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3FU => 34
49B => 49
6V4 => 50
84D => 32
98D => 42
ABR => 26
AGZ => 50
ATY => 51
BKX => 28
BTN => 28
CUT => 31
EFC => 27
FSD => 47
HON => 37
HSR => 36
ICR => 52
IEN => 44
LEM => 38
MBG => 42
MDS => 39
MHE => 41
MKA => 40
PHP => 43
PIR => 44
RAP => 45
RCA => 33
SPF => 48
VMR => 50
Y14 => 49
YKN => 52

GENERAL INFORMATION

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

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

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

CORRECTIONS, COMMENTS, AND/OR PROCUREMENT

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

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

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

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

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

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

FOR CHARTING ERRORS CONTACT:

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

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

FOR PROCUREMENT CONTACT:

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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.

TABLE OF CONTENTS

General Information	Inside Front Cover
Abbreviations	2
Directory Legend	4
Airport/Facility Directory	
Iowa	22
Kansas	71
Minnesota	126
Missouri	189
Nebraska	251
North Dakota	287
South Dakota	322
City/Military Airport Cross Reference	349
Seaplane Landing Areas	350
Special Notices	353
Regulatory Notices	359
FAA and National Weather Service	
Telephone Numbers	361
Key to Aviation Weather Reports	362
Air Traffic Facilities Telephone Numbers	364
Air Route Traffic Control Centers	366
Flight Service Station Communication Frequencies	368
Flight Standards District Offices	372
Routes/Waypoints	
Low Altitude Directional Routes	373
High Altitude Preferred Routes	374
High Altitude Directional Routes	377
Q–Routes	378
RNAV Routing Pitch and Catch Points	381
VFR Waypoints	392
VOR Receiver Check	400
Parachute Jumping Areas	405
Aeronautical Chart Bulletins	409
Supplemental Communication Reference	420
Airport Diagrams	426
National Weather Service (NWS) Upper Air Observing Stations	504
Enroute Flight Advisory Service (EFAS)	Inside Back Cover

ABBREVIATIONS

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

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

CONTINUED ON NEXT PAGE

CONTINUED FROM PRECEDING PAGE

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

SAMPLE

CITY NAME

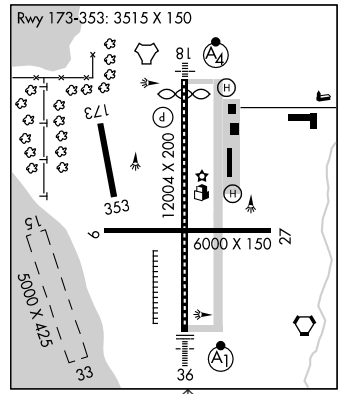
AIRPORT NAME (ALTERNATE NAME) (LTS) (KLTS) CIV/MIL 3 N UTC–6(–5DT) N34°41.93′ W99°20.20′ **JACKSONVILLE**
200 B S4 **FUEL** 100 0X 1 TPA—1000(800) AOE Class IV, ARFF Index A NOTAM FILE ORL Not insp. **COPTER**
H–4G, L–19C
IAP, DIAP, AD

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

LAND AND HOLD SHORT OPERATIONS

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

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



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

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

(24)

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

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

(27) (28)

(10)

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

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

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

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

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

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

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

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

(1)

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

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

(10)

SKETCH LEGEND

RUNWAYS/LANDING AREAS

Hard Surfaced . . . . . .

Metal Surface . . . . . .

Sod, Gravel, etc. . . . . .

Light Plane, ...
Ski Landing Area or Water

Under Construction . . . . .

Closed . . . . . .

Helicopter Landings Area . . . . . (H)

Displaced Threshold . . . . . .

Taxiway, Apron and Stopways . .

MISCELLANEOUS BASE AND CULTURAL FEATURES

Buildings . . . . . .

Power Lines . . . . . —T——T—

Fence . . . . . .

Towers . . . . . .

Tanks . . . . . .

Oil Well . . . . . .

Smoke Stack . . . . . .

Obstruction 5812

Controlling Obstruction . . . . . +5812

Trees . . . . . .

Populated Places . . . . . .

Cuts and Fills . . . . . Cut Fill

Cliffs and Depressions . .

Ditch . . . . . .

Hill . . . . . .

RADIO AIDS TO NAVIGATION

VORTAC . . .

VOR . . . . . .

VOR/DME . .

NDB . . . . . .

TACAN . . . .

NDB/DME . . . .

MISCELLANEOUS AERONAUTICAL FEATURES

Airport Beacon . . . . . .

Wind Cone . . . . . .

Landing Tee . . . . . .

Tetrahedron . . . . . .

Control Tower . . . . . .

APPROACH LIGHTING SYSTEMS

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

Runway Centerline Lighting . . . . .

(A) Approach Lighting System ALSF-2 . .

(A1) Approach Lighting System ALSF-1 . .

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

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

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

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

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

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

(‡) Air Force Overrun . . . . . .

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

(V2) Pulsating Visual Approach Slope Indicator (PVASI)

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

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

(V5) Approach Path Alignment Panel (APAP)

(P) Precision Approach Path Indicator (PAPI)

LEGEND

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

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

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

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

(1) CITY/AIRPORT NAME

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

(2) ALTERNATE NAME

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

(3) LOCATION IDENTIFIER

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

(4) OPERATING AGENCY

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

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

(5) AIRPORT LOCATION

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

(6) TIME CONVERSION

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

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

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

⑧ CHARTS

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

⑨ INSTRUMENT APPROACH PROCEDURES, AIRPORT DIAGRAMS

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

⑩ AIRPORT SKETCH

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

⑪ ELEVATION

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

⑫ ROTATING LIGHT BEACON

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

⑬ SERVICING—CIVIL

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

⑭ FUEL

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

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

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

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

⑮ OXYGEN—CIVIL

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

⑯ TRAFFIC PATTERN ALTITUDE

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

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

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

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

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

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

US Customs Air and Sea Ports, Inspectors and Agents

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

⑱ CERTIFICATED AIRPORT (14 CFR PART 139)

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

14 CFR PART 139 CERTIFICATED AIRPORTS
AIRPORT CLASSIFICATIONS

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

14 CFR–PART 139 CERTIFICATED AIRPORTS

INDICES AND AIRCRAFT RESCUE AND FIRE FIGHTING EQUIPMENT REQUIREMENTS

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

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

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

⑲ NOTAM SERVICE

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

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

⑳ FAA INSPECTION

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

㉑ RUNWAY DATA

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

RUNWAY DESIGNATION

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

RUNWAY DIMENSIONS

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

RUNWAY SURFACE AND LENGTH

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

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

RUNWAY WEIGHT BEARING CAPACITY

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

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

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

Omission of weight bearing capacity indicates information unknown.

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

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

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

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

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

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

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

RUNWAY LIGHTING

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

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

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

VISUAL GLIDESLOPE INDICATORS

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

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

PAPI—Precision Approach Path Indicator

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

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

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

SAVASI—Simplified Abbreviated Visual Approach Slope Indicator

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

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

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

VASI—Visual Approach Slope Indicator

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

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

PILOT CONTROL OF AIRPORT LIGHTING

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

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

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

RUNWAY SLOPE

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

RUNWAY END DATA

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

LAND AND HOLD SHORT OPERATIONS (LAHSO)

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

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

RUNWAY DECLARED DISTANCE INFORMATION

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

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

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

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

(22) ARRESTING GEAR/SYSTEMS

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

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

BI–DIRECTIONAL CABLE (B)

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

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

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

UNI–DIRECTIONAL CABLE

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

FOREIGN CABLE

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

UNI–DIRECTIONAL BARRIER

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

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

OTHER

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

(23) MILITARY SERVICE

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

(24) JET AIRCRAFT STARTING UNITS (JASU)

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

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

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

ELECTRICAL STARTING UNITS:

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

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

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

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

(25) FUEL—MILITARY

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

See legend item 14 for fuel code and description.

(26) SUPPORTING FLUIDS AND SYSTEMS—MILITARY

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

OXYGEN:

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

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

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

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

NITROGEN:

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

(27) OIL—MILITARY

US AVIATION OILS (MIL SPECS):

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

(28) TRANSIENT ALERT (TRAN ALERT)—MILITARY

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

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

㉙ AIRPORT REMARKS

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

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

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

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

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

㉚ MILITARY REMARKS

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

Type of restrictions:

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

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

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

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

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

㉛ WEATHER DATA SOURCES

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

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

AWOS—Automated Weather Observing System

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

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

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

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

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

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

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

(32) COMMUNICATIONS

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

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

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

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

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

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

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

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

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

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

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

TERMINAL SERVICES

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

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

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

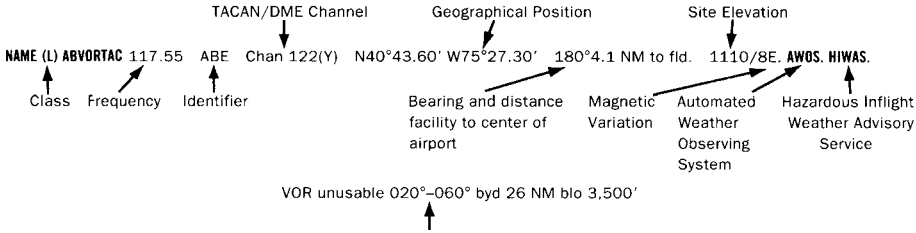
㉝ AIRSPACE

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

㉞ RADIO AIDS TO NAVIGATION

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

NAVAID information is tabulated as indicated in the following sample:



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

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

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

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

RADIO CLASS DESIGNATIONS

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

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

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

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

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

ILS FACILITY PEFORMANCE CLASSIFICATION CODES

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

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

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

ILS information is tabulated as indicated in the following sample:

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

ILS Facility Performance Classification Code

FREQUENCY PAIRING PLAN AND MLS CHANNELING

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

FREQUENCY PAIRING PLAN AND MLS CHANNELING

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

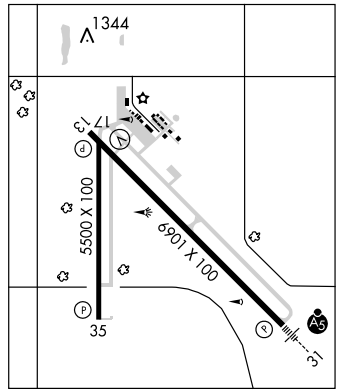
TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL	TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL	TACAN CHANNEL	VHF FREQUENCY	MLS CHANNEL
2X	134.5	-	19Y	108.25	544	25X	108.80	-
2Y	134.55	-	20X	108.30	502	25Y	108.85	556
11X	135.4	-	20Y	108.35	546	26X	108.90	508
11Y	135.45	-	21X	108.40	-	26Y	108.95	558
12X	135.5	-	21Y	108.45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

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

(35) COMM/NAV/WEATHER REMARKS:

