DT) N47°06.24' W122°17.23'

SEATTLE

538 B S4 FUEL 100LL OX 4 TPA-1538(1000) NOTAM FILE PLU

L-1D

RWY 16-34: H3650X60 (ASPH) MIRL

IAP

RWY 16: REIL. PAPI(P4L)—GA 4.0° TCH 53'. Trees.

RWY 34: REIL. PAPI(P4R)—GA 4.0° TCH 53'. Road.

AIRPORT REMARKS: Attended 1600Z†-dusk. Fuel avbl 24 hours with credit card. Ultralights prohibited. Noise sensitive all quadrants.

WEATHER DATA SOURCES: AWOS-3 128.575 (253) 848-2748.

COMMUNICATIONS: CTAF/UNICOM 122.7

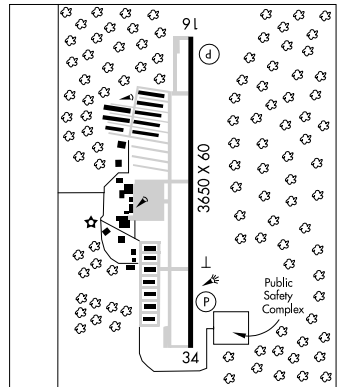
SEATTLE APP/DEP CON 126.5 CLNC DEL 121.85

RADIO AIDS TO NAVIGATION: NOTAM FILE TCM.

McCHORD (T) VORTAC 109.6 TCM Chan 33 N47°08.86'

W122°28.50' 087° 8.1 NM to fld. 284/22E. No NOTAM MP

Thu 0700-1400Z†.



QUILLAYUTE (UIL) 1 SW UTC-8(-7DT) N47°56.20' W124°33.76'

SEATTLE

194 NOTAM FILE UIL

L-1D

RWY 04-22: H4210X100 (CONC) S-30, D-50

RWY 04: Trees. **RWY 22:** Trees. Thld dsplcd 800'.

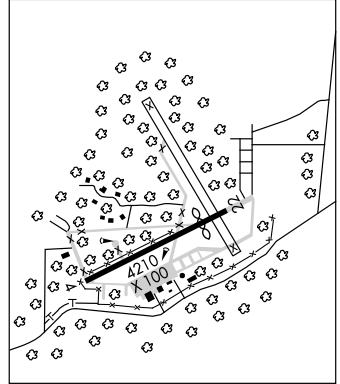
AIRPORT REMARKS: Unattended. Pedestrians, vehicles and animals on and in vicinity of rwy.

WEATHER DATA SOURCES: ASOS 135.225 (360) 374-9731.

COMMUNICATIONS: CTAF 122.9

RADIO AIDS TO NAVIGATION: NOTAM FILE SEA.

TATOOSH (H) VORTACW 112.2 TOU Chan 59 N48°17.99' W124°37.62' 151° 22.0 NM to fld. 1652/22E. HIWAS.



QUINCY MUNI (8ØT) 2 SE UTC-8(-7DT) N47°12.70' W119°50.39'

SEATTLE

1271 B NOTAM FILE SEA

L-13A

RWY 09-27: H3660X50 (ASPH) MIRL

RWY 09: Road. **RWY 27:** PAPI(P2R)—GA 3.0° TCH 100'. Road.

AIRPORT REMARKS: Unattended. PAPI Rwy 27 OTS indef.

COMMUNICATIONS: CTAF 122.9

RADIO AIDS TO NAVIGATION: NOTAM FILE EAT.

WENATCHEE (L) VORW/DME 111.0 EAT Chan 47 N47°23.98' W120°12.65' 108° 18.9 NM to fld. 1224/19E. HIWAS. DME unmonitored.

COM/NAV/WEATHER REMARKS: HIWAS unavailable.

R & K SKYRANCH (See ROCHESTER)

RANGER CREEK (See GREENWATER)

RAYMOND (See SOUTH BEND/RAYMOND)

RENTON

RENTON MUNI (RNT) 0 NW UTC-8(-7DT) N47°29.59' W122°12.95'

SEATTLE
H-1B, L-1D
IAP, AD

32 B S4 FUEL 100LL, JET A1 + OX 1, 2 TPA—See Remarks LRA NOTAM FILE RNT
RWY 16-34: H5382X200 (ASPH-CONC-GRVD) S-100, D-130, DT-340 MIRL (NSTD)
RWY 16: REIL. PAPI(P2L)—GA 3.0° TCH 50'. Thld dspcd 300'.
Trees.
RWY 34: REIL. PAPI(P2L)—GA 3.75° TCH 59'. Thld dspcd 340'.
Road. Rgt tfc.

AIRPORT REMARKS: Attended 1500Z±-Dusk. Acft requiring svcs ctc 122.85 or 122.95. Numerous flocks of birds in vicinity and along Lake Washington. Be alert for Boeing production acft being towed across the rwy during hours twr closed. Seaplane base NW corner of arpt. TPA-1032(1000). TPA west of the fld is 1218' AGL due to terrain immediately west of the arpt. West twy closed to acft with wing span 118' or over. Noise abatement procedures in effect ctc arpt manager 425-430-7471. Rwy 16-34 NSTD MIRL, 340' SE end unlit. ACTIVATE MIRL Rwy 16-34, REIL Rwy 16 and Rwy 34 and twy lghts—CTAF. Flight Notification Service (ADCUS) available.

WEATHER DATA SOURCES: ASOS (425) 255-6080. LAWRS.

COMMUNICATIONS: CTAF 124.7 ATIS 126.95 UNICOM 122.95

Ⓡ SEATTLE APP/DEP CON 119.2 (076°-160° Rwy 16) (341°-075°) 120.1 (199°-300°) 120.4 (301°-340° Rwy 34) 125.9 (076°-160° Rwy 34) (301°-340° Rwy 16) 126.5 (161°-198°)

TOWER 124.7 (Oct 1-Apr 30 1500-0400Z±, May 1-Sep 30 1500-0500Z±) **GND CON** 121.6

AIRSPACE: CLASS D svc Oct 1-Apr 30 1500-0400Z±, May 1-Sep 30 1500-0500Z± other times CLASS G.

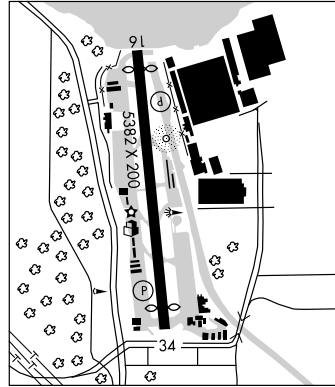
RADIO AIDS TO NAVIGATION: NOTAM FILE SEA.

SEATTLE (H) VORTACW 116.8 SEA Chan 115 N47°26.12' W122°18.58' 029° 5.2 NM to fld. 354/19E.

NDB (MHW) 353 RNT N47°29.73' W122°12.88' at fld. NOTAM FILE RNT.

NDB unusable 035°-085° beyond 20 NM.

COMM/NAV/WEATHER REMARKS: Emerg frequency 121.5 not avbl at twr.



WILL ROGERS WILEY POST MEM SPB (W36) 1 N UTC-8(-7DT) N47°29.99' W122°13.16'

SEATTLE

14 S4 FUEL 100LL, JET A1, JET A1+ OX 1, 2 LRA NOTAM FILE RNT

WATERWAY 12-30: 5000X200 (WATER)

WATERWAY 12: Rgt tfc

SEAPLANE REMARKS: Attended 1500Z±-Dusk. Ctc Renton twr when operating, for tfc data. When twr not operating announce intentions on 124.7. When flying inbound or outbound in the west channel waterway above 800' AGL ctc Boeing twr freq 118.3 for traffic advisories. Flocks of waterfowl in vicinity, CAUTION advised lghts and takeoffs. Extensive boating and personal watercraft in vicinity. Flight Notification Service (ADCUS) available.

COMMUNICATIONS: CTAF 124.7 UNICOM 122.8

REPUBLIC

FERRY CO (R49) 6 NE UTC-8(-7DT) N48°43.09' W118°39.39'

SEATTLE
L-13A

2522 B TPA-3322(800) NOTAM FILE SEA

RWY 17-35: H3498X60 (ASPH) MIRL

RWY 17: REIL. Tree. Rgt tfc.

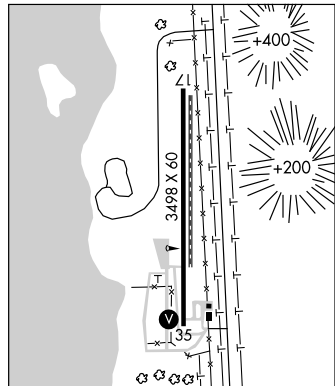
RWY 35: REIL. VASI(V2L)—GA 4.0° TCH 23'. Trees.

AIRPORT REMARKS: Unattended. Suggest ngt lghts be made on Rwy 35. Rwy 17-35 trees located on unlgtd unmarked mountainous terrain. P-lines NE of Rwy 17 lgtd dusk-dawn. ACTIVATE MIRL Rwy 17-35 and VASI Rwy 35, REIL Rwy 17 and Rwy 35—122.8.

COMMUNICATIONS: CTAF 122.9

RADIO AIDS TO NAVIGATION: NOTAM FILE EPH.

EPHRATA (H) VORTACW 112.6 EPH Chan 73 N47°22.68' W119°25.44' 360° 86.2 NM to fld. 1250/21E.



RIBOO N46°22.23' W119°15.55'. NOTAM FILE SEA.
NDB (LOM) 260 RL 186° 4.3 NM to Richland. LOM unmonitored when PASCO twr clsd.

SEATTLE

RICHLAND (RLD) 2 NW UTC-8(-7DT) N46°18.34' W119°18.25'
 394 B S2 **FUEL** 100LL, JET A TPA-1194(800) NOTAM FILE RLD
RWY 01-19: H4009X75 (ASPH) S-30, D-45, DT-70 MIRL
RWY 01: REIL. PAPI(P2L)—GA 3.0° TCH 30'. Antenna.
RWY 19: MALS. REIL. PAPI(P2L)—GA 3.0° TCH 30'. Pole. Rgt tfc.
RWY 08-26: H3995X100 (ASPH) S-30, D-45, DT-70 MIRL
RWY 08: ODALS. PAPI(P2L) GA 3.0° TCH 40'. Ground.
RWY 26: VASI(V4L)—GA 3.0° TCH 50'. Railroad. Rgt tfc.

SEATTLE
 L-13A
 IAP

AIRPORT REMARKS: Attended 1600-0200Z†. Parachute Jumping.
 CAUTION: Road 550' west of approach end of Rwy 08. Rwy 08
 CLOSED nights to Part 135 operations. ACTIVATE MIRL Rwy
 01-19, REIL Rwy 01 and Rwy 19, MALS Rwy 19 and ODALS Rwy
 08—CTAF. VASI Rwy 26 and PAPI Rwy 01, Rwy 08 and Rwy 19 opr
 24 hrs.

WEATHER DATA SOURCES: AWOS-3 132.675 (509) 375-4247.

COMMUNICATIONS: CTAF/UNICOM 122.7

Ⓡ CHINOOK APP/DEP CON 128.75 (1400-0600Z†).

Ⓡ SEATTLE APP/DEP CON 132.6 (0600-1400Z†).

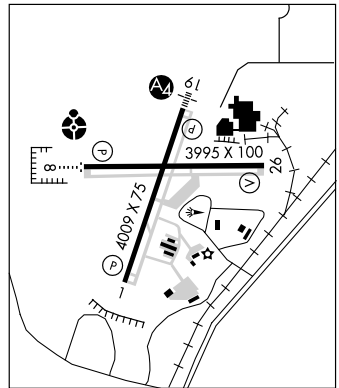
RADIO AIDS TO NAVIGATION: NOTAM FILE PSC.

PASCO (L) VOR/W/DME 108.4 PSC Chan 21 N46°15.78'
 W119°06.94' 268° 8.3 NM to fld. 400/20E.

RIBOO NDB (LOM) 260 RL N46°22.23' W119°15.55' 186°
 4.3 NM to fld. LOM unmonitored when PASCO twr clsd.

ILS/DME 110.5 I-RLD Chan 42 Rwy 19 Localizer only. LOM RIBOO NDB. Unmonitored when PASCO
 twr clsd.

COMM/NAV/WEATHER REMARKS: CLNC DEL provided by SEATTLE Radio on 122.4.



RIMROCK

TIETON STATE (4S6) 2 S UTC-8(-7DT) N46°38.25' W121°07.44'
 2964 NOTAM FILE SEA
RWY 02-20: 2509X140 (TURF)

SEATTLE

RWY 02: Trees. **RWY 20:** Trees.

AIRPORT REMARKS: Unattended. CLOSED 1 Oct-1 June. Rwy 02 obstructed by mountains at 1000'. Rwy 20 obstructed by mountains at 1000'. Pedestrians, vehicles and wildlife on and invof arpt. Rwy 02-20 surface rough. Deep cuts on NW edge of rwy first 800 ft of Rwy 02. Rwy 02-20 edges marked with boundary markers. Ctc Washington State Aviation Division 360-651-6300 or for Washington only 1-800-552-0666 for facility information prior to use.

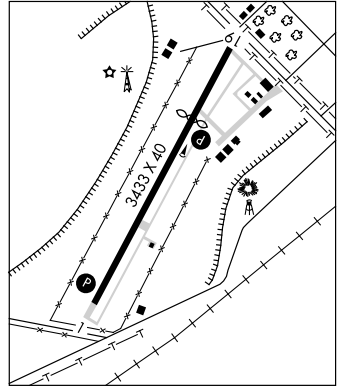
COMMUNICATIONS: CTAF 122.9

RITTS N48°03.17' W122°17.33'. NOTAM FILE PAE.
NDB (LOM) 396 PA 158° 8.8 NM to Snohomish Co (Paine Fld).

SEATTLE

RITZVILLE**PRU FLD** (33S) 1 W UTC-8(-7DT) N47°07.41' W118°23.36'SEATTLE
L-13A

1801 B NOTAM FILE SEA

RWY 01-19: H3433X40 (ASPH) S-12.5 MIRL(NSTD)**RWY 01:** PAPI(P2L)—GA 4.0° TCH 40'. P-line.**RWY 19:** PAPI(P2L)—GA 3.5° TCH 45'. Thld displcd 820'. Trees.**RUNWAY DECLARED DISTANCE INFORMATION****RWY 01:** TORA-2614 TODA-2614 ASDA-3433 LDA-3433**RWY 19:** TORA-3433 TODA-3433 ASDA-3433 LDA-2614**AIRPORT REMARKS:** Unattended. Arpt CLOSED when snow and ice on rwy. Rwy 01-19 NSTD MIRL, 3' red lgts 3 each side of rwy at ends of pavement. ACTIVATE MIRL Rwy 01-19 and PAPI Rwy 01 and Rwy 19—CTAF.**COMMUNICATIONS:** CTAF/UNICOM 122.8**RADIO AIDS TO NAVIGATION:** NOTAM FILE GEG.**SPOKANE (H) VORTACW** 115.5 GEG Chan 102 N47°33.90'
W117°37.61' 209° 40.9 NM to fld. 2755/21E. HIWAS.**ROCHE HARBOR SPB** (W39) 0 SW UTC-8(-7DT) N48°36.49' W123°09.58'

SEATTLE

00 NOTAM FILE SEA

WATERWAY NE-SW: 5000X1000 (WATER)**WATERWAY NW-SE:** 2500X500 (WATER)**SEAPLANE REMARKS:** Unattended. CAUTION—boats in landing areas and in docking area.**COMMUNICATIONS:** CTAF 128.25**ROCHESTER****R & K SKYRANCH** (8W9) 1 N UTC-8(-7DT) N46°49.96' W123°05.49'

SEATTLE

149 TPA-999(850) NOTAM FILE SEA

RWY 18-36: 2750X45 (TURF)**RWY 18:** Thld displcd 575'. P-line.**RWY 36:** Thld displcd 300'. Fence.**RWY 16-34:** 2480X35 (TURF)**RWY 16:** Thld displcd 700'. Trees.**RWY 34:** Thld displcd 327'. Fence.**AIRPORT REMARKS:** Unattended. Arpt CLOSED except PPR call arpt mgr 360-273-9893. No touch and go landings.

Rwy 16-34 and Rwy 18-36 marked with reflectors. Rwy 16 first 1,100' has shrubs and 70'+ trees approximately 15' from rwy edges.

COMMUNICATIONS: CTAF/UNICOM 123.0**ROSALIA MUNI** (72S) 2 W UTC-8(-7DT) N47°14.20' W117°25.28'

SEATTLE

2169 B FUEL 100LL NOTAM FILE SEA

RWY 02-20: H2800X45 (ASPH) MIRL**RWY 02:** Tree.**RWY 20:** PAPI(P2L)—GA 4.5°. Road.**AIRPORT REMARKS:** Unattended. Rwy 02-20 taxiway reflectors—not taxiway lgts. Rotating bcn OTS indef. ACTIVATE

MIRL Rwy 02-20—122.8.

COMMUNICATIONS: CTAF 122.9**ROSARIO SPB** (W49) 0 S UTC-8(-7DT) N48°38.74' W122°52.08'

SEATTLE

00 NOTAM FILE SEA

WATERWAY 16-34: 10000X1000 (WATER)**WATERWAY 16:** Hill.**WATERWAY 07-25:** 2500X1000 (WATER)**WATERWAY 07:** Hill.**WATERWAY 25:** Hill.**SEAPLANE REMARKS:** Attended daigt hrs. Tran dock avbl.**COMMUNICATIONS:** CTAF 128.25**SAND CANYON** (See CHEWELAH)**SANDERSON FLD** (See SHELTON)

SEATTLE N47°26.12' W122°18.58' NOTAM FILE SEA.

SEATTLE

(H) VORTACW 116.8 SEA Chan 115 at Seattle-Tacoma Intl. 340/19E.

H-1B, L-1D

VOR portion unusable:

303°-333° beyond 20 NM below 2,900'

303°-333° beyond 30 NM below 4,000'

333°-353° beyond 15 NM below 3,500'

353°-008° beyond 20 NM below 2,900'

008°-023° beyond 20 NM below 3,500'

DME portion unusable:

008°-028° byd 20 NM blo 4,500'

008°-028° byd 30 NM blo 7,000'

008°-023° beyond 30 NM below 4,100'

233°-273° beyond 8 NM below 5,500'

233°-273° beyond 20 NM below 8,000'

233°-273° beyond 30 NM below 10,000'

233°-273° beyond 35 NM below 3,500'

303°-008° byd 30 NM below 3,500'

203°-253° byd 27 NM all altitudes.

RCO 123.65 (SEATTLE RADIO) RCO 122.5 (SEATTLE RADIO)

SEATTLE

BOEING FLD/KING CO INTL (BFI) 4 S UTC-8(-7DT) N47°31.80' W122°18.12'

SEATTLE

21 B S4 FUEL 100LL, JET A OX 1, 2, 3, 4 TPA—See Remarks AOE

H-1B, L-1D

Class II, ARFF Index A NOTAM FILE BFI

IAP, AD

RWY 13R-31L: H10000X200 (ASPH-GRVD) S-100, D-160, ST-175, DT-340 HIRL

RWY 13R: MALSF. PAPI(P4L)—GA 3.0° TCH 39'. Fence. Rgt tfc.

RWY 31L: REIL. PAPI(P4L)—GA 3.1° TCH 39'. Thld dsplcd 880'.

Railroad.

RWY 13L-31R: H3710X100 (ASPH-GRVD) S-35, D-60 MIRL

RWY 13L: REIL. PAPI(P2L)—GA 3.0° TCH 39'. Thld dsplcd 240'.

Glide Slope Antenna.

RWY 31R: REIL. PAPI(P2L)—GA 3.0° TCH 39'. Thld dsplcd 365'.

Tree. Rgt tfc.

RUNWAY DECLARED DISTANCE INFORMATION:

RWY 13R: TORA-10001 TODA-10000 ASDA-9120 LDA-9120

RWY 31L: TORA-10001 TODA-10001 ASDA-10001 LDA-9120

AIRPORT REMARKS: Attended continuously. Bird flocks within arpt vicinity, check local advisories. Rwy 13L-31R not available for air carrier ops. Rwy 13L-31R limited to use by acft up to 12,500 lbs. Touch and go lds prohibited 0600-1500Z. Twr 80' AGL located 1200' north and 900' west of thld Rwy 13R. If access to Boeing ramp required ctc Boeing Flight Dispatch 206-655-3421 for approval during normal duty hours. Twy A6 clsd indef. Twy B8 clsd indef. Twy A1 and Twy A from A1-A3 restricted to acft up to 150,000 pounds and less than 108' wingspan. Twy A2, B2 and A11 restricted to acft up to 60,000 pounds. Twy A3, A5, and A8 restricted to acft up to 12,500 pounds. PPR for parking arrangements for acft over 12,500 lbs maximum tkf weight is recommended. Extensive helicopter training activity on Twy B. For noise abatement procedures, ctc noise office at 206-296-7437. Twy Z and 880' special use pavement avbl 72 hrs PPR. Ctc arpt ops 206-296-7334. For Museum of Flight transient acft parking, prior permission required, call 206-764-5710. Itinerant/transient parking avbl. Ctc arpt ops 206-296-7334. Rwy 13L-31R TPA-1000(979), Rwy 13R-31L TPA-800(779). HIRL Rwy 13R-31L opr dusk-dawn. MIRL Rwy 13L-31R not opr 2200-0700Z. Landing fee: Ctc arpt ops. Flight Notification Service (ADCUS) available. NOTE: See Special Notices

Section—Simultaneous Operations.

WEATHER DATA SOURCES: ASOS (206) 763-6904.

COMMUNICATIONS: ATIS 127.75 (206) 767-4113 UNICOM 122.95

SEATTLE FSS (SEA) on arpt.

SEATTLE RCO 122.5 (SEATTLE RADIO) SEATTLE RCO 123.65 (SEATTLE RADIO)

① SEATTLE APP/DEP CON 119.2 (076°-160° Rwy 13) (341°-075°) 120.1 (199°-300°) 120.4 (301°-340° Rwy 31)

125.9 (076°-160° Rwy 31) (301°-340° Rwy 13) 126.5 (161°-198°)

BOEING TOWER 120.6 (128°-308° and Departures Rwy 13R-31L, also all Jets, heavy aircraft and IFR arrivals.

118.3 309°-127° and Departures Rwy 13L-31R.)

GND CON 121.9 CLNC DEL 132.4

RADIO AIDS TO NAVIGATION: NOTAM FILE SEA.

SEATTLE (H) VORTACW 116.8 SEA Chan 115 N47°26.12' W122°18.58' 344° 5.7 NM to fld. 354/19E.

NOLLA NDB (LOM) 362 BF N47°37.95' W122°23.37' 130° 7.1 NM to fld.

ILS/DME 110.9 I-BFI Chan 46 Rwy 13R. Class IA. LOM NOLLA NDB. Localizer back course

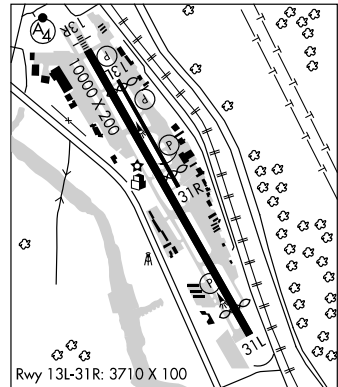
unusable byd 13 NM blo 3,500'. Localizer back course unusable byd 10° left and right of course. Localizer

unusable byd 20° left of course. DME unusable byd 30° left of course.

ILS/DME 110.9 I-CHJ Chan 46 Rwy 31L. Class IB. Localizer unusable byd 15° east of course.

ILS/DME unusable byd 10° right of course.

COMM/NAV/WEATHER REMARKS: Emerg frequency 121.5 not avbl at twr.



KENMORE AIR HARBOR SPB

(W55) 1 N UTC-8(-7DT) N47°37.74' W122°20.32'

SEATTLE

14 FUEL 100LL, JET A AOE NOTAM FILE SEA

WATERWAY 16-34: 5000X500 (WATER)

SEAPLANE REMARKS: Attended dawn-dusk. Fuel avbl emergency only. Night landings not recommended due to unlighted small watercraft. Red buoy indicates start and stop area for tkfs and ldgs. Increased boating ops on lake Apr 15 thru Oct 15. All tkf and ldg in center of lake. Special noise abatement rules in effect cto operator for pattern information. Do not taxi closer than 200' from shoreline except in close proximity to Kenmore Air Harbor. Call 425-486-1257 X2010 for approval at least 3 hrs prior to arrival. Docking fee. Flight Notification Service (ADCUS) available.

COMMUNICATIONS: CTAF 122.9

SEATTLE SEAPLANES SPB

(ØWØ) 1 N UTC-8(-7DT) N47°37.66' W122°19.91'

SEATTLE

14 S2 NOTAM FILE SEA

WATERWAY 18-36: 9500X300 (WATER)

SEAPLANE REMARKS: Attended 1600Z±-dusk. Small watercraft activity on lake.

COMMUNICATIONS: CTAF 122.9

SEATTLE-TACOMA INTL

(SEA) 10 S UTC-8(-7DT) N47°26.99' W122°18.71'

SEATTLE

433 B FUEL 100LL, JET A, A1 LRA Class I, ARFF Index E NOTAM FILE SEA

H-1B, L-1D

RWY 16L-34R: H11901X150 (CONC-GRVD) S-100, D-230, DT-600, DDT-1400 PCN 110 R/B/W/T IAP, AD

HIRL CL

RWY 16L: ALSF2. TDZL. PAPI(P4L)—GA 3.0° TCH 79'. 0.6% down.

RWY 34R: TDZL. MALSR. PAPI(P4L)—GA 2.75° TCH 82'. 0.8% up.

RWY 16C-34C: H9426X150 (CONC-GRVD) S-100, D-200, ST-175, DT-350, DDT-800 PCN 71 R/B/W/T HIRL CL

RWY 16C: ALSF2. TDZL. PAPI(P4L)—GA 3.0° TCH 76'. 0.6% down.

RWY 34C: MALSR. PAPI(P4L)—GA 3.0° TCH 62'. Tree. 0.8% up.

RWY: 16R-34L H8500X150 (CONC-GRVD) S-100, D-216, DT-448, TDT-817, DDT-1157 PCN 89 R/B/W/T HIRL CL

RWY 16R: ALSF2. TZL. PAPI(P4R)—GA 3.0° TCH 69'. 0.6% down.

RWY 34L: MALSR. PAPI(P4L)—GA 3.0° TCH 75'. 0.8% up.

RUNWAY DECLARED DISTANCE INFORMATION:

RWY 16L: TORA-11901 TODA-11901 ASDA-11901 LDA-11901

RWY 16C: TORA-9426 TODA-9426 ASDA-9426 LDA-9426

RWY 16R: TORA-8500 TODA-8500 ASDA-8500 LDA-8500

RWY 34L: TORA-8500 TODA-8500 ASDA-8500 LDA-8500

RWY 34C: TORA-9426 TODA-9426 ASDA-9426 LDA-9426

RWY 34R: TORA-11901 TODA-11901 ASDA-11901 LDA-11901

AIRPORT REMARKS: Attended continuously. Bird flocks within airport vicinity—check local advisories. Helicopters ldg and departing avoid overflying fuel farm located at the SE corner of the aprt. ASDE-X surveillance system in use: pilots should operate transponders with mode C on all twys and rwys. Do not mistake Twy T for landing sfc. Twy A south of Twy G restricted to acft with wingspan 225' and smaller. Taxilane around N satellite restricted to acft with wingspans of 200' or less except for gates N7-N9. Access to air cargo 4 parking and cargo areas rstd to acft with wingspans of 118' or less. Twy for corporate hangar ramp ltd to acft with 104' or less wingspan for taxi ops. GA customs parking is very limited. PPR for all general aviation parking and svc, ctc 206-433-5481. Between the hours of 0600-1500Z±, the use of extd reverse thrust is discouraged byd what is necessary for opr or safety reasons. NS ABTMT procedures in effect between 0600-1400Z±. For further information ctc SEA NS ABTMT office at 206-787-7496. Touchdown, midpoint and rollout runway visual range avbl Rwy 16C, Rwy 34C, Rwy 16L, Rwy 34R, Rwy 16R, and Twy 34L. Landing fee. Flight Notification Service (ADCUS) available. NOTE: See Special Notices—Seattle-Tacoma Intl Gatehold Procedures, Oceanic Departures.

WEATHER DATA SOURCES: ASOS (206) 431-2834.

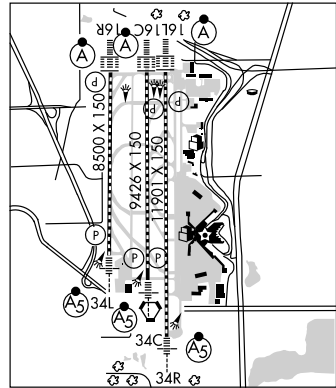
COMMUNICATIONS: D-ATIS 118.0 (206) 241-6025 UNICOM 122.95

Ⓡ SEATTLE APP CON 120.1 (199°-300°) 120.4 (301°-340° Rwy 34) 125.6 (West) 125.9 (076°-160° Rwy 34) (301°-340° Rwy 16) 126.5 (161°-198°) 133.65 (ARR Rwy 16) 123.9

Ⓡ SEATTLE DEP CON 119.2 (DEP Rwy 16) 120.1 (199°-300°) 120.4 (301°-340° Rwy 34) 125.6 (West) 125.9 (076°-160° Rwy 34) (301°-340° Rwy 16) 126.5 (161°-198°) 123.9

SEATTLE TOWER 119.9 (Rwy 16L-34R, Rwy 16C-34C) 120.95 (Rwy 16R-34L) GND CON 121.7 126.87 (Cargo north ramp) 122.27 (South ramp) CLNC DEL 128.0

AIRSPACE: CLASS B See VFR Terminal Area Chart.



CONTINUED ON NEXT PAGE

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RADIO AIDS TO NAVIGATION: NOTAM FILE SEA.

(H) VORTACW 116.8 SEA Chan 115 N47°26.12' W122°18.58' at fld. 354/19E.

ILS/DME 110.75 I-CJL Chan 44(Y) Rwy 16R. Class IIIE.

ILS/DME 110.75 I-BEJ Chan 44(Y) Rwy 34L. Class IIIE.

ILS/DME 110.3 I-SEA Chan 40 Rwy 34R. Class IID. DME also serves ILS Rwy 16L.

ILS/DME 111.7 I-SZI Chan 54 Rwy 16C. Class IIIE. DME also serves ILS Rwy 34C. LOC front course unusable byd 10 NM, blo 2,500'.

ILS/DME 110.3 I-SNQ Chan 40 Rwy 16L. Class IIIE. Localizer unusable byd 15° left of course, byd 14 NM blo 3,000'. DME also serves ILS Rwy 34R. Possible Rwy 16L glideslope fluctuation on final when wx is 800/2 or better. Possible Rwy 16L glideslope fluctuation prior to DGLAS when wx is less than 800/2.

ILS/DME 111.7 I-TUC Chan 54 Rwy 34C. Class IIIE. DME also serves ILS Rwy 16C.

SEKIU (11S) 0 NW UTC-8(-7DT) N48°15.97' W124°18.84'

SEATTLE

355 B NOTAM FILE SEA

RWY 08-26: H2997X50 (ASPH) LIRL

RWY 08: Thld dspcd 900'. Hill.

RWY 26: VASI(V2L)—GA 4.0° TCH 35' (nights only). Tree.

AIRPORT REMARKS: Unattended. Deer on and in vicinity of arpt Sep-Mar. High ridge along N side of rwy. Turbulence on E end apch over water. Difficult apch when wind from N. PPR for other than single engine act, call arpt manager 360-457-1138. Rwy 08-26 poor subsurface drainage during wet weather conditions causes rwy surface movements.

COMMUNICATIONS: CTAF 122.9

SEQUIM VALLEY (W28) 4 NW UTC-8(-7DT) N48°05.89' W123°11.23'

SEATTLE

144 B S6 FUEL 100LL NOTAM FILE SEA

RWY 09R-27L: H3510X40 (ASPH) LIRL

RWY 09R: Trees. Rgt tfc.

RWY 27L: Trees.

RWY 09L-27R: 3500X100 (TURF)

RWY 09L: Fence. Rgt tfc.

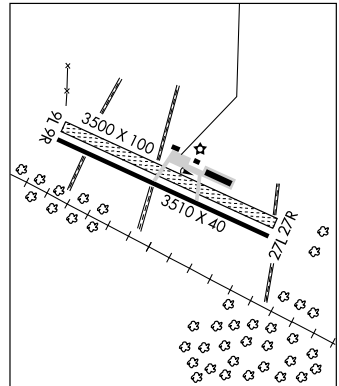
RWY 27R: Trees.

AIRPORT REMARKS: Attended 1700-0100Z±. Deer on and in the vicinity of arpt. Rwy 09L fence covered with 5' shrubs. Rwy 09L-27R PPR for landing call 360-683-4444. Rwy 09R-27L has a 6" shoulder. Rwy 27L marked with broken line. Paved twys cross turf Rwy 09L-27R.

COMMUNICATIONS: CTAF/UNICOM 122.7

RADIO AIDS TO NAVIGATION: NOTAM FILE SEA.

TATOOSH (H) VORTACW 112.2 TOU Chan 59 N48°17.99' W124°37.62' 079° 59.1 NM to fld. 1652/22E. HIWAS.

**SHADY ACRES** (See SPANAWAY)

CONTINUED FROM PRECEDING PAGE

RADIO AIDS TO NAVIGATION: NOTAM FILE SEA.

(H) VORTACW 116.8 SEA Chan 115 N47°26.12' W122°18.58' at fld. 354/19E.

ILS/DME 110.75 I-CJL Chan 44(Y) Rwy 16R. Class IIIE.

ILS/DME 110.75 I-BEJ Chan 44(Y) Rwy 34L. Class IIIE.

ILS/DME 110.3 I-SEA Chan 40 Rwy 34R. Class IID. DME also serves ILS Rwy 16L.

ILS/DME 111.7 I-SZI Chan 54 Rwy 16C. Class IIIE. DME also serves ILS Rwy 34C. LOC front course unusable byd 10 NM, blo 2,500'.

ILS/DME 110.3 I-SNQ Chan 40 Rwy 16L. Class IIIE. Localizer unusable byd 15° left of course, byd 14 NM blo 3,000'. DME also serves ILS Rwy 34R. Possible Rwy 16L glideslope fluctuation on final when wx is 800/2 or better. Possible Rwy 16L glideslope fluctuation prior to DGLAS when wx is less than 800/2.

ILS/DME 111.7 I-TUC Chan 54 Rwy 34C. Class IIIE. DME also serves ILS Rwy 16C.

SEKIU (11S) 0 NW UTC-8(-7DT) N48°15.97' W124°18.84'

SEATTLE

355 B NOTAM FILE SEA

RWY 08-26: H2997X50 (ASPH) LIRL

RWY 08: Thld dspcd 900'. Hill.

RWY 26: VASI(V2L)—GA 4.0° TCH 35' (nights only). Tree.

AIRPORT REMARKS: Unattended. Deer on and in vicinity of arpt Sep-Mar. High ridge along N side of rwy. Turbulence on E end apch over water. Difficult apch when wind from N. PPR for other than single engine acct, call arpt manager 360-457-1138. Rwy 08-26 poor subsurface drainage during wet weather conditions causes rwy surface movements.