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

ABERDEEN RGNL (ABR) 2 E UTC−6(−5DT) N45°26.94′ W98°25.31′ **TWIN CITIES**
1302 B S4 **FUEL** 100LL, JET A, MOGAS OX 1 Class I, ARFF Index A NOTAM FILE ABR **H–2H, L–14G**
RWY 13–31: H6901X100 (CONC–GRVD) S–99, D–150, ST–175, DT–250 HIRL **IAP**
RWY 13: REIL. VASI(V4L)—GA 3.0° TCH 52′.
RWY 31: MALSR. PAPI(P4L)—GA 3.0° TCH 68′.
RWY 17–35: H5500X100 (ASPH–PFC) S–60, D–75, ST–95, DT–140 MIRL
RWY 17: REIL. PAPI(P4R)—GA 3.0° TCH 37′.
RWY 35: REIL. PAPI(P4L)—GA 3.0° TCH 38′.
RUNWAY DECLARED DISTANCE INFORMATION
RWY 13: TORA–6901 TODA–6901 ASDA–6901 LDA–6901
RWY 17: TORA–5500 TODA–5500 ASDA–5500 LDA–5500
RWY 31: TORA–6901 TODA–6901 ASDA–6901 LDA–6901
RWY 35: TORA–5500 TODA–5500 ASDA–5500 LDA–5500
AIRPORT REMARKS: Attended 0930–0500Z‡. Rwy 13 and Rwy 17 apch ends are closely aligned. Verify correct rwy and compass heading prior to dep. PPR for unscheduled air carrier ops with more than 30 passenger seats call arpt manager 605–626–7020. After hours call 605–626–7068. Gulls and Geese on and invof arpt Mar–Dec. MIRL Rwy 17–35 and HIRL Rwy 13–31 preset on low ints SS–0600Z‡, to increase ints and ACTIVATE REIL Rwy 13, Rwy 17, Rwy 35 and MALSR Rwy 31—CTAF.

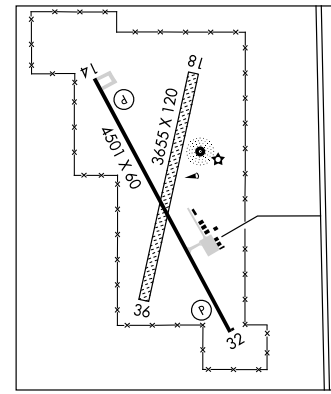


WEATHER DATA SOURCES: ASOS 125.875 (605) 229–4512.
COMMUNICATIONS: CTAF 122.7 **UNICOM** 122.95
RCO 122.4 122.1R 113.0T (HURON RADIO)
MINNEAPOLIS CENTER APP/DEP CON 120.6
RADIO AIDS TO NAVIGATION: NOTAM FILE ABR.
(H) VOR/DME 113.0 ABR Chan 77 N45°25.04′ W98°22.12′ 303° 2.9 NM to fld. 1301/7E.
RENEY NDB (LOM) 203 AB N45°23.16′ W98°19.70′ 307° 5.4 NM to fld.
ILS/DME 109.9 I–ABR Chan 36 Rwy 31 Class IE. LOM RENEY NDB, BC unusable beyond 10 NM below 3500′; Unusable beyond 15 NM.

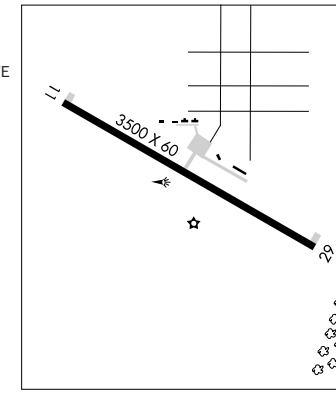
ARLINGTON MUNI (3A9) 2 N UTC−6(−5DT) N44°23.66′ W97°07.39′ **OMAHA**
1818 B TPA—2618(800) NOTAM FILE HON
RWY 14–32: 3000X250 (TURF) LIRL
RWY 14: Trees. **RWY 32:** Trees.
RWY 04–22: 2400X250 (TURF)
RWY 04: Trees. **RWY 22:** Trees.
AIRPORT REMARKS: Unattended. Arpt CLSD Nov 1–Apr 1. Waterfowl on and invof arpt. Rwy 04–22 and Rwy 14–32 marked with yellow metal A–frame markers.
COMMUNICATIONS: CTAF 122.9

BEADY N44°26.63′ W98°20.21′ NOTAM FILE HON.
NDB (LOM) 302 HO 120° 5.8 NM to Huron Rgnl.

BELLE FOURCHE MUNI (EFC) 4 N UTC−7(−6DT) N44°44.08′ W103°51.71′ **BILLINGS**
3191 B S4 **FUEL** 100LL, NOTAM FILE EFC **L–12F, 13E**
RWY 14–32: H4501X60 (ASPH) S–12.5 MIRL **IAP**
RWY 14: PAPI(P4L)—GA 3.0° TCH 41′.
RWY 32: PAPI(P4L)—GA 3.0° TCH 32′.
RWY 18–36: 3655X120 (TURF)
AIRPORT REMARKS: Attended 1500–0100Z‡. Ultralights and glider ops on and invof arpt. Waterfowl on and invof arpt. Rwy 18 marked with white and black metal A–frames. Rwy 36 marked with white and black metal A–frames. ACTIVATE MIRL Rwy 14–32—CTAF.
COMMUNICATIONS: CTAF/UNICOM 122.8
DENVER CENTER APP/DEP CON 127.95
RADIO AIDS TO NAVIGATION: NOTAM FILE RAP.
RAPID CITY (H) VORTAC 112.3 RAP Chan 70 N43°58.56′ W103°00.74′ 309° 58.4 NM to fld. 3160/13E.
NDB (MHW) 269 EFC N44°44.16′ W103°51.54′ at fld. NOTAM FILE EFC. NDB OTS indef.



BISON MUNI (6V5) 0 SW UTC−7(−6DT) N45°31.12′ W102°28.03′ **BILLINGS**
2785 B **FUEL** 100LL NOTAM FILE HON **L–14F**
RWY 11–29: H3500X60 (ASPH) S –12.5 LIRL
RWY 29: Trees.
AIRPORT REMARKS: Unattended. For fuel call 605–244–5677/7143/5423. Wildlife on and invof arpt. ACTIVATE LIRL Rwy 11–29—122.9.
COMMUNICATIONS: CTAF 122.9
RADIO AIDS TO NAVIGATION: NOTAM FILE DIK.
DICKINSON (H) VORTACW 112.9 DIK Chan 76 N46°51.60′ W102°46.41′ 157° 81.5 NM to fld. 2520/14E. **HIWAS.**

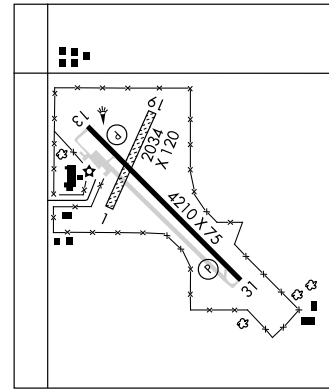


BLACK HILLS–CLYDE ICE FLD (See SPEARFISH)

BOB WILEY FLD (See WINNER)

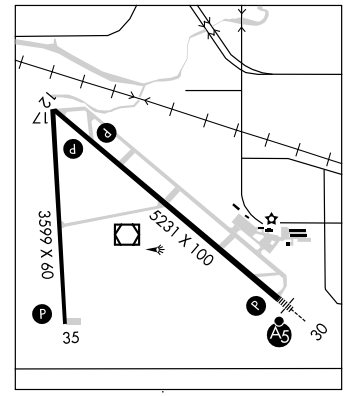
BOWDLE MUNI (5P3) 1 SW UTC−6(−5DT) N45°26.37′ W99°40.51′ **TWIN CITIES**
1967 B NOTAM FILE HON
RWY 13–31: 3600X150 (TURF) LIRL
RWY 31: Road.
AIRPORT REMARKS: Unattended. Arpt CLOSED SS–SR. Arpt CLOSED Nov 1–Apr 15. For field conditions call arpt manager 605–285–6158/6350. Wildlife on and invof arpt.Rwy 13–31 marked with yellow and black metal A-frame markers. Rwy 13–31 Daylight use only, LIRL OTS indefly. Rotating beacon OTS indef. ACTIVATE LIRL Rwy 13–31—CTAF.
COMMUNICATIONS: CTAF 122.9

BRITTON MUNI (BTN) 2 NE UTC−6(−5DT) N45°48.90′ W97°44.57′ **TWIN CITIES**
1318 B S2 **FUEL** 100LL NOTAM FILE HON **L–14G**
RWY 13–31: H4210X75 (ASPH) S–12.5 MIRL **IAP**
RWY 13: PAPI(P4L)—GA 3.0° TCH 37′. Road.
RWY 31: PAPI(P4L)—GA 3.2° TCH 37′.
RWY 01–19: 2034X120 (TURF)
RWY 01: Fence. **RWY 19:** Road.
AIRPORT REMARKS: Attended dalgt hrs. Waterfowl and gulls on and invof arpt. Rwy 01–19 marked with black and white cones.
WEATHER DATA SOURCES: AWOS–3 122.8 (617) 262–3825. OTS indef.
COMMUNICATIONS: CTAF/UNICOM 122.8
MINNEAPOLIS CENTER APP/DEP CON 120.6
RADIO AIDS TO NAVIGATION: NOTAM FILE ABR.
ABERDEEN (H) VOR/DME 113.0 ABR Chan 77 N45°25.04′ W98°22.12′ 041° 35.6 NM to fld. 1301/7E.



BROOKINGS RGNL (BKX) 0 SW UTC−6(−5DT) N44°18.29′ W96°49.02′ **OMAHA**
1648 B S4 **FUEL** 100LL, JET A Class IV, ARFF Index A NOTAM FILE BKX **H–2H, L–12I**
RWY 12–30: H5231X100 (ASPH–PFC) S–39, D–54, ST–83, DT–76 HIRL 0.4% up SE **IAP**
RWY 12: REIL. PAPI(P4L)—GA 3.0° TCH 49′. Railroad.
RWY 30: MALSR. REIL. PAPI(P4L)—GA 3.0° TCH 45′. Tree.
RWY 17–35: H3599X60 (ASPH) MIRL 1.1% up S
RWY 17: REIL. PAPI(P4L)—GA 3.0° TCH 27′. Railroad.
RWY 35: REIL. PAPI(P4L)—GA 3.0° TCH 24′. Road.
RUNWAY DECLARED DISTANCE INFORMATION

RWY 12:	TORA–5231	TODA–5231	ASDA–5231	LDA–5231
RWY 17:	TORA–3599	TODA–3599	ASDA–3599	LDA–3599
RWY 30:	TORA–5231	TODA–5231	ASDA–5231	LDA–5231
RWY 35:	TORA–3599	TODA–3599	ASDA–3599	LDA–3599



AIRPORT REMARKS: Attended 1400–0000Z‡. For attendant after hrs call 605–691–7149 or 605–690–6013. Rwy 12 and Rwy 17 apch ends are closely aligned. Verify correct rwy and compass heading prior to dep. Deer on and invof arpt. PPR 48 hrs for unscheduled air carrier ops with 31 plus passenger seats call arpt manager (605) 697–8664. Rwy 17–35 not avbl scheduled ops involving air carrier acft designed for 10–30 passenger seats and unscheduled air carrier ops involving acft designed 30 plus passenger seats. Scheduled air carrier ops involving acft designed for 10–30 passenger seats and unscheduled air carrier ops involving acft designed for 31 plus passenger seats are not authorized under part 139 to operate at BKX in excess of 15 mins before or after scheduled arrival/departure times. Coordinate scheduled changes with airport manager to assure ARFF avbl call (605) 697–8664. Intensive student training. Wildlife on and invof arpt. Large flocks of geese and gulls on and invof arpt Apr–Oct. During summer months mowing and farming ops dalgt hrs only. ACTIVATE HIRL Rwy 12–30, MIRL Rwy 17–35, MALSR Rwy 30, REIL Rwy 12, Rwy 17 and Rwy 35, PAPI Rwy 12, Rwy 30, Rwy 17 and Rwy 35—CTAF.
WEATHER DATA SOURCES: AWOS–3 108.8 BKX (605) 692–1809.
COMMUNICATIONS: CTAF/UNICOM 123.0
RCO 122.65 (HURON RADIO)
AIRSPACE: CLASS E svc Mon–Fri 1130–0130Z‡, Sat 1100–1300Z‡ and 1900–2100Z‡, Sun 2100–0130Z‡ other times CLASS G.
RADIO AIDS TO NAVIGATION: NOTAM FILE BKX.
(T) VORW/DME 108.8 BKX Chan 25 N44°18.20′ W96°48.91′ at fld. 1641/6E. **AWOS–3**.
VOR portion unusable:
116°–129° byd 10 NM blo 6,000′ 270°–029° byd 10 NM blo 6,000′
130°–180° blo 6,000′
ILS 110.9 I–BKX Rwy 30. Class IE. Unmonitored.

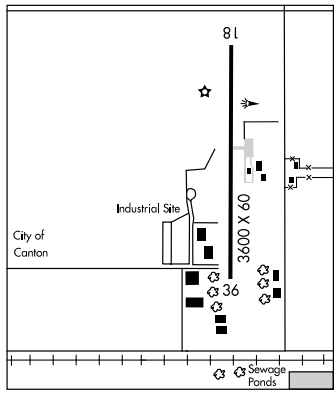
BUFFALO N45°33.13′ W103°27.38′ NOTAM FILE HON. BILLINGS
(T) VOR/DME 109.4 BUA Chan 31 286° 3.5 NM to Harding Co. VFR only. L–13E
DME unusable
200°–230° byd 25 NM blo 6000′ 070°–130° byd 25 NM blo 6000′.
RCO 122.15 (HURON RADIO)

BUFFALO

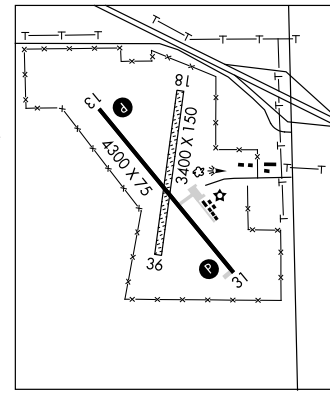
HARDING CO (9D2) 1 SE UTC−7(−6DT) N45°34.83′ W103°31.78′ BILLINGS
2889 B **FUEL** 100LL NOTAM FILE HON L–13E
RWY 12–30: H3900X60 (ASPH) S–12.5 LIRL
RWY 12: Fence.
RWY 08–26: 2250X100 (TURF)
RWY 08: Road. **RWY 26:** Fence.
AIRPORT REMARKS: Unattended. For fuel call 605–375–3254/3255. Wildlife on and invof arpt. Rwy 12–30 rough.
COMMUNICATIONS: CTAF 122.9
RADIO AIDS TO NAVIGATION: NOTAM FILE HON.
BUFFALO (T) VOR/DME 109.4 BUA Chan 31 N45°33.13′ W103°27.38′ 286° 3.5 NM to fld. 3020/13E. VFR only.

CAGUR N42°50.62′ W97°18.13′ NOTAM FILE YKN. OMAHA
NDB (LOM) 347 YK 313° 5.7 NM to Chan Gurney Muni. Unmonitored.

CANTON MUNI (7G9) 1 NE UTC−6(−5DT) N43°18.53′ W96°34.26′ OMAHA
1290 B S1 **FUEL** 100LL NOTAM FILE HON L–12I
RWY 18–36: H3600X60 (ASPH) S–12.5 LIRL
RWY 18: Road. **RWY 36:** Trees.
AIRPORT REMARKS: Attended Mon–Fri 1500–2300Z‡. Deer and wildlife on and invof arpt.
COMMUNICATIONS: CTAF/UNICOM 122.8
RADIO AIDS TO NAVIGATION: NOTAM FILE FSD.
SIOUX FALLS (H) VORTACW 115.0 FSD Chan 97 N43°38.97′ W96°46.87′ 147° 22.4 NM to fld. 1570/9E. **HIWAS.**



CHAMBERLAIN MUNI (9V9) 3 S UTC−6(−5DT) N43°45.97′ W99°19.28′ **OMAHA**
1695 B S4 **FUEL** 100LL, JET A NOTAM FILE HON **L–12H**
RWY 13–31: H4300X75 (ASPH) S–12.5 MIRL **IAP**
RWY 13: PAPI(P2L)—GA 3.0° TCH 40′. Tree.
RWY 31: PAPI (P2L)—GA 3.0° TCH 40′.
RWY 18–36: 3400X150 (TURF)
RWY 18: Pole.
AIRPORT REMARKS: Attended continuously. Fuel avbl 24 hrs with credit card. Waterfowl on and invof arpt. Ultralight activity on and invof arpt. Rwy 18 A–frame markings–black and yellow. Rwy 36 A–frame markings–black and yellow. MIRL Rwy 13–31 preset on low ints, to increase ints and ACTIVATE PAPI Rwy 13 and Rwy 31—CTAF.
COMMUNICATIONS: CTAF/UNICOM 122.8
Ⓡ **MINNEAPOLIS CENTER APP/DEP CON** 125.1
RADIO AIDS TO NAVIGATION: NOTAM FILE PIR.
PIERRE (L) VORTACW 112.5 PIR Chan 72 N44°23.67′ W100°09.77′ 125° 52.4 NM to fld. 1789/11E. **HIWAS.**



CHAN GURNEY MUNI (See YANKTON)

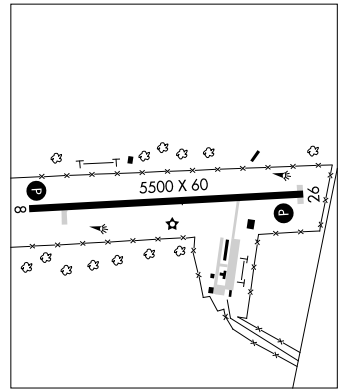
CHEYENNE EAGLE BUTTE (See EAGLE BUTTE)

CLARK CO (8D7) 2 NE UTC−6(−5DT) N44°53.70′ W97°42.67′ **TWIN CITIES**
1792 B **FUEL** 100LL NOTAM FILE HON **L–12H, 14G**
RWY 13–31: H3700X60 (ASPH) S–13 MIRL
RWY 13: Road.
RWY 03–21: 2800X100 (TURF)
RWY 03: Road. **RWY 21:** Tree belt.
AIRPORT REMARKS: Unattended. For fuel call 605–532–3862. Rwy 03–21 CLOSED indefinitely due to wet conditions. Wildlife on and invof arpt. Rwy 03–21 SW end of rwy soft when wet. Rwy 03–21 marked with yellow and black split barrels. ACTIVATE MIRL Rwy 13–31—CTAF.
COMMUNICATIONS: CTAF/UNICOM 122.8
RADIO AIDS TO NAVIGATION: NOTAM FILE ATY.
WATERTOWN (L) VORTACW 116.6 ATY Chan 113 N44°58.78′ W97°08.51′ 249°24.8 NM to fld. 1762/9E. **HIWAS.**

CLEAR LAKE MUNI (5H3) 1 N UTC−6(−5DT) N44°46.28′ W96°41.29′ **TWIN CITIES**
1801 B NOTAM FILE HON
RWY 13–31: 3000X150 (TURF) LIRL
RWY 13: Road. **RWY 31:** P-line.
RWY 02–20: 2130X150 (TURF)
RWY 20: Road.
AIRPORT REMARKS: Unattended. Arpt CLOSED winter months due to snow conditions, call 605–874–2121 for conditions. Wildlife on and invof arpt. Rwy 31 +4′ fence 255′ fm thld. Rwy 13–31 marked with yellow and black metal A-frame markers. ACTIVATE LIRL Rwy 13–31—CTAF.
COMMUNICATIONS: CTAF 122.9

CORSICA MUNI (D65) 1 NE UTC−6(−5DT) N43°26.07′ W98°23.85′ **OMAHA**
1579 B NOTAM FILE HON
RWY 17–35: 3400X150 (TURF) MIRL
RWY 17: Fence. **RWY 35:** Road.
AIRPORT REMARKS: Unattended. Rwy 17 A–frame rwy markings–red and white. Rwy 35 A–frame rwy markings–orange and white. Rwy 17–35 LIRL OTS indef. ACTIVATE MIRL Rwy 17–35—CTAF.
COMMUNICATIONS: CTAF 122.9

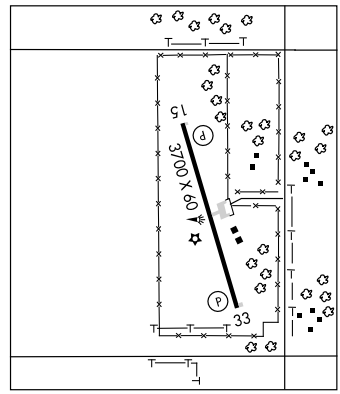
CUSTER CO (CUT) 2 SW UTC−7(−6DT) N43°44.00′ W103°37.06′ **CHEYENNE**
5602 B S2 **FUEL** 100LL, JET A NOTAM FILE CUT **H–2G, L–12F**
RWY 08–26: H5500X60 (ASPH) S–12.5 MIRL
RWY 08: PAPI(P4L)—GA 3.0° TCH 25′.
RWY 26: PAPI(P4L)—GA 3.7° TCH 48′. Trees.
AIRPORT REMARKS: Attended May–Sep, Mon–Fri 1300–0200Z‡, Sat–Sun 1400–2200Z‡, Oct–Apr, Mon–Fri 1500–2300Z‡. Fuel avbl 24 hrs with credit card. CAUTION: strong crosswinds and windshear may exist on final under windy conditions. Be Alert: check density altitude and lean mixture for best operation at this altitude. 10′ wildlife fence around perimeter of arpt. Confirm winter conditions with arpt manager 605–673–3874. For minor repairs call 605–673–3874. Airport beacon obscured radials 200°–260°. MIRL Rwy 08–26 opr dusk–0500Z‡, after 0500Z‡ ACTIVATE—CTAF. ACTIVATE PAPI Rwy 08 and Rwy 26—CTAF.
WEATHER DATA SOURCES: ASOS 120.0 (605) 673–5744.
COMMUNICATIONS: CTAF/UNICOM 122.8
RADIO AIDS TO NAVIGATION: NOTAM FILE RAP.
RAPID CITY (H) VORTAC 112.3 RAP Chan 70 N43°58.56′ W103°00.74′ 228° 30.1 NM to fld. 3160/13E.