COMMUNICATIONS: CTAF 122.9

SEQUIM VALLEY (W28) 4 NW UTC-8(-7DT) N48°05.89' W123°11.23'

SEATTLE

144 B S6 FUEL 100LL NOTAM FILE SEA

L-1E

RWY 09R-27L: H3510X40 (ASPH) LIRL

RWY 09R: Trees. Rgt tfc.

RWY 27L: Trees.

RWY 09L-27R: 3500X100 (TURF)

RWY 09L: Fence. Rgt tfc.

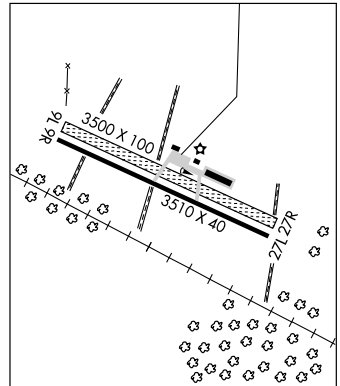
RWY 27R: Trees.

AIRPORT REMARKS: Attended 1700-0100Z±. Deer on and in the vicinity of arpt. Rwy 09L fence covered with 5' shrubs. Rwy 09L-27R PPR for landing call 360-683-4444. Rwy 09R-27L has a 6" shoulder. Rwy 27L marked with broken line. Paved twys cross turf Rwy 09L-27R.

COMMUNICATIONS: CTAF/UNICOM 122.7

RADIO AIDS TO NAVIGATION: NOTAM FILE SEA.

TATOOSH (H) VORTACW 112.2 TOU Chan 59 N48°17.99' W124°37.62' 079° 59.1 NM to fld. 1652/22E. HIWAS.

**SHADY ACRES** (See SPANAWAY)

SHELTON**SANDERSON FLD** (SHN) 3 NW UTC-8(-7DT) N47°14.01' W123°08.85'

273 B S4 FUEL 100LL, JET A NOTAM FILE SHN

RWY 05-23: H5005X100 (ASPH) S-55, D-72, DT-130 MIRL 0.3% up NE

RWY 05: Trees. Rgt tfc.

RWY 23: REIL. PAPI(P4L)—GA 3.0° TCH 35'. Trees.

AIRPORT REMARKS: Attended 1600-0030Z±. Parachute Jumping. 24 hr credit card fuel facility.**WEATHER DATA SOURCES:** ASOS 119.275 (360) 427-3835.**COMMUNICATIONS:** CTAF/UNICOM 122.8

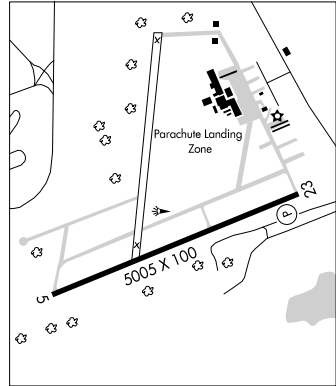
Ⓡ SEATTLE APP/DEP CON 121.1

RADIO AIDS TO NAVIGATION: NOTAM FILE OLM.

OLYMPIA (H) VORTACW 113.4 OLM Chan 81 N46°58.30' W122°54.11' 308° 18.7 NM to fld. 200/19E. HIWAS.

MASON CO NDB (MHW) 348 MNC N47°14.89' W123°05.18' 232° 2.7 NM to fld. NOTAM FILE SHN.

NDB unmonitored. NDB unusable 280°-340° beyond 20 NM.

SEATTLE
H-1B, L-1D
IAP**SILVERDALE****APEX AIRPARK** (8W5) 2 NW UTC-8(-7DT) N47°39.41' W122°43.99'

525 B S4 NOTAM FILE SEA Not insp.

RWY 17-35: H2500X28 (ASPH) LIRL

RWY 35: Rgt tfc.

AIRPORT REMARKS: Attended continuously. Caution: children and pets etc on invof arpt. No line of sight between rwy ends. Twy east side rwy. Use caution on twy. Trees, acft and buildings in transition sfcs.**COMMUNICATIONS:** CTAF/UNICOM 122.8

SEATTLE

SKAGIT/BAY VIEW N48°28.12' W122°25.10'. NOTAM FILE BVS.

NDB (MHW) 240 BVS at Skagit Rgnl. NDB unusable 350°-030° byd 20 NM.

SEATTLE

L-1E

SKAGIT RGNL (See BURLINGTON/MOUNT VERNON)**SKY HARBOR** (See SULTAN)**SKYLINE SPB** (See ANACORTES)**SKYKOMISH STATE** (S88) 1 E UTC-8(-7DT) N47°42.66' W121°20.34'

1002 NOTAM FILE SEA

RWY 06-24: 2050X100 (TURF)

RWY 06: Trees. RWY 24: Trees.

AIRPORT REMARKS: Unattended. CLOSED yearly 1 Oct-1 June. Vehicles, pedestrians and animals on and invof rwy.

CTC Washington State Division of Aeronautics 360-651-6300 or 1-800-552-0666, for facility information prior to use. Mountains surround arpt. Rwy soft when wet.

COMMUNICATIONS: CTAF 122.9

SEATTLE

SNOHOMISH CO (PAINE FLD) (See EVERETT)

SNOHOMISH**HARVEY FLD** (S43) 1 SW UTC-8(-7DT) N47°54.29' W122°06.16'

SEATTLE

22 S4 FUEL 100, JET A TPA-1006(984) NOTAM FILE SEA

L-1D

RWY 15L-33R: H2671X36 (ASPH) S-10 LIRL (NSTD)

IAP

RWY 15L: TRCV(TRIR)—GA 5.0° TCH 30'. Thld dspcd 451'. P-line. Rgt tfc.

RWY 33R: TRCV (TRIR)—GA 3.0° TCH 30'. Thld dspcd 241'. Trees.

RWY 15R-33L: 2430X100 (TURF)

RWY 15R: P-line. Rgt tfc. RWY 33L: Trees.

AIRPORT REMARKS: Attended Nov-Mar 1530-0200Z, Apr-Oct 1530-0500Z. Fuel 24 hour credit card svc avbl.

Parachute Jumping. Helicopter training west of rws 500' and blo. High voltage P-line 22' high 25' from apch end of Rwy 15L. Additional parachute student drop zone 1 NM E of arpt marked with white X. Arriving helicopter tfc apch helipads from NE or SE to avoid student drop zone. Parachute drop zone between Rwy 15L-33R and main twy, large gravel circle. Rwy 15L and Rwy 15R calm wind rws. Noise abatement procedures in effect, ctc arpt manager 360-568-1541. Rwy 15L-33R NSTD LIRL, thld lgts 360° green.

COMMUNICATIONS: CTAF/UNICOM 123.0

SEATTLE CENTER APP/DEP CON 128.5

RADIO AIDS TO NAVIGATION: NOTAM FILE PAE.

PAINE (L) VOR/DME 110.6 PAE Chan 43 N47°55.19' W122°16.67' 077° 7.1 NM to fld. 670/20E.

SOUTH BEND (RAYMOND)**WILLAPA HARBOR** (2S9) 2 NW UTC-8(-7DT) N46°41.86' W123°49.40'

SEATTLE

13 B FUEL 100LL NOTAM FILE SEA

L-1C

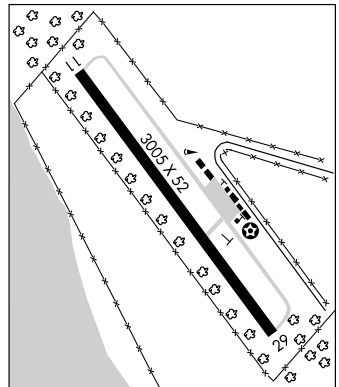
RWY 11-29: H3005X52 (ASPH) S-12 MIRL

RWY 11: Trees. RWY 29: Trees.

AIRPORT REMARKS: Unattended. Fuel unavbl indef. Watch for elk on and in vicinity of arpt. Rwy 11-29 52' wide with 22.5' asph trtd shoulders. Rotating bcn OTS indef. ACTIVATE rotating bcn-122.8. ACTIVATE MIRL Rwy 11-29-122.8.**COMMUNICATIONS:** CTAF 122.9**RADIO AIDS TO NAVIGATION:** NOTAM FILE HQM.

HOQUIAM (H) VORTAC 117.7 HQM Chan 124 N46°56.82'

W124°08.96' 119° 20.1 NM to fld. 10/19E. HIWAS.

**SOUTHWEST WASHINGTON RGNL** (See KELSO)**SPANAWAY****SHADY ACRES** (3B8) 3 SE UTC-8(-7DT) N47°04.22' W122°22.27'

SEATTLE

445 NOTAM FILE SEA

RWY 16-34: H1800X20 (ASPH) LIRL

RWY 16: Trees. RWY 34: Thld dspcd 200'. Road. Rgt tfc.

AIRPORT REMARKS: Unattended. PPR for night ops call arpt manager 253-846-8953. Military activity on and in vicinity of arpt. Power plants with emissions that may not be visible 0.5 and 1 statute mile northeast of arpt. Dsplcd thld marked with NSTD chevrons. Rwy 16 ID is not standard distance from rwy end. Directional rwy edge lgts.**COMMUNICATIONS:** CTAF 122.9**SPANAWAY** (S44) 1 S UTC-8(-7DT) N47°05.21' W122°25.88'

SEATTLE

373 FUEL 100LL TPA-988(615) NOTAM FILE SEA

RWY 16-34: H2724X20 (ASPH) S-12 LIRL

RWY 16: Thld dspcd 200'. Tree. RWY 34: Trees. Rgt tfc.

AIRPORT REMARKS: Attended 1600Z-dusk. CAUTION: Military tfc on and in vicinity of arpt. Rwy 16 paved, Rwy 16 has NSTD numbers, edge lines and thld markings only, Rwy 16 number located 300' S of painted dspcd thld.**COMMUNICATIONS:** CTAF 122.9

® SEATTLE APP/DEP CON 126.5

SPOKANE

FELTS FLD (SFF) 4 NE UTC-8(-7DT) N47°40.97' W117°19.35'

SEATTLE
L-13B
IAP, AD

1953 B S4 FUEL 100LL, JET A1 + OX 3, 4 LRA NOTAM FILE SFF

RWY 03L-21R: H4500X150 (CONC) S-30 MIRL

RWY 03L: REIL. VASI(V4L)—GA 3.0° TCH 50'. Road.

RWY 21R: MALSR. VASI(V4R)—GA 3.5° TCH 59'. Tree. Rgt tfc.

RWY 03R-21L: H3059X75 (ASPH) S-30

RWY 03R: Thld dspcd 415'. Bldg. Rgt tfc.

RWY 21L: PAPI(P4L)—GA 3.8° TCH 42'. Trees.

AIRPORT REMARKS: Attended 1500-0200Z±. Waterfowl and birds on and in/ov arpt. Lgtd crane 1953' MSL (200' AGL) 1.25 NM east indef. Acft with tail heights over 20' must ctc ATCT prior to taxi. Twr unable to provide ATC svc on perimeter twy due to movement of uncontrolled ground tfc. PPR for rotorwing acft conducting hover ops above 10' AGL in non-movement area ctc twr. Obstacle free area for Twy A is delineated with a green line. Rwy 21L PAPI unusable by 5° either side of centerline within 4 NM of thld. When twr clsd ACTIVATE MIRL Rwy 03L-21R, MALSR Rwy 21R and REIL 03L-CTAF. VASI Rwy 03L and VASI Rwy 21R opr continuously. PAPI Rwy 21L opr SR-SS. Flight Notification Service (ADCUS) available.

WEATHER DATA SOURCES: ASOS (509) 535-3290. HIWAS

COMMUNICATIONS: CTAF 132.5 ATIS 120.55 UNICOM 122.95

SPOKANE RCO 122.65 122.55 122.2 (SEATTLE RADIO)

Ⓡ SPOKANE APP/DEP CON 133.35

TOWER 132.5 (1400-0400Z±) GND CON 121.7

AIRSPACE: CLASS D svc 1400-0400Z± other times CLASS E.

RADIO AIDS TO NAVIGATION: NOTAM FILE GEG.

SPOKANE (H) VORTACW 115.5 GEG Chan 102 N47°33.90' W117°37.61' 039° 14.2 NM to fld. 2755/21E.

HIWAS.

ILS/DME 111.7 I-FLZ Chan 54 Rwy 21R. LOC only. Localizer unusable 0.2 NM from rwy threshold. DME unusable 15° right of course.

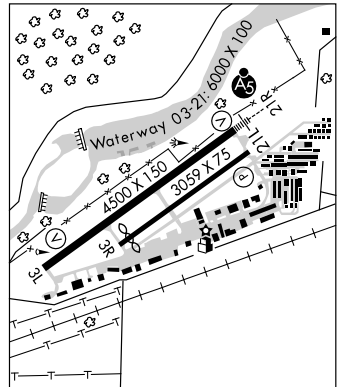
COMM/NAV/WEATHER REMARKS: Emerg frequency 121.5 not avbl at twr.

1910

WATERWAY 03-21: 6000X100 (WATER)

WATERWAY 21: Rgt tfc.

SEAPLANE REMARKS: Extensive boating in area of water rwy. Water level on river may be lowered by Corp of Engineers. Water area adjacent to airport not controlled or maintained by airport. Waterway 03-21 water rwy advisory service only area not visible from twr. Ctc Felts twr 132.5 for tfc data.



SPOKANE INTL (GEG) 5 SW UTC-8(-7DT) N47°37.19' W117°32.03'

SEATTLE

2376 B S4 FUEL 100, 100LL, JET A OX 1, 2, 3, 4 Class I, ARFF Index B NOTAM FILE GEG H-1C, L-13B
RWY 03-21: H9001X150 (ASPH-GRVD) S-200, D-200, ST-175, DT-400 HIRL CL IAP, AD

RWY 03: ALSF2. TDZL. VASI(V6L)—Upper GA 3.25° TCH 87', Lower GA 3.0° TCH 54'. Rgt tfc. 0.5% down.

RWY 21: ALSF2. TDZL. PAPI(P4L)—GA 3.0° TCH 46'. Ground. Rgt tfc. 0.8% up.

RWY 07-25: H8199X150 (ASPH-GRVD) S-150, D-180, ST-175, DT-280 MIRL

RWY 07: REIL. VASI(V4L)—GA 3.2° TCH 60'. Rgt tfc.

RWY 25: REIL. PAPI(P4L)—GA 3.0° TCH 50'. Tree.

LAND AND HOLD SHORT OPERATIONS

LANDING	HOLD SHORT POINT	DIST AVBL
RWY 07	03-21	2800
RWY 21	07-25	7000
RWY 25	03-21	4350

RUNWAY DECLARED DISTANCE INFORMATION:

RWY 03: TORA-9001 TODA-9001 ASDA-9001 LDA-9001

RWY 07: TORA-8199 TODA-8199 ASDA-8199 LDA-8199

RWY 21: TORA-9001 TODA-9001 ASDA-9001 LDA-9001

RWY 25: TORA-8199 TODA-8199 ASDA-8199 LDA-8199

AIRPORT REMARKS: Attended 1400-0600Z±. Waterfowl and birds on and

invoft arpt. Twy H restricted to wingspan of 75' or less. Twy K unlighted on ramp side along maintenance ramp and is unavailable below 1200 RVR unless under escort by "follow me". RWY 21 ALSF2 may be operated as SSALR during favorable weather conditions. Be alert to turbulence over smoke stacks 1 mile E of arpt. U.S.

Customs user fee arpt. Flight Notification Service (ADCUS) available.

WEATHER DATA SOURCES: ASOS (509) 624-4406. HIWAS 115.5 GEG.**COMMUNICATIONS:** ATIS 124.325 UNICOM 122.95

RCO 122.65 122.55 122.2 (SEATTLE RADIO)

Ⓡ APP/DEP CON 133.35 (026°-204°) 123.75 (205°-025°)

TOWER 118.3 GND CON 121.9 CLNC DEL 127.55

AIRSPACE: CLASS C svc ctc APP CON**RADIO AIDS TO NAVIGATION:** NOTAM FILE GEG.

(H) VORTACW 115.5 GEG Chan 102 N47°33.90' W117°37.61' 028° 5.0 NM to fld. 2755/21E. HIWAS.

VOR portion unusable:

360°-015° byd 26 NM blo 7,000'

335°-360° byd 18 NM blo 7,000'

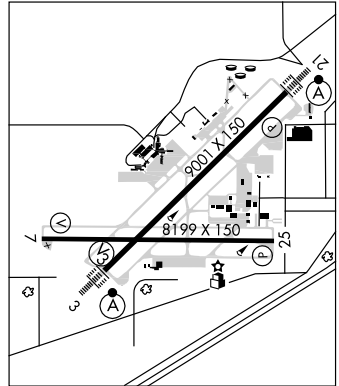
300°-330° byd 30 NM blo 9,000'

335°-360° byd 25 NM

PHORT NDB (LOM) 388 GE N47°40.62' W117°27.01' 207° 4.8 NM to fld.

ILS/DME 111.1 I-GEG Chan 48 Rwy 21. Class IIIE. LOM PHORT NDB.

ILS/DME 111.1 I-OLJ Chan 48 Rwy 03. Class IIIE.

**STAMPEDE PASS** SMP N47°15.98' W121°22.07'/3964.

SEATTLE

ASOS 135.275 360-886-2758

L-1D

STANWOOD**CAMANO ISLAND AIRFIELD** (13W) 3 NW UTC-8(-7DT) N48°15.42' W122°26.21'

SEATTLE

145 S4 NOTAM FILE SEA

RWY 16-34: H1750X24 (ASPH)

RWY 16: Tree. Rgt tfc. RWY 34: Brush. Rgt tfc.

AIRPORT REMARKS: Attended Mon-Fri 1630-0130Z±. Do not taxi on grass Oct-May. Parallel driveway adjacent to Rwy 16-34.**COMMUNICATIONS:** CTAF 122.9**STARBUCK****LITTLE GOOSE LOCK AND DAM** (16W) 7 NE UTC-8(-7DT) N46°34.99' W118°00.06'

SEATTLE

681 NOTAM FILE SEA

RWY 07-25: 3400X50 (GRVL)

RWY 07: Road. RWY 25: Hill.

AIRPORT REMARKS: Unattended. CLOSED 1 Oct-1 June. CAUTION: Airport located in canyon rolling terrain 700-800' S rising to 750', canyon wall 800' S rises steeply to 1800'+, N wall rises to 1600'+. Pedestrians, vehicles, and animals on and invoft rwy. Portions of rwy sfc rough and soft. CTC Washington State Aviation Division 360-651-6300 or 1-800-552-0666 for facility information prior to use.**COMMUNICATIONS:** CTAF 122.9

STEHEKIN STATE (6S9) 3 NW UTC-8(-7DT) N48°20.74' W120°43.24'

SEATTLE

1230 NOTAM FILE SEA

RWY 13-31: 2630X100 (TURF)

RWY 13: Road. RWY 31: Brush.

AIRPORT REMARKS: Unattended. Arpt CLOSED Oct-Jun. Pedestrians, vehicles and animals on and invof rwy. Ctc Washington State Aviation Division 360-651-6300 or within Washington state 1-800-552-0666 for facility information prior to use.

COMMUNICATION: CTAF 122.9

STROM FLD (See MORTON)

SULLIVAN LAKE STATE (See METALINE FALLS)

SULTAN

SKY HARBOR (S86) 1 E UTC-8(-7DT) N47°52.24' W121°47.54'

SEATTLE

282 NOTAM FILE SEA

RWY 07-25: 1930X100 (TURF)

RWY 07: Brush. RWY 25: Brush.

AIRPORT REMARKS: Unattended. Ctc arpt manager 425-359-4625 for facility information prior to use. Watch for animals and children on and invof arpt. West end very soft in winter and spring. Preferred rwy ops wind permitting land W, tkf E. Avoid arpt during high wind conditions. No touch and go ops. No instruction or student ops. Helicopter parking NE end of rwy.

COMMUNICATIONS: CTAF 122.9 UNICOM 122.8

SUNNYSIDE MUNI (1S5) 2 E UTC-8(-7DT) N46°19.63' W119°58.22'

SEATTLE

768 B FUEL 100LL NOTAM FILE SEA

RWY 07-25: H3423X60 (ASPH) S-12.5 LIRL

RWY 07: PAPI(P2L)—GA 3.0°. Road.

RWY 25: PAPI(P2L)—GA 3.0°. Pole.

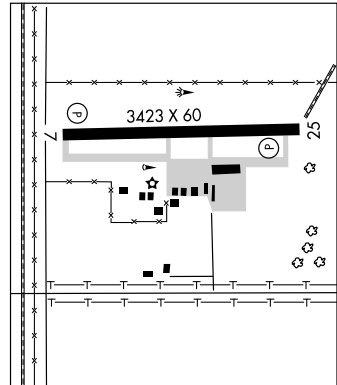
AIRPORT REMARKS: Unattended.

COMMUNICATIONS: CTAF 122.9 UNICOM 122.8

RADIO AIDS TO NAVIGATION: NOTAM FILE PSC.

PASCO (L) VORW/DME 108.4 PSC Chan 21 N46°15.78' W119°06.94' 256° 35.8 NM to fld. 400/20E.

L-13A



SWANSON (See EATONVILLE)

TACOMA

AMERICAN LAKE SPB (W37) 7 S UTC-8(-7DT) N47°08.49' W122°33.66'

SEATTLE

235 TPA-935(700) NOTAM FILE SEA

WATERWAY 02-20: 5500X500 (WATER)

SEAPLANE REMARKS: Attended 1800-0000Z±. Swimmers and boaters in the area. Day use only recommended. Noise abatement procedures in effect, ctc airport manager 253-589-2489. Arpt underlies McCord AFB CLASS D Airspace.

COMMUNICATIONS: CTAF 122.9

TACOMA NARROWS (TIW) 4 W UTC-8(-7DT) N47°16.08' W122°34.69'

SEATTLE

294 B S4 FUEL 100LL, JET A OX 4 TPA-1294(1000) LRA NOTAM FILE TIW

H-1B, L-1D

RWY 17-35: H5002X150 (ASPH-AFSC) S-50, D-80, ST-102, DT-80, DDT-150 MIRL

IAP, AD

RWY 17: MALSR. PAPI(P4R)—GA 3.0°. TCH 50'. Rgt. tfc.

RWY 35: REIL. VASI(V4L)—GA 3.0° TCH 51'.

AIRPORT REMARKS: Attended 1500-0600Z±. Deer on and in vicinity of arpt. Noise sensitive arpt, for noise abatement and tfc procedures call arpt manager 253-853-5844. ACTIVATE MALSR Rwy 17 and PAPI Rwy 17—CTAF. For customs call 253-593-6338 ext #2. Landing fee.

WEATHER DATA SOURCES: ASOS (253) 858-6507. LAWRS**COMMUNICATIONS:** CTAF 118.5 ATIS 124.05 UNICOM 122.95

Ⓡ SEATTLE APP/DEP CON 120.1

TOWER 118.5 (1600-0400Z±) GND CON 121.8

AIRSPACE: CLASS D svc 1600-0400Z± other times CLASS G.**RADIO AIDS TO NAVIGATION:** NOTAM FILE TCM.

McCHORD (T) VORTAC 109.6 TCM Chan 33 N47°08.26'

W122°28.59' 310° 8.9 NM to fld. 284/22E. No NOTAM MP

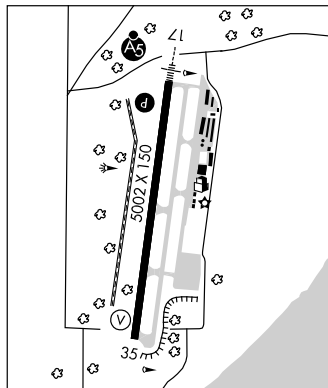
Thu 0700-1400Z±.

GRAYE NDB (MHW/LOM) 216 GR N47°09.02'

W122°36.28' 351° 7.1 NM to fld. NOTAM FILE GRF.

Unmonitored when ATCT closed.

ILS 109.1 I-TIW Rwy 17. Class IB. ILS unmonitored when twr clsd.

COMM/NAV/WEATHER REMARKS: Emerg frequency 121.5 not avbl at twr.**TATOOSH** N48°17.99' W124°37.62'. NOTAM FILE SEA.

SEATTLE

(H) VORTACW 112.2 TOU Chan 59 151° 21.9 NM to Quillayute. 1652/22E. HIWAS.

H-1A, L-1D

RCO 122.25 (SEATTLE RADIO)

TEKOA**WILLARD FLD** (73S) 2 NE UTC-8(-7DT) N47°14.13' W117°02.63'

SEATTLE

2520 B FUEL 100LL NOTAM FILE SEA

RWY 04-22: H2260X40 (ASPH) MIRL

RWY 04: Tree.

RWY 22: P-line.

AIRPORT REMARKS: Unattended. Self service fuel with credit card. Parachute Jumping. Grass areas not avbl for acft ops. Rwy 04-22 yellow centerline only. ACTIVATE MIRL Rwy 04-22-122.8.

COMMUNICATIONS: CTAF 122.9**TIETON STATE** (See RIMROCK)**TOLEDO****ED CARLSON MEMORIAL FLD-SOUTH LEWIS CO** (TDO) 3 N UTC-8(-7DT)

SEATTLE

N46°28.63' W122°48.39'

L-1C

374 B S4 FUEL 100 NOTAM FILE TDO

RWY 05-23: H4479X150 (ASPH) S-25 MIRL

RWY 05: REIL. SAVASI(S2L)—GA 3.0° TCH 40'. Windcone.

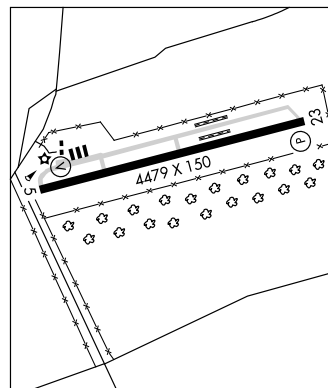
RWY 23: REIL. PAPI(P2L)—GA 3.0° TCH 40'. Fence.

AIRPORT REMARKS: Unattended. 24 hr credit card fuel facility. Parachute Jumping. Radio controlled acft adjacent Rwy 05-23 400' and blo. Distance to go markers S side of rwy. ACTIVATE MIRL Rwy 05-23 and REIL Rwy 05 and Rwy 23—CTAF. SAVASI Rwy 05 and PAPI Rwy 23 opr 24 hrs.

COMMUNICATIONS: CTAF 122.9**RADIO AIDS TO NAVIGATION:** NOTAM FILE OLM.

OLYMPIA (H) VORTACW 113.4 OLM Chan 81 N46°58.30'

W122°54.11' 153° 29.9 NM to fld. 200/19E. HIWAS.



TONASKET MUNI (W01) 2 NW UTC-8(-7DT) N48°43.49' W119°27.94'

SEATTLE
L-13A

1311 B NOTAM FILE SEA

RWY 15-33: H3053X50 (ASPH) MIRL

RWY 15: PAPI(P2L)—GA 5.0° TCH 37'. Ground. Rgt tfc.

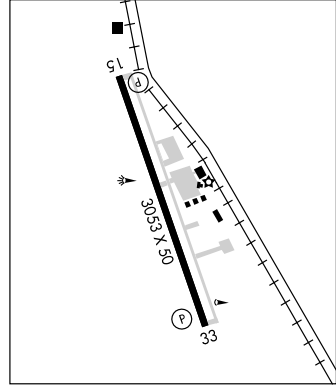
RWY 33: PAPI(P2L)—GA 4.5° TCH 31'. Fence.

AIRPORT REMARKS: Unattended. Mountains surround arpt. For night ops and wind permitting land Rwy 33 and depart Rwy 15. Rwy 15-33 settling and ravelling at ends and along sides. Distance to go markers S side arpt. ACTIVATE MIRL Rwy 15-33—CTAF.

COMMUNICATIONS: CTAF 122.9

RADIO AIDS TO NAVIGATION: NOTAM FILE EPH.

EPHRATA (H) VORTACW 112.6 EPH Chan 73 N47°22.68'
W119°25.44' 338° 80.9 NM to fld. 1250/21E.



TRI-CITIES (See PASCO)

TRINA N46°10.53' W118°11.77'. NOTAM FILE ALW.

SEATTLE

NDB (LOM) 353 AL 198° 6.2 NM to Walla Walla Rgnl.

TWISP MUNI (2S0) 1 SE UTC-8(-7DT) N48°21.04' W120°05.64'

SEATTLE

1602 B NOTAM FILE SEA

RWY 10-28: H2701X36 (ASPH) MIRL (NSTD)

RWY 10: Trees.

RWY 28: PAPI(P2L)—GA 4.0°. Thld dsplcd 200'. Road.

AIRPORT REMARKS: Unattended. Mountainous terrain surrounds arpt. Deer and pedestrians on and in vicinity of arpt.

Rwy 10-28 NSTD MIRL. Rwy 10 lgt'd thld relocated 124'. Rwy 28 lgt'd thld relocated 200'. Only 2366' of Rwy 10-28 lgt'd for ngt ops. Rwy 28 dsplcd thld marked by lgt fixture. Rwy 10 no rwy markings. ACTIVATE rotating bcn and MIRL Rwy 10-28 and PAPI Rwy 28—CTAF.

COMMUNICATIONS: CTAF 122.9

VANCOUVER N45°41.92' W122°55.52'

SEATTLE

RCO 122.35 (SEATTLE RADIO)

L-1C

VANCOUVER

FLY FOR FUN (W56) 4 NE UTC-8(-7DT) N45°41.24' W122°31.31'

SEATTLE

297 NOTAM FILE SEA

RWY 07-25: 2434X50(TURF)

RWY 07: P-line.

RWY 25: Trees. Rgt tfc.

AIRPORT REMARKS: Unattended. Arpt CLOSED Christmas and Easter. Taxi on rwy and mowed grass areas only.

COMMUNICATIONS: CTAF 122.9

WALLA WALLA

PAGE (9W2) 2 S UTC-8(-7DT) N46°00.99' W118°22.23'

SEATTLE

800 NOTAM FILE SEA Not insp

RWY 09-27: 2000X25 (TURF)

RWY 09: Rgt tfc.

AIRPORT REMARKS: Unattended.

COMMUNICATIONS: CTAF 122.9

WALLA WALLA RGNL (ALW) 3 NE UTC-8(-7DT) N46°05.69' W118°17.34'

SEATTLE

1194 B S4 FUEL 100LL, JET A OX 2 Class I, ARFF Index A NOTAM FILE ALW

H-1C, L-13A

RWY 02-20: H6527X150 (ASPH-GRVD) S-60, D-72, DT-110 HIRL 0.6% up NE

IAP, AD

RWY 02: REIL. PAPI(P4L)—GA 3.0° TCH 45'.

RWY 20: MALSR. PAPI(P4L)—GA 3.0° TCH 50'.

RWY 16-34: H5948X150 (ASPH-CONC) S-40, D-55,

DT-105 0.3% up SE

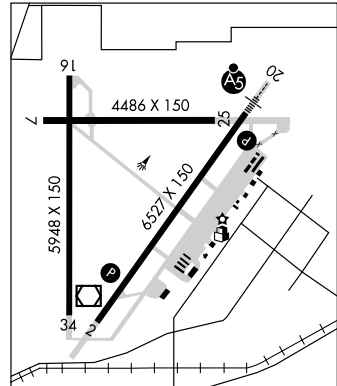
RWY 16: Ground.

RWY 07-25: H4486X150 (ASPH-CONC) S-42, D-55,

DT-105 1.3% up E.

AIRPORT REMARKS: Attended 1600-0100Z±. Self svc credit card fueling facility located 600' N of tower. For svc after hours call 509-529-4243. ARFF services avbl during scheduled air carrier opr. CLOSED to unscheduled air carrier ops with more than 30 passenger seats except PPR call arpt manager 509-525-3100. Rwy 07-25 CLOSED to scheduled air carrier opr. Rwy 16-34 CLOSED to scheduled air carrier opr. Rwy 16-34, Twy G clsd to air carrier opr. Rwy 07-25 large cracks and surface variations may impair directional control of Part 139 air carrier acct. Rwy 16-34 large cracks and surface variations. Rwy 16-34 taxiways F and G closed to air carrier opr. When twr clsd ACTIVATE MALSR Rwy 20, REIL Rwy 02, HIRL Rwy 02-20 and PAPI Rwy 02 and Rwy 20—CTAF.

WEATHER DATA SOURCES: ASOS 135.875 (509) 525-3014.
COMMUNICATIONS: CTAF 118.5
 RCO 122.3 (SEATTLE RADIO)
 (R) CHINOOK APP/DEP CON 133.15 (1400-0600Z±).
 (R) SEATTLE CENTER APP/DEP CON 132.6 (0600-1400Z±).
 TOWER 118.5 (1430-0300Z±) GND CON 121.6
AIRSPACE: CLASS D svc 1430-0300Z± other times CLASS E.
RADIO AIDS TO NAVIGATION: NOTAM FILE ALW.
 (L) VOR/DME 116.4 ALW Chan 111 N46°05.22' W118°17.55' at fld. 1179/20E.
 VOR/DME portions unusable:
 010°-065° byd 31 NM blo 12,500' 095°-140° byd 20 NM blo 13,500'
 065°-095° byd 20 NM blo 14,500'
 DME portion unusable: 140°-145° byd 20 NM blo 11,500'
TRINA NDB (LOM) 353 AL N46°10.53' W118°11.78' 199° 6.2 NM to fld.
ILS 111.7 I-ALW Rwy 20. Class IE. LOM TRINA NDB.
COMM/NAV/WEATHER REMARKS: Emerg frequency 121.5 not avbl at twr.



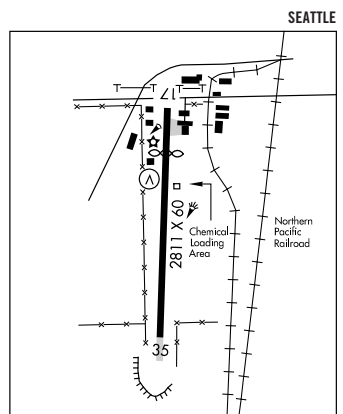
WALLULA N46°01.36' W118°51.52'

SEATTLE

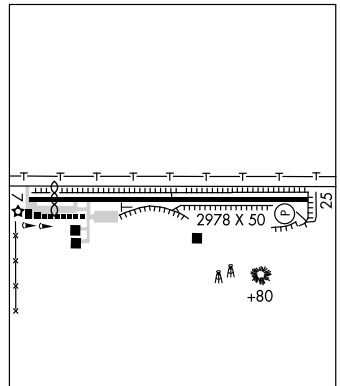
RCO 122.6 (MC MINNVILLE RADIO)

L-13A

WARDEN (2S4) 1 W UTC-8(-7DT) N46°57.95' W119°03.98'
 1276 B NOTAM FILE SEA
RWY 17-35: H2811X60 (ASPH) MIRL
RWY 17: SAVASI(S2R). Thld dspcd 560'.
AIRPORT REMARKS: Unattended. Rwy 17-35 320' grvl overrun south
 end. Rwy 17-35 centerline paint chipping. No rwy numbers.
COMMUNICATIONS: CTAF 122.9



WATERVILLE (2S5) 1 NE UTC-8(-7DT) N47°39.36' W120°03.39' SEATTLE
 2645 B FUEL 100LL NOTAM FILE SEA
RWY 07-25: H2978X50 (ASPH) S-5 MIRL
RWY 07: Thld dspcd 270'. Road.
RWY 25: PAPI(P2L)—GA 3.0°. Pole.
AIRPORT REMARKS: Attended Mon-Fri 1600-0100Z±. First 272' of west
 end Rwy 07-25 unlgtd.
COMMUNICATIONS: CTAF 122.9
RADIO AIDS TO NAVIGATION: NOTAM FILE EPH.
EPHRATA (H) VORTACW 112.6 EPH Chan 73 N47°22.68'
 W119°25.44' 282° 30.7 NM to fld. 1250/21E.