CUSTER STATE PARK (See FAIRBURN)

DESMET

WILDER (6E5) 2 N UTC−6(−5DT) N44°25.85′ W97°33.67′ **OMAHA**
1729 B NOTAM FILE HON **L–12H**
RWY 15–33: H3700X60 (ASPH) S–12.5 MIRL
RWY 15: PAPI(P2L)—GA 3.0° TCH 31′. Trees.
RWY 33: PAPI(P2L)—GA 3.0° TCH 34′. Road.
AIRPORT REMARKS: Unattended. ACTIVATE MIRL Rwy 15–33—CTAF.
COMMUNICATIONS: CTAF 122.9
RADIO AIDS TO NAVIGATION: NOTAM FILE HON.
HURON (L) VORTAC 117.6 HON Chan 123 N44°26.40′ W98°18.66′ 081° 32.2 NM to fld. 1300/10E.



DUPREE N45°04.69′ W101°42.91′ NOTAM FILE HON. **BILLINGS**
(H) VORTACW 116.8 DPR Chan 115 104° 4.2 NM to Dupree Muni. 2530/10E. **HIWAS.** **H–2G, L–12G, 14F**
RCO 122.6 (HURON RADIO)

DUPREE MUNI (7F2) 0 SW UTC−7(−6DT) N45°03.00′ W101°37.44′ **BILLINGS**
2341 NOTAM FILE HON
RWY 14–32: 2400X200 (TURF)
RWY 14: Road. **RWY 32:** Road.
AIRPORT REMARKS: Unattended. Daylight use only. Emergency use only. Rwy 14–32 is rough and should be used for emergency use only. Rwy 14–32 marked with yellow and black A–frame markers.
COMMUNICATIONS: CTAF 122.9

EAGLE BUTTE

CHEYENNE EAGLE BUTTE (84D) 1 S UTC−7(−6DT) N44°59.06′ W101°15.06′ **BILLINGS**
2448 B NOTAM FILE HON **L–12G, 14F**
RWY 13–31: H4200X60 (ASPH) S–12.5 MIRL 0.4% up SE **IAP**
RWY 13: Road.
AIRPORT REMARKS: Unattended. Wildlife on and invof arpt. ACTIVATE MIRL Rwy 13–31—122.8.
COMMUNICATIONS: CTAF 122.9
MINNEAPOLIS CENTER APP/DEP CON 126 .8
RADIO AIDS TO NAVIGATION: NOTAM FILE HON.
DUPREE (H) VORTACW 116.8 DPR Chan 115 N45°04.69′ W101°42.91′ 096° 20.5 NM to fld. 2530/10E.
HIWAS.

EDGEMONT MUNI (6VØ) 1 SW UTC−7(−6DT) N43°17.72′ W103°50.61′ **CHEYENNE**
3605 B NOTAM FILE HON **L–12F**
RWY 12–30: H3900X60 (ASPH–AFSC) LIRL
RWY 16–34: 2015X100 (TURF)
RWY 16: Building. **RWY 34:** Fence.
AIRPORT REMARKS: Unattended. Wildlife on and invof arpt. Ultralight activity on and invof arpt. For LIRL Rwy 12–30 key 5 times—CTAF.
COMMUNICATIONS: CTAF 122.9
RADIO AIDS TO NAVIGATION: NOTAM FILE RAP.
RAPID CITY (H) VORTAC 112.3 RAP Chan 70 N43°58.56′ W103°00.74′ 209° 54.6 NM to fld. 3160/13E.

ELLSWORTH AFB (RCA)(KRCA) AF 5 SW UTC−7(−6DT) N44°08.71′ W103°06.21′ **CHEYENNE**
3276 B S4 TPA—See Remarks NOTAM FILE RCA Not insp. **H–2G, L–12G**
RWY 13–31: H13503X300 (CONC) PCN 123 R/B/X/T HIRL **DIAP, AD**
RWY 13: REIL. ALSF1. PAPI(P4L). **RWY 31:** REIL. ALSF1. PAPI(P4L).
MILITARY SERVICE: LGT Rwy 13 and Rwy 31 PAPI not on continuously, ctc twr. PAPI coincident with height group 4.
JASU (AM32A–95) (A/M32A–86) **FUEL** J8 **FLUID** SP LPOX LOX–48 hr prior notice rqr.
OIL O–132–133–148 **TRAN ALERT** Svc avbl Mon–Fri 1500–2300Z‡, clsd Sat, Sun and holidays. If afld is open trans avbl on Sat and Sun from 1500–2300Z‡. Transient acft not allowed when transient alert not avbl. No fleet svc avbl.
MILITARY REMARKS: Opr Mon–Thu 1400–0730Z‡, Fri 1400–0300Z‡, CLOSED, Sat, Sun ACC down days and holidays. See Flip AP/1 Supplementary Arpt Information. **RSTD** All acft maintain at or abv 7700′ and 2640′ horizontal separation in the immediate vicinity of Mt. Rushmore, avoid Devils Twr by 5 NM. PPR min 24 hr notice required and no more than 7 days prior. Fax DSN 675–1053, C605–385–1053. BWC–(severe) no APP/DEP without 28 OG/CC approval. (Moderate) takeoff/approaches with squadron ops officer or higher PPR only. Req BWC update before each approach prior to reaching the final apch fix. (Low) normal operating procedures in effect. **CAUTION** Extensive general aviation and commercial traffic in vicinity of Rapid City Arpt 6.5 NM SE of arpt. When on visual apch to Rwy 31 exercise extreme caution for civil high intensity parking lot lgt located 6600′ from end of rwy and in line with apch lgt system. Migratory bird activity Aug–Nov (phase II) and Mar–May (phase II), sfc to 5000′ AGL. Deer hazard, report any activity to Twr/PTD. **TFC PAT** TPA–Rectangular 4500(1224), overhead 5000(1724). Avoid over flight of base proper when circling to ldg. **MISC** Inbound VIP Code 7 or higher, ctc Raymond 33 15 min prior to block time with name, rank and purpose of visit. The Pride hangar is located just N of the base WX station. The height and size of the hangar blocks 20% of the horizon and hinders obsn of thunderstorm and other convective clouds. From the obs point, WX technicians are unable to see the tdz of both rwys. The S end wind sensor typically reads 10–15 kts lower than the N end during strong N wind events. AMOPS avbl to store classified up to secret, COMSEC issuing not avbl from AMOPS.
COMMUNICATIONS: SFA **ATIS** 120.625 269.9 (Mon–Fri 1400–0700Z‡, closed Sat, Sun and holidays) **PTD** 372.2
Ⓡ **APP CON** 119.5 259.1 (Opr 24 hrs, from Mon 1200Z‡ thru Sat 0400Z‡ Sat, Sun, 1200–0400Z‡)
Ⓡ **DEP CON** 119.5 289.4 (Opr 24 hrs, from Mon 1200Z‡ thru Sat 0400Z‡ Sat, Sun, 1200–0400Z‡) other times ctc.
DENVER CENTER APP/DEP CON 127.95 338.2 (Opr 24 hrs, from Sat 0400Z‡ thru Mon 1200Z‡, Sat, Sun 0400–1200Z‡)
TOWER 126.05 353.5 Mon–Thu 1400–0730Z‡, Fri 1400–0300Z‡, clsd Sat, Sun, ACC down days and holidays.
GND CON 121.8 275.8
COMD POST (Raymond 33) 321.0 (Have Quick timing avbl 287.7.)
PMSV METRO 375.775 (Full svc avbl during afld opr hrs (see NOTAM), limited svc other times. Remote briefing svc avbl Scott AFB 15 OWS DSN 576–9755, C618–256–9755.)
AIRSPACE: CLASS D svc Mon–Thu 1400–0730Z‡, Fri 1400–0300Z‡, closed Sat, Sun and holidays other times CLASS E.
RADIO AIDS TO NAVIGATION: NOTAM FILE RAP.
RAPID CITY (H) VORTAC 112.3 RAP Chan 70 N43°58.56′ W103°00.74′ 326° 10.9 NM to fld. 3160/13E.
(L) TACAN Chan 25 RCA (108.8) N44°08.34′ W103°06.11′ at fld. 3219/11E. NOTAM FILE RCA. No NOTAM MP Mon 1330–1630Z‡. TACAN unusable 010°–020° byd 20 NM blo 10,000′.
ILS 111.5 I–ELR Rwy 13. Class IT. No NOTAM MP Tue, Thu 1300–1530Z‡.
ILS 110.3 I–RCA Rwy 31. Class IT. No NOTAM MP Tue, Thu 1300–1530Z‡.
ASR Ltd ASR apch availability.
COMM/NAV/WEATHER REMARKS: Radar see Terminal FLIP for Radar Minima.

EUREKA MUNI (3W8) 2 N UTC−6(−5DT) N45°48.00′ W99°38.52′ **TWIN CITIES**
1935 B NOTAM FILE HON **L–14G**
RWY 12–30: H3100X60 (ASPH–AFSC) LIRL
RWY 07–25: 2100X150 (TURF)
RWY 07: Fence.
AIRPORT REMARKS: Unattended. Wildlife on and invof arpt. Rwy 07–25 marked with yellow and black metal A-frame markers. ACTIVATE LIRL Rwy 12–30—122.8.
COMMUNICATIONS: CTAF 122.9
RADIO AIDS TO NAVIGATION: NOTAM FILE ABR.
ABERDEEN (H) VOR/DME 113.0 ABR Chan 77 N45°25.04′ W98°22.12′ 287° 58.3 NM to fld. 1301/7E.

FAIRBURN

CUSTER STATE PARK (3VØ) 6 NW UTC−7(−6DT) N43°43.50′ W103°21.03′ **CHEYENNE L–12G**

3980 B NOTAM FILE HON

RWY 15–33: H4000X50 (ASPH) S–12.5 LIRL

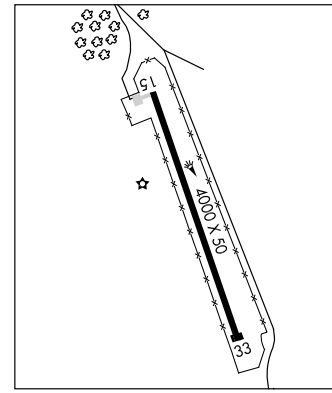
RWY 15: Trees. **RWY 33:** Rgt tfc.

AIRPORT REMARKS: Unattended. Wildlife on and invof arpt, be alert. Rising terrain to the North. Be alert for increased rwy gradient when taking off on Rwy 33, density altitude and rising terrain may necessitate a departure fm Rwy 15 for safe flight. Check density altitude and lean mixture for best engine operation at this altitude. ACTIVATE LIRL Rwy 15–33—CTAF.

COMMUNICATIONS: CTAF 122.9

RADIO AIDS TO NAVIGATION: NOTAM FILE RAP.

RAPID CITY (H) VORTAC 112.3 RAP Chan 70 N43°58.56′ W103°00.74′ 211° 21 NM to fld. 3160/13E.



FAITH MUNI (DØ7) 1 E UTC−7(−6DT) N45°02.17′ W102°01.19′ **BILLINGS L–12G, 14F**

2582 B S4 **FUEL** 100LL NOTAM FILE HON

RWY 13–31: H4200X60 (ASPH) S–12.5 MIRL

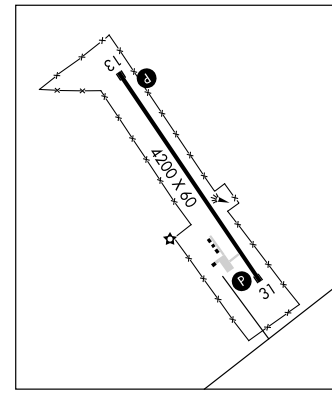
RWY 13: PAPI(P2L). **RWY 31:** PAPI (P2L) Road.

AIRPORT REMARKS: Unattended. Wildlife on and invof arpt. ACTIVATE MIRL Rwy 13–31 and PAPI Rwy 13 and Rwy 31—CTAF.

COMMUNICATIONS: CTAF 122.8

RADIO AIDS TO NAVIGATION: NOTAM FILE HON.

DUPREE (H) VORTACW 116.8 DPR Chan 115 N45°04.69′ W101°42.91′ 249° 13.2 NM to fld. 2530/10E. **HIWAS.**



FAULKTON MUNI (3FU) 1 E UTC−6(−5DT) N45°01.82′ W99°06.76′ **TWIN CITIES L–12H, 14G**

1569 B NOTAM FILE HON

RWY 13–31: H3000X60 (ASPH) S–12.5 LIRL

RWY 13: Thld dsplcd 225′. Road. **RWY 31:** Fence.

AIRPORT REMARKS: Unattended.

COMMUNICATIONS: CTAF 122.9

RADIO AIDS TO NAVIGATION: NOTAM FILE ABR.

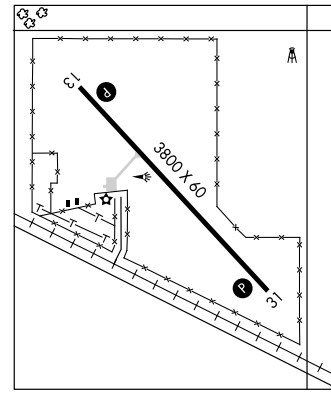
ABERDEEN (H) VOR/DME 113.0 ABR Chan 77 N45°25.04′ W98°22.12′ 227° 39.2 NM to fld. 1301/7E.

FLANDREAU MUNI (4P3) 3 S UTC−6(−5DT) N44°00.23′ W96°35.59′ **OMAHA**
1645 B NOTAM FILE HON **L–12I**
RWY 10–28: H3100X60 (ASPH) S–12.5 LIRL
RWY 10: PAPI(P2L)—GA 3.0° TCH 25′. Trees. **RWY 28:** PAPI(P2L)—GA 3.0° TCH 25′. Road.
AIRPORT REMARKS: Unattended. Wildlife on and invof arpt. ACTIVATE LIRL Rwy 10–28; PAPI Rwys 10 and 28—CTAF.
COMMUNICATIONS: CTAF 122.9
RADIO AIDS TO NAVIGATION: NOTAM FILE BKX.
BROOKINGS (T) VORW/DME 108.8 BKX Chan 25 N44°18.20′ W96°48.91′ 146° 20.4 NM to fld. 1641/6E.

GETTYSBURG MUNI (ØD8) 1 S UTC−6(−5DT) N44°59.20′ W99°57.17′ **TWIN CITIES**
2062 B S4 **FUEL** 100LL, JET A NOTAM FILE HON **L–12H, 14G**
RWY 13–31: H4400X75 (ASPH) S–12.5 MIRL **IAP**
RWY 13: PAPI(P2L)—GA 3.0° TCH 30′. Pole. **RWY 31:** PAPI(P2L)—GA 3.0° TCH 29′.
RWY 04–22: 2505X150 (TURF) 0.5% up NE
AIRPORT REMARKS: Attended Mon–Sat dalgt hrs, Sun irregularly. For fuel call 605–765–9197/9782. Wildlife on and invof arpt. Rwy 04–22 marked with orange and black metal A-frame markers. ACTIVATE MIRL Rwy 13–31—CTAF.
COMMUNICATIONS: CTAF/UNICOM 122.8
MINNEAPOLIS CENTER APP/DEP CON 125.1
RADIO AIDS TO NAVIGATION: NOTAM FILE PIR.
PIERRE (L) VORTACW 112.5 PIR Chan 72 N44°23.67′ W100°09.77′ 003° 36.6 NM to fld. 1789/11E.
HIWAS.

GRAHAM FLD (See NORTH SIOUX CITY)

GREGORY MUNI–FLYNN FLD (9D1) 1 SE UTC−6(−5DT) N43°13.31′ W99°24.20′ **OMAHA**
2168 B S2 **FUEL** 100LL, JET A NOTAM FILE HON **L–12H**
RWY 13–31: H3800X60 (ASPH) S–12.5 MIRL **IAP**
RWY 13: PAPI(P2L)—GA 3.0° TCH 31′. Trees.
RWY 31: PAPI(P2L)—GA 3.0° TCH 32′.
AIRPORT REMARKS: Attended dawn–dusk. Rwy 13–31 surface has coal tar rejuvenator. ACTIVATE MIRL Rwy 13–31 and PAPI Rwy 13 and Rwy 31—CTAF.
COMMUNICATIONS: CTAF/UNICOM 122.8
WINNER RCO 122.1R 112.8T (HURON RADIO)
RADIO AIDS TO NAVIGATION: NOTAM FILE ANW.
AINSWORTH (L) VORW/DME 112.7 ANW Chan 74 N42°34.15′ W99°59.38′ 024° 46.9 NM to fld. 2582/9E. **HIWAS.**



GROTON MUNI (2E6) 5 N UTC−6(−5DT) N45°32.06′ W98°05.71′ **TWIN CITIES**
1305 NOTAM FILE HON
RWY 15–33: 2070X140 (TURF)
RWY 15: Antenna. **RWY 33:** Road.
AIRPORT REMARKS: Unattended. SE 170′ of Rwy 15–33 CLSD indefly. Arpt not recommended for winter use. Arpt CLOSED Dec–Apr except PPR 605–397–8422. Rwy 15–33 marked with yellow/black wood a–frames.
COMMUNICATIONS: CTAF 122.9

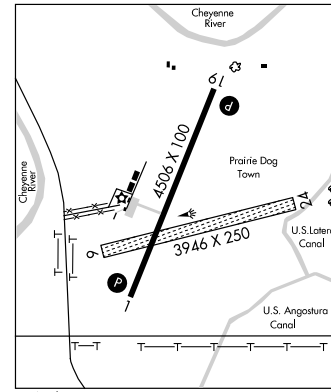
HARDING CO (See BUFFALO)

HAROLD DAVIDSON FLD (See VERMILLION)

HERREID MUNI (5T4) 1 N UTC−6(−5DT) N45°51.25′ W100°04.52′ **TWIN CITIES**
1725 NOTAM FILE HON
RWY 12–30: H2230X200 (ASPH–TURF)
RWY 30: Road.
AIRPORT REMARKS: Unattended. Wildlife on and invof arpt. Rwy 12 marked with orange/black metal markers. Rwy 30 marked with orange/black metal markers.
COMMUNICATIONS: CTAF 122.9

HIGHMORE MUNI (9DØ) 1 N UTC−6(−5DT) N44°32.50′ W99°26.77′ **TWIN CITIES**
1854 B S2 NOTAM FILE HON **L–12H**
RWY 12–30: H3700X60 (ASPH) LIRL
RWY 12: Fence **RWY 30:** Road
AIRPORT REMARKS: Unattended. ACTIVATE LIRL Rwy 12–30—CTAF.
COMMUNICATIONS: CTAF 122.9
RADIO AIDS TO NAVIGATION: NOTAM FILE PIR.
PIERRE (L) VORTACW 112.5 PIR Chan 72 N44°23.67′ W100°09.77′ 063° 32.0 NM to fld. 1789/11E. **HIWAS**

HOT SPRINGS MUNI (HSR) 5 SE UTC−7(−6DT) N43°22.10′ W103°23.30′ **CHEYENNE**
3150 B **FUEL** 100LL NOTAM FILE HON **L–12G**
RWY 01–19: H4506X100 (ASPH) S–7 MIRL **IAP**
RWY 01: PAPI(P2L)—GA 3.0° TCH 29′. Trees.
RWY 19: PAPI(P2L)—GA 3.0° TCH 31′. Fence.
RWY 06–24: 3946X250 (TURF)
AIRPORT REMARKS: Attended Mon–Fri 1500–0000Z‡. Fuel avbl 24 hrs with credit card. Birds on and invof arpt. Glider ops on and invof arpt. Rwy 06–24 marked with black and white cones. ACTIVATE MIRL Rwy 01–19 and PAPI Rwy 01 and Rwy 19—CTAF.
COMMUNICATIONS: CTAF/UNICOM 122.8
DENVER CENTER APP/DEP CON 127.95
RADIO AIDS TO NAVIGATION: NOTAM FILE RAP.
RAPID CITY (H) VORTAC 112.3 RAP Chan 70 N43°58.56′ W103°00.74′ 191° 40.0 NM to fld. 3160/13E.