WATON N48°04.57' W122°09.23'. NOTAM FILE AWO.
NDB (LOM) 382 AW 338° 5.1 NM to Arlington Muni.

SEATTLE

WENATCHEE N47°23.98' W120°12.65' NOTAM FILE EAT. SEATTLE
(L) VORW/DME 111.0 EAT Chan 47 at Pangborn Mem. 1224/19E. **HIWAS.** DME unmonitored. L-13A
 HIWAS unavailable.
VOR/DME unusable:
 303°-073° byd 20 NM 153°-243° byd 15 NM
 073°-118° byd 25 NM blo 5,500' 243°-263° byd 35 NM blo 12,000'
 118°-153° byd 15 NM blo 14,500' 290°-303° byd 14 NM blo 7,900'
RCO 122.6 (SEATTLE RADIO)

WENATCHEE

PANGBORN MEM (EAT) 4 E UTC-8(-7DT) N47°23.89' W120°12.34'

SEATTLE

1249 B S4 FUEL 100LL, JET A OX 1, 2 Class I, ARFF Index B NOTAM FILE EAT

H-1B, L-1D, 13A

RWY 12-30: H5700X150 (ASPH-GRVD) S-75, D-100, ST-97, DT-250 MIRL

IAP

RWY 12: REIL. PAPI(P4L)—GA 3.6° TCH 50'. Road. Rgt tfc.

RWY 30: RAIL, REIL. PAPI(P2L)—GA 4.3° TCH 45'.

RWY 07-25: H4460X75 (ASPH) S-50, D-77, ST-97, DT-136
1.0% up SE

RWY 07: Tree. Rgt tfc.

RUNWAY DECLARED DISTANCE INFORMATION

RWY 07: TORA-4460 TODA-4460 ASDA-4460 LDA-4460

RWY 12: TORA-5700 TODA-5700 ASDA-5700 LDA-5700

RWY 25: TORA-4460 TODA-4460 ASDA-4460 LDA-4460

RWY 30: TORA-5700 TODA-5700 ASDA-5700 LDA-5700

AIRPORT REMARKS: Attended continuously. Rwy 07-25 CLOSED to all night operations. CLOSED to air carrier operations. Rwy 07-25 has extensive cracks, vegetation, and surface deterioration. Rwy 12 preferred no wind rwy. 24 hr PPR for unscheduled air carrier operations with more than 30 passenger seats call arpt ops, 509-860-1852. Bird hazard. Glider activity from Mar-Nov. Reflectors on Twys D and F only. ACTIVATE MIRL Rwy 12-30, REIL Rwy 12 and Rwy 30—CTAF. PAPI Rwy 12 and Rwy 30 opr continuously.

WEATHER DATA SOURCES: ASOS 119.925 (509) 886-4226.

HIWAS 111.0 EAT.

COMMUNICATIONS: CTAF/UNICOM 123.0

BADGER MOUNTAIN RCO 122.3 (SEATTLE RADIO)

WENATCHEE RCO 122.6 (SEATTLE RADIO)

SEATTLE CENTER APP/DEP CON 126.1

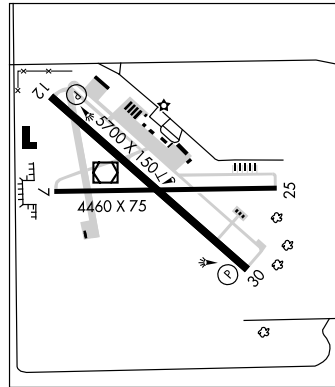
RADIO AIDS TO NAVIGATION: NOTAM FILE EAT.

WENATCHEE (L) VORW/DME 111.0 EAT Chan 47 N47°23.98' W120°12.65' at fld. 1224/19E. HIWAS.

DME unmonitored.

ILS/DME 109.35 I-ADJ Chan 30(Y) Rwy 12. LOC unusable byd 15 NM blo 5700'.

COMM/NAV/WEATHER REMARKS: HIWAS unavailable.



WESTPORT (14S) 1 N UTC-8(-7DT) N46°53.82' W124°06.05'

SEATTLE

14 NOTAM FILE SEA

RWY 12-30: H2318X50 (ASPH) MIRL

RWY 12: VASI(V2L). RWY 30: VASI(V2L). Rgt tfc.

AIRPORT REMARKS: Unattended. Large bird nesting area adjacent to Rwy 12-30. Rwy 12-30 soft shoulders.

COMMUNICATIONS: CTAF 122.9

WHATCOM N48°56.72' W122°34.76' NOTAM FILE BLI

SEATTLE

(H) VORTACW 113.0 HUH Chan 77 150° 9.3 NM to Bellingham Intl. 83/20E HIWAS

H-1B, L-1E

WHIDBEY AIR PARK (See LANGLEY)

WHIDBEY ISLAND NAS (AULT FLD) (NUW) (KNUW) N 3 N UTC-8(-7DT)

SEATTLE

N48°21.11' W122°39.36'

H-1B, L-1E

47 B TPA—See Remarks NOTAM FILE NUW Not insp.

DIAP, AD

RWY 14-32: H8001X200 (CONC) PCN 73 R/B/W/T HIRL CL

RWY 14: ALSF1. OLS. TDZL. REIL. RWY 32: ALSF1. OLS. TDZL. REIL.

RWY 07-25: H8000X200 (CONC) S-142, D-257, DT-445 PCN 45 R/B/W/T HIRL

RWY 07: OLS. REIL. RWY 25: ALSF1. REIL. OLS.

ARRESTING GEAR/SYSTEM

RWY 14 ← HOOK E5 (15' OVRN) HOOK E28(B) (1420') HOOK E28(B) (1926') HOOK E5 (14' OVRN →) RWY 32

RWY 07 ← HOOK E5 (15' OVRN) HOOK E28(B) (2425') HOOK E28(B) (1930') HOOK E5 (15' OVRN →) RWY 25

MILITARY SERVICE: A-GEAR E5 RATINGS—07-355 HEAVY WEIGHT (DRY), 25-335 HEAVY WEIGHT (DRY), 14-620

HEAVY WEIGHT (DRY), 32-595 HEAVY WEIGHT (DRY). JASU 1(NC-8A/A1) 1(NC-10C) 1(GTC-85/GTE-85)

1(NC-PP-105/RCPT-105) FUEL J8, J5 FLUID SP PRESEAIR De-ice LHOX LOX OIL O-156 SOAP

TRAN ALERT Transient crews must be ready to provide technical direction/assistance in svc/maintenance. Ltd

svc/maintenance avbl Mon-Fri 1500-2300Z†, no maintenance Sat, Sun and holidays. Air terminal opr

1400-0200Z†, as rqr other times.

MILITARY REMARKS: See FLIP AP/1 Supplementary Arpt Information. **RSTD** PPR for all acft except Search and

Rescue/Medevac ctc Air Terminal Supervisor, 1430-0100Z† at DSN 820-2604/6707, C360-257-2604/6707.

Prior coordination/flt advisory rqr for AMC/JOSAC/NALO missions. **CAUTION** Rwy 14-32 portion of SE end between

3000' and 2000' remaining marker not fully visible from twr. All E5 overrun A-Gear rigged at all times,

accidental engagement in the wrong direction will result in acft damage and may result in injury or loss of life.

Bird hazard, See FLIP AP/1 Supplementary Arpt Remark. **TFC PAT** TPA—Overhead initial 3000(2953), overhead

break 1500(1453) day, 1700(1653) night, pattern alt 1000(953) day, 1200(1153) night. Reduced rwy

separation standard in effect USN/USMC acft. UHF equipped acft use UHF twr frequency. **CTSMS/AG/IMG** Avbl only

for Whidbey based military acft from Canada, 48 hr prior notice, ctc OPS Duty Officer DSN 820-2681/2682,

C360-257-2681/2682. Base OPS DSN 820-2884/2885, C360-257-2884-2885. **MISC** Precision Approach

and Landing Systems Data Link frequency 313.3, TRN-28 Chan 18.

COMMUNICATIONS: ATIS 134.15 281.5

Ⓡ APP/DEP CON 118.2 285.65 (West) 120.7 270.8 (East)

TOWER 127.9 340.2 GND CON 121.75 336.4 CLNC DEL 124.15 135.1 379.9

PRE TAXI CLNC 124.15 135.1 380.0

PMSV METRO 343.4 BASE OPS 350.1

AIRSPACE: CLASS C svc ctc APP CON.**RADIO AIDS TO NAVIGATION:** NOTAM FILE NUW.(H) TACAN NUW (113.8) Chan 85 N48°21.30' W122°39.71' at fld. 51/18E. TACAN unusable 133°-163°
byd 30 NM bto 4,000'.ILS 110.1 I-NUW Rwy 14. Unusable byd 3° W of course and byd 5° E of course due to lack of defined
glide path and clearance above path. GS unusable byd 5° left and 3° right of course.**ASR/PAR****COMM/NAV/WEATHER REMARKS:** VFR advisory svc ctc APP CON. Pre-taxi clnc 135.1 used for pre taxi clnc at NUW,

124.15 on gnd clnc del at CLM—Port Angeles. Radar see Terminal FLIP for Radar Minima.

WILBUR (2S8) 2 SW UTC-8(-7DT) N47°45.25' W118°44.59'

SEATTLE

2182 B FUEL 100LL, JET A NOTAM FILE SEA

L-13A

RWY 02-20: H3119X35 (ASPH) MIRL

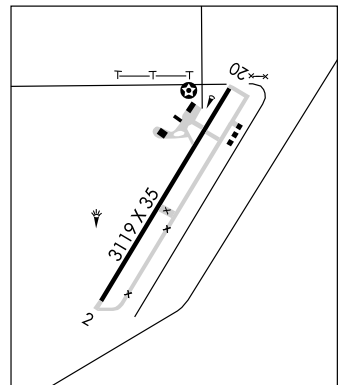
AIRPORT REMARKS: Attended Mon-Fri 1600-0100Z†. Grvl twy not
useable. Rwy 02-20 gravel on shoulders is soft and deep. Acft on
agricultural ramp, NE side of arpt parked in primary surface.

ACTIVATE MIRL Rwy 02-20 and rotating bcn—CTAF.

COMMUNICATIONS: CTAF 122.9**RADIO AIDS TO NAVIGATION:** NOTAM FILE EPH.

EPHRATA (H) VORTACW 112.6 EPH Chan 73 N47°22.68'

W119°25.44' 030° 35.7 NM to fld. 1250/21E.



WILLARD FLD (See TEKOA)

WILLAPA HARBOR (See SOUTH BEND (RAYMOND))

WILLIAM R FAIRCHILD INTL (See PORT ANGELES)

WILL ROGERS WILEY POST MEM SPB (See RENTON)

WILSON CREEK (5W1) 1 E UTC-8(-7DT) N47°25.49' W119°06.90'

SEATTLE
L-13A

1440 NOTAM FILE SEA

RWY 10-28: H3074X50 (ASPH)

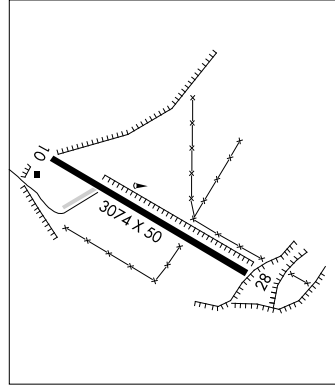
AIRPORT REMARKS: Unattended.

COMMUNICATIONS: CTAF 122.9

RADIO AIDS TO NAVIGATION: NOTAM FILE EPH.

EPHRATA (H) VORTACW 112.6 EPH Chan 73 N47°22.68'

W119°25.44' 056° 12.9 NM to fld. 1250/21E.



WINTHROP

METHOW VALLEY STATE (S52) 3 SE UTC-8(-7DT) N48°25.50' W120°08.75'

SEATTLE
H-1B, L-13A

1706 B NOTAM FILE SEA

RWY 13-31: H5049X75 (ASPH) S-30 MIRL

RWY 13: Thld dsplcd 129'. Fence.

RWY 31: Thld dsplcd 231'. Road.

AIRPORT REMARKS: Unattended. Heavily loaded acft may be making straight out departures and long final apch all dalgt hours May-September. Mountainous terrain surrounds arpt. ACTIVATE rotating bcn-CTAF. ACTIVATE MIRL Rwy 13-31-CTAF.

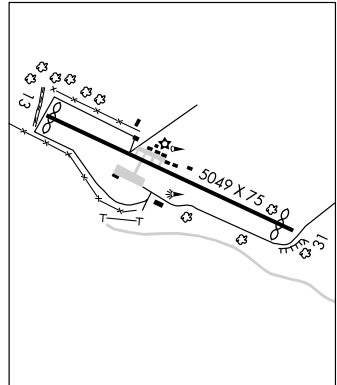
WEATHER DATA SOURCES: AWOS-3 118.425 (509) 997-0142.

COMMUNICATIONS: CTAF/UNICOM 122.8

RADIO AIDS TO NAVIGATION: NOTAM FILE EPH.

EPHRATA (H) VORTACW 112.6 EPH Chan 73 N47°22.68'

W119°25.44' 314° 69.3 NM to fld. 1250/21E.



WOODLAND STATE (W27) 1SE UTC-8(-7DT) N45°53.93' W122°44.24'

SEATTLE

29 NOTAM FILE SEA

RWY 14-32: H1953X25 (ASPH) LIRL

RWY 14: Thld dsplcd 290'. Pole. Rgt tfc.

RWY 32: Brush.

AIRPORT REMARKS: Unattended. Pedestrians, vehicles and wildlife on and invof arpt. 12' dike northwest end. Extreme turbulence possible when winds from the east. P-lines and building in apch to Rwy 14. Rwy 32 trees, bridge, low hill at southeast end.

COMMUNICATIONS: CTAF 122.9

YAKIMA AIR TERMINAL/MCALLISTER FLD (YKM)(KYKM) P 3 S UTC-8(-7DT)

SEATTLE

N46°34.09' W120°32.64'

H-1B, L-13A

1099 B S4 FUEL 100LL, JET A OX 1, 3 Class I, ARFF Index A NOTAM FILE YKM

IAP, DIAP, AD

RWY 09-27: H7604X150 (ASPH-PFC) S-95, D-160, ST-175, DT-220, DDT-550 PCN 33 F/C/X/T

HIRL 0.7% up W

RWY 09: REIL. VASI(V4L)—GA 3.0° TCH 50'.**RWY 27:** MALSR. PAPI(P4L)—GA 3.0° TCH 59'. Road.**RWY 04-22:** H3835X150 (ASPH-PFC) S-70, D-80, ST-102, DT-120 PCN 28 F/C/X/T MIRL 0.5% up SW**RWY 04:** REIL. PAPI(P4L)—GA 3.0° TCH 50'.**RWY 22:** REIL. PAPI(P4L)—GA 3.03° TCH 47'.**RUNWAY DECLARED DISTANCE INFORMATION****RWY 04:** TORA-3835 TODA-3835 ASDA-3835 LDA-3835**RWY 09:** TORA-7604 TODA-7604 ASDA-7604 LDA-7604**RWY 22:** TORA-3835 TODA-3835 ASDA-3835 LDA-3835**RWY 27:** TORA-7604 TODA-7604 ASDA-7604 LDA-7604

AIRPORT REMARKS: Attended continuously. Be alert: Birds invof Yakima River 5 NM east of approach to Rwy 27. Rwy 04-22 some spalling and raveling. PPR for unscheduled air carrier ops with more than 30 passenger seats, call arpt manger 509-575-6149/6014. Twy B from approach end of Rwy 22 to Twy A rstd to acft with wingspans 79' or less. When twr clsd ACTIVATE HIRL Rwy 09-27 and MALSR Rwy 27—CTAF.

WEATHER DATA SOURCES: ASOS (509) 248-1502.**COMMUNICATIONS:** CTAF 133.25 ATIS 125.25 UNICOM 122.95

RCO 122.5 (SEATTLE RADIO)

CHINOOK APP/DEP CON 123.8 263.15 (1400-0600Z‡) SEATTLE CENTER APP/DEP CON 132.6 269.35 (0600-1400Z‡)

TOWER 133.25 (1400-0600Z‡) GND CON 121.9 CLNC DEL 121.9

AIRSPACE: CLASS D svc 1400-0600Z‡ other times CLASS E.**RADIO AIDS TO NAVIGATION:** NOTAM FILE YKM.

(H) VORTACW 116.0 YKM Chan 107 N46°34.21' W120°26.68' 247° 4.1 NM to fld. 984/21E.

VOR portion unusable:

350°-080° byd 25 NM blo 9,000'

109°-135° byd 25 NM blo 6,000'

025°-035° byd 5 NM blo 6,000'

135°-180° byd 30 NM blo 7,500'

080°-105° byd 35 NM blo 6,000'

195°-225° byd 30 NM blo 8,500'

105°-107° byd 25 NM blo 6,000'

305°-335° byd 30 NM blo 9,000'

DME unusable:

095°-115° byd 26 NM blo 8,000'

207°-230° byd 20 NM blo 10,000'

095°-115° byd 35 NM

290°-315° byd 20 NM blo 11,000'

115°-207° byd 20 NM blo 8,500'

315°-080° byd 12 NM blo 15,000'

115°-207° byd 36 NM blo 10,000'

DONNY NDB (LOM) 371 YK N46°31.54' W120°22.33' 274° 7.6 NM to fld. Unmonitored when twr clsd.**ILS** 110.1 I-YKM Rwy 27. LOM DONNY NDB. ILS unmonitored when tower closed.**COMM/NAV/WEATHER REMARKS:** During hours twr is clsd all ops in vicinity of arpt restricted to acft with VHF radio capability, unless an emerg exist necessitating UHF equipped acft to land.

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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		Cape Girardeau, MO	Cape Girardeau, MO	
	19-20	Tinker AFB, OK		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		

SPECIAL NOTICES

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.

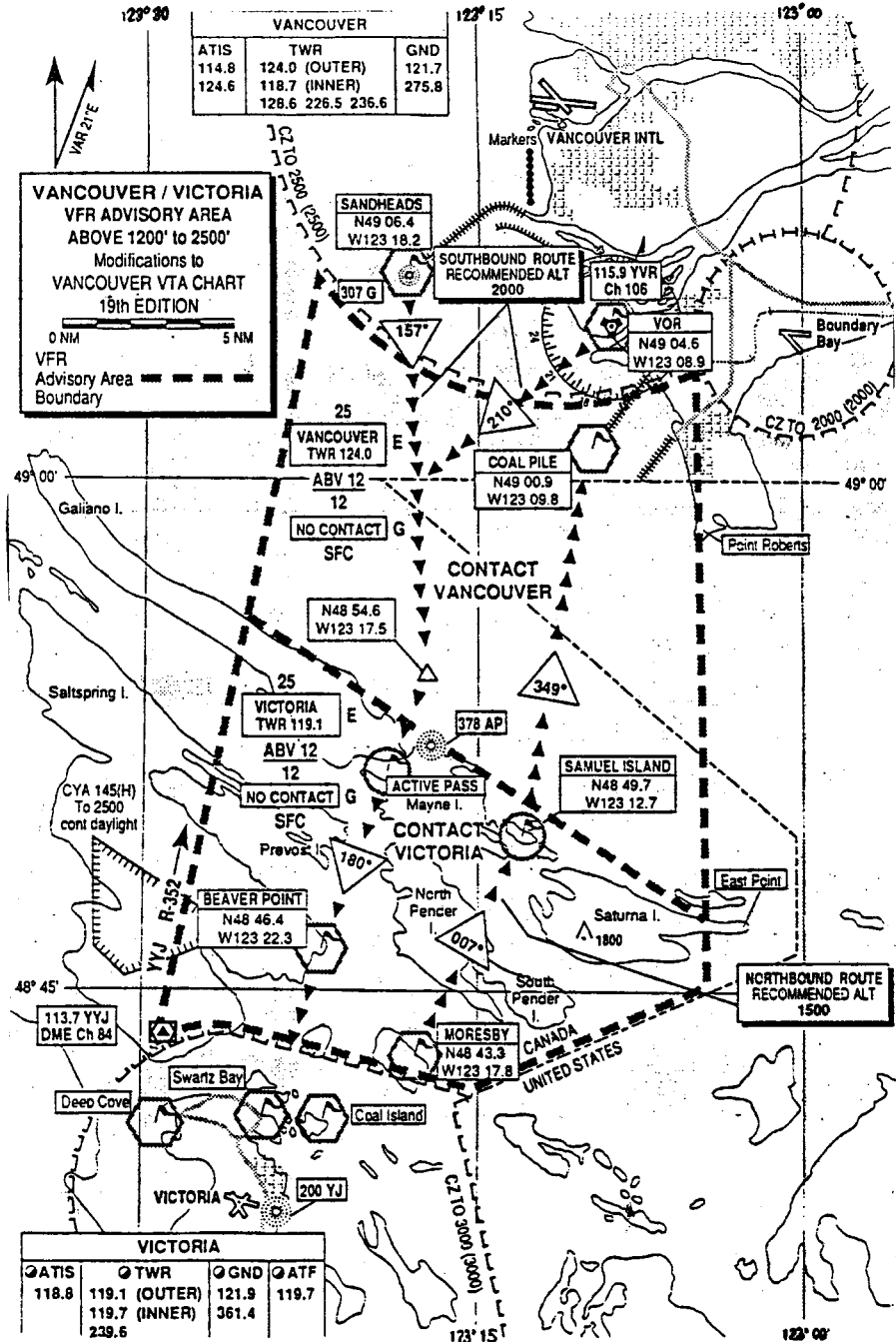
TRANSITING TRAFFIC

*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, advise ATC.



VANCOUVER / VICTORIA
VFR ADVISORY AREA
ABOVE 1200' to 2500'
 Modifications to
VANCOUVER VTA CHART
19th EDITION

0 NM 5 NM

VFR
 Advisory Area
 Boundary

VANCOUVER		
ATIS	TWR	GND
114.8	124.0 (OUTER)	121.7
124.6	118.7 (INNER)	275.8
	128.6 226.5 236.6	

VICTORIA			
ATIS	TWR	GND	ATF
118.6	119.1 (OUTER)	121.9	119.7
	119.7 (INNER)	361.4	
	239.6		

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.

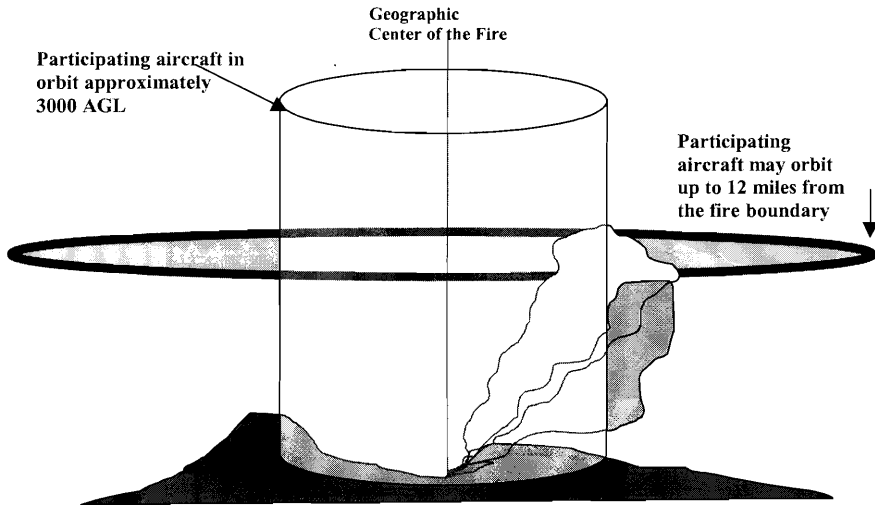
Times of use: Sunset to sunrise, daily.

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 Puerto 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: <u>TAF</u> -routine or <u>TAF AMD</u> -amended forecast, <u>METAR</u> -hourly, <u>SPECI</u> -special or <u>TESTM</u> -non-commissioned ASOS report	METAR
KPIT	ICAO location indicator	KPIT
091730Z	Issuance time: ALL times in UTC " <u>Z</u> ", 2-digit date, 4-digit time	091955Z
091818	Valid period: 2-digit date, 2-digit beginning, 2-digit ending times In U.S. METAR : <u>COR</u> rected ob; or <u>AUTO</u> mated 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 <u>VaRiaBle</u>); next 2-3 digits for speed and unit, <u>KT</u> (KMH or MPS); as needed, <u>Gust</u> and maximum speed; 0000KT for calm; for METAR , if direction varies 60 degrees or more, <u>Variability</u> appended, e.g. 180 <u>V</u> 260	22015G25KT
5SM	Prevailing visibility: in U.S., <u>Statute Miles</u> & fractions; above 6 miles in TAF <u>Plus</u> 6SM. (Or, 4-digit minimum visibility in meters and as required, lowest value with direction)	3/4SM
HZ	Runway Visual Range: <u>R</u> ; 2-digit runway designator <u>Left</u> , <u>Center</u> , or <u>Right</u> as needed; <u>'/</u> '; <u>Minus</u> or <u>Plus</u> in U.S., 4-digit value, <u>FeeT</u> in U.S., (usually meters elsewhere); 4-digit value <u>Variability</u> 4-digit value (and tendency <u>Down</u> , <u>Up</u> or <u>No</u> change)	R28L/2600FT
FEW020	Significant present, forecast and recent weather: see table (on back) Cloud amount, height and type: <u>SKY</u> <u>Clear</u> 0/8, <u>FEW</u> >0/8-2/8, <u>SCaTtered</u> 3/8-4/8, <u>BroKeN</u> 5/8-7/8, <u>OVerCast</u> 8/8; 3-digit height in hundreds of ft; <u>Towering CU</u> mulus or <u>CumuloniM</u> Bus in METAR ; in TAF , only <u>CB</u> . <u>Vertical</u> Visibility for obscured sky and height "VV004". More than 1 layer may be reported or forecast. In automated METAR reports only, <u>CLeaR</u> for "clear below 12,000 feet" T <u>em</u> perature: degrees Celsius; first 2 digits, temperature <u>'/</u> last 2 digits, dew-point temperature; <u>Minus</u> for below zero, e.g., M06 Altimeter setting: indicator and 4 digits; in U.S., <u>A</u> -inches and hundredths; (<u>Q</u> -hectoPascals, e.g., Q1013)	TSRA OVC010CB 18/16 A2992

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

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

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 ($\geq 5/8SM$)	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
 Casper – 135.6 **118.925** (KZDV)
 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**
 Thermopoliis – **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
GLENDALE 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 nav aids.
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 nav aids, 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 STARs 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 overlying 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 overlying 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 overlying 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 overlying 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

PREFERRED IFR ROUTES
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
Q2	ETCHY-POINT REYES	LIN, ECA, RBL, ENI, SAC, OAK
	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
Q3	ITUCO-NEWMAN	EWM, TFD, PXR, CIE, SSO, TUS, TCS
	FEPOT-FAMUK	OLM, TOU, HQM, CVO, BTG, DSD, LTJ, UBG, ONP, EUG
	FAMUK-FRFLY	BTG, DSD, OED, CVO, EUG, ONP, UBG, RBL, LMT
Q4	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
	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
Q5	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
	HAROB-HISKU	OLM, ONP, CVO, EUG, HQM, UBG, BTG, LTJ, DSD, HUH
Q7	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
Q9	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
Q9	JAGWA-AVENAL	OAK, MOD, ECA, EHF, PRB, AVE, SNS, CZQ
	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
Q13	PUSHH-LOS ANGELES	SAC, ECA, FMG, LIN, OAL, MOD, EHF, LAX, PMD, PDZ, HEC, OCN, CZQ, AVE, RZS
	All segments	None; GNSS required
Q15	All segments	None; GNSS required
	PLESS-NASHVILLE	ENL, GQO, PXV, BNA, IJU, 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
	GUSTI-OYSTY	AEX, DAS, MCB, LLA, BTR, LCH, HRV, LFT, LEV
Q22	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 BATON ROUGE-IRUBE IRUBE-PAYTN	AEX, DAS, LCH, MCB, LFT, BTR AEX, LEV, MCB, LCH, RQR, HRV, BTR, GCV, MCB, PCU, SJI, LBY GCV, MCB, JYU, PCU, MEI, HRV, CEW, SJI
Q25	MEEOW-WALNUT RIDGE WALNUT RIDGE-WLSUN WLSUN-POCKET CITY	ELD, MEM, LIT, FAM, RZC MEM, STL, BWG, PXV, ENL, FAM, ARG, BNA, CSX, TTH 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 PYRMD-HAKAT HAKAT-ESTEE ESTEE-POCKET CITY	EIC, LIT, ELD, OKM, TXK ARG, LIT, FAM, ELD, SGF, RZC, MEM, TXK ARG, LIT, FAM, SGF, MEM ARG, CSX, FAM, PXV, ENL, MEM, STL, BWG, TTH, BNA
Q29	HARES-MEMPHIS MEMPHIS-SIDAE SIDAE-POCKET CITY	MEM, ARG, LIT, JAN, ELD, SQS MEM, PXV, BNA, BWG, ARG, ENL PXV, TTH, BWG, ENL
Q30	SIDON-VULCAN	GLH, MEM, VUZ, JAN, JYU, MEI, MGM, SQS, RMG
Q31	DHART-JODOX JODOX-MARVELL MARVELL-TIIDE TIIDE-POCKET CITY	SQS, LIT, TXK SQS, LIT, ELD, MEM, ARG ARG, BWG, PXV, FAM, LIT, MEM, ENL, TTH BWG, PXV, ENL, TTH
Q32	EL DORADO-GAGLE GAGLE-CRAMM CRAMM-NASHVILLE NASHVILLE-SWAPP	AEX, JAN, MEM, SQS, SWB, ELD, LIT, TXK JAN, SQS, MEM, ARG, VUZ, BNA, LIT BWG, MEM, VUZ, BNA, GQO BWG, IJU, PXV, VXV, BNA, GQO
Q33	DHART-LITTLE ROCK LITTLE ROCK-PROWL	AEX, ELD, LIT, TXK, SWB, ARG, MEM, SQS ELD, SGF, FAM, LIT, ARG, MEM, RZC, CSX, STL
Q34	TEXARKANA-MATIE MATIE-MEMPHIS MEMPHIS-SWAPP	LIT, SWB, TXK, BYP, EIC, ELD, SQS LIT, ARG, MEM, ELD, SQS BWG, ARG, MEM, MKL, SQS, PXV, BNA, GQO, IJU, VXV
Q35	KIMBERLY-NEERO NEERO-WINEN WINEN-CORKR CORKR-DRAKE	LTJ, PDT, DSD, IMB, LKV, BOI, REO, BAM, SDO BQU, SDO, BAM, REO, BVL, ILC, DTA, ELY, CDC, MLF, BCE CDC, BCE, BLD, ILC, MLF, TBC, PGS, INW, DRK TBC, BCE, BLD, DRK, PGS, FLG, GCN, INW, TFD
Q36	RAZORBACK-TWITS TWITS-DEPEC DEPEC-NASHVILLE NASHVILLE-SWAPP	RZC, MEM, SGF, BUM, TUL, EOS, FAM, ARG, LIT MEM, GQO, BNA, BWG, FAM, ARG, PXV, IJU GQO, BWG, BNA, PXV, IJU VXV, BWG, BNA, GQO, PXV, IJU
Q38	ROKIT-INCIN INCIN-LAREY LAREY-BESOM	DAS, LCH, SWB, IAH, LFK, HUB, AEX JAN, MCB, SWB, AEX JAN, JYU, MEI, SQS, VUZ
Q40	ALEXANDRIA-DOOMS DOOMS-WINAP WINAP-MISLE	AEX, SWB, LCH, JAN, HEZ, MCB JAN, SQS, MEI, MCB MEI, VUZ, JYU
Q42	KIRKSVILLE-STRUK STRUK-DANVILLE DANVILLE-MUNCIE MUNCIE-HIDON HIDON-BUBAA BUBAA-PSYKO PSYKO-BRANAN BRANAN-MAALS MAALS-SUZIE SUZIE-EAST TEXAS EAST TEXAS-ELIOT	CID, IOW, UIN, LMN, IRK, BDF, STL, DEC, ENL, CSX ENL, IOW, UIN, BDF, DEC, STL, CSX, SPI, TTH, BVT, JOT, VHP, OXI, ENL, OKK, OBK, GIJ, FWA, GSH, IRK GIJ, SPI, BDF, OBK, OKK, VHP, BVT, DEC, GSH, FWA, JOT, TTH, OXI, ROD, FLM FLM, VHP, GSH, TTH, GIJ, OKK, FWA, ROD, OXI, CRL, GSH, APE, DJB, DXO, HNN, AIR, HVQ, CXR, EWC AIR, APE, HNN, CXR, HVQ, EWC, DJB AIR, APE, DJB, CXR, HNN, EWC, SLT, CSN, JHW, ETG, PSB PSB, JHW, EWC, AIR, ETG, CSN, EMI, SLT EMI, SLT, CSN, EWC, PSB, ETG, SAX, RBV, HNK, HUO, SIE ETG, EMI, CSN, HUO, SIE, JFK, PSB, SLT, HNK JFK, EMI, PSB, SLT, HNK, SIE, RBV, SAX, HUO, CYN HUO, RBV, EMI, CYN, SAX, JFK, PSB, HNK
Q104	DEFUN-HEVVN HEVVN-PLYER PLYER-SWABE SWABE-ST PETERSBURG ST PETERSBURG-CYPRESS	PIE, PZD, CRG, SZW, TAY, JYU, CEW, MGM, OTK, CRG PIE, ORL, OMN, SRQ, TAY, LAL, CRG, SZW, PZD PIE, ORL, OMN, SRQ, TAY LAL, ORL, OMN, SRQ, PHK, PIE 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
	THNDR-JAYMC	SRQ, VRB, PHK, PIE, LAL, VKZ, ORL, PBI
Q110	JAYMC-RVERO	VKZ, VRB, PHK, PIE, LAL, SRQ, ORL, OMN, PBI, DHP
	RVERO-KPASA	OMN, PIE, PBI, SRQ, ORL, LAL
Q112	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
Q116	DEFUN-HEVVN	PIE, OTK, CRG, OMN, LAL, SZW, SRQ, ORL, VRB
	HEVVN-INPIN	JYU, PZD, CEW, SZW, MGM, OTK, TAY, AMG, PIE, CRG
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
Q502	GOPHER-SOBME	FGT, BRD, MCW, GEP, ABR, FAR, DLH, ODI, RWF, FSD
	KENPA-GOPHER	SSM, FNT, ECK, APN, SAW, GRB, BAE, DLL, AUW, ODI, FGT, DLH, EAU, MCW,
Q504	GOPHER-SOBME	MSP, MNM, ASP, TVC, GEP, RWF, BRD
	NOTAP-CESNA	FGT, DLH, ODI, MCW, ABR, FAR, MSP, GEP, RWF, FSD, BRD
Q505	CESNA-HEMDI	SSM, ECK, APN, GLR, PLN, ISQ, MNM, DLL, RHI, DLH, GEP, FGT, ODI, ASP, TVC,
	OMAGA-RIMBE	SAW, GRB, BRD
	RIMBE-CESNA	ODI, GEP, DLH, FGT, RWF, FAR, AXN, FSD, ABR, DLL, BRD
	CESNA-HEMDI	SSM, TVC, ASP, SAW, GRB
		SSM, RHI, DLL, DLH, GEP, FGT, TVC, SAW, GRB, BRD, ODI
		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.