HOVEN MUNI (9F8) 2 NW UTC−6(−5DT) N45°15.45′ W99°47.87′ **TWIN CITIES**
1884 B **FUEL** 100LL NOTAM FILE HON **L–12H, 14G**
RWY 13–31: H3700X60 (ASPH) S–12.5 MIRL
RWY 31: PAPI(P2L)—GA 3.0° TCH 28′. Highway.
AIRPORT REMARKS: Unattended. Birds and deer on and invof arpt. Church steeple 2029′ MSL 6800′ from Rwy 31 thld. Rwy 31 PAPI OTS indef. ACTIVATE MIRL Rwy 13–31, PAPI Rwy 31—CTAF.
COMMUNICATIONS: CTAF 122.8
RADIO AIDS TO NAVIGATION: NOTAM FILE PIR.
PIERRE (L)VORTACW 112.5 PIR Chan 72 N44°23.67′ W100°09.77′ 006° 54.1 NM to fld. 1789/11E. **HIWAS**

HOWARD MUNI (8D9) 1 N UTC−6(−5DT) N44°01.75′ W97°32.27′ **OMAHA**

1582 B NOTAM FILE HON

RWY 13–31: 2672X150 (TURF) LIRL

RWY 13: Road.

RWY 18–36: 1932X150 (TURF)

RWY 18: P–line. **RWY 36:** Fence.

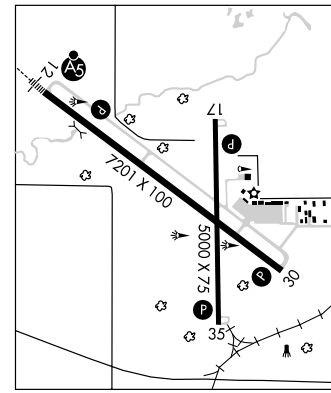
AIRPORT REMARKS: Unattended. Wildlife on and invof arpt. Rwy 18–36 marked with new white/black markder cones. ACTIVATE LIRL Rwy 13–31—CTAF.

COMMUNICATIONS: CTAF 122.9

HURON RGNL (HON) 0 NW UTC−6(−5DT) N44°23.11′ W98°13.71′ **OMAHA**

1289 B S4 **FUEL** 100LL, JET A OX 4 TPA–2101(812) ARFF Index—See Remarks **H–2H, L–12H**

NOTAM FILE HON **IAP**



RWY 12–30: H7201X100 (CONC–GRVD) S–75, D–150, ST–175, DT–280, DDT–395 HIRL

RWY 12: MALSR. PAPI(P4L)—GA 3.0° TCH 50′.

RWY 30: REIL. PAPI(P4L)—GA 3.0° TCH 50′. Antenna.

RWY 17–35: H5000X75 (CONC) S–40, D–55 MIRL

RWY 17: REIL. PAPI(P4L)—GA 3.0° TCH 27′.

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

RUNWAY DECLARED DISTANCE INFORMATION

RWY 12:	TORA–7201	TODA–7201	ASDA–7201	LDA–7201
RWY 17:	TORA–5000	TODA–5000	ASDA–5000	LDA–5000
RWY 30:	TORA–7201	TODA–7201	ASDA–7201	LDA–7201
RWY 35:	TORA–5000	TODA–5000	ASDA–5000	LDA–5000

AIRPORT REMARKS: Attended 1300Z‡–SS. For attendant after hrs call 605–352–9262. Snow removal in progress Nov–Apr. Deer and game birds on and invof arpt. Agricultural acft spraying invof arpt Apr–Aug. Class II, ARFF Index A. PPR 1 hr for unscheduled air carrier ops with more than 30 passenger seats call arpt manager 605–353–8516. Rwy 17–35 not avbl for air carrier ops. Scheduled air carrier ops acft designed for 10–30 passenger seats and unscheduled air carrier ops involving acft designed for 31 plus passenger seats are not authorized under PART 139 to operate at HON in excess of 15 mins before or after scheduled arrival/departure times. ARFF Index B avbl on request with PPR, ctc arpt manager 605–353–8516. Coordinate scheduled changes with arpt manager to assure ARFF avbl call 605–353–8516. HIRL Rwy 12–30 preset on low ints SS–0400Z‡, to increase ints and ACTIVATE MALSR Rwy 12, REIL Rwys 17, 35 and Rwy 30 and MIRL Rwy 17–35—123.0. PAPI Rwy 12, Rwy 17, Rwy 30 and Rwy 35 opr SR–0400Z‡; other times ACTIVATE–123.0.

WEATHER DATA SOURCES: ASOS 118.125 (605) 352–7531.

COMMUNICATIONS: CTAF 123.6 **UNICOM** 123.0

RCO 123.6 122.6 122.2 122.1R. (HURON RADIO)

MINNEAPOLIS CENTER APP/DEP CON 126.25

RADIO AIDS TO NAVIGATION: NOTAM FILE HON.

(L) VORTAC 117.6 HON Chan 123 N44°26.40′ W98°18.66′ 123° 4.8 NM to fld. 1300/10E.

BEADY NDB (LOM) 302 HO N44°26.63′ W98°20.21′ 120° 5.8 NM to fld.

ILS/DME 110.3 I–HON Chan 40 Rwy 12 Class IE. LOM BEADY NDB.

COMM/NAV/WEATHER REMARKS: Ctc Huron Radio for airport advisory service on 123.6.

ISABEL MUNI (3Y7) 0 SW UTC−7(−6DT) N45°23.37′ W101°26.25′ **BILLINGS**

2398 B NOTAM FILE HON

RWY 13–31: 3000X150 (TURF) LIRL

RWY 13: Trees. **RWY 31:** Trees.

AIRPORT REMARKS: Unattended. Rwy 13–31 marked with 2′ metal A–frames. ACTIVATE LIRL Rwy 13–31—CTAF 5 times.

COMMUNICATIONS: CTAF 122.9

JOE FOSS FLD (See SIOUX FALLS)

KADOKA MUNI (5V8) 1 E UTC−7(−6DT) N43°50.00′ W101°29.83′ **CHEYENNE**
2460 B NOTAM FILE HON
RWY 12–30: 2600X150 (TURF–GRVL) LIRL
RWY 12: Antenna.
RWY 04–22: 1600X100 (TURF)
AIRPORT REMARKS: Unattended. Center portion of Rwy 12–30 is turf/aggregate 2400′X50′. Rwy 12–30 few bumps on rwy due to local rodents. ACTIVATE LIRL Rwy 12–30—122.8.
COMMUNICATIONS: CTAF 122.9

KIMBALL MUNI (6A6) 2 NW UTC−6(−5DT) N43°45.50′ W98°58.69′ **OMAHA**
1755 NOTAM FILE HON
RWY 13–31: 2600X250 (TURF)
RWY 13: Road. **RWY 31:** Road
AIRPORT REMARKS: Unattended. Arpt CLOSED winter months. Rwy 13–31 A-Frame rwy markings black and yellow.
COMMUNICATIONS: CTAF 122.9

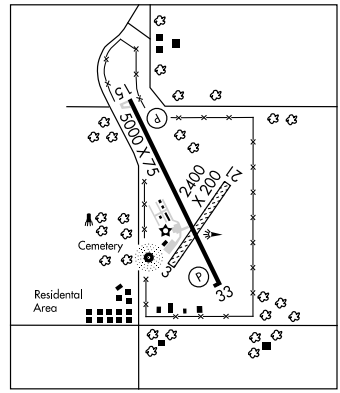
LAKE ANDES MUNI (8D8) 1 S UTC−6(−5DT) N43°08.88′ W98°32.42′ **OMAHA**
1475 NOTAM FILE HON
RWY 12–30: 2600X250 (TURF)
RWY 12: Road. **RWY 30:** P-line.
AIRPORT REMARKS: Unattended. Arpt clsd for night ops. Wildlife on and invof arpt. Rwy 12 and Rwy 30 have black/yellow metal A-frame markers.
COMMUNICATIONS: CTAF 122.9

LAKE PRESTON MUNI (Y34) 0 SW UTC−6(−5DT) N44°21.44′ W97°23.09′ **OMAHA**
1725 B NOTAM FILE HON
RWY 12–30: 2220X250 (TURF) LIRL
RWY 12: Fence. **RWY 30:** Road.
AIRPORT REMARKS: Unattended. Arpt CLOSED Nov 1–Apr 1 ctc arpt manager 605–847–4402 for PPR. Birds on and invof arpt. Rwy 12–30 marked with yellow and black metal A–frame markers. ACTIVATE LIRL Rwy 12–30—122.8.
COMMUNICATIONS: CTAF 122.9

LEMMON MUNI (LEM) 3 SE UTC−7(−6DT) N45°55.12′ W102°06.37′ **BILLINGS**
2571 B S4 **FUEL** 100LL, JET A NOTAM FILE HON **L–14F**
RWY 11–29: H4501X75 (ASPH) S–12.5 MIRL **IAP**
RWY 11: PAPI(P2L)—GA 3.0° TCH 25′. Road. **RWY 29:** PAPI(P2L)—GA 3.0° TCH 25′.
RWY 07–25: 3300X120 (TURF)
AIRPORT REMARKS: Unattended. For fuel call 605–374–5281. ACTIVATE MIRL Rwy 11–29, PAPI Rwys 11 and 29—CTAF.
COMMUNICATIONS: CTAF/UNICOM 122.8
MINNEAPOLIS CENTER APP/DEP CON 124.25
RADIO AIDS TO NAVIGATION: NOTAM FILE DIK.
DICKINSON (H) VORTACW 112.9 DIK Chan 76 N46°51.60′ W102°46.41′ 140° 62.9 NM to fld. 2520/14E. **HIWAS.**
(T) VORW 111.4 LEM N45°55.19′ W102°06.22′ at fld. (VFR Use Only) NOTAM FILE HON. Unmonitored. Out of svc indefinitely.

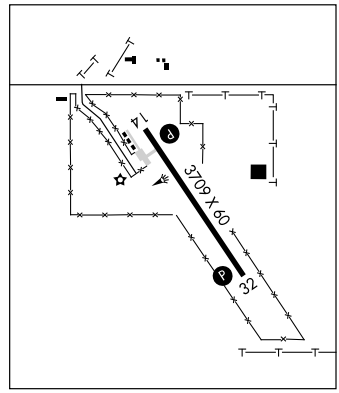
LICAN N44°48.20′ W97°09.01′ NOTAM FILE ATY. **TWIN CITIES**
NDB (LOM) 215 AT 352° 6.7 NM to Watertown Rgnl.

MADISON MUNI (MDS) 1 NE UTC−6(−5DT) N44°00.98′ W97°05.14′ **OMAHA**
1718 B S4 **FUEL** 100LL, JET A, MOGAS NOTAM FILE HON **H–2H, L–12H**
RWY 15–33: H5000X75 (ASPH–CONC) S–12.5 MIRL **IAP**
RWY 15: REIL. PAPI(P4L)—GA 3.0° TCH 37′. Silo.
RWY 33: REIL. PAPI(P4L)—GA 3.0° TCH 37′. Trees.
RWY 03–21: 2400X200 (TURF)
AIRPORT REMARKS: Attended Mon–Sat 1400–0000Z‡. Ultra–light activity on and invof arpt. Rwy 03–21 CLOSED 1 Nov–1 Apr except with PPR call 605–256–9774. Rwy 03–21 marked with black and white cones. ACTIVATE MIRL Rwy 15–33 and REIL Rwy 15 and Rwy 33—CTAF.
WEATHER DATA SOURCES: AWOS–3 118.35 (605) 427–9380.
COMMUNICATIONS: CTAF/UNICOM 122.8
Ⓡ **MINNEAPOLIS CENTER APP/DEP CON** 132.05
RADIO AIDS TO NAVIGATION: NOTAM FILE FSD.
SIOUX FALLS (H) VORTACW 115.0 FSD Chan 97 N43°38.97′ W96°46.87′ 320° 25.7 NM to fld. 1570/9E. **HIWAS.**
WENTWORTH NDB (MHW) 400 MDS N44°00.80′ W97°05.31′ at fld. NOTAM FILE HON. NDB unmonitored.



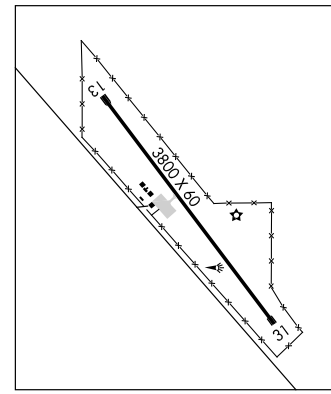
MARV SKIE–LINCOLN CO (See TEA)

MARTIN MUNI (9V6) 1 SE UTC−7(−6DT) N43°09.94′ W101°42.76′ **CHEYENNE**
3293 B S4 NOTAM FILE HON **L–12G**
RWY 14–32: H3709X60 (ASPH) S–9 MIRL 0.4% up NW **IAP**
RWY 14: PAPI(P2L). Road. **RWY 32:** PAPI (P2L).
AIRPORT REMARKS: Unattended. ACTIVATE MIRL Rwy 14–32 and PAPI Rwy 14 and Rwy 32—122.9.
COMMUNICATIONS: CTAF/UNICOM 123.0
DENVER CENTER APP/DEP CON 127.95
RADIO AIDS TO NAVIGATION: NOTAM FILE PHP.
PHILIP (L) VORW/DME 108.4 PHP Chan 21 N44°03.50′ W101°39.85′ 170° 53.5 NM to fld. 2340/12E. **HIWAS.**



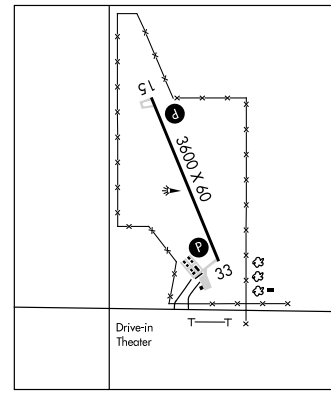
McINTOSH MUNI (8D6) 1 S UTC−7(−6DT) N45°54.50′ W101°20.77′ **BILLINGS**
2251 B NOTAM FILE HON
RWY 14–32: 3700X150 (TURF–GRVL) LIRL
RWY 14: Trees.
AIRPORT REMARKS: Unattended. Arpt CLOSED winter months due to lack of snow removal, call arpt manager on 605–273–4210 for arpt conditions. Rwy 14–32 turf rwy is rough due to heavy amount of rodent holes. Large prairie dog town adjacent to arpt. Condition of strip is monitored. Rwy 14–32 center 50′ portion is turf/aggregate. Rwy 14 marked with yellow and black metal A-frame markers. Rwy 32 marked with yellow and black metal A–frame markers. ACTIVATE LIRL Rwy 14–32 key 122.8 5 times.
COMMUNICATIONS: CTAF 122.9

Mc LAUGHLIN MUNI (5P2) 2 SE UTC−7(−6DT) N45°47.81′ W100°47.06′ **TWIN CITIES**
2006 B S4 NOTAM FILE HON **L–14F**
RWY 13–31: H3800X60 (ASPH–AFSC) S–12.5 LIRL
RWY 13: Fence.
AIRPORT REMARKS: Unattended. ACTIVATE LIRL Rwy 13–31—CTAF.
COMMUNICATIONS: CTAF/UNICOM 122.8
RADIO AIDS TO NAVIGATION: NOTAM FILE BIS.
BISMARCK (L) VORW/DME 116.5 BIS Chan 112 N46°45.71′ W100°39.92′ 173° 58.1 NM to fld. 1841/12E. **HIWAS.**



MILBANK MUNI (1D1) 3 E UTC−6(−5DT) N45°13.83′ W96°33.97′ **TWIN CITIES**
1118 B S2 **FUEL** 100LL. JET A NOTAM FILE HON **L–12I, 14H**
RWY 13–31: H4000X60 (CONC) S–12.5 MIRL **IAP**
RWY 13: PAPI(P2L)—GA 3.0° TCH 37′. **RWY 31:** PAPI(P2L)—GA 3.0° TCH 36′. Road.
RWY 07–25: 3607X150 (TURF)
RWY 07: Fence.
AIRPORT REMARKS: Attended Mon–Fri 1500–2100Z‡. Unattended holidays. Fuel avbl 24 hrs with credit card. Rwy 07–25 CLOSED winter months. Ultralight on and invof arpt. Rwy 07–25 marked with black and orange 'A' frames. ACTIVATE MIRL Rwy 13–31 —CTAF.
WEATHER DATA SOURCES: AWOS–3 122.8 (617) 262–3825. OTS indef.
COMMUNICATIONS: CTAF/UNICOM 122.8
MINNEAPOLIS CENTER APP/DEP CON 128.5
RADIO AIDS TO NAVIGATION: NOTAM FILE ATY.
WATERTOWN (L) VORTACW 116.6 ATY Chan 113 N44°58.78′ W97°08.51′ 049° 28.7 NM to fld. 1762/9E. **HIWAS.**

MILLER MUNI (MKA) 2 E UTC−6(−5DT) N44°31.52′ W98°57.49′ **TWIN CITIES**
1569 S2 **FUEL** 100LL, JET A NOTAM FILE HON **L–12H**
RWY 15–33: H3600X60(ASPH) MIRL 0.3% up SE **IAP**
RWY 15: PAPI(P2L)—GA 3.0° TCH 40′.
RWY 33: PAPI(P2L)—GA 3.0° TCH 35′. Pole.
AIRPORT REMARKS: Attended intermittently. For fuel call 605–853–2497, 871–3833. ACTIVATE MIRL Rwy 15–33 and PAPI Rwy 15 and Rwy 33—122.8.
COMMUNICATIONS: CTAF 122.9
MINNEAPOLIS CENTER APP/DEP CON 125.1.
RADIO AIDS TO NAVIGATION: NOTAM FILE HON.
HURON (L) VORTAC 117.6 HON Chan 123 N44°26.40′ W98°18.66′ 271° 28.3 NM to fld. 1300/10E.



MISSION SIOUX (ØV6) 2 E UTC−6(−5DT) N43°18.42′ W100°37.69′ **OMAHA**
2605 B NOTAM FILE HON **L–12G**

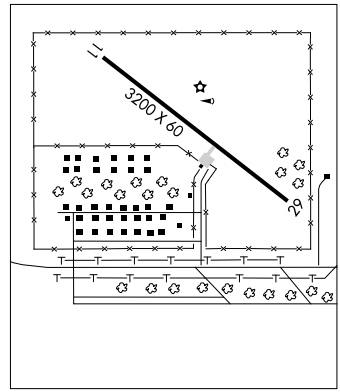
RWY 11–29: H3200X60 (ASPH–AFSC) S–12.5 LIRL
RWY 11: Fence **RWY 29:** Road.

AIRPORT REMARKS: Unattended. ACTIVATE LIRL Rwy 11–29—CTAF.

COMMUNICATIONS: CTAF 122.9

RADIO AIDS TO NAVIGATION: NOTAM FILE ANW.

AINSWORTH (L) VORW/DME 112.7 ANW Chan 74 N42°34.15′ W99°59.38′ 319° 52.5 NM to fld. 2582/9E. **HIWAS.**



MITCHELL MUNI (MHE) 3 N UTC−6(−5DT) N43°46.49′ W98°02.32′ **OMAHA**
1304 B S4 **FUEL** 100LL, JET A NOTAM FILE MHE **H–2H, L–12H**
RWY 12–30: H6700X100 (ASPH) S–55, D–90, ST–114, DT–120 HIRL **IAP**
RWY 12: REIL. PAPI(P4L)—GA 3.0° TCH 50′.
RWY 30: MALSR. PAPI(P4L)—GA 3.0° TCH 60′.

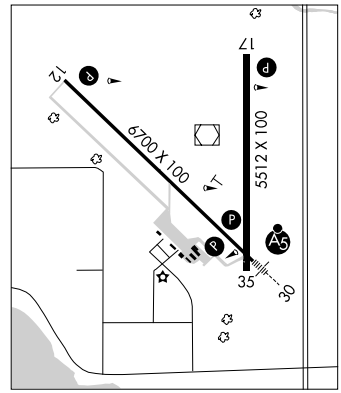
RWY 17–35: H5512X100 (ASPH–PFC) S–35, D–90, ST–114, DT–110 MIRL 0.4% up S
RWY 17: REIL. PAPI(P4L)—GA 3.0° TCH 50′.
RWY 35: PAPI(P4L)—GA 3.0° TCH 50′.

AIRPORT REMARKS: Attended 1400–0000Z‡. For attendant other hrs call 605–996–1228. Fuel avbl 24 hrs a day. Ultralight activity on and invof arpt. Migratory birds on and invof arpt. ACTIVATE HIRL Rwy 12–30, MIRL Rwy 17–35, MALSR Rwy 30, REIL Rwy 12 and Rwy 17, PAPI Rwy 12, 30, 17 and 35—CTAF.

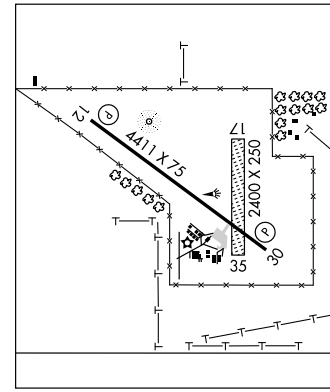
WEATHER DATA SOURCES: ASOS 124.175 (605) 995–5803. **HIWAS** 109.2 MHE.