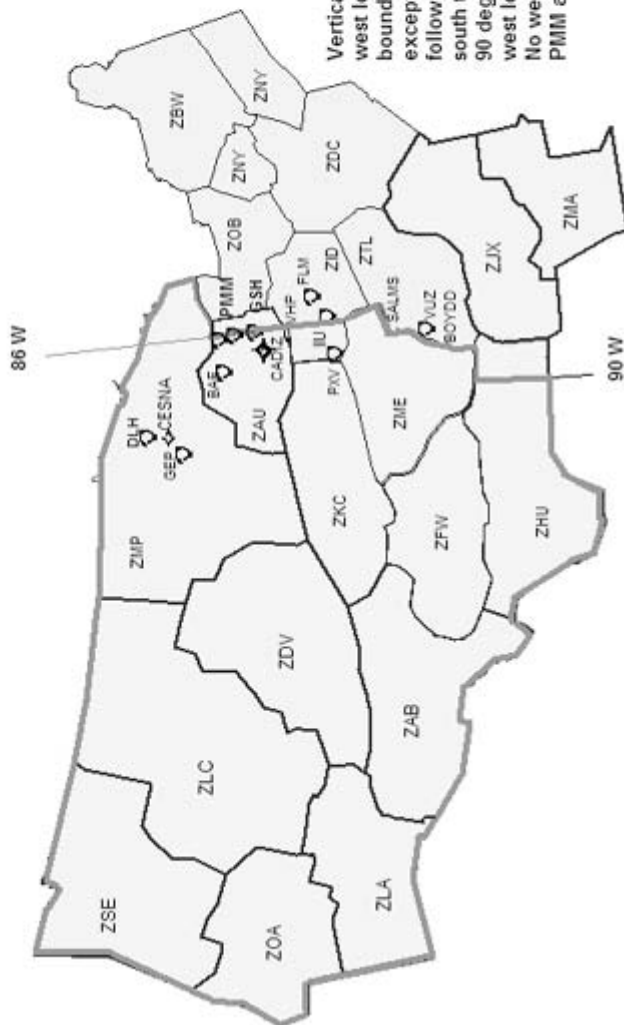
Where pitch points for a specific airport are not identified, aircraft should file an appropriate departure procedure (DP), or any other user preferred routing prior to the NRR portion of their routing. Where catch points for a specific airport are not identified aircraft should file, after the NRR portion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



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.

**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	GALLI, INSLO, HAROL JSICA
Oakland	GALLI, INSLO, HAROL JSICA
San Jose	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
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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	<p>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</p>
Ft Lauderdale or Ft Lauderdale Executive	<p>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</p>
Houston Bush	<p>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</p>
Houston Hobby	<p>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</p>
Jacksonville	<p>GADAY ZOOSS TAY Aircraft through ZHU airspace remain south of ZME and ZTL airspace or ZOOSS TAY</p>

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 HEVFN 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 HEVFN 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'
VPGLV	_____	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'
VPPFU	_____	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'
VPESP	_____	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'
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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'
VP CAR	_____	N33°49.90'/W118°17.23'
VP CNG	CONEJO GRADE US HWY 101	N34°12.54'/W118°59.61'
VP COR	_____	N33°52.90'/W117°32.95'
VP CRX	_____	N34°01.40'/W117°44.88'
VP CSU	CSU CHANNEL ISLANDS	N34°09.76'/W119°02.53'
VP DOW	_____	N33°56.47'/W118°05.80'
VP ELA	_____	N34°00.98'/W118°10.35'
VP ETY	_____	N33°38.70'/W117°44.12'
VP FCB	_____	N34°02.03'/W118°01.63'
VP FPL	OXNARD FINANCIAL PLAZA	N34°13.71'/W119°10.39'
VP GOL	_____	N34°09.33'/W118°17.37'
VP IMP	_____	N33°55.85'/W118°16.85'
VP KAT	_____	N33°48.23'/W117°54.22'
VP KEL	_____	N34°03.92'/W117°48.40'
VP LAC	_____	N34°03.75'/W118°14.93'
VP LLU	_____	N34°03.85'/W117°17.82'
VP LQM	QUEEN MARY	N33°45.17'/W118°11.37'
VP LRT	SANTA ANITA RACE TRACK	N34°08.45'/W118°02.65'
VP LVT	VINCENT THOMAS BRIDGE	N33°44.97'/W118°16.32'
VP MDR	_____	N33°59.27'/W118°23.97'
VP NEW	NEWHALL PASS	N34°20.18'/W118°30.72'
VP NUY	_____	N34°09.63'/W118°28.18'
VP PCH	_____	N33°28.07'/W117°40.32'
VP PKC	_____	N34°03.32'/W118°12.83'
VP POR	_____	N34°00.10'/W117°50.12'
VP RRT	_____	N33°59.37'/W118°16.83'
VP SEP	_____	N34°05.80'/W118°28.63'
VP SFR	_____	N34°17.45'/W118°28.07'
VP STC	SATICOY BRIDGE	N34°16.62'/W119°08.34'
VP STK	_____	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'
VPCLC	_____	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'
VPLYV	_____	N24°49.07'/W080°49.17'
VPMB0	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°
VPRFB	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'
VPROMO	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	SALT AIR	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'
VPFFK	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'
VPVVO	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	SALT AIR	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'
VPFFK	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'
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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'
VPALC	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

VPAGE	_____	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 CHECK 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 Rwy's 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.

VOR RECEIVER CHECK

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.

VOR RECEIVER CHECK

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.

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.

PARACHUTE JUMPING AREAS

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. Occasional 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 (LL40)	L-28H
Chicago App/Dep Con 133.1 285.6	
Glasgow Industrial, MT (Ø7MT)	H-1E, 2F, L-13D
Salt Lake Center App/Dep Con 126.85 305.2	
USAF Academy Bullseye Aux Airstrip, CO (CO90)	L-10F
ASOS 118.325	
West Kentucky Airpark, KY (5KY3)	L-16I
Memphis Center App/Dep Con 133.65 292.15	
William P Gwinn, FL (Ø6FA)	H-8I, L-23C
Gwinn Tower 120.4 279.25 (Mon-Fri 1300-2100Z‡)	
Gnd Con 121.65 279.25	

CANADA

FACILITY NAME	CHART & PANEL
Abbotsford, BC (CYXX)	H-1B, L-12F
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')	
Amos/Magny, QC (CYEY)	H-11B
Montreal Center App/Dep Con 125.9	
Atikokan Muni, ON (CYIB)	L-14I
MF 122.3 (5 NM to 4500' No ground station)	
Barrie-Drillia (Lake Simcoe Rgnl), ON (CYLS)	H-11B, L-31D
AWOS 122.55 (Pvt)	
Toronto Center App/Dep Con 124.025	
Bar River, ON (CPF2)	L-31C
Toronto Center App/Dep Con 132.65	
Bathurst, NB (CZBF)	L-32J
Moncton Center App/Dep Con 134.25	
Boundary Bay, BC (CZBB)	H-1B, L-1E
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'.)	
Brampton, ON (CNC3)	L-31D
Toronto Trml App/Dep Con 119.3 253.1	
Brandon Muni, MB (CYBR)	H-2H
Winnipeg Center App/Dep Con 132.25 285.4	
MF 122.1 (5 NM to 4000')	
Brantford, ON (CYFD)	L-31D
Toronto Trml App/Dep Con 128.27	
Brockville-Thousand Islands Rgnl Tackaberry, ON (CNL3)	L-32G
Montreal Center App/Dep Con 134.675	
Bromont, QC (CZBM)	L-32G
Montreal Center App/Dep Con 132.35 MF 122.15 (5 NM to 3400')	
Burlington Airpark, ON (CZBA)	L-31D
Toronto Center App/Dep Con 119.3 253.1	
Castlegar/West Kootenay Rgnl, BC (CYCG)	H-1C
Vancouver Center App/Dep Con 134.2 227.3	
MF 122.1 (5 NM to 6500')	
Centralia/James T. Fld Muni, ON (CYCE)	H-10G, 11B, L-31D
Toronto Center App/Dep Con 135.30	
Charlottetown, PE (CYYG)	H-11E, L-32J
Moncton Center App/Dep Con 135.65 384.8 MF 118.0 (5 NM to 3200')	
Chatham-Kent, ON (CNZ3)	H-10G, L-30G
Cleveland Center App/Dep Con 132.25	

FACILITY NAME	CHART & PANEL
Collingwood, ON (CNY3) Toronto Center App/Dep Con 124.02	H-11B, L-31D
Cornwall Rgnt, ON (CYCC) Boston Center App/Dep Con 135.25 377.1	L-32G
Cranbrook/Canadian Rockies Intl, BC (CYXC) Vancouver Center App/Dep Con 133.6 MF 122.3 (5 NM to 6100')	H-1C
Debert, NS (CCQ3) Halifax Trml App/Dep Con 119.2	H-11E, L-32J
Digby, NS (CYID) Moncton Center App/Dep Con 123.9	L-32J
Downsview, ON (CZD) Toronto Center App Con 133.4 Toronto Center Dep Con 133.4 MF 126.2 (1300-2300Z±, 3 NM to 1700')	H-11B, L-31E
Drummondville, QC (CSC3) Montreal Center App/Dep Con 132.35	L-32H
Earlton (Timiskaming Rgnt), ON (CYXR) MF 122.0 (5 NM to 3800') AWOS 128.6	H-11B
Elliot Lake Muni, ON (CYEL) Toronto Center App/Dep Con 135.4	L-31C
Fort Frances Muni, ON (CYAG) Minneapolis Center App/Dep Con 120.9	L-14H
Fredericton Intl, NB (CYFC) 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')	H-11E, L-32I
Goderich, ON (CYGD) Toronto Center App/Dep 135.3 266.3	H-11B, L-31D
Greenwood, NS (CZXX) 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 Clncl Del 128.05 283.9	H-11E, L-32J
Grimsby Air Park, ON (CNZ8) Toronto Trml App/Dep Con 128.27 268.75 Tower 125.0 308.475	L-31E
Halifax/Shearwater, NS (CYAW) 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	H-11E, L-32J
Halifax/Stanfield Intl, NS (CYHZ) 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 Clncl Del 123.95 Apron Advisory 122.125	H-11E, L-32J
Hamilton, ON (CYHM) ATIS 128.1 Toronto Trml App/Dep Con 128.27 268.75 Tower 119.7 125.0 Gnd Con 121.6	H-10H, 11B, L-11B
Kingston, ON (CYGK) Montreal Center App/Dep Con 135.05 398.4 (0400-1115Z±) MF 122.5 (1115-0400Z± 5 NM to 3300')	H-11C, L-31E, 32F
Kitchener/Waterloo, ON (CYKF) 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')	H-11B, L-31D
Lachute, QC (CSE4) Montreal Center App Con 124.65 132.85 268.3 Montreal Center Dep Con 132.85 268.3	L-32G
La Tuque, QC (CYLQ) Montreal Center App/Dep Con 134.5	H-11C
Langley, BC (CYNJ) 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')	L-1E

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/Huronina, 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 (CYVB) 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 (CYFF) 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 (CZZR) 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. Catharines/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) Cinc 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
Warton, ON (CYVW) 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 Cinc 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) Saltitillo App Con 127.4 Saltitillo Tower 118.4	H-7B
Quetzalcoatl Intl (MMNL) Nuevo Laredo App Con 118.3 Nuevo Laredo Tower 118.3	H-7B, L-20G
Torreón Intl (MMTC) App Con 119.6 Tower 118.5	H-7A

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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., , , .
2. Approach lighting systems that do not bear a system identification are indicated with a negative "0" beside the name.

A star (*) indicates non-standard PCL, consult the individual airport in the front portion of the A/FD, e.g., *. To activate lights use frequency indicated in the communication section of the chart with a  or the appropriate lighting system identification e.g., UNICOM 122.8 , , .

<u>KEY MIKE</u>	<u>FUNCTION</u>
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 $\begin{matrix} \swarrow & \text{Amdt 11A 99365} & \searrow \\ & \text{Orig 00365} & \end{matrix}$ Date of latest change

The Chart Date identifies 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

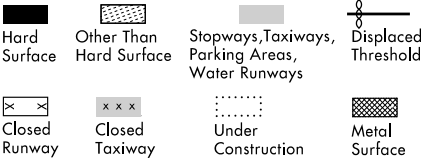
- * Indicates a non-continuously operating facility, see the individual airport in the front portion of the A/FD.
- # Indicates control tower temporarily closed UFN.

10042
LEGEND

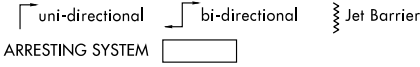
INSTRUMENT APPROACH PROCEDURES (CHARTS)

AIRPORT DIAGRAM/AIRPORT SKETCH

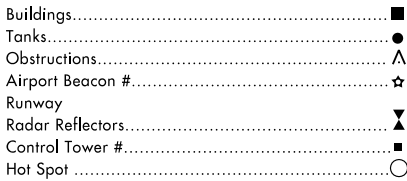
Runways



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.



REFERENCE FEATURES



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.

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

Helicopter Alighting Areas Negative Symbols used to identify Copter Procedures landing point.....

Runway Threshold elevation.....THRE 123
Runway TDZ elevation.....TDZE 123

Runway Slope..... (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.

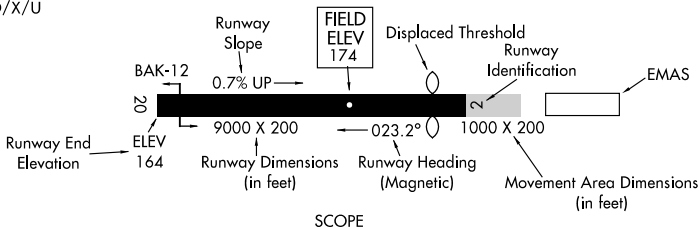
Airport diagram scales are variable.

True/magnetic North orientation may vary from diagram to diagram

Coordinate values are shown in 1 or 1/2 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)



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.

LEGEND

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 "HOT¹", "HOT²", 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 txf 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

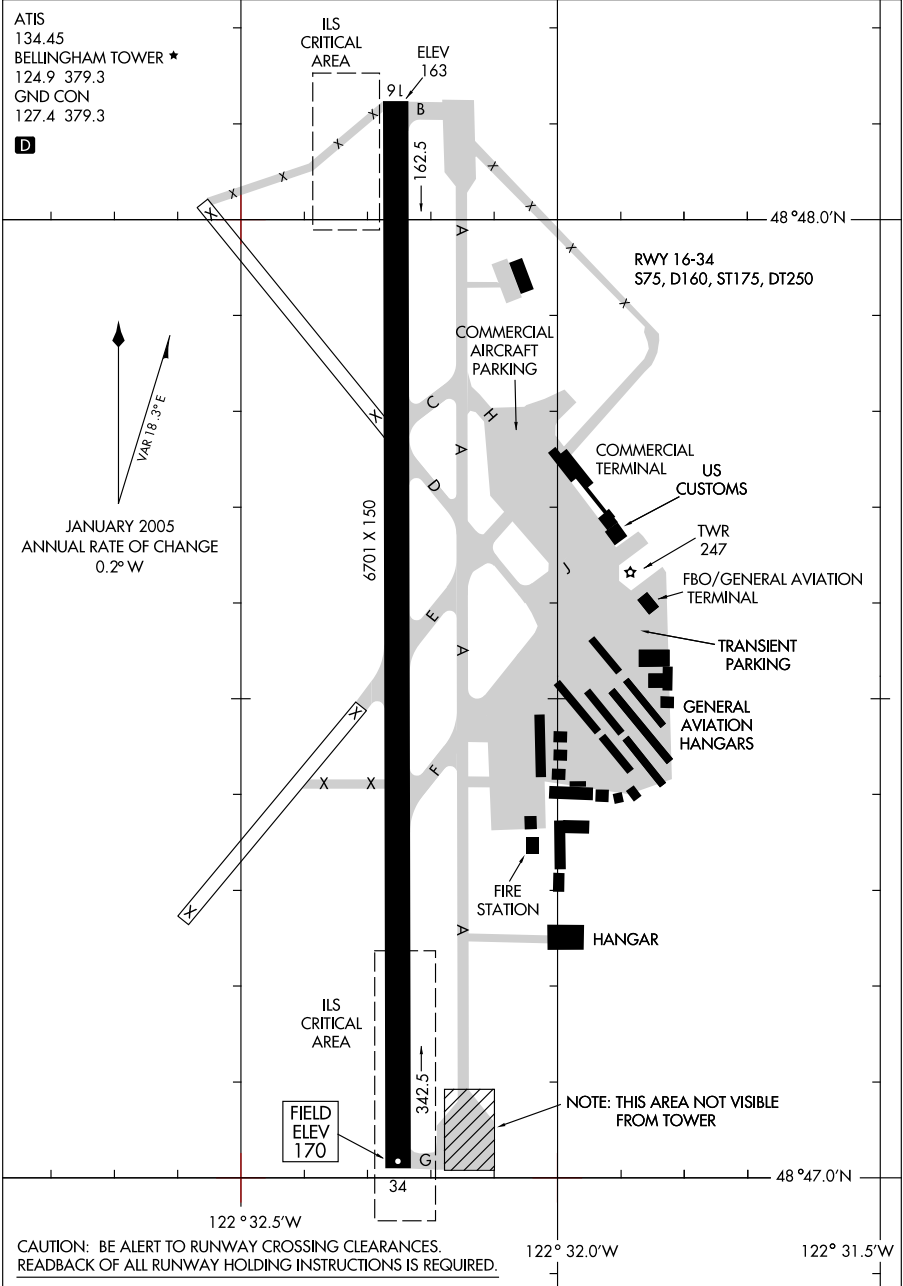
<p>EVERETT SNOHOMISH COUNTY (PAINE FIELD) PAE</p>	<p>HOT¹</p>	<p>Pilots holding short of Rwy 11–29 at Twy A4 or Twy A5 should use caution to stop prior to the rwy holding position marking. Rwy hold position signs are located 230' to the right and 350' to the left of the Twy A5 centerline and may be difficult to locate.</p>
	<p>HOT²</p>	<p>Rwy 29 thld in close proximity to ramp areas.</p>
	<p>HOT³</p>	<p>Twy A between Twy A8 and Twy A9 not visible from ATCT.</p>
<p>SEATTLE BOEING FIELD/KING COUNTY INTL (BFI)</p>	<p>HOT¹</p>	<p>Twy Z restricted access area.</p>
	<p>HOT²</p>	<p>Rwy 13R–31L and Twy A9. Wrong rwy departure risk.</p>
<p>SEATTLE SEATTLE-TACOMA INTL (SEA)</p>	<p>HOT¹</p>	<p>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').</p>

10098

AIRPORT DIAGRAM

AL-45 (FAA)

BELLINGHAM INTL (BLI)
BELLINGHAM, WASHINGTON



AIRPORT DIAGRAM

10098

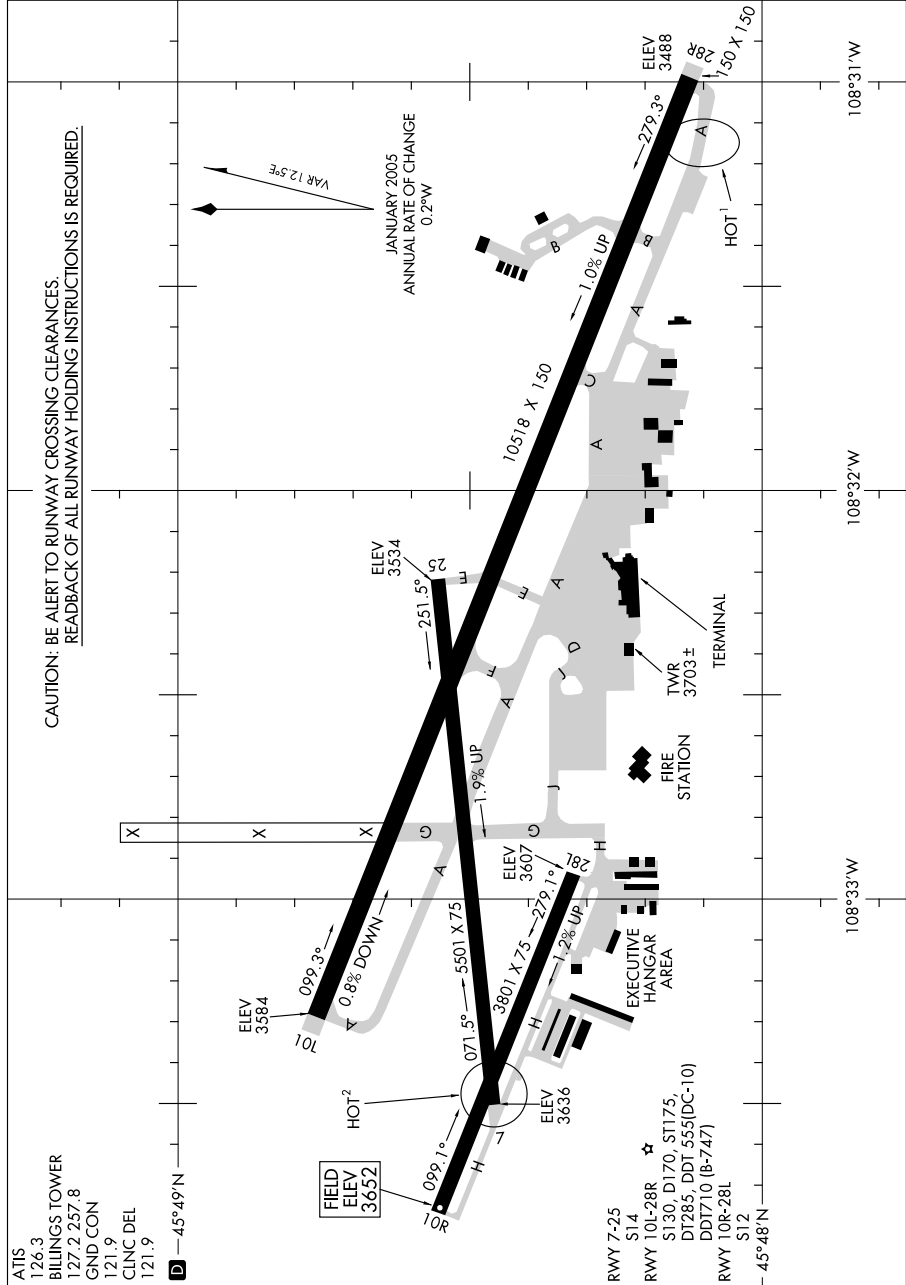
BELLINGHAM, WASHINGTON
BELLINGHAM INTL (BLI)

10042

AIRPORT DIAGRAM

AL-48 (FAA)

BILLINGS LOGAN INTL (BIL)
BILLINGS, MONTANA



AIRPORT DIAGRAM

10042

BILLINGS, MONTANA
BILLINGS LOGAN INTL (BIL)

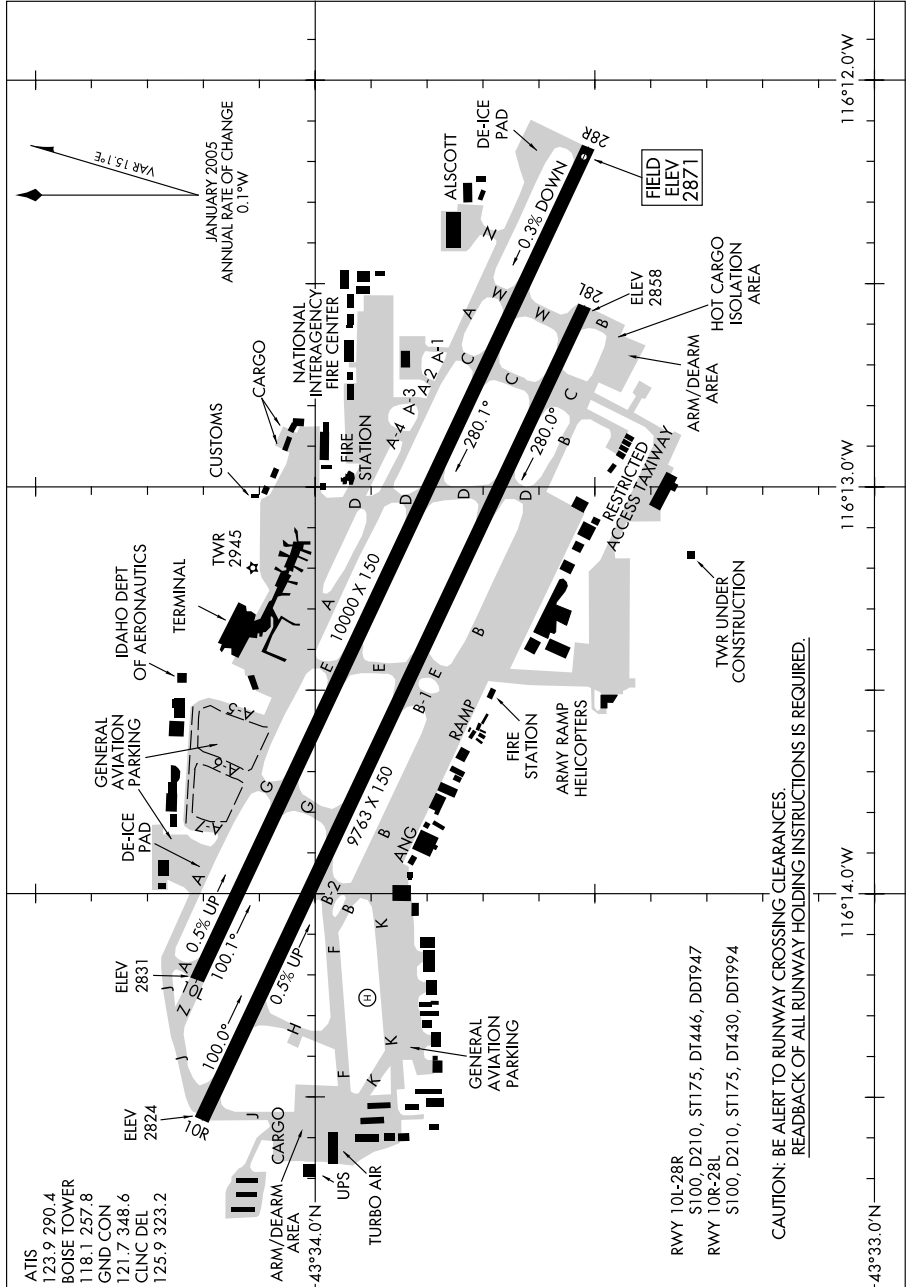
10042

AIRPORT DIAGRAM

BOISE AIR TERMINAL (GOWEN FIELD) (BOI)

AL-57 (FAA)

BOISE, IDAHO



AIRPORT DIAGRAM

BOISE AIR TERMINAL (GOWEN FIELD) (BOI)

10042

BOISE, IDAHO

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

VAR 13.0°E
JANUARY 2005
ANNUAL RATE OF CHANGE
0.1°W

ATIS 123.9 290.4
 BOISE TOWER 118.1 257.8
 GND CON 121.7 348.6
 CLNC DEL 125.9 323.2

RWY 10L-28R S100, D210, ST1175, DT446, DDT947
 RWY 10R-28L S100, D210, ST1175, DT430, DDT994

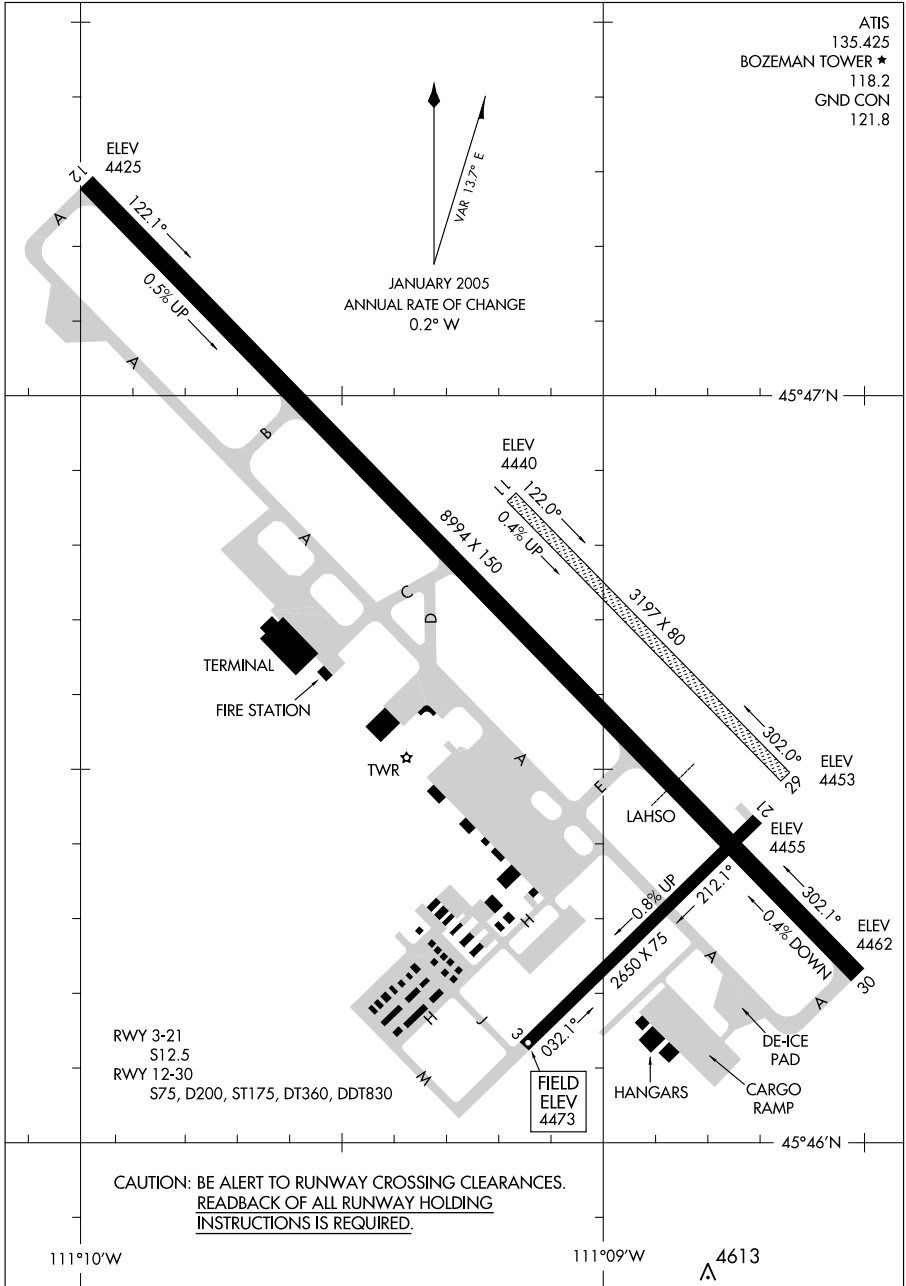
10098

AIRPORT DIAGRAM

BOZEMAN/GALLATIN FIELD (BZN)

BOZEMAN, MONTANA

AL-59 (FAA)



AIRPORT DIAGRAM

10098

BOZEMAN, MONTANA

BOZEMAN/GALLATIN FIELD (BZN)

09351

AIRPORT DIAGRAM

CASPER/NATRONA COUNTY INTL (CPR)

AL-72 (FAA)

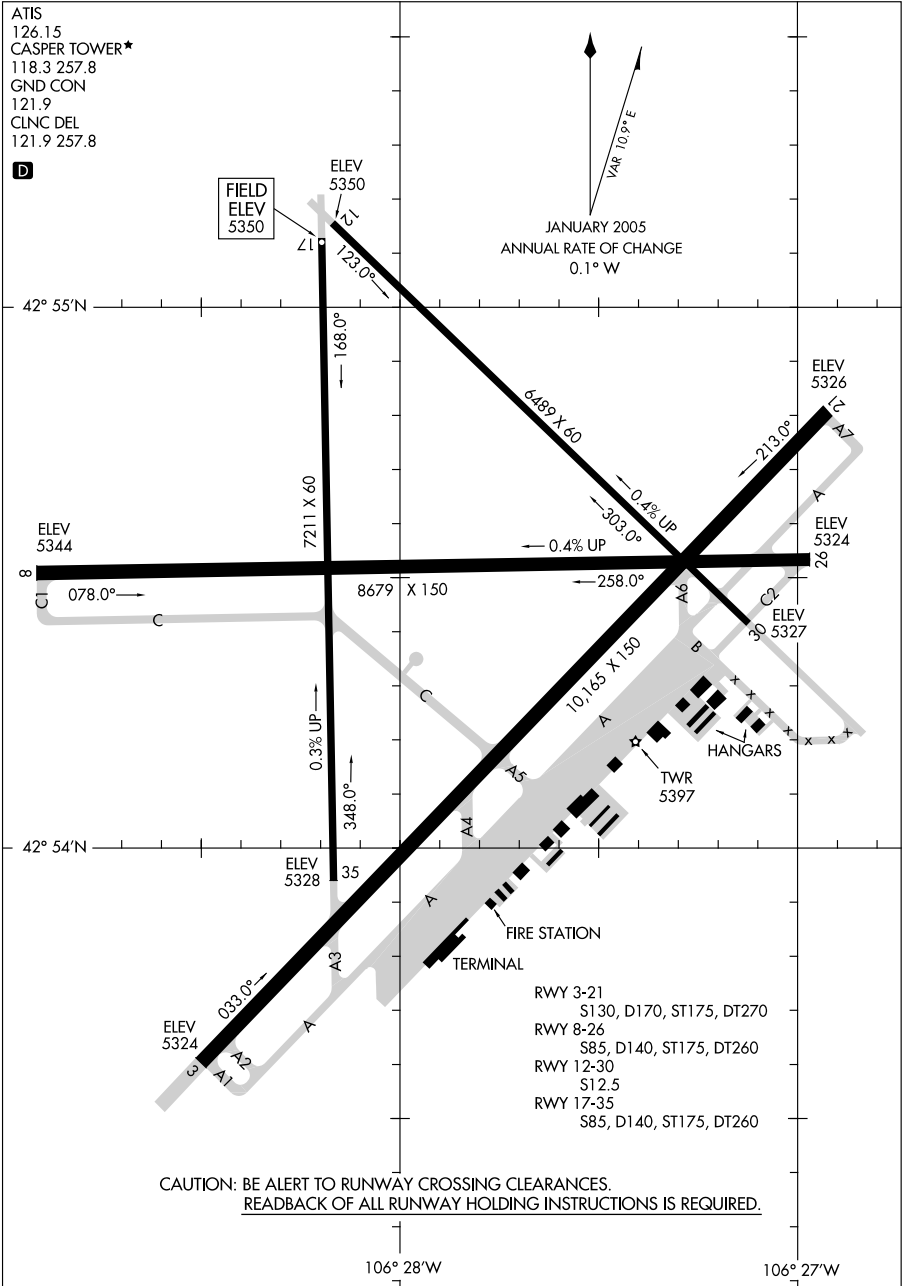
CASPER, WYOMING

ATIS
 126.15
 CASPER TOWER*
 118.3 257.8
 GND CON
 121.9
 CLNC DEL
 121.9 257.8

D

FIELD
ELEV
5350

VAR 10.9° E
 JANUARY 2005
 ANNUAL RATE OF CHANGE
 0.1° W



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
 READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

AIRPORT DIAGRAM

09351

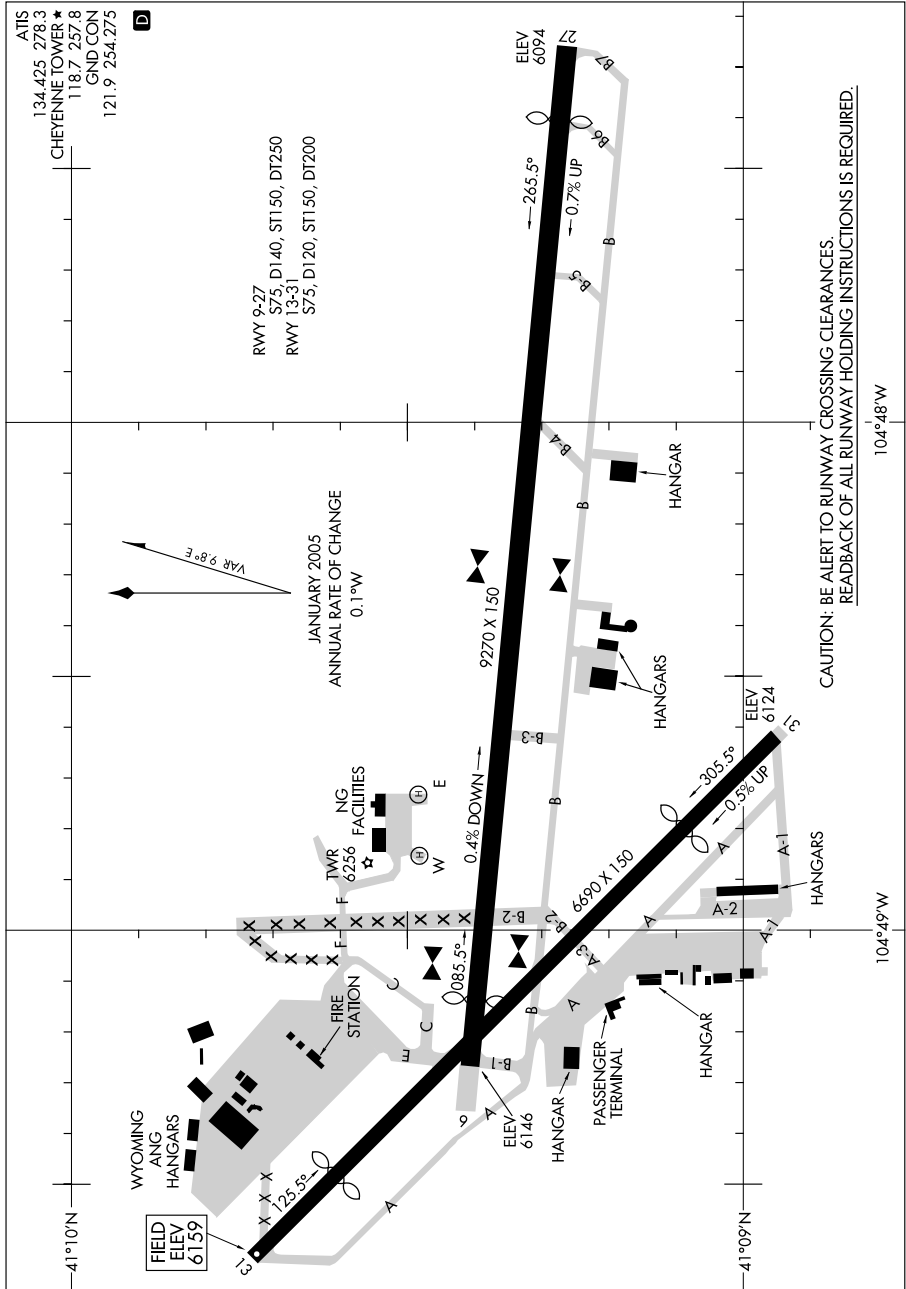
CASPER, WYOMING
CASPER/NATRONA COUNTY INTL (CPR)

09015

AIRPORT DIAGRAM

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

AL-80 (FAA)



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

AIRPORT DIAGRAM

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

09015

10098

AIRPORT DIAGRAM

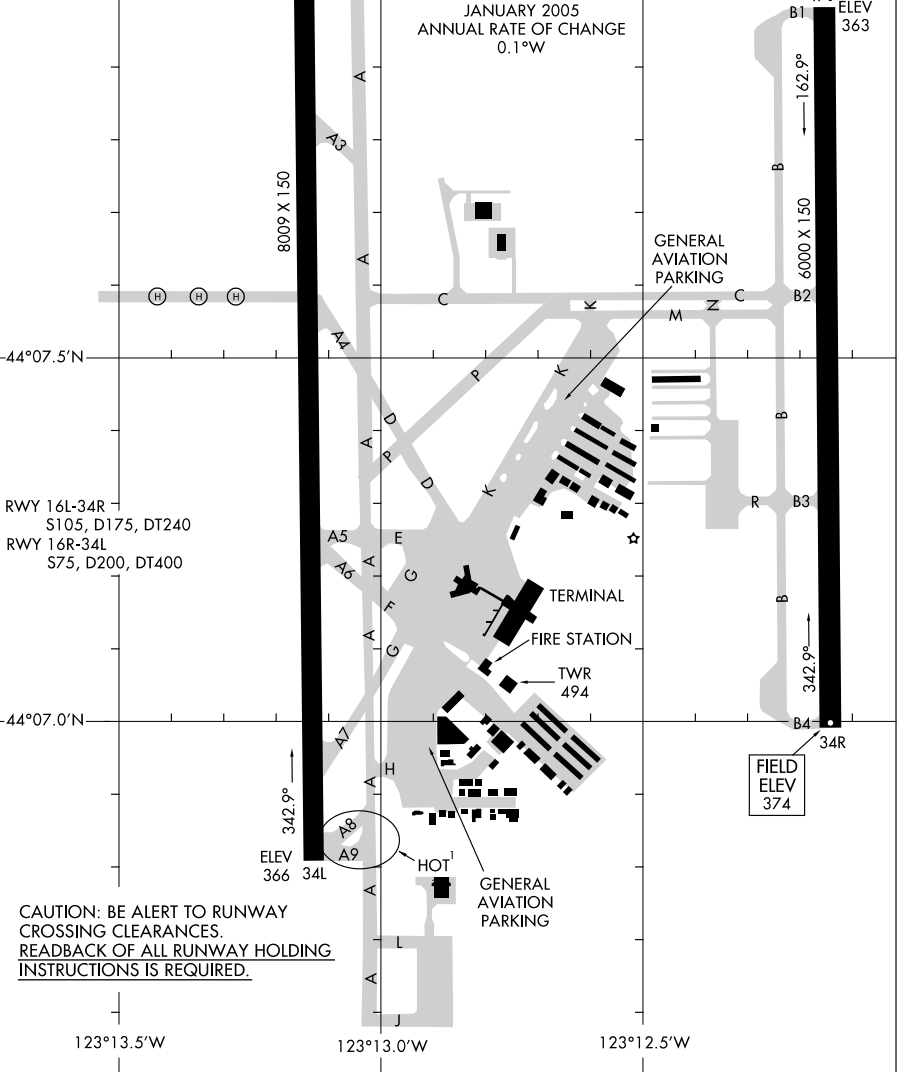
AL-140 (FAA)

EUGENE/MAHLON SWEET FIELD (EUG)

EUGENE, OREGON

ATIS
 125.225
 EUGENE TOWER *
 124.15 371.9 (RWY 16L/34R)
 118.9 371.9 (RWY 16R/34L)
 GND CON
 121.7 269.5
 CLNC DEL
 121.7 269.5

D
 44°08.0'N



AIRPORT DIAGRAM

EUGENE, OREGON

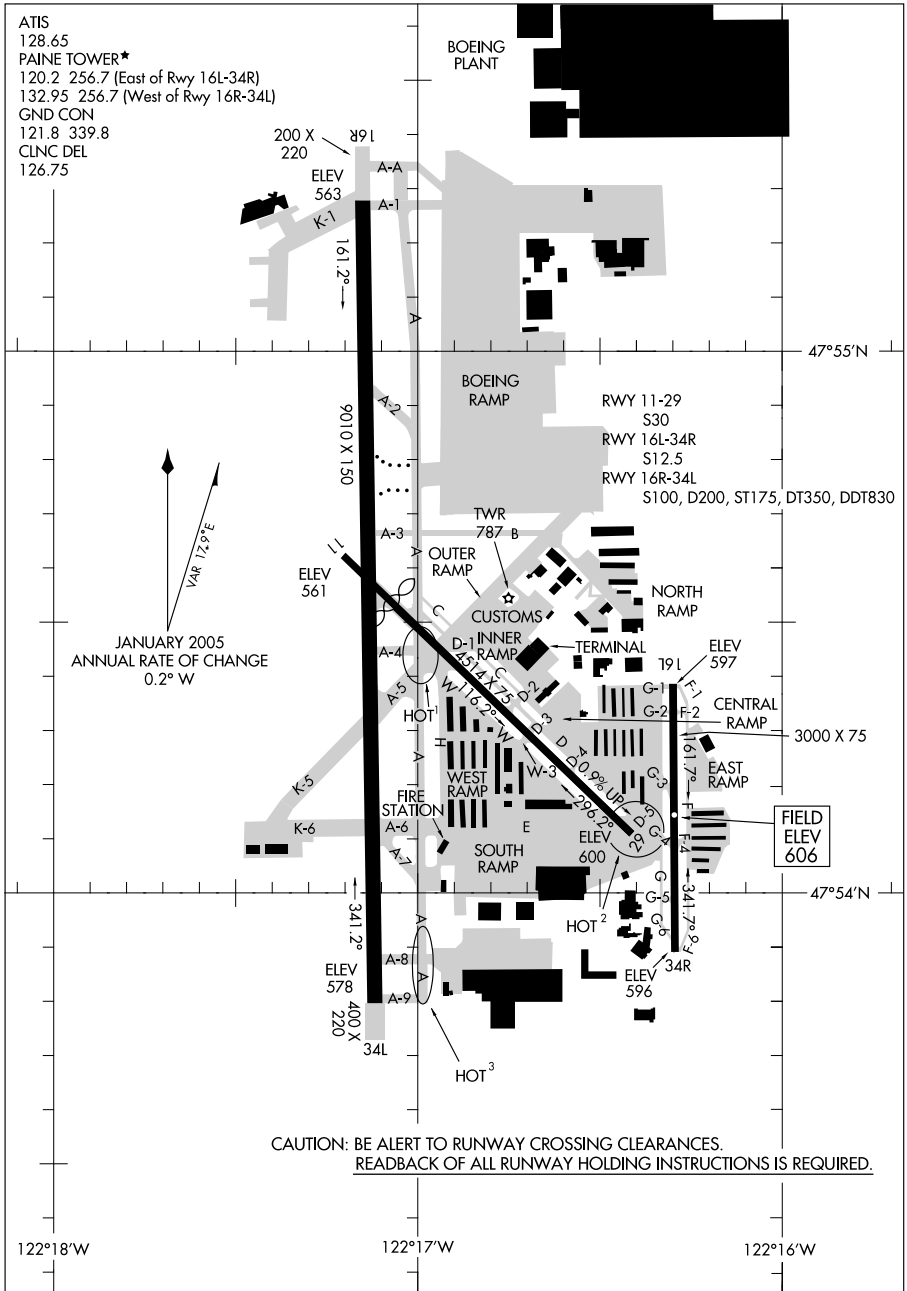
EUGENE/MAHLON SWEET FIELD (EUG)

10098

10098

AIRPORT DIAGRAM

EVERETT/SNOHOMISH COUNTY (PAINE FIELD) (P.A.E.)
AL-142 (FAA) EVERETT, WASHINGTON



AIRPORT DIAGRAM

10098

EVERETT, WASHINGTON
EVERETT/SNOHOMISH COUNTY (PAINE FIELD) (P.A.E.)

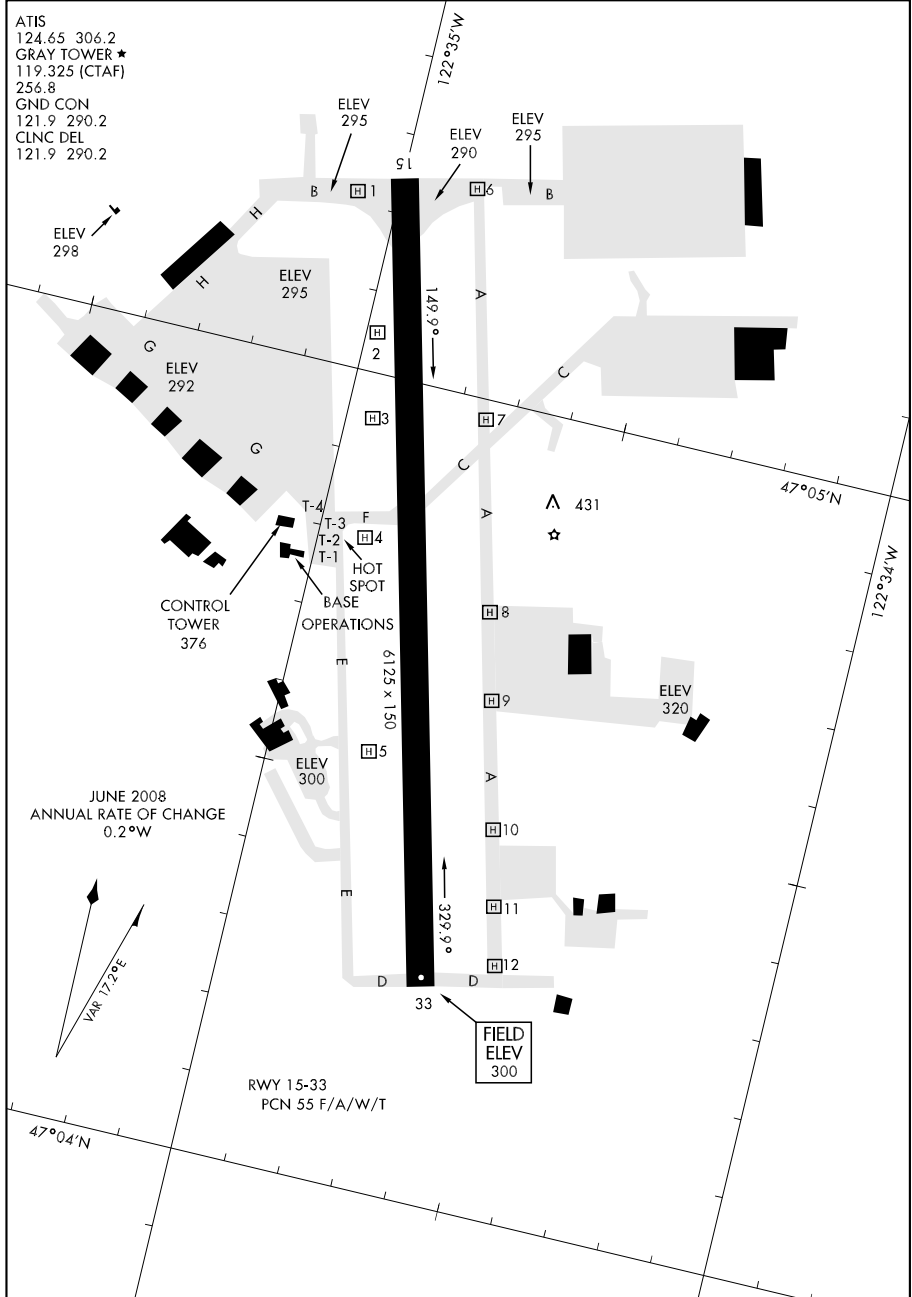
08157

GRAY AAF (KGRF)

FORT LEWIS, WASHINGTON

AIRPORT DIAGRAM

AFD-413 [USA]



AIRPORT DIAGRAM

FORT LEWIS, WASHINGTON
GRAY AAF (KGRF)

10098

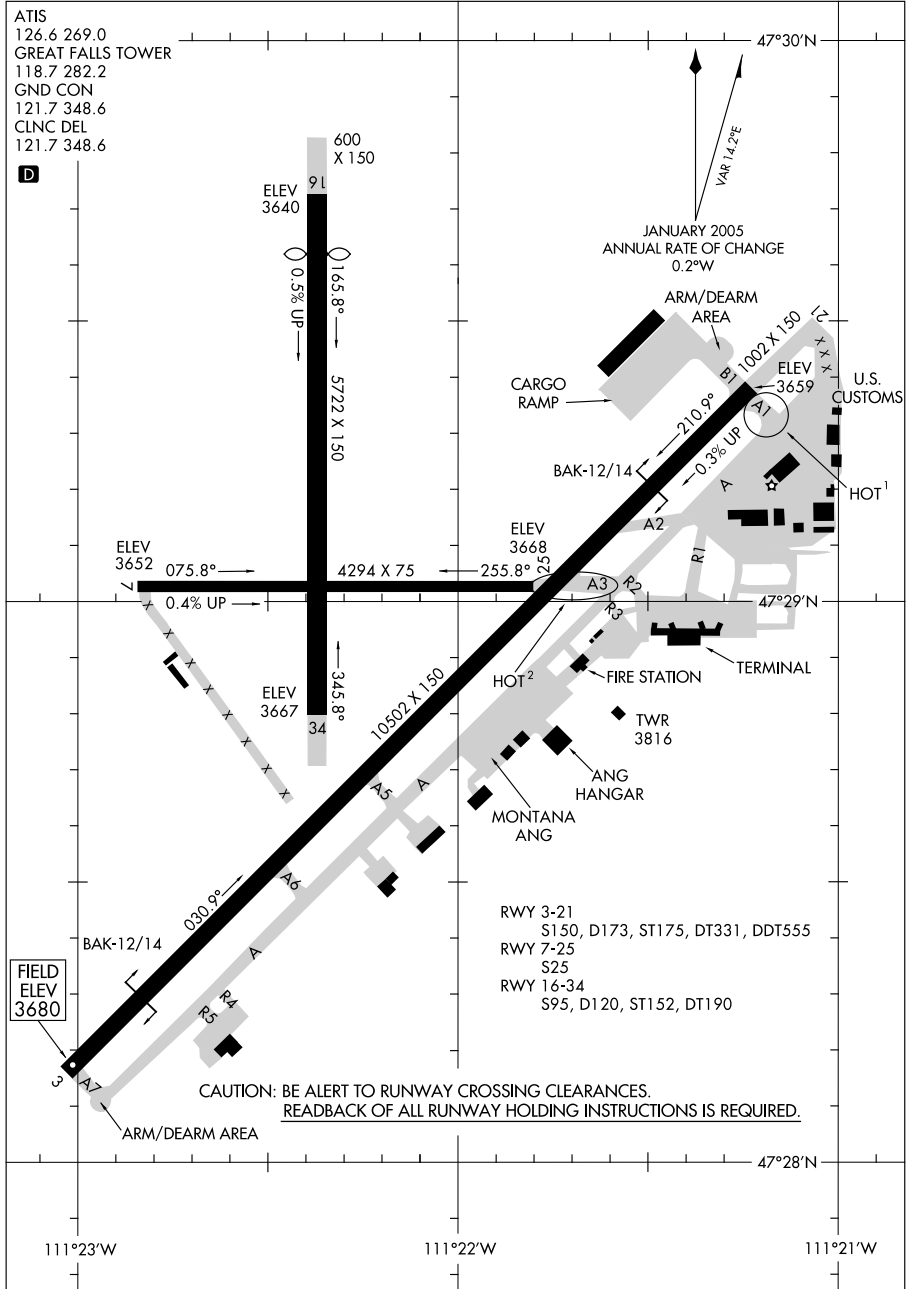
AIRPORT DIAGRAM

AL-177 (FAA)

GREAT FALLS INTL (GTF)
GREAT FALLS, MONTANA

ATIS 126.6 269.0
 GREAT FALLS TOWER 118.7 282.2
 GND CON 121.7 348.6
 CLNC DEL 121.7 348.6

D



AIRPORT DIAGRAM

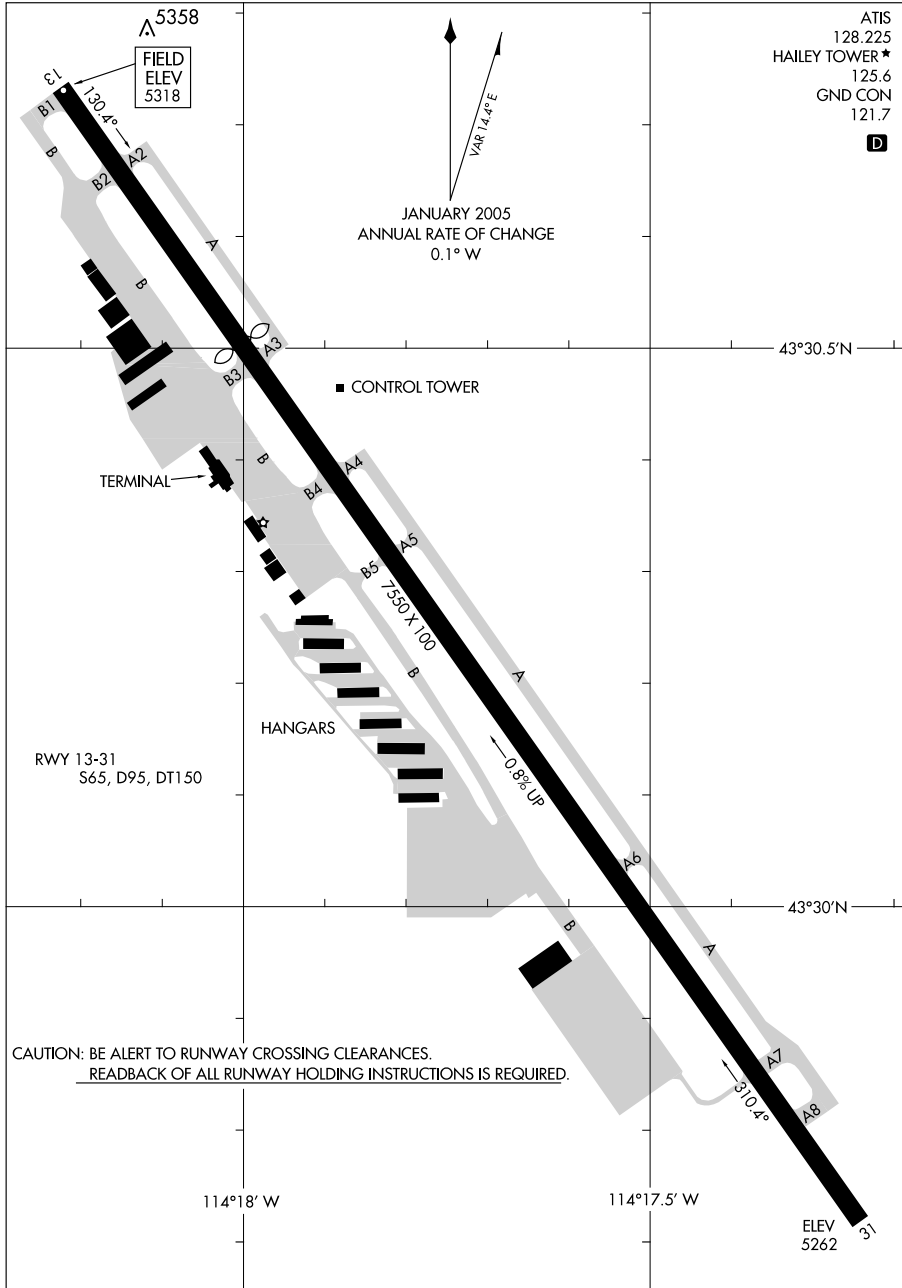
GREAT FALLS, MONTANA
GREAT FALLS INTL (GTF)

10098

09015

AIRPORT DIAGRAM

HAILEY / FRIEDMAN MEMORIAL (SUN)
HAILEY, IDAHO



ATIS
128.225
HAILEY TOWER★
125.6
GND CON
121.7
D

AIRPORT DIAGRAM

09015

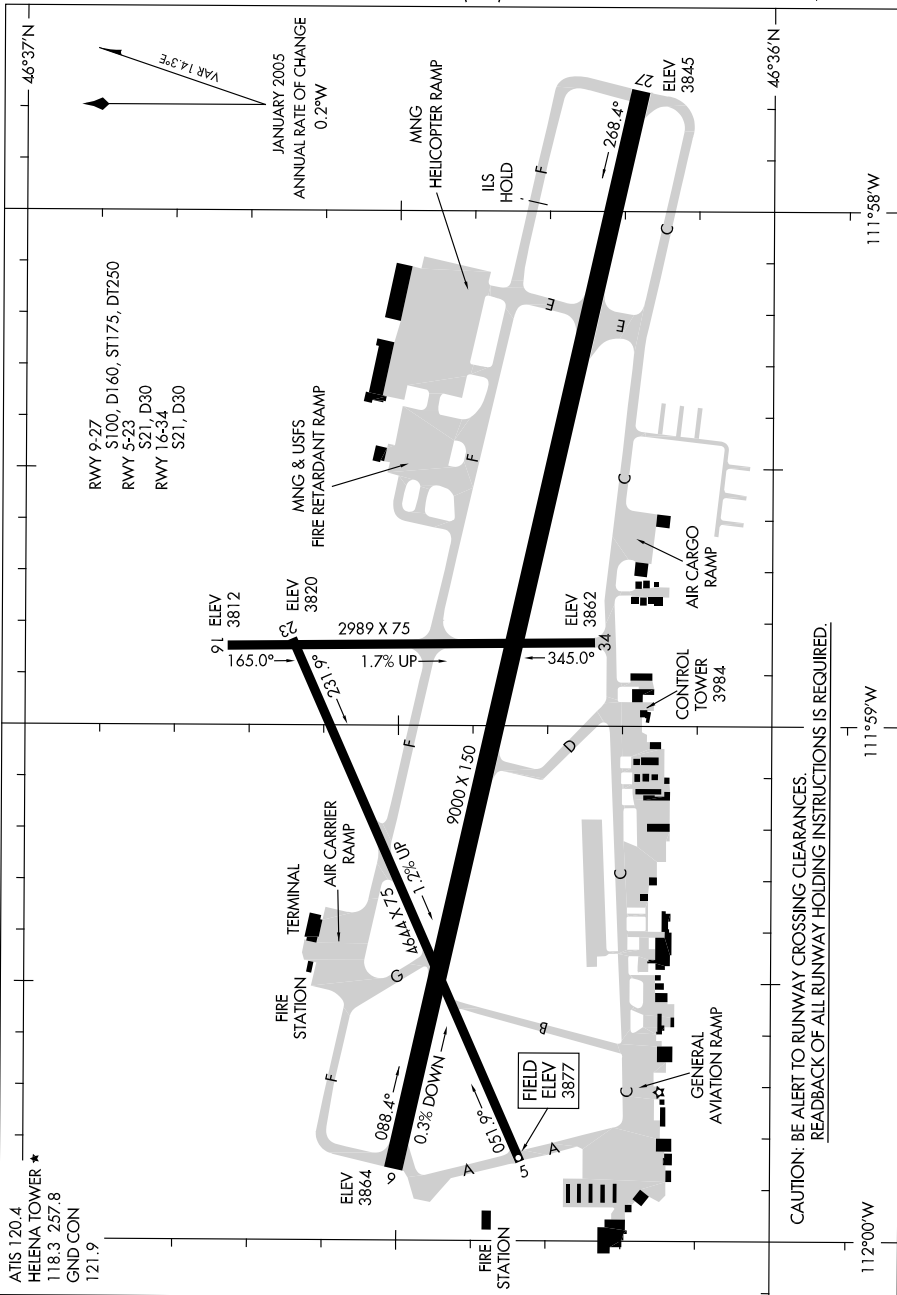
HAILEY, IDAHO
HAILEY / FRIEDMAN MEMORIAL (SUN)

08269

AIRPORT DIAGRAM

AL-192 (FAA)

HELENA RGNL (HLN)
HELENA, MONTANA



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

AIRPORT DIAGRAM

08269

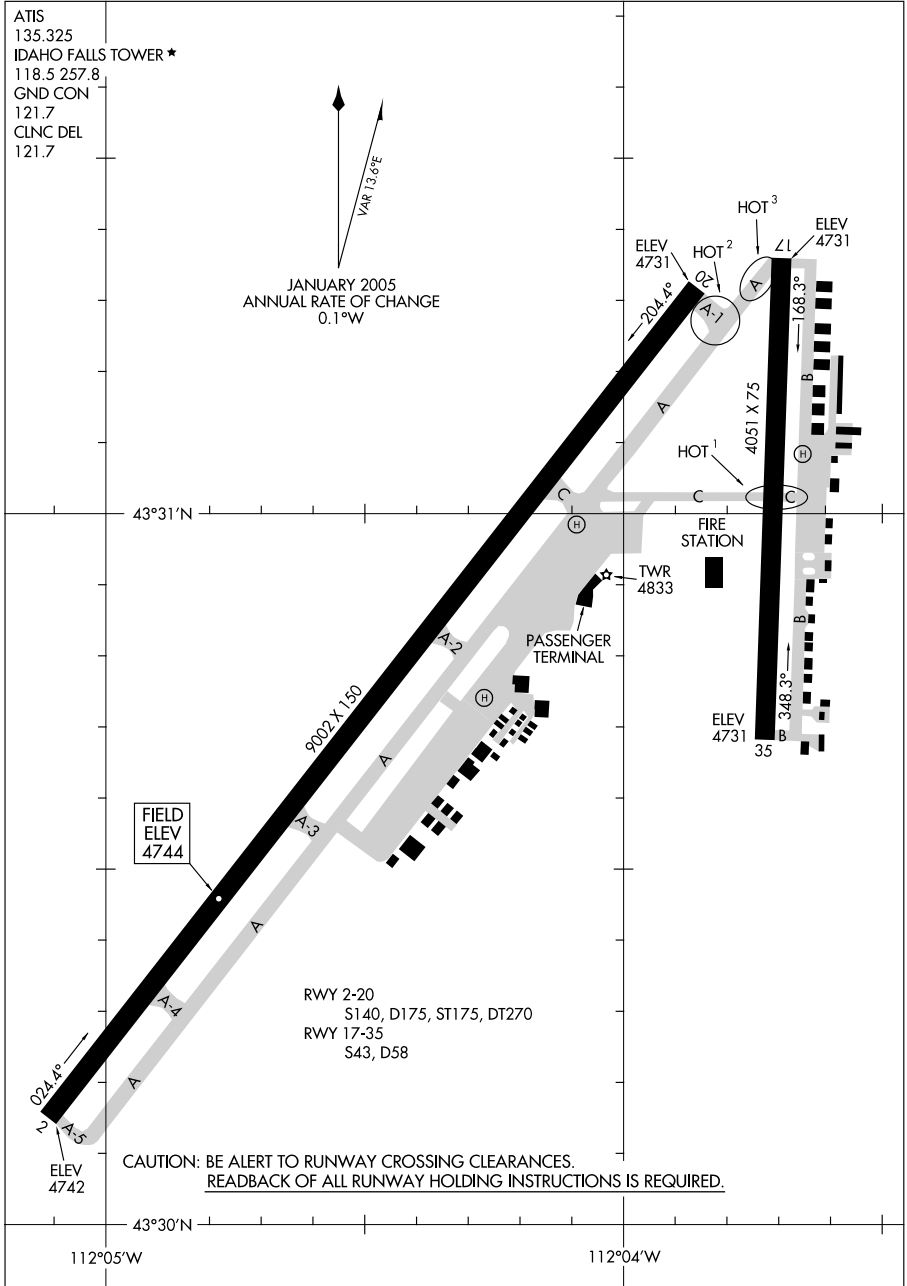
HELENA, MONTANA
HELENA RGNL (HLN)

10098

AIRPORT DIAGRAM

AL-590 (FAA)

IDAHO FALLS RGNL (IDA)
IDAHO FALLS, IDAHO



AIRPORT DIAGRAM

IDAHO FALLS, IDAHO
IDAHO FALLS RGNL (IDA)

10098

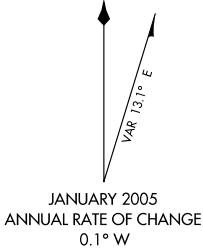
08157

AIRPORT DIAGRAM

AL-504 (FAA)

JACKSON HOLE (JAC)
JACKSON, WYOMING

ATIS 120.625
JACKSON TOWER ★
118.075
GND CON
124.55



RWY 1-19
S75, D200, ST175, DT380

FIELD
ELEV
6451

61

186.4°

A4

CONTROL
TOWER ★
6506

43°36.5'N

6300 X 150

TERMINAL

HANGARS

006.4°

0.6% UP

43°36'N

ELEV
6413

110°44.5'W

110°44'W

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS
IS REQUIRED.

AIRPORT DIAGRAM

08157

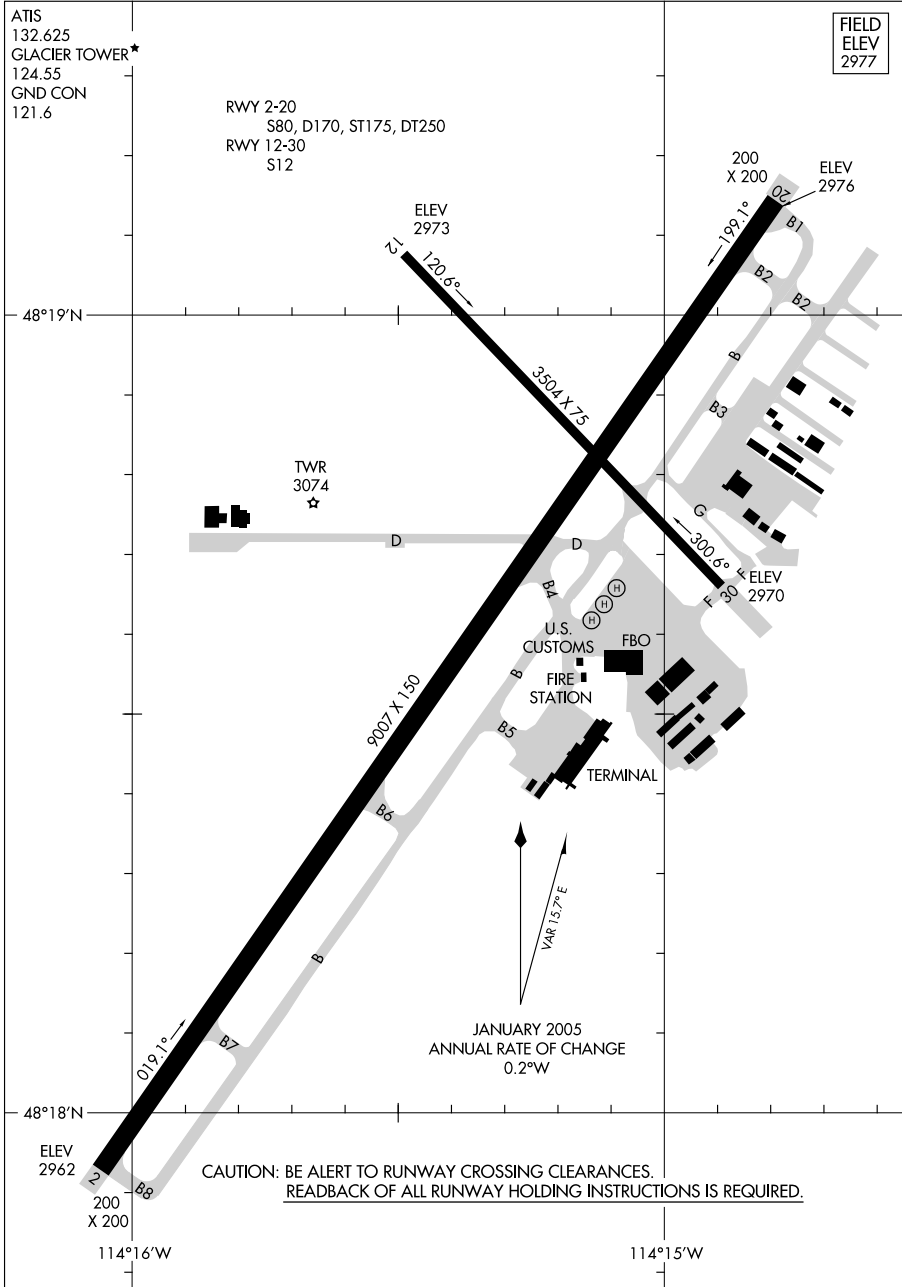
JACKSON, WYOMING
JACKSON HOLE (JAC)

10098

AIRPORT DIAGRAM

AL-887 (FAA)

KALISPELL/GLACIER PARK INTL (GPI)
KALISPELL, MONTANA



AIRPORT DIAGRAM

10098

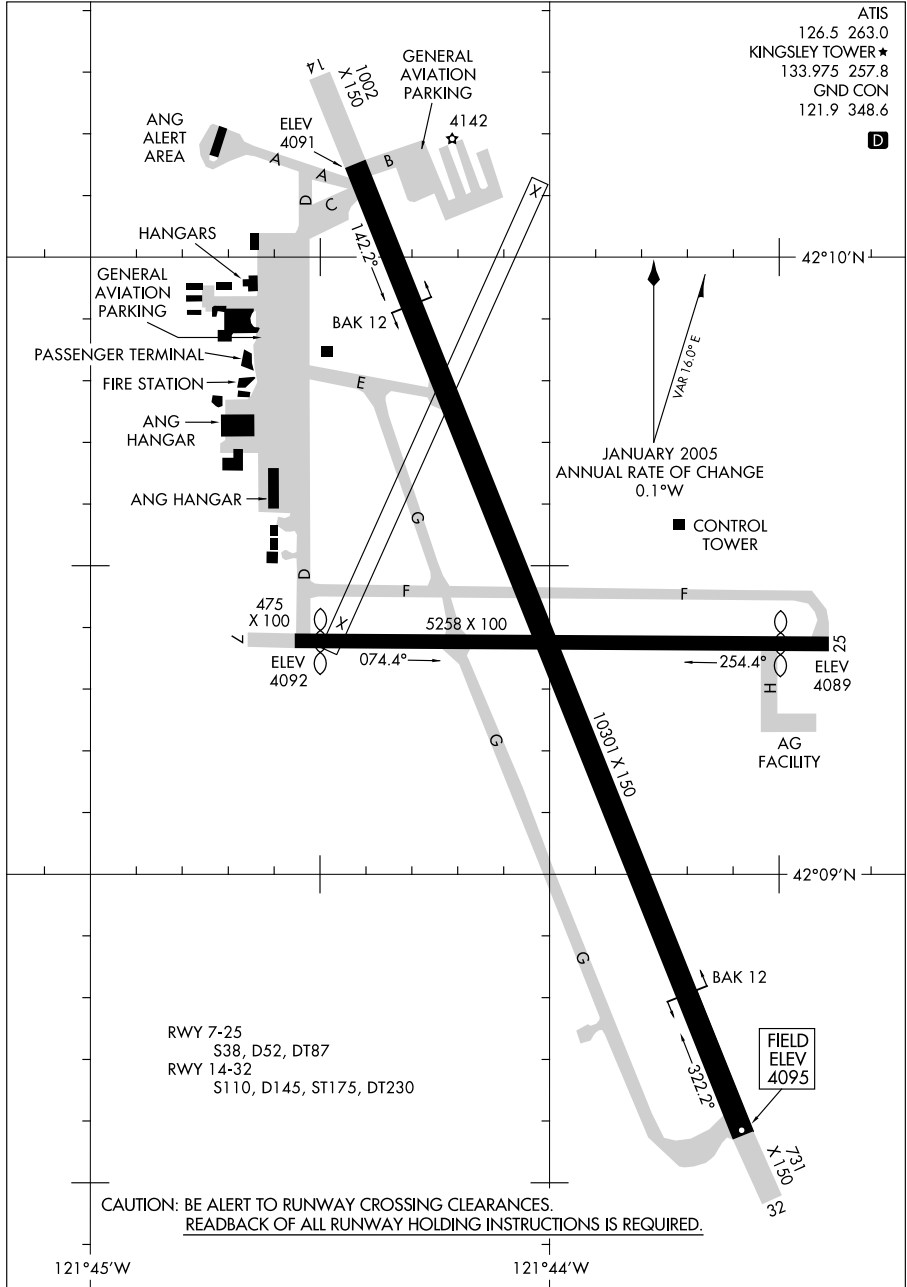
KALISPELL, MONTANA
KALISPELL/GLACIER PARK INTL (GPI)

09127

AIRPORT DIAGRAM

AL-473 (FAA)

KLAMATH FALLS (LMT)
KLAMATH FALLS, OREGON



AIRPORT DIAGRAM

09127

KLAMATH FALLS, OREGON
KLAMATH FALLS (LMT)

09351

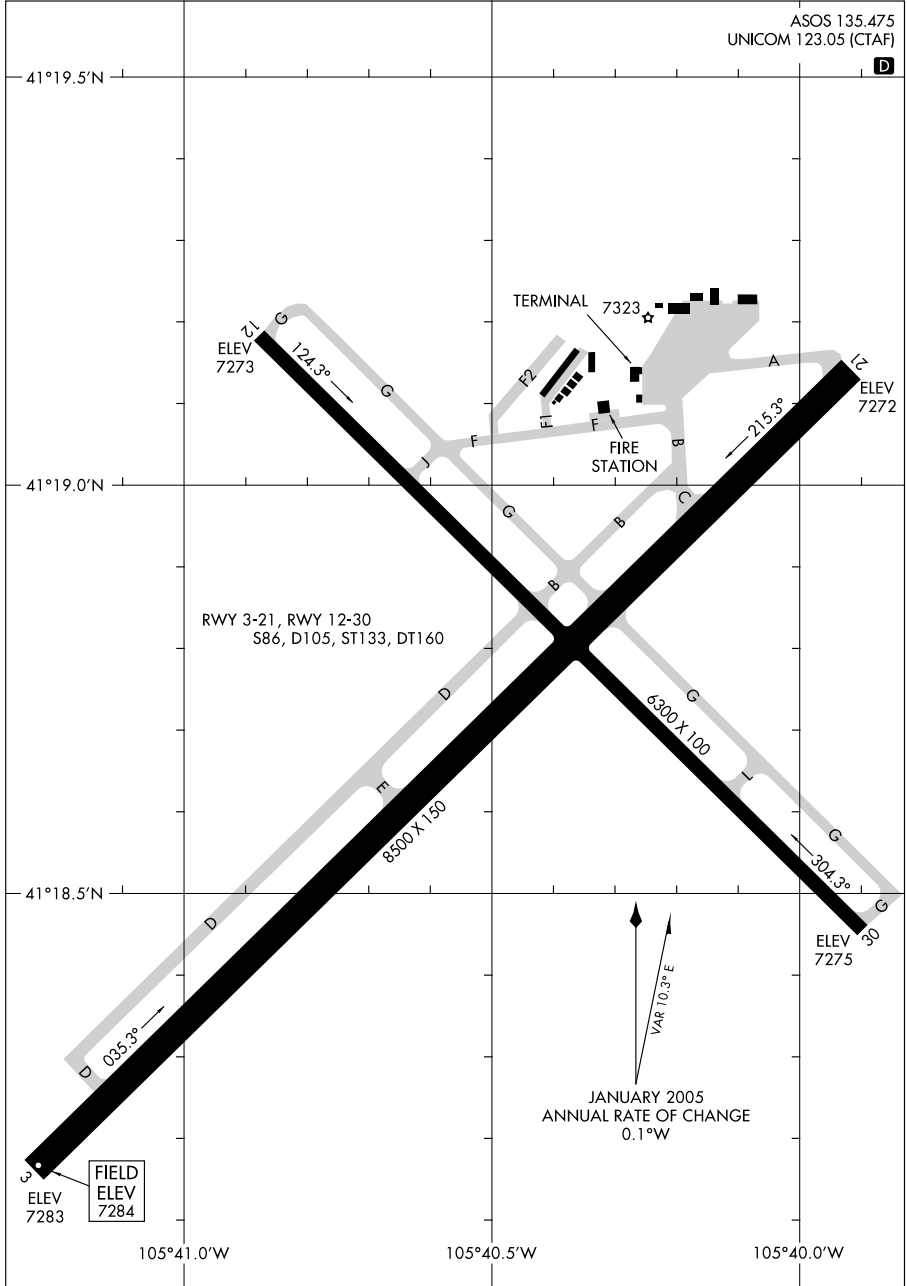
AIRPORT DIAGRAM

AL-225 (FAA)

LARAMIE RGNL (LAR)
LARAMIE, WYOMING

ASOS 135.475
UNICOM 123.05 (CTAF)

D



AIRPORT DIAGRAM

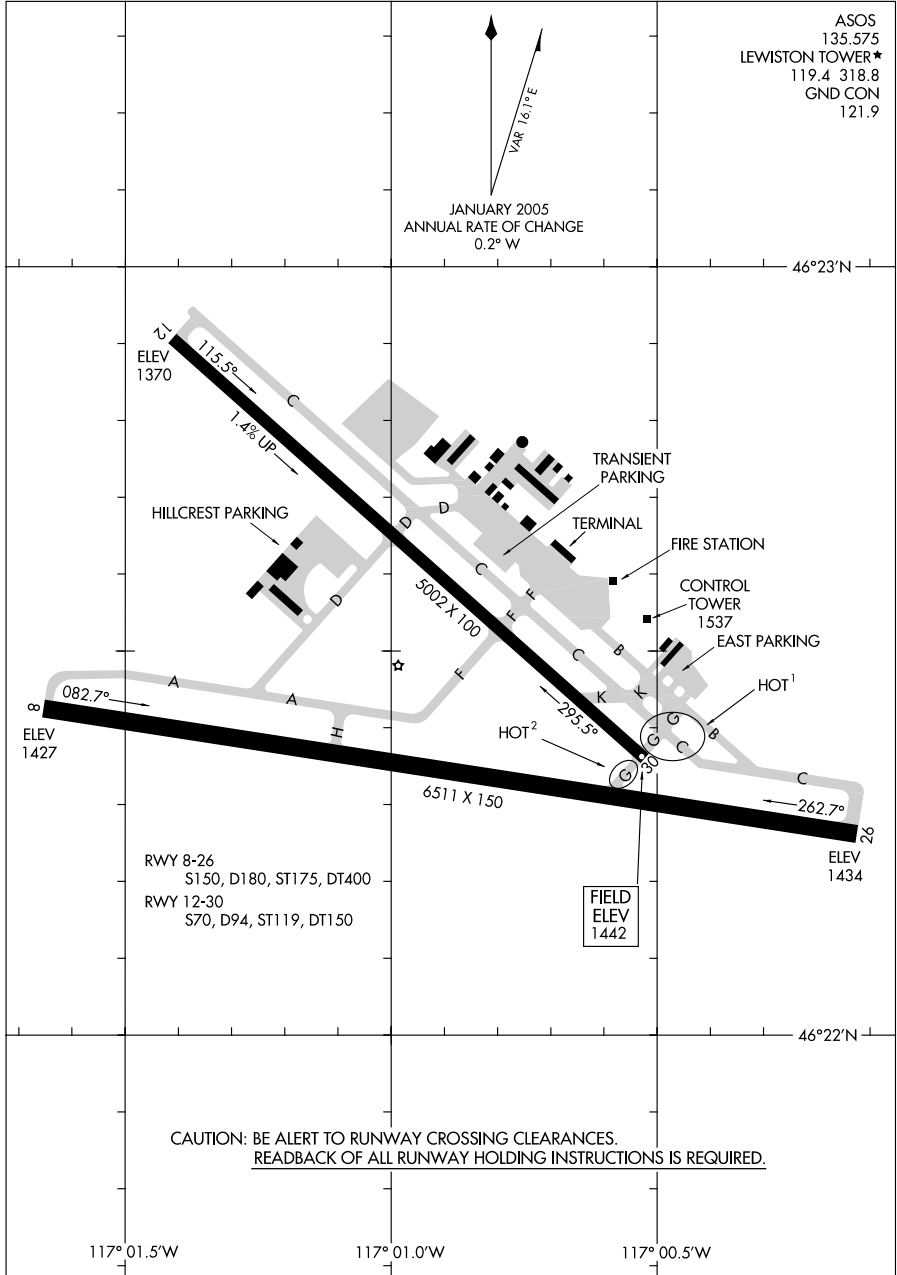
09351

LARAMIE, WYOMING
LARAMIE RGNL (LAR)

09295

AIRPORT DIAGRAM

LEWISTON-NEZ PERCE COUNTY (LWS)
LEWISTON, IDAHO



AIRPORT DIAGRAM

09295

LEWISTON, IDAHO
LEWISTON-NEZ PERCE COUNTY (LWS)

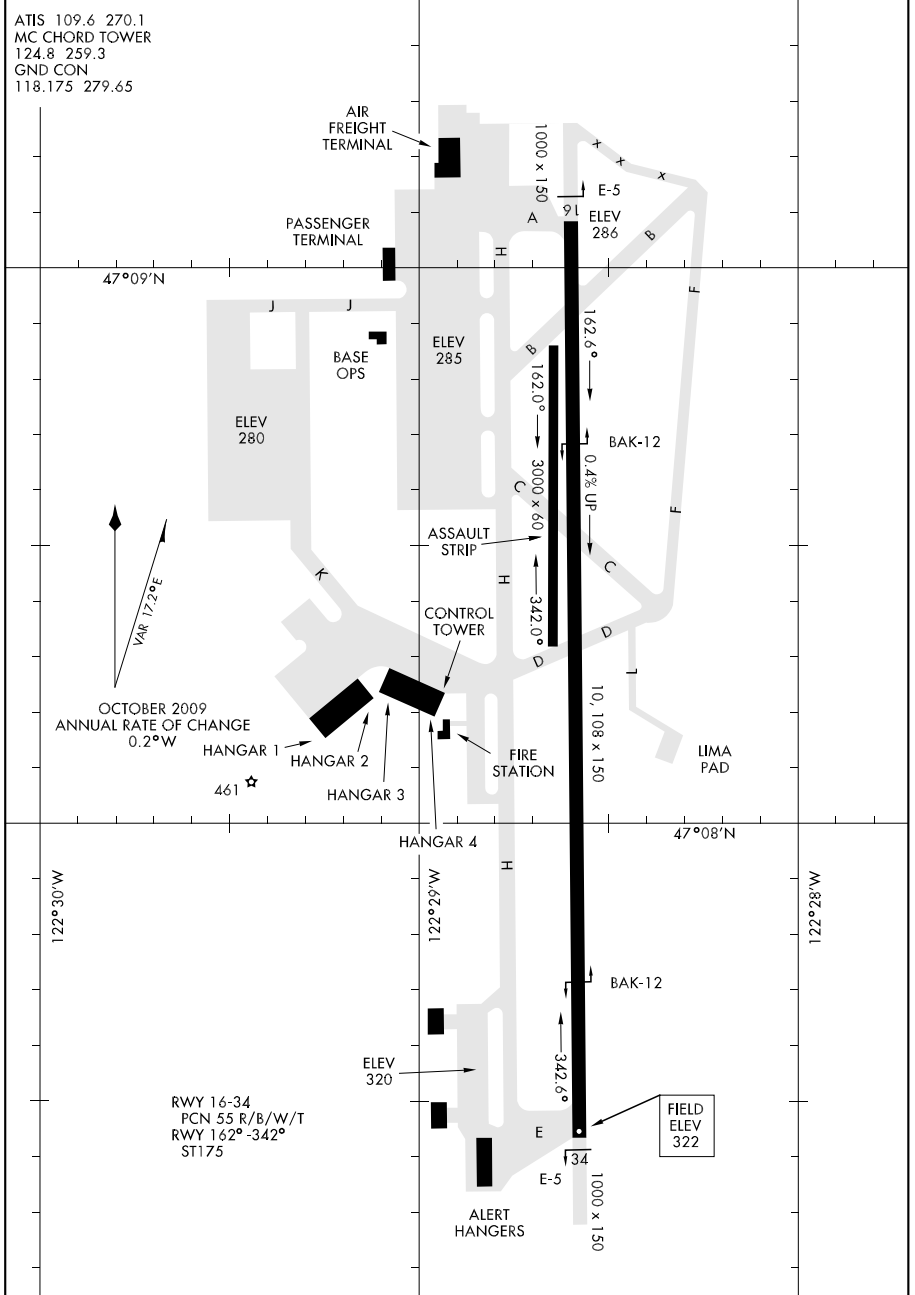
09295

MC CHORD AFB (KTCM)

AIRPORT DIAGRAM

[USAF] AFD-414

TACOMA, WASHINGTON



AIRPORT DIAGRAM

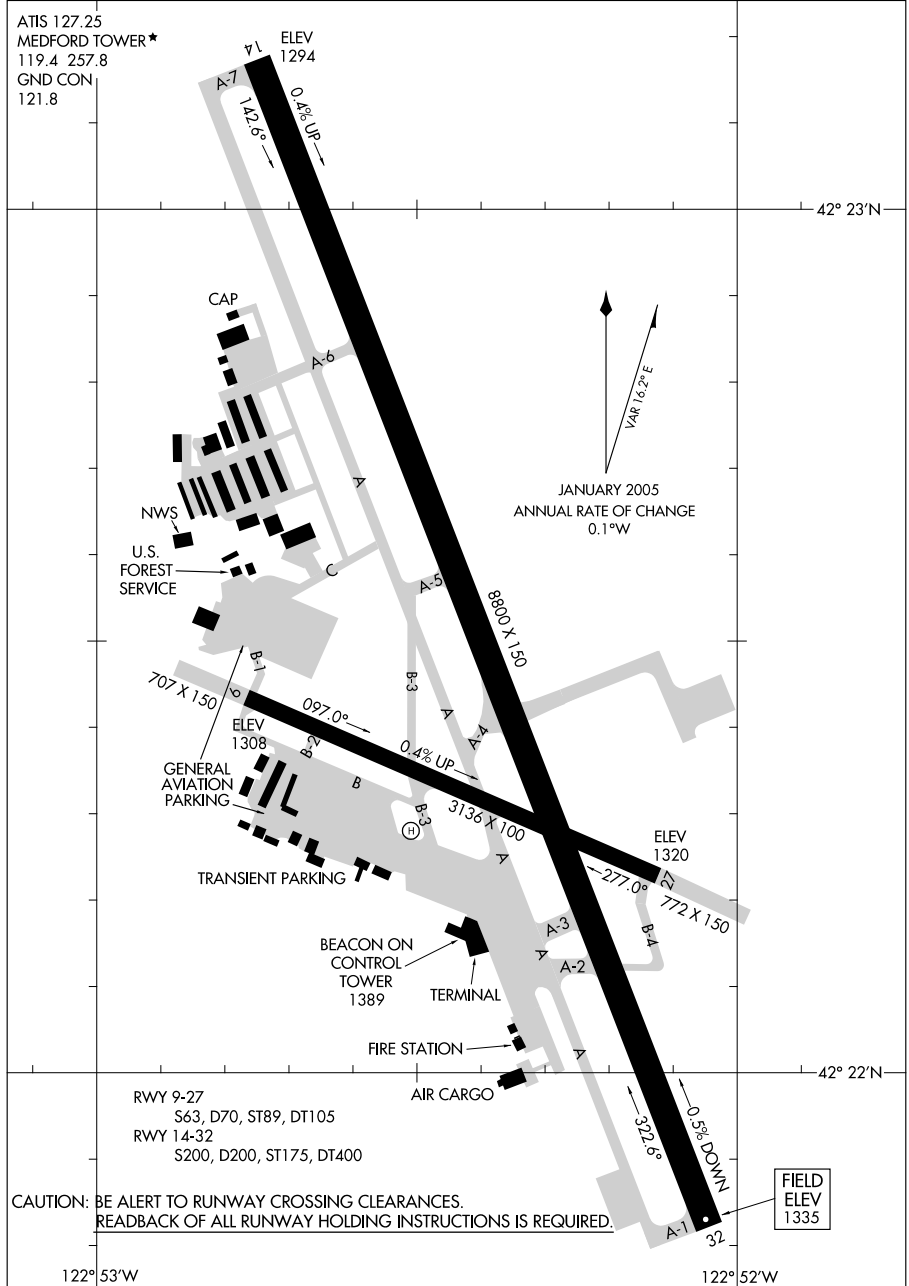
TACOMA, WASHINGTON
MC CHORD AFB (KTCM)

06215

AIRPORT DIAGRAM

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

AL-251 (FAA)



AIRPORT DIAGRAM

06215

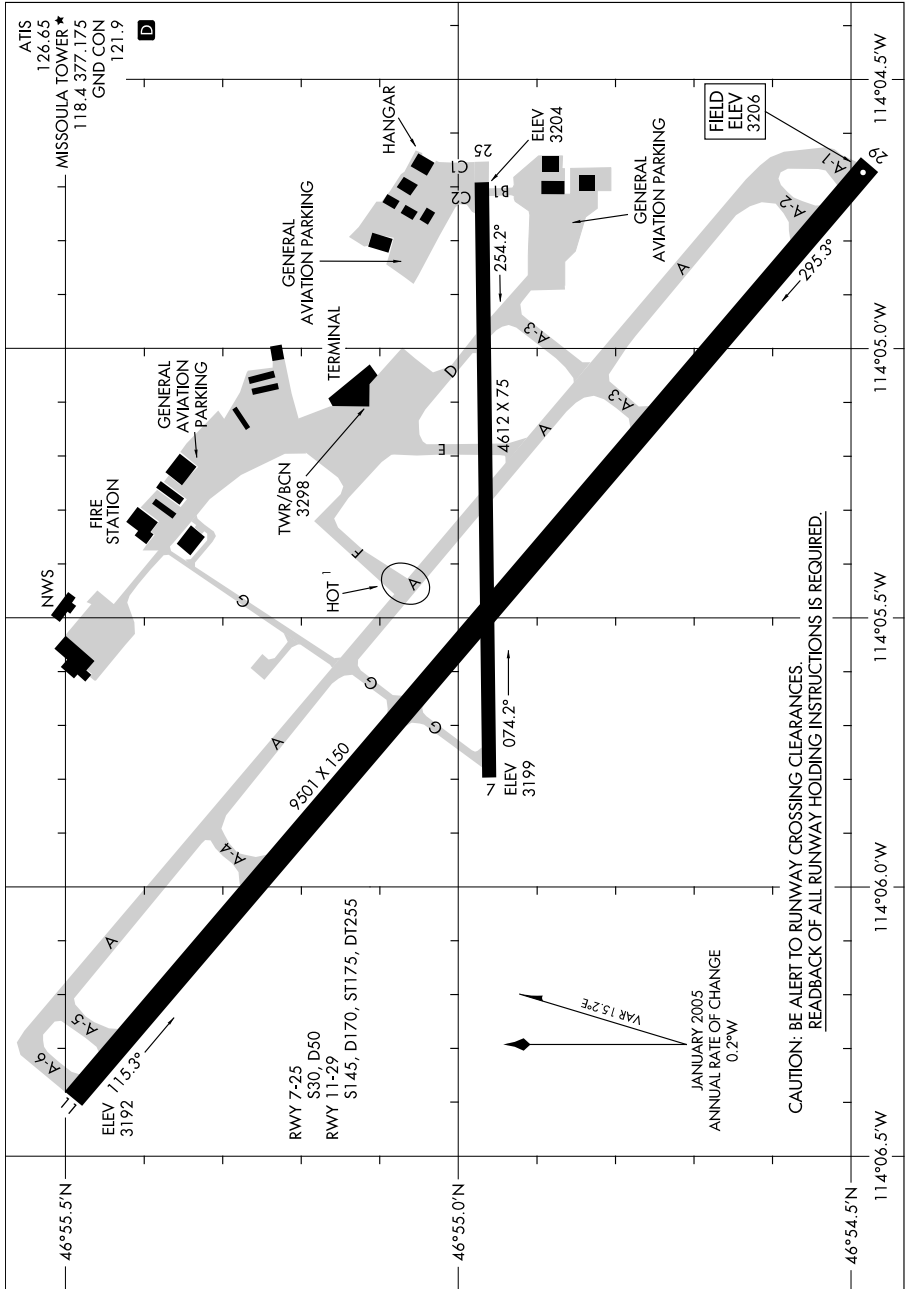
MEDFORD, OREGON
MEDFORD/ROGUE VALLEY INTL-MEDFORD (MFR)

10098

AIRPORT DIAGRAM

AL-266 (FAA)

MISSOULA INTL (MSO)
MISSOULA, MONTANA



AIRPORT DIAGRAM

MISSOULA, MONTANA
MISSOULA INTL (MSO)

10098

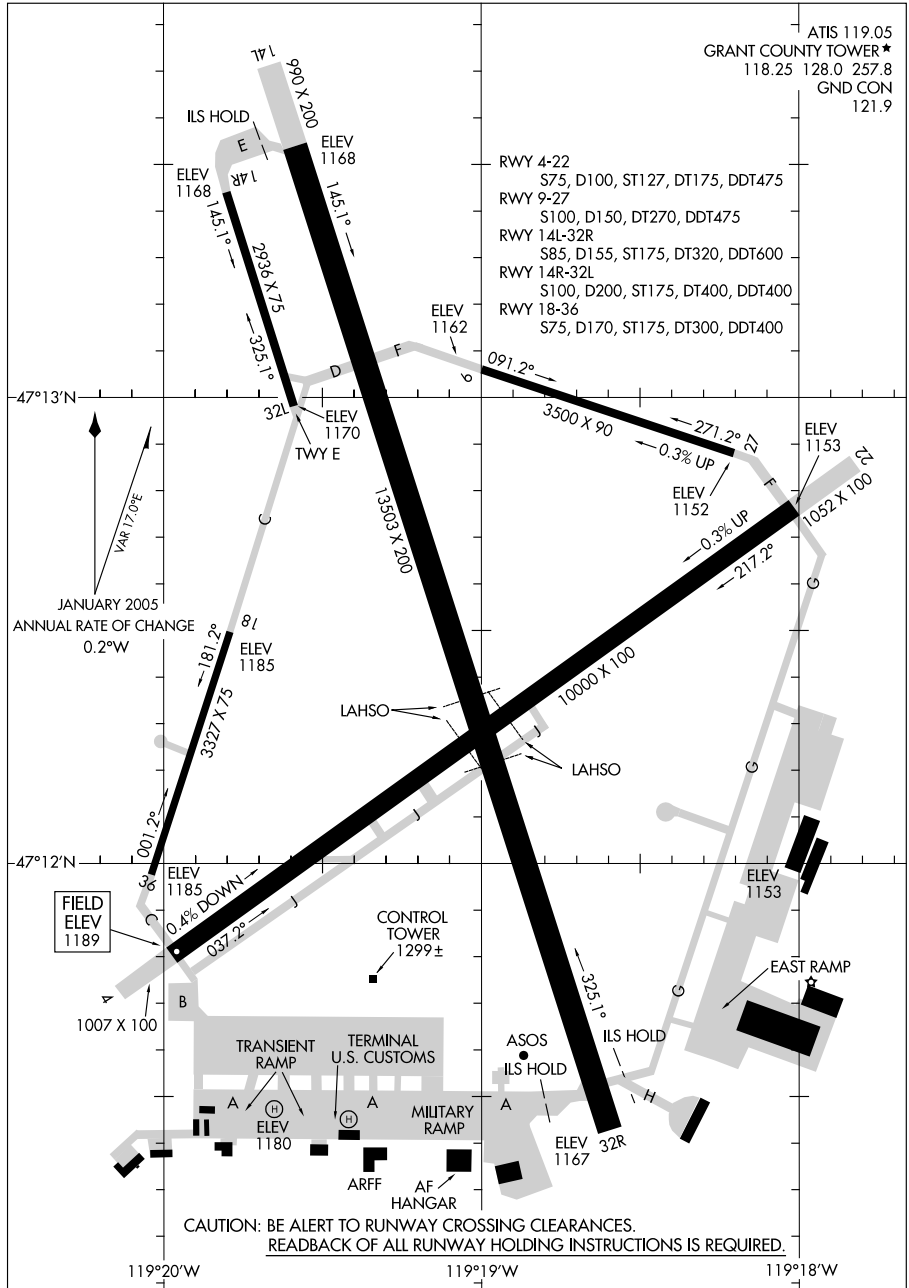
08157

AIRPORT DIAGRAM

AL-961 (FAA)

MOSES LAKE/GRANT COUNTY INTL (MWH)

MOSES LAKE, WASHINGTON



AIRPORT DIAGRAM

08157

MOSES LAKE, WASHINGTON
MOSES LAKE/GRANT COUNTY INTL (MWH)

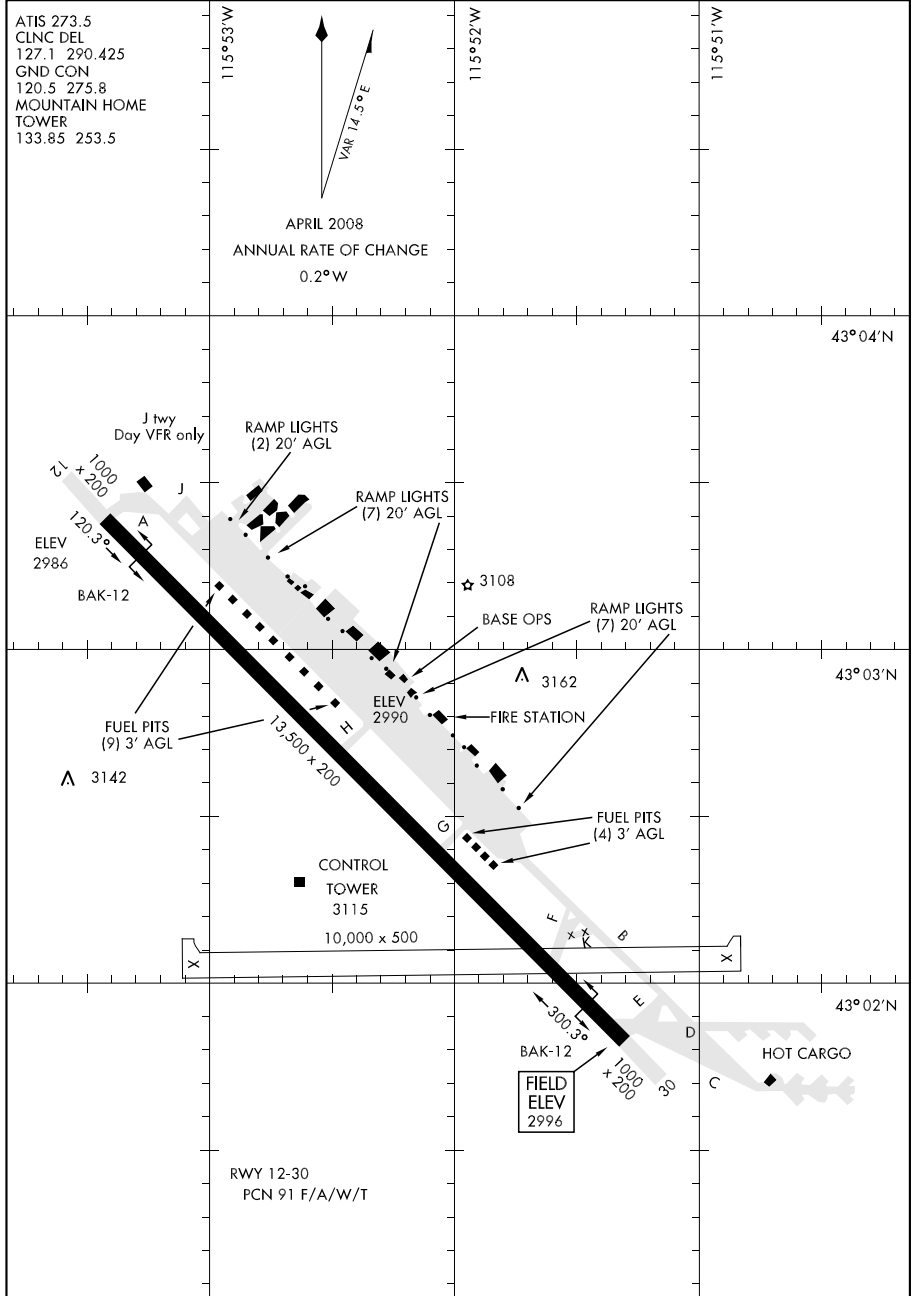
08101

AIRPORT DIAGRAM

AFD-323 [USAF]

MOUNTAIN HOME AFB (KMUO)

MOUNTAIN HOME, IDAHO



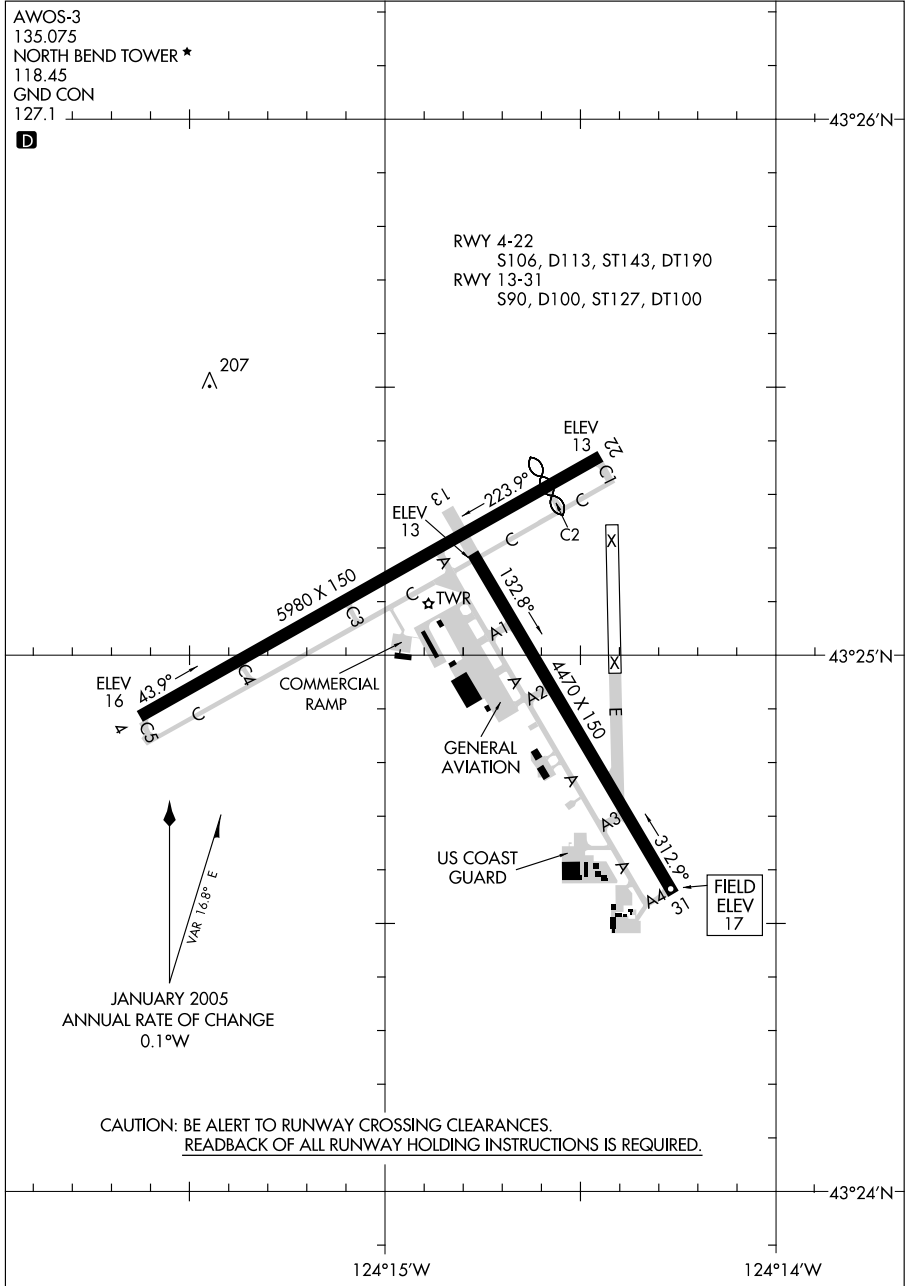
AIRPORT DIAGRAM

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

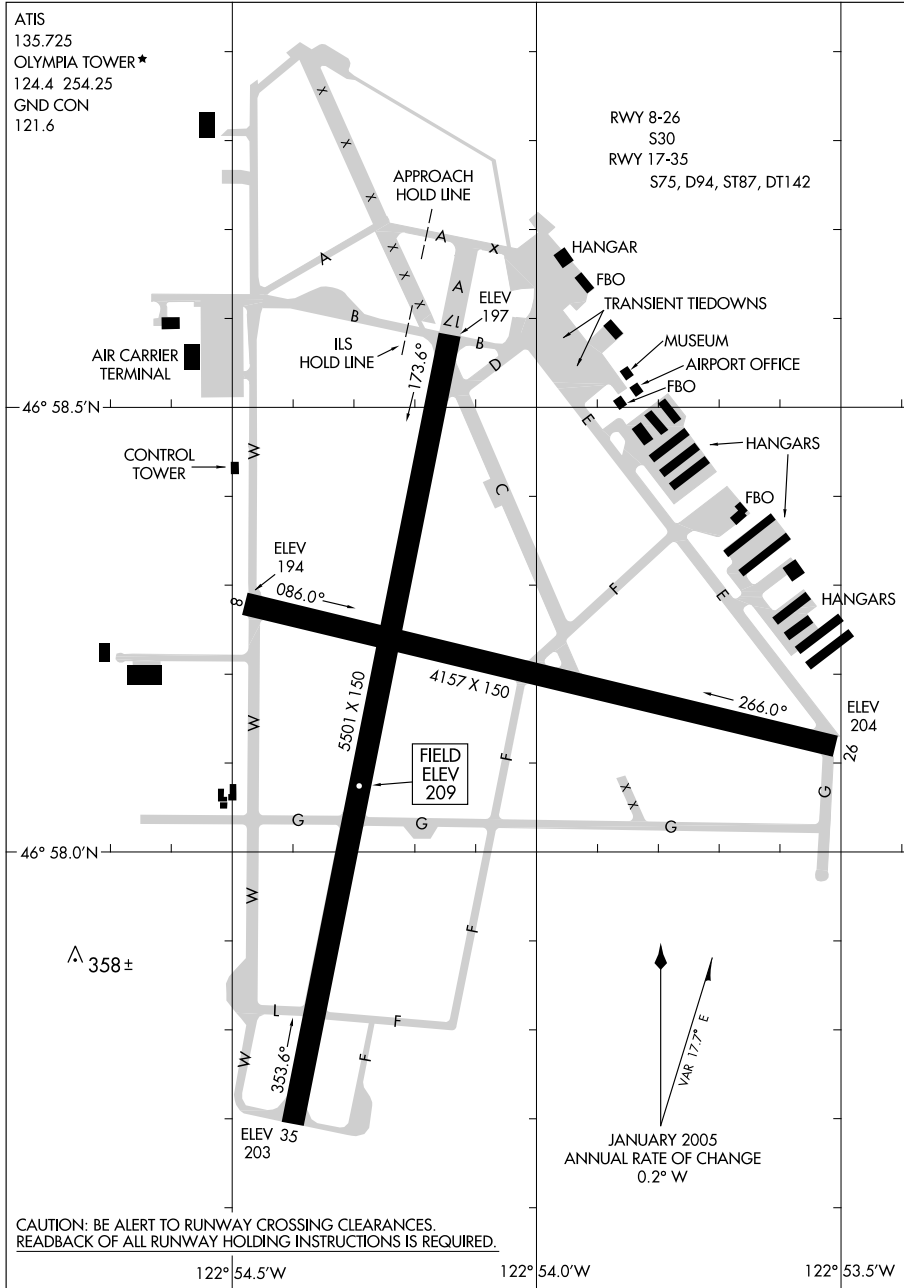
NORTH BEND, OREGON
NORTH BEND/SOUTHWEST OREGON RGNL (OTH)

09127

AIRPORT DIAGRAM

AL-645 (FAA)

OLYMPIA RGNL (OLM)
OLYMPIA, WASHINGTON



AIRPORT DIAGRAM

09127

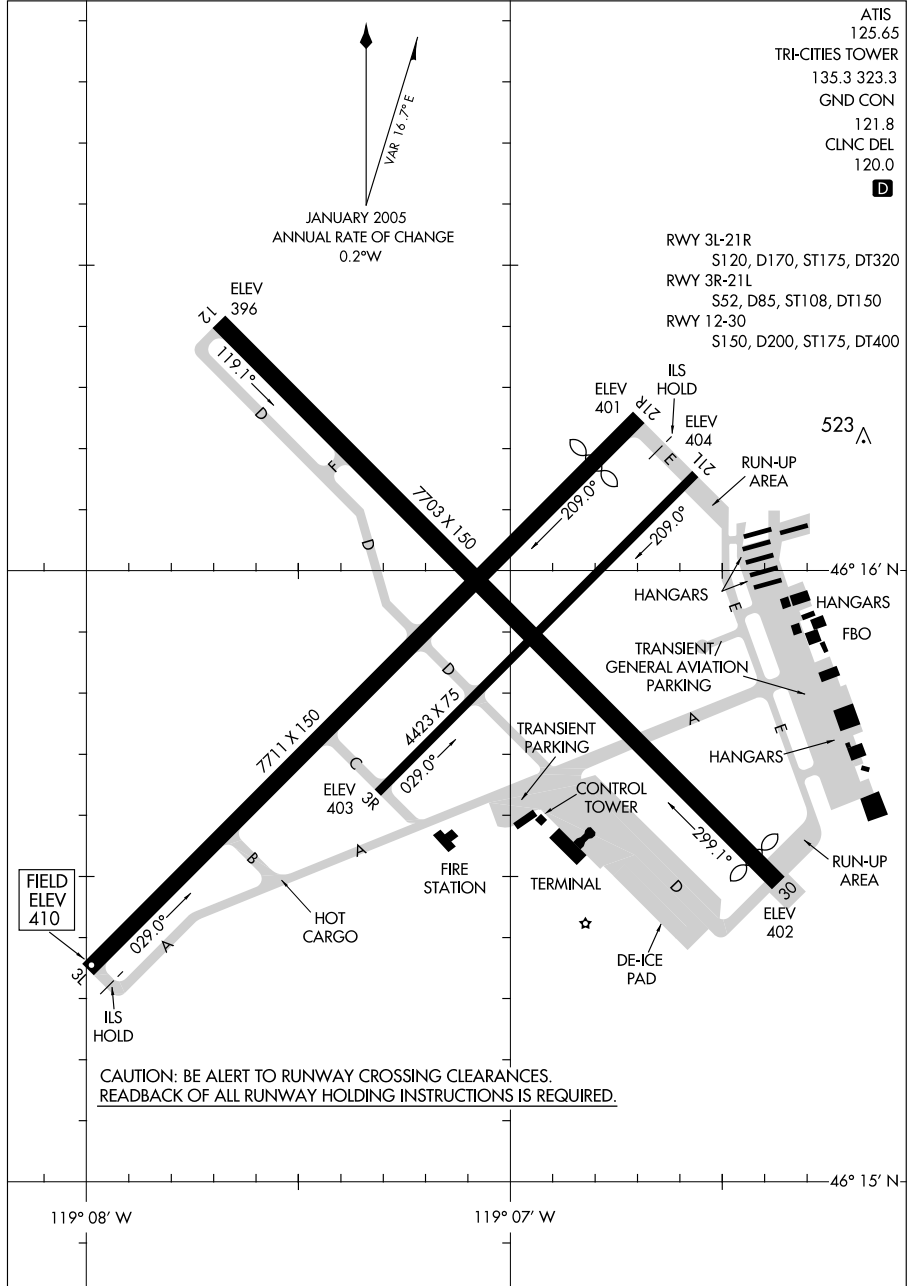
OLYMPIA, WASHINGTON
OLYMPIA RGNL (OLM)

09015

AIRPORT DIAGRAM

AL-474 (FAA)

PASCO/TRI-CITIES (PSC)
PASCO, WASHINGTON



- ATIS 125.65
- TRI-CITIES TOWER 135.3 323.3
- GND CON 121.8
- CLNC DEL 120.0
- D**

- RWY 3L-21R S120, D170, ST175, DT320
- RWY 3R-21L S52, D85, ST108, DT150
- RWY 12-30 S150, D200, ST175, DT400

CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

AIRPORT DIAGRAM

09015

PASCO, WASHINGTON
PASCO/TRI-CITIES (PSC)

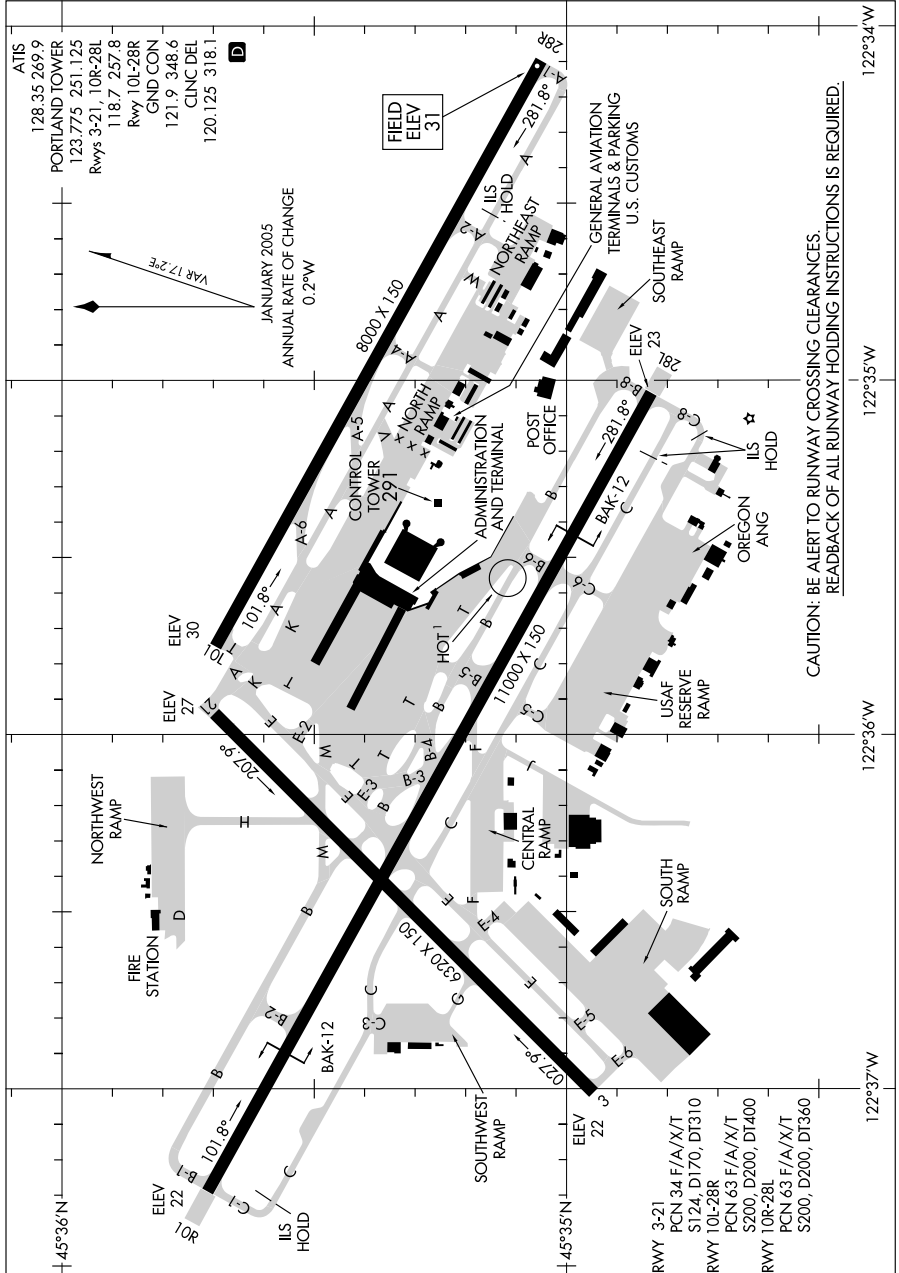
10098

AIRPORT DIAGRAM

AL-330 (FAA)

PORTLAND INTL (PDX)

PORTLAND, OREGON



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
REARBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

AIRPORT DIAGRAM

PORTLAND, OREGON

PORTLAND INTL (PDX)

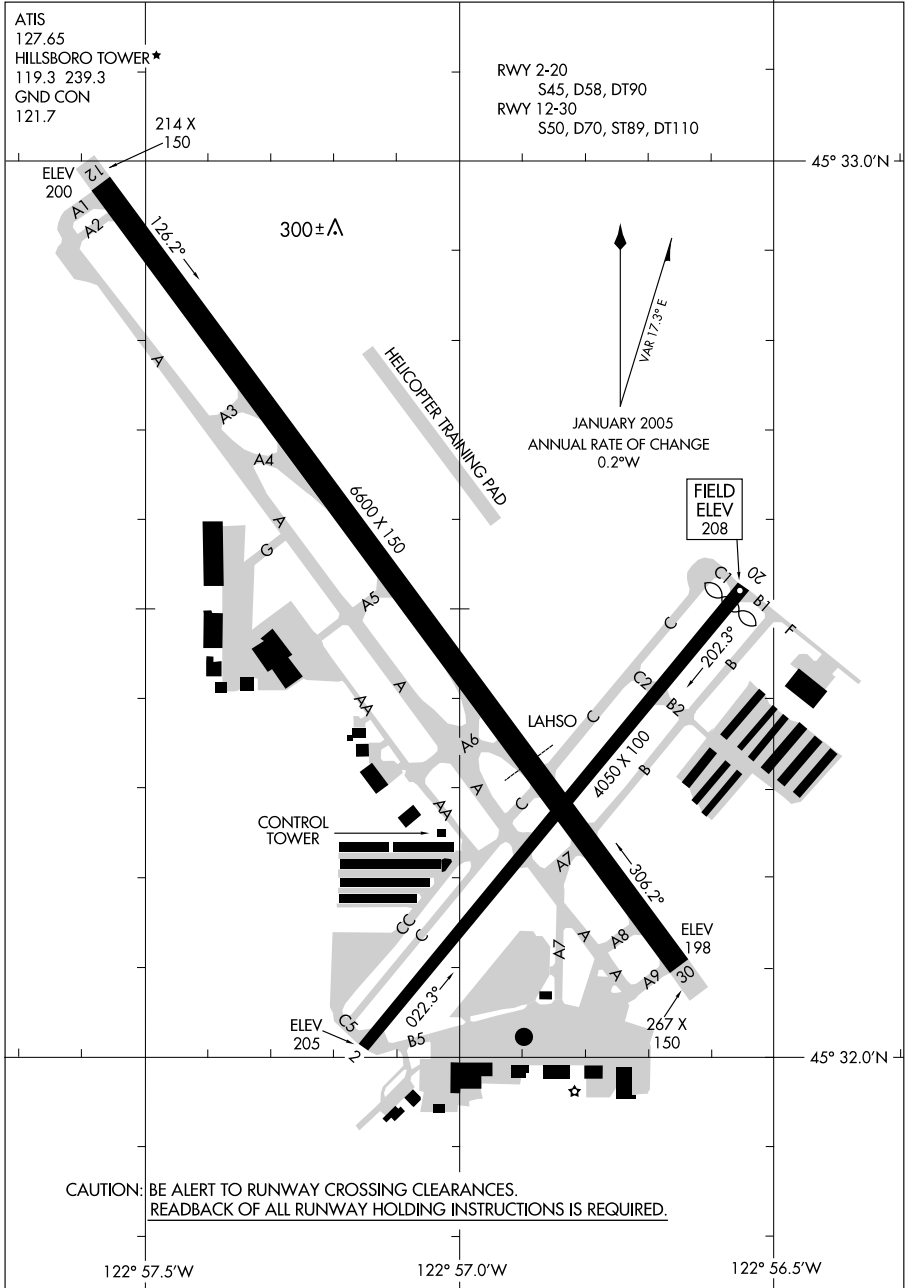
10098

09351

AIRPORT DIAGRAM

AL-5063 (FAA)

PORTLAND-HILLSBORO (HIO)
PORTLAND, OREGON



AIRPORT DIAGRAM

09351

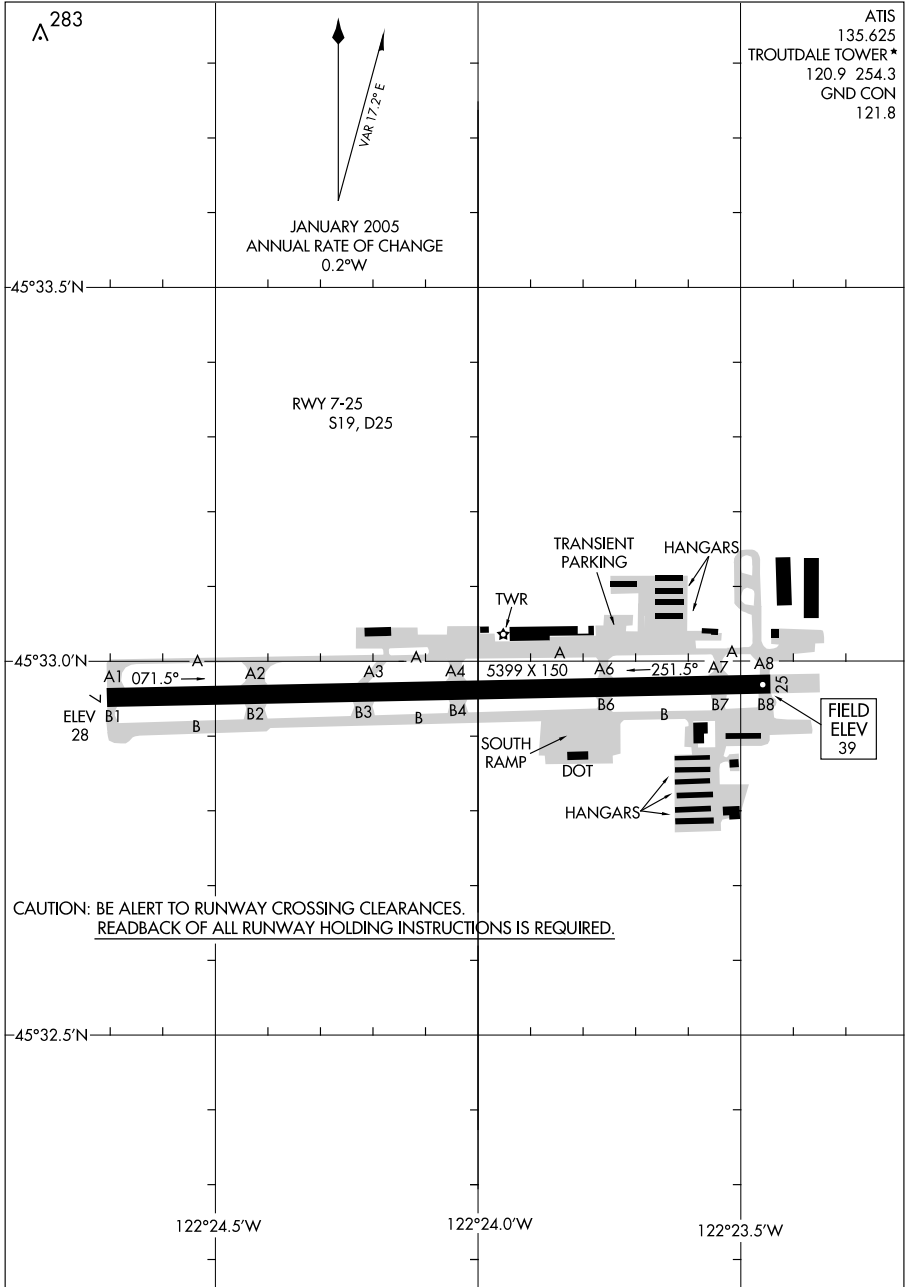
PORTLAND, OREGON
PORTLAND-HILLSBORO (HIO)

10098

AIRPORT DIAGRAM

AL-649 (FAA)

PORTLAND-TROUTDALE (TTD)
PORTLAND, OREGON



AIRPORT DIAGRAM

10098

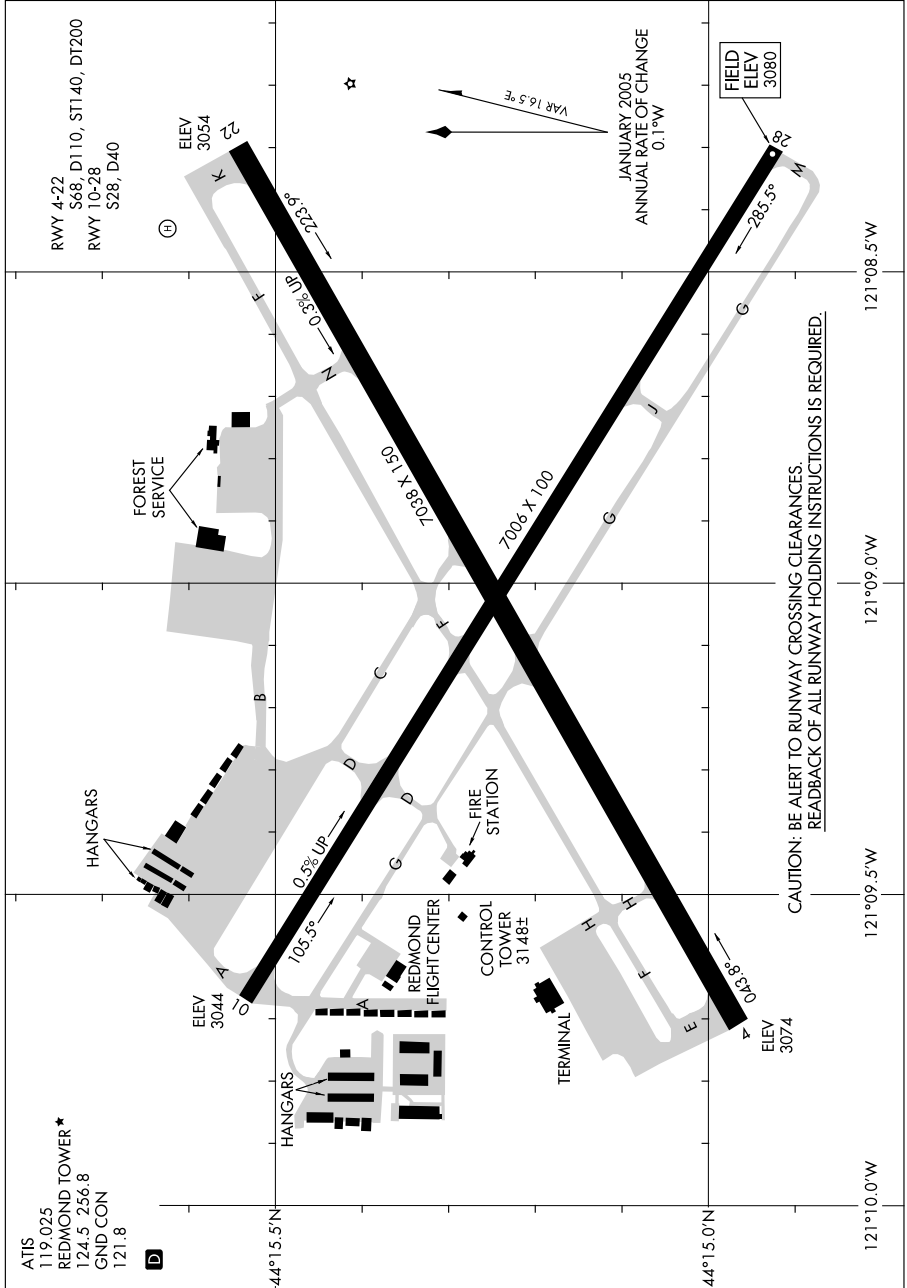
PORTLAND, OREGON
PORTLAND-TROUTDALE (TTD)

09351

AIRPORT DIAGRAM

AL-345 (FAA)

REDMOND/ ROBERTS FIELD (RDM)
REDMOND, OREGON



AIRPORT DIAGRAM

09351

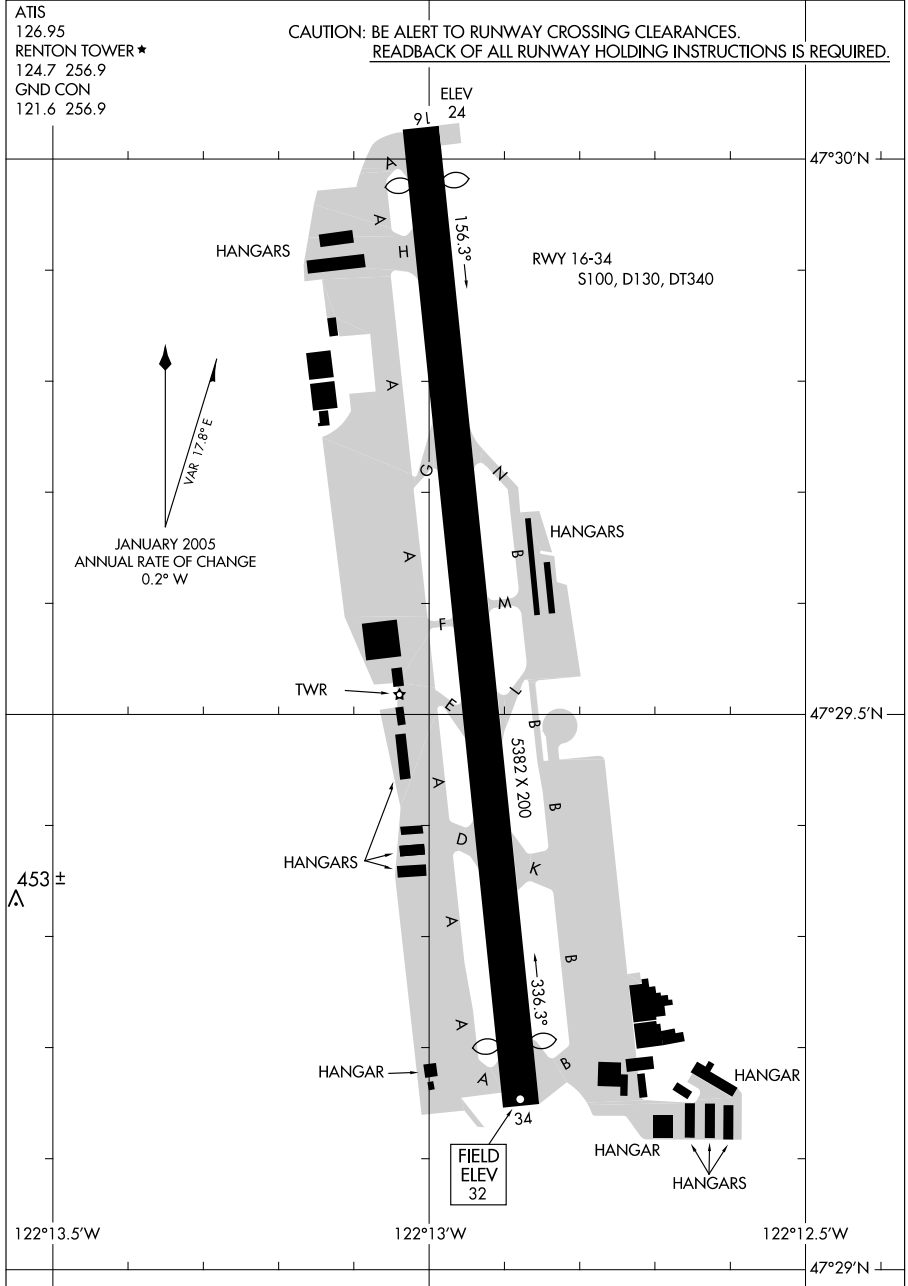
REDMOND, OREGON
REDMOND/ ROBERTS FIELD (RDM)

09239

AIRPORT DIAGRAM

RENTON MUNI (R.N.T)
RENTON, WASHINGTON

AL-5396 (FAA)



AIRPORT DIAGRAM

RENTON, WASHINGTON
RENTON MUNI (R.N.T)

09239

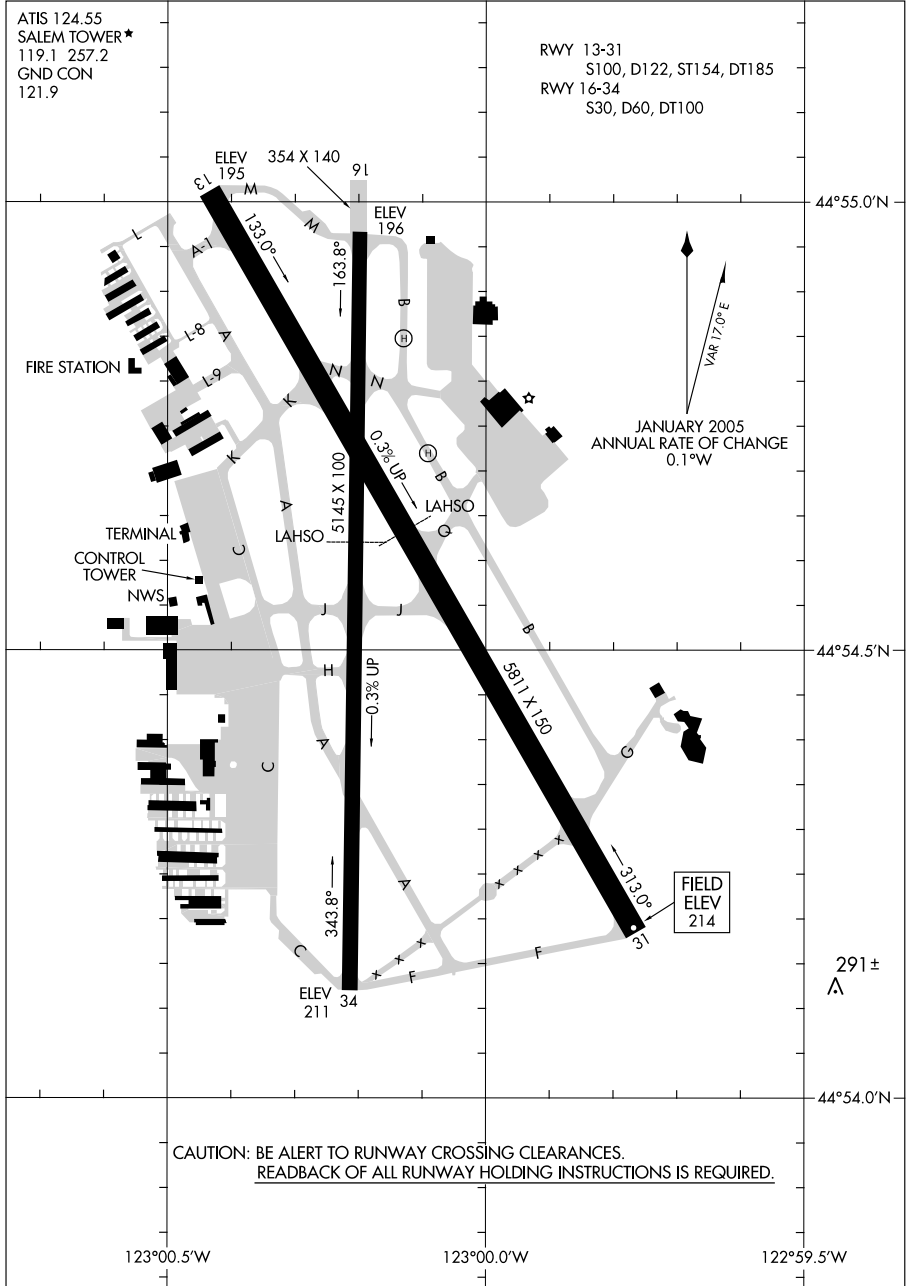
06215

AIRPORT DIAGRAM

AL-361 (FAA)

SALEM/MCNCARY FIELD (SLE)

SALEM, OREGON



AIRPORT DIAGRAM

06215

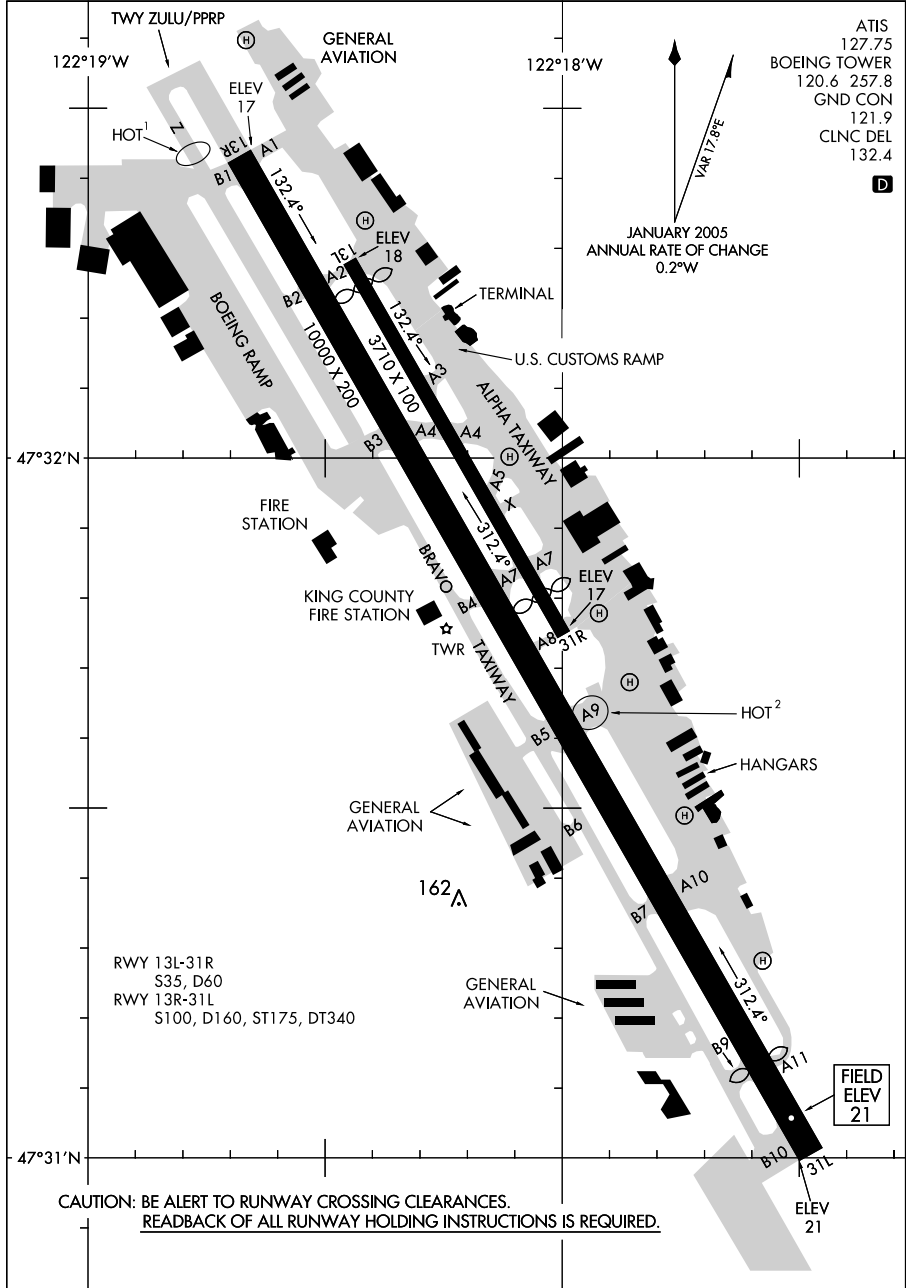
SALEM, OREGON

SALEM/MCNCARY 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)

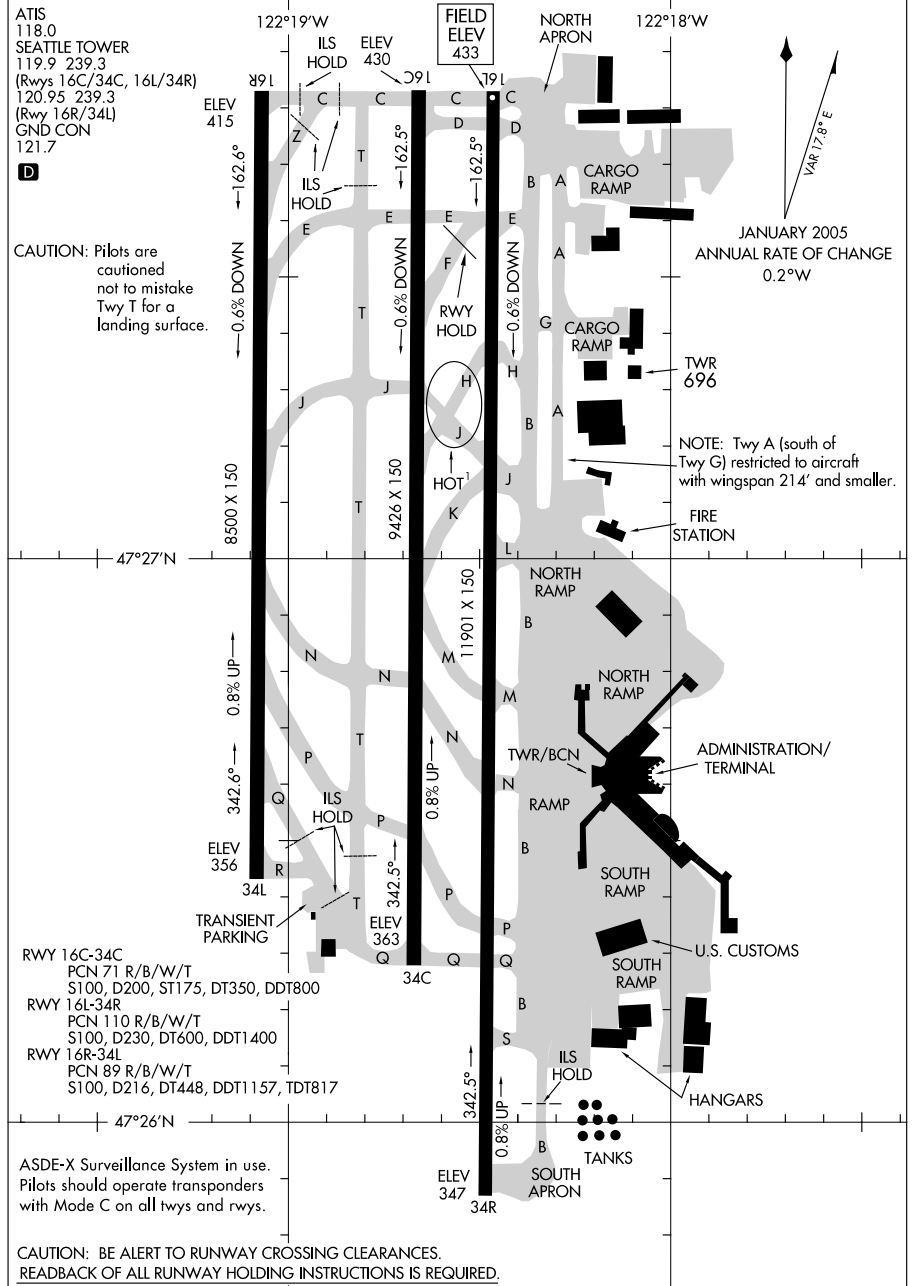
09239

10098

AIRPORT DIAGRAM

AL-582 (FAA)

SEATTLE-TACOMA INTL (SEA)
SEATTLE, WASHINGTON



AIRPORT DIAGRAM

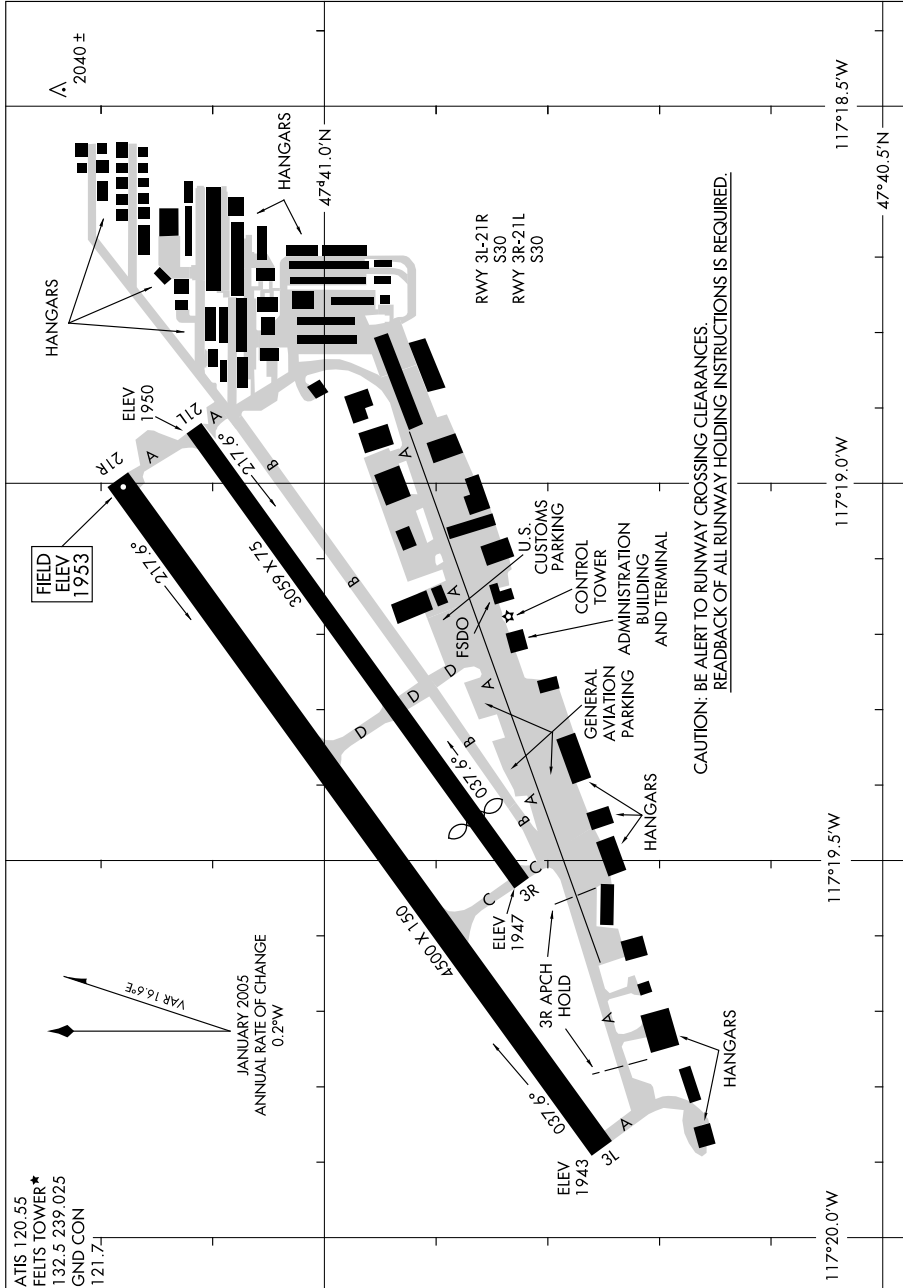
10098

08325

AIRPORT DIAGRAM

AL-402 (FAA)

SPOKANE/ FELTS FIELD (SFF)
SPOKANE, WASHINGTON



AIRPORT DIAGRAM

08325

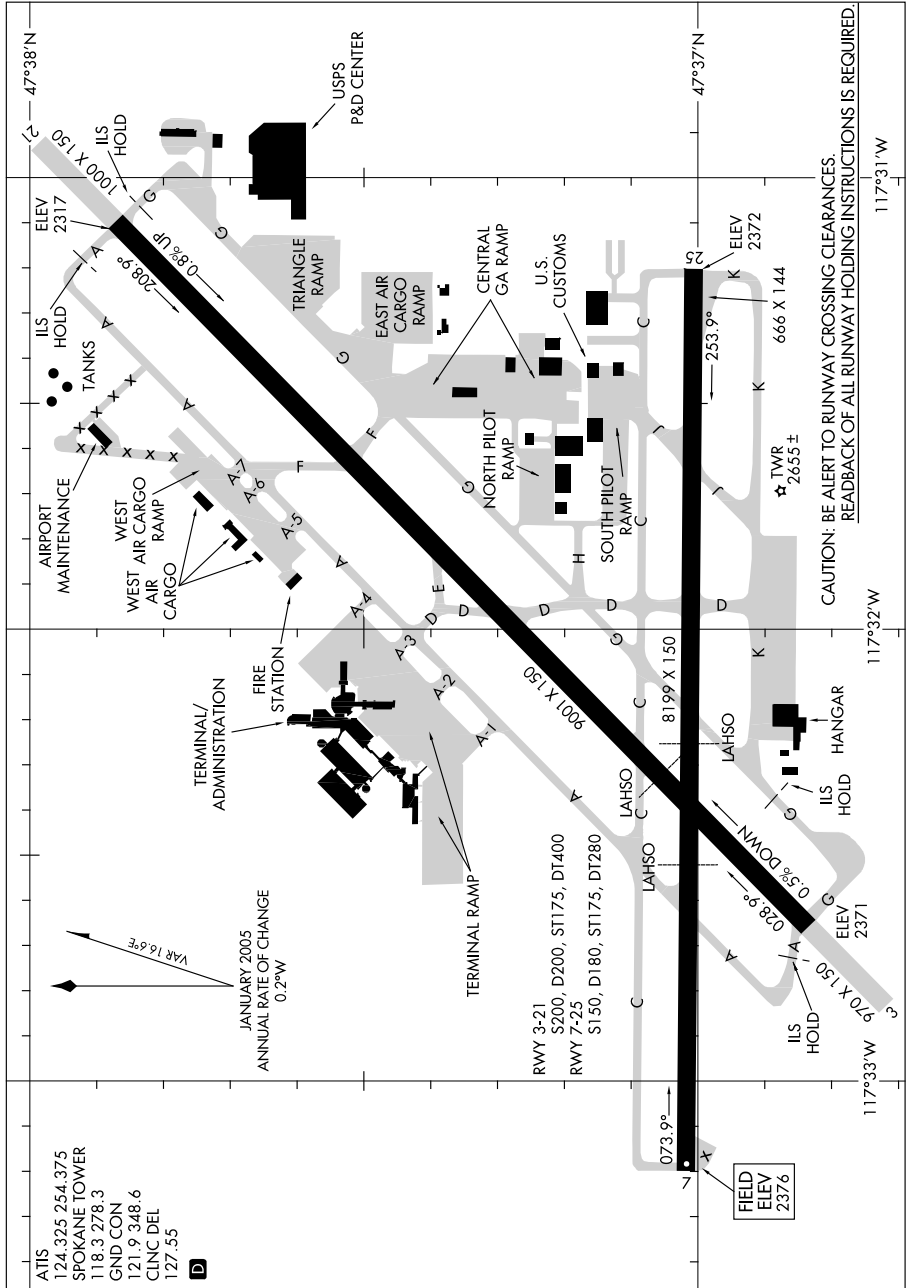
SPOKANE, WASHINGTON
SPOKANE/ FELTS FIELD (SFF)

10098

AIRPORT DIAGRAM

AL-403 (FAA)

SPOKANE INTL (GEG)
SPOKANE, WASHINGTON



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
REARBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED

AIRPORT DIAGRAM

SPOKANE, WASHINGTON
SPOKANE INTL (GEG)

10098

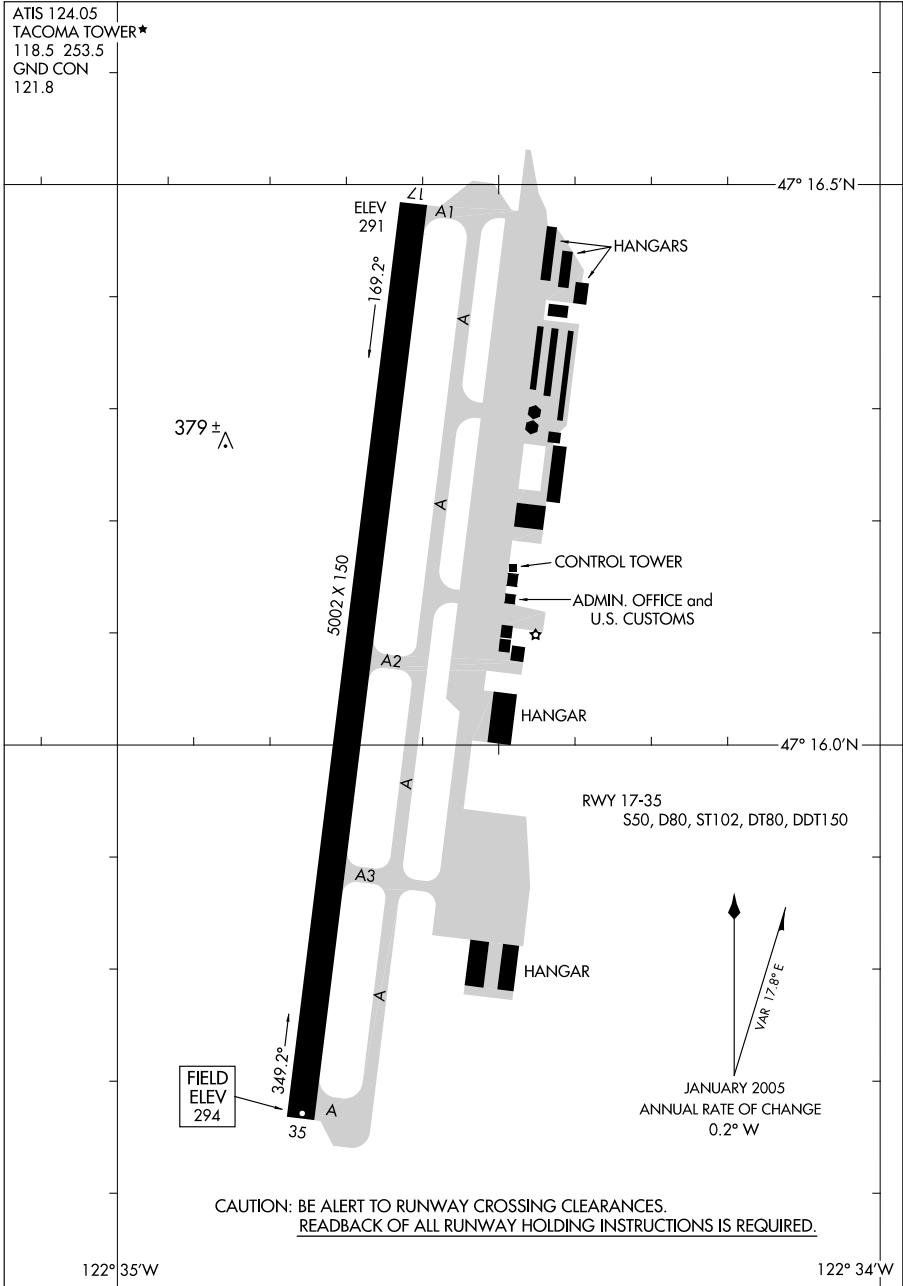
07074

AIRPORT DIAGRAM

AL-5186 (FAA)

TACOMA NARROWS (TIW)
TACOMA, WASHINGTON

ATIS 124.05
TACOMA TOWER★
118.5 253.5
GND CON
121.8



122° 35' W

122° 34' W

AIRPORT DIAGRAM

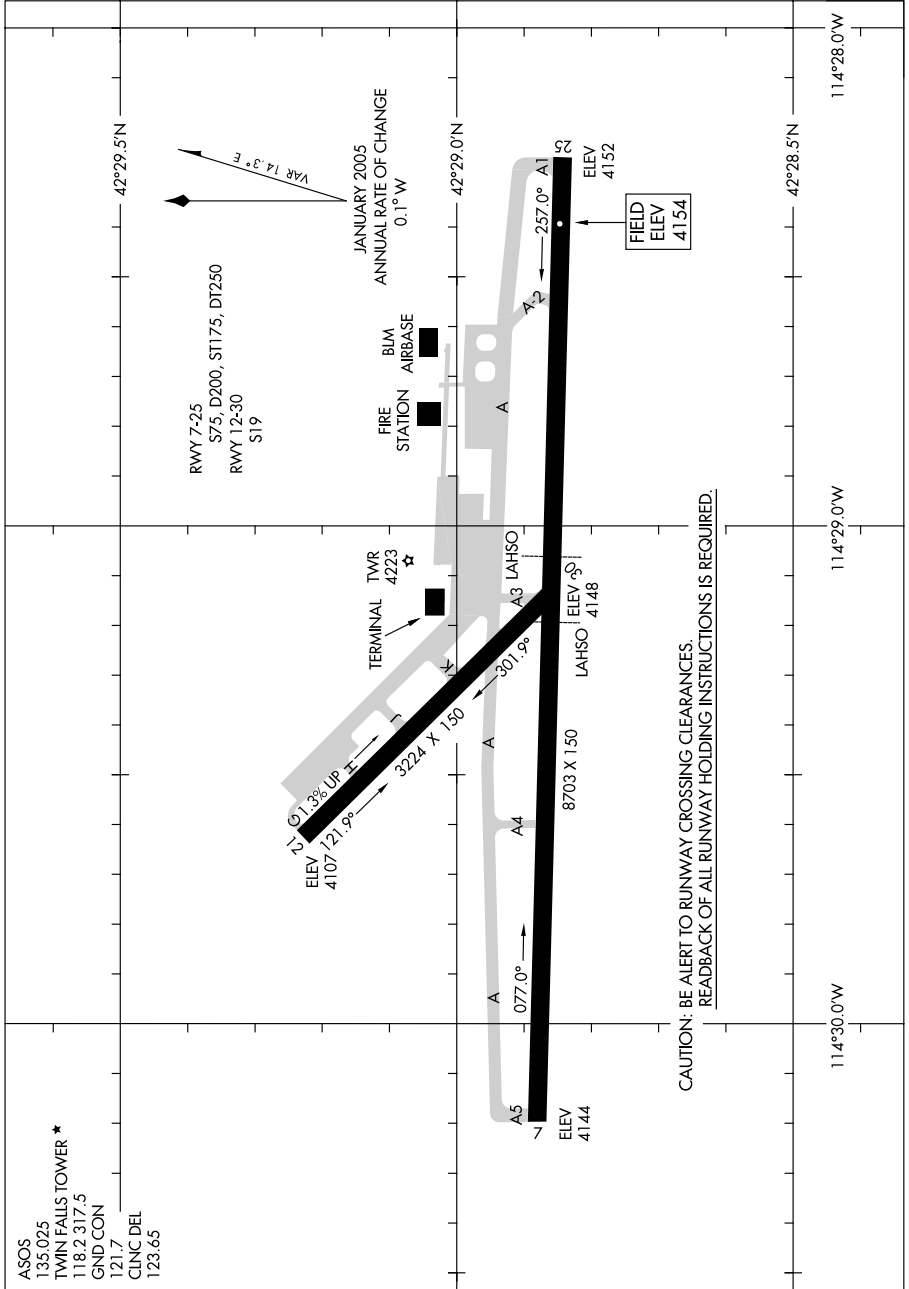
07074

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

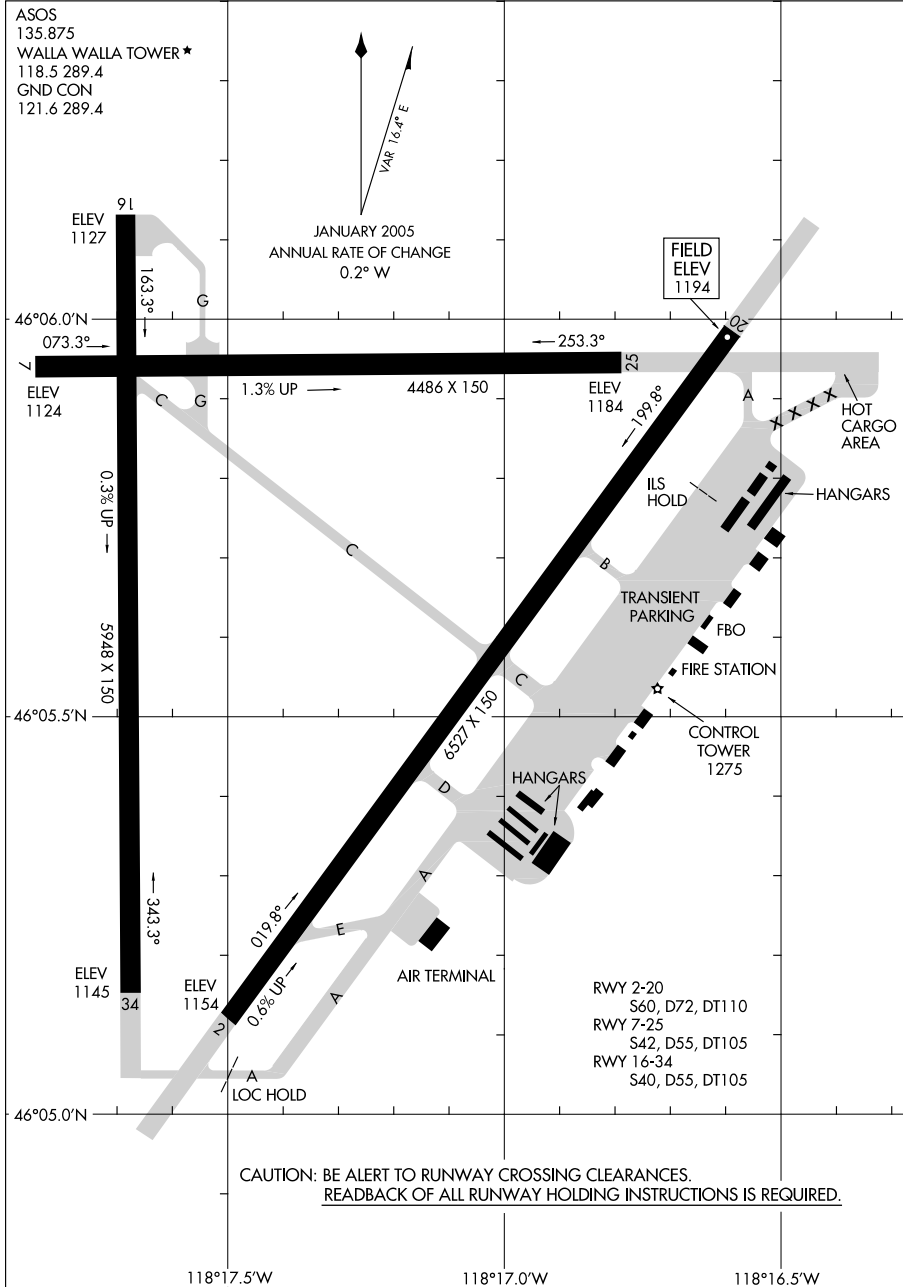
TWIN FALLS, IDAHO
TWIN FALLS/JOSLIN FIELD-MAGIC VALLEY RGNL (TWF)

09127

AIRPORT DIAGRAM

AL-440 (FAA)

WALLA WALLA RGNL (ALW)
WALLA WALLA, WASHINGTON



AIRPORT DIAGRAM

09127

WALLA WALLA, WASHINGTON
WALLA WALLA RGNL (ALW)

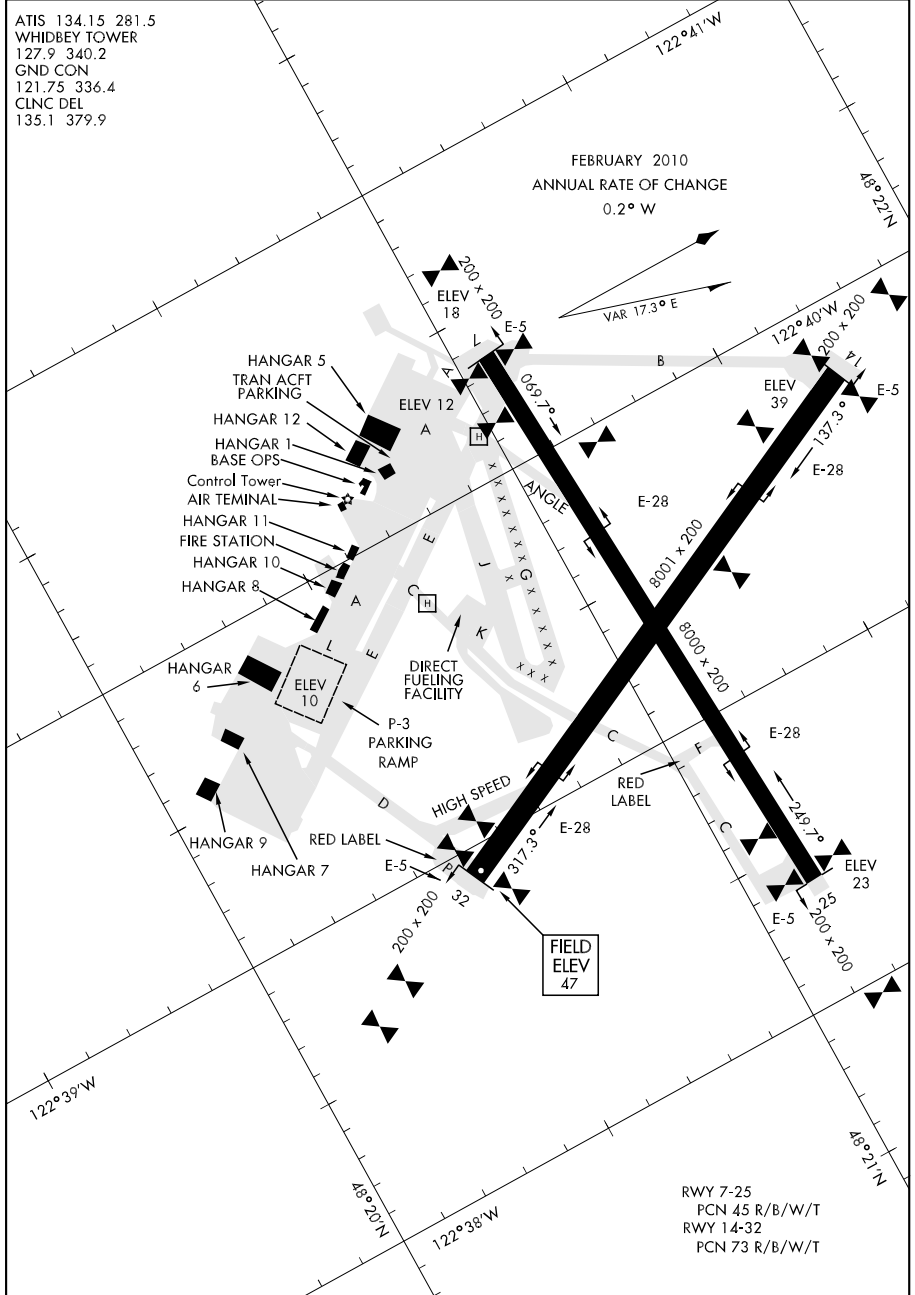
10042

WHIDBEY ISLAND NAS (AULT FLD) (KNUW)

AIRPORT DIAGRAM

AFD-451 [USN]

OAK HARBOR, WASHINGTON



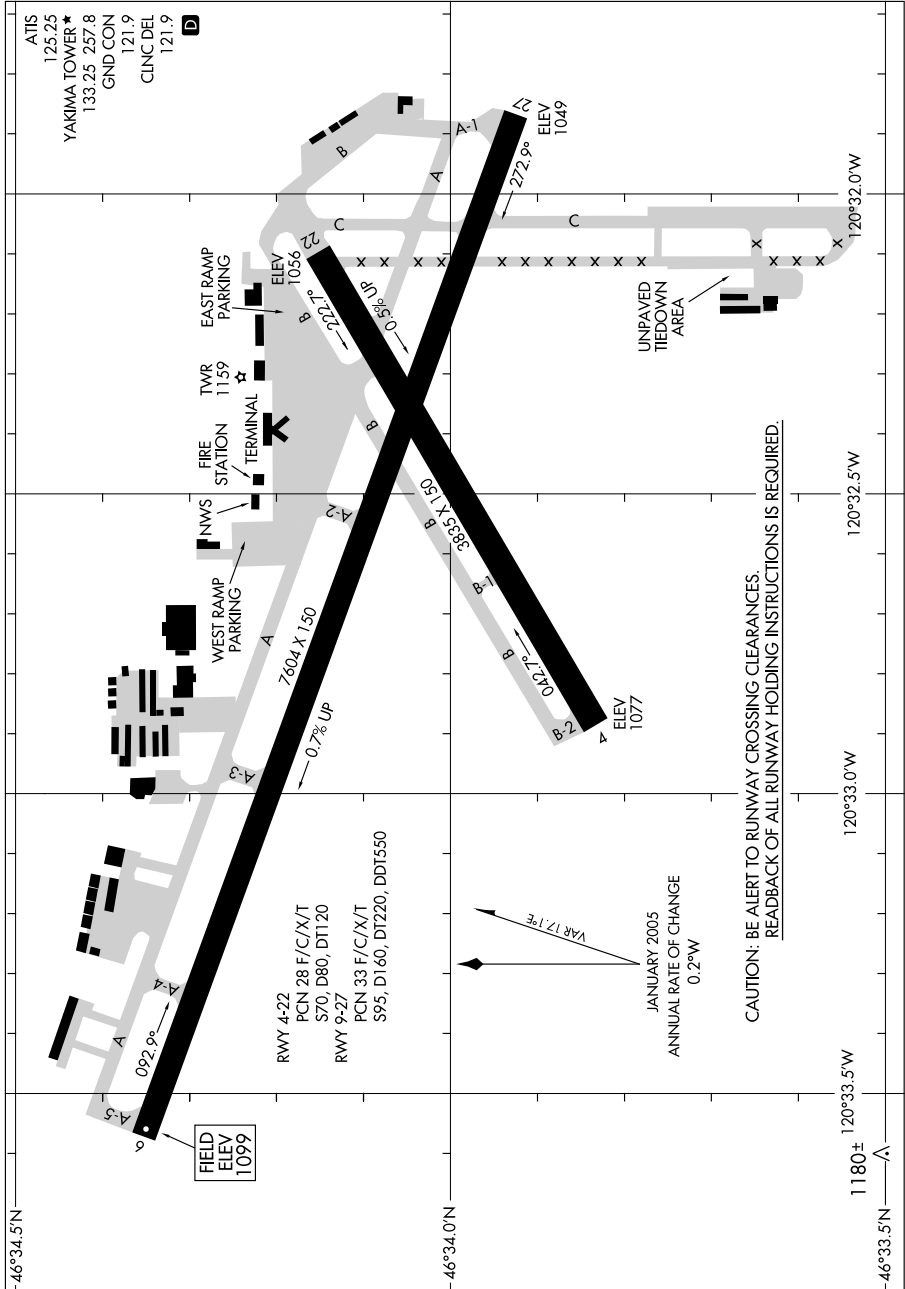
AIRPORT DIAGRAM

OAK HARBOR, WASHINGTON
WHIDBEY ISLAND NAS (AULT FLD) (KNUW)

09351

AIRPORT DIAGRAM

YAKIMA AIR TERMINAL/MCALLISTER FIELD (YKM)
AL-465 (FAA) YAKIMA, WASHINGTON

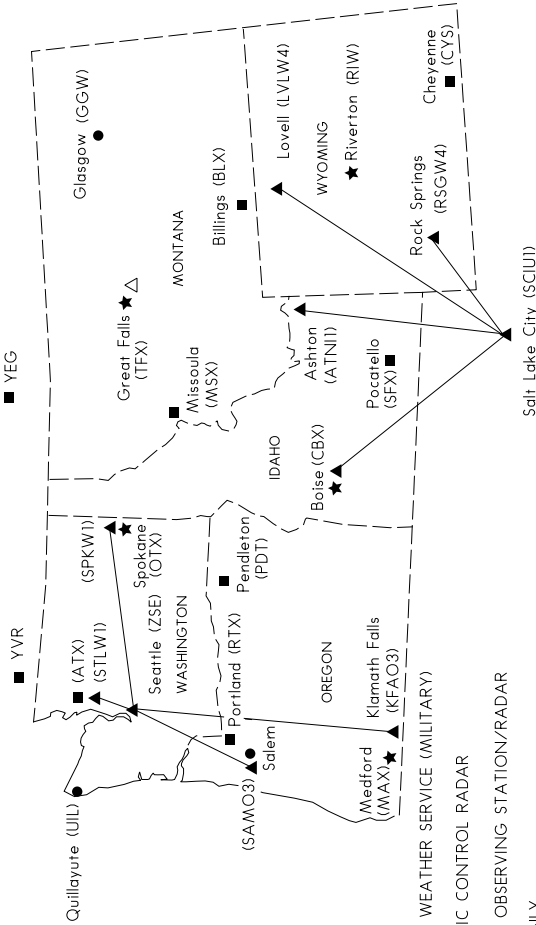


AIRPORT DIAGRAM

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

09351

NATIONAL WEATHER SERVICE (NWS)
 UPPER AIR OBSERVING STATIONS (UAOS)
 AND
 WEATHER RADAR NETWORK



- △ 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