COMMUNICATIONS: CTAF/UNICOM 122.8
RCO 122.3 (HURON RADIO)

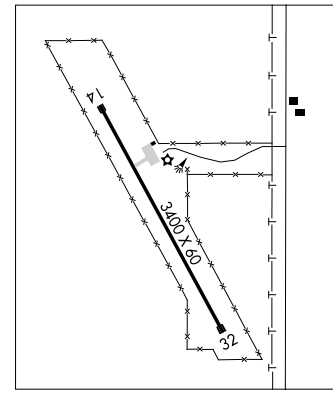
RADIO AIDS TO NAVIGATION: NOTAM FILE MHE.
(L) VORW/DME 109.2 MHE Chan 29 N43°46.62′ W98°02.25′ at fld. 1301/7E. **HIWAS.**
ILS 109.7 I–LPA Rwy 30. GS unusable for auto pilot coupled approaches blo 2174′ MSL.



MOBRIDGE MUNI (MBG) 1 NE UTC−6(−5DT) N45°32.78′ W100°24.38′ **TWIN CITIES**
1716 B S4 **FUEL** 100LL, JET A, MOGAS NOTAM FILE MBG **L–14F**
RWY 12–30: H4411X75 (ASPH) S–12.5 MIRL **IAP**
RWY 12: PAPI(P2L)—GA 3.0° TCH 31′. Ground.
RWY 30: PAPI(P2R)—GA 3.0° TCH 31′. P-line.
RWY 17–35: 2400X250 (TURF) 1.0% up N
RWY 17: Road.
AIRPORT REMARKS: Attended 1400–0000Z‡. For attendant other hrs call 605–845–2977. Rwy 17–35 CLOSED winter months. ACTIVATE MIRL Rwy 12–30—CTAF.
WEATHER DATA SOURCES: ASOS 121.425 (605) 845–2056.
COMMUNICATIONS: CTAF/UNICOM 122.8
RCO 122.35 (HURON RADIO)
RADIO AIDS TO NAVIGATION: NOTAM FILE HON.
DUPREE (H) VORTACW 116.8 DPR Chan 115 N45°04.69′ W101°42.91′ 053° 62.1 NM to fld. 2530/10E. **HIWAS.**
RIVERBEND NDB (MHW) 407 RVB N45°32.99′ W100°24.61′ at fld. NOTAM FILE MBG. NDB unmonitored.



MURDO MUNI (8F6) 3 S UTC−6(−5DT) N43°51.10′ W100°42.72′ **OMAHA**
2263 B NOTAM FILE HON **L–12G**
RWY 14–32: H3400X60 (ASPH) S–12.5 MIRL
RWY 32: Fence.
AIRPORT REMARKS: Unattended. Wildlife on and invof arpt. Rwy 14–32 surface has coal tar rejuvenator. For MIRL Rwy 14–32 key CTAF 5 times.
COMMUNICATIONS: CTAF 122.8
RADIO AIDS TO NAVIGATION: NOTAM FILE PIR.
PIERRE (L) VORTACW 112.5 PIR N44°23.67′ W100°09.77′ 205° 40.3 NM to fld. 1789/11E. **HIWAS.**



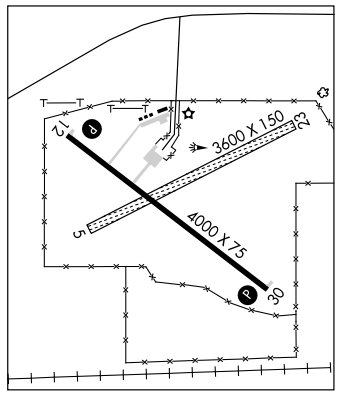
NORTH SIOUX CITY

GRAHAM FLD (7K7) 1 N UTC−6(−5DT) N42°32.42′ W96°29.10′ **OMAHA**
1106 NOTAM FILE HON
RWY 15–33: 5300X36 (CONC–TURF)
RWY 15: Rgt tfc.
AIRPORT REMARKS: Unattended. Rwy 15–33 center 2237 X 36 (CONC). Rwy 15–33 width is 170′. Center of rwy has 36′ of concrete. Concrete is in bad shape. Rwy is in poor shape.
COMMUNICATIONS: CTAF 122.9

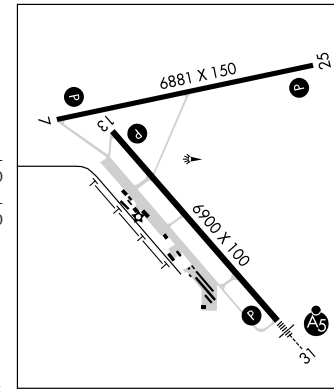
ONIDA MUNI (98D) 2 W UTC−6(−5DT) N44°42.03′ W100°06.05′ **TWIN CITIES**
1874 B S2 **FUEL** 100LL, JET A NOTAM FILE HON **L–12H**
RWY 13–31: H3810X60 (ASPH) MIRL
RWY 13: PAPI(P2L)—GA 3.0° TCH 40′. **RWY 31:** PAPI(P2L). P–line.—GA 3.0° TCH 31′.
RWY 08–26: 2125X120 (TURF)
AIRPORT REMARKS: Unattended. Rwy 08–26 CLOSED winter months due to lack of snow removal. Ultra–light activity around arpt. 150′ water tower 1.4 mile SE of Rwy 31. Rwy 08–26 marked with yellow and black A–frame markers at thld. ACTIVATE MIRL Rwy 13–31 and PAPI Rwy 13 and Rwy 31—CTAF.
COMMUNICATIONS: CTAF 122.9
RADIO AIDS TO NAVIGATION: NOTAM FILE PIR.
PIERRE (L) VORTACW 112.5 PIR Chan 72 N44°23.67′ W100°09.77′ 357° 18.6 NM to fld. 1789/11E. **HIWAS.**

PARKSTON MUNI (8V3) 1 SW UTC−6(−5DT) N43°22.75′ W97°58.27′ **OMAHA**
1415 B NOTAM FILE HON **L–12H**
RWY 15–33: H3600X60 (ASPH) S–12, D–12.5 MIRL
RWY 15: PAPI(P2L)—GA 3.0° TCH 43′. Pole.
RWY 33: PAPI(P2L)—GA 3.0° TCH 35′.
AIRPORT REMARKS: Attended continuously. ACTIVATE MIRL Rwy 15–33—122.8.
COMMUNICATIONS: CTAF 122.9
RADIO AIDS TO NAVIGATION: NOTAM FILE MHE
MITCHELL (L) VORW/DME 109.2 MHE Chan 29 N43°46.62′ W98°02.25′ 166° 24.0 NM to fld. 1301/7E. **HIWAS.**

PHILIP (PHP) 3 E UTC−7(−6DT) N44°02.88′ W101°35.94′ **CHEYENNE**
2207 B **FUEL** 100LL NOTAM FILE PHP **L–12G**
RWY 12–30: H4000X75 (ASPH) S–12.5 HIRL 0.4% up NW **IAP**
RWY 12: PAPI(P2L). Pole. **RWY 30:** PAPI(P2L).
RWY 05–23: 3600X150 (TURF)
RWY 23: Tree.
AIRPORT REMARKS: Unattended. Fuel avbl 24 hrs with credit card. Rwy 05–23 marked with black/white cones. ACTIVATE HIRL Rwy 12–30, PAPI Rwy 12 and Rwy 30—CTAF.
WEATHER DATA SOURCES: ASOS 118.375 (605) 859–3281. **HIWAS** 108.4 PHP.
COMMUNICATIONS: CTAF/UNICOM 122.8
RCO 122.4 (HURON RADIO)
DENVER CENTER APP/DEP CON 127.95
RADIO AIDS TO NAVIGATION: NOTAM FILE PHP.
(L) VORW/DME 108.4 PHP Chan 21 N44°03.50′ W101°39.85′ 090° 2.9 NM to fld. 2340/12E. **HIWAS.**

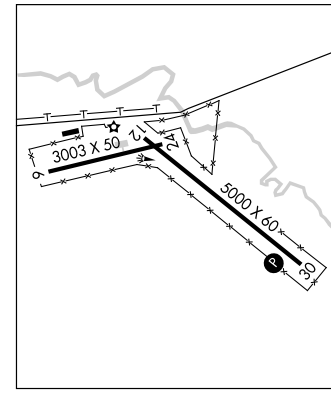


PIERRE RGNL (PIR) 3 E UTC−6(−5DT) N44°22.96′ W100°17.16′ **OMAHA**
1744 B S4 **FUEL** 100LL, JET A OX 1, 2, 3, 4 Class I, ARFF Index A NOTAM FILE PIR **H–2H, L–12H**
RWY 13–31: H6900X100 (ASPH–GRVD) S–91, D–108, ST–137, DT–168 HIRL **IAP**
RWY 13: REIL. PAPI(P4L)—GA 3.0° TCH 52′.
RWY 31: MALSR. PAPI(P4L)—GA 3.0° TCH 52′.
RWY 07–25: H6881X150 (ASPH–GRVD) S–91, D–114, ST–145, DT–180 HIRL 0.6% up W
RWY 07: REIL. PAPI(P4L)—GA 3.0° TCH 47′. Tank.
RWY 25: REIL. PAPI(P4L)—GA 3.0° TCH 54′.
RUNWAY DECLARED DISTANCE INFORMATION
RWY 07: TORA–6881 TODA–6881 ASDA–6881 LDA–6881
RWY 13: TORA–6900 TODA–6900 ASDA–6900 LDA–6900
RWY 25: TORA–6881 TODA–6881 ASDA–6881 LDA–6881
RWY 31: TORA–6900 TODA–6900 ASDA–6900 LDA–6900



AIRPORT REMARKS: Attended Mon–Fri 1100–0600Z‡, Sat–Sun 1100–0400Z‡. For attendant other times call 605–224–9000/8621. Arpt conditions unmonitored during 0530–1000Z‡. Numerous non–radio acft operating in area. Birds on and invof arpt and within a 25 NM radius. No line of sight between rwy ends of Rwy 07–25. ARFF provided for part 121 air carrier ops only. 48 hr PPR for unscheduled acr ops involving acft designed for 31+ passenger seats call 605–773–7447. Taxiway C is 50′ wide and restricted to acft 75,000 pounds or less. ACTIVATE HIRL Rwy 13–31 and Rwy 07–25, MALSR Rwy 31, REIL Rwy 07, Rwy 13 and Rwy 25, PAPI Rwy 07, Rwy 25, Rwy 13 and Rwy 31—CTAF 122.7. NOTE: See Special Notices Section—Aerobatic Practice Areas.
WEATHER DATA SOURCES: ASOS 119.025 (605) 224–6087. **HIWAS** 112.5 PIR.
COMMUNICATIONS: CTAF 122.7 **UNICOM** 122.95
RCO 122.2 (HURON RADIO)
Ⓡ **MINNEAPOLIS CENTER APP/DEP CON** 125.1
RADIO AIDS TO NAVIGATION: NOTAM FILE PIR.
(L) VORTACW 112.5 PIR Chan 72 N44°23.67′ W100°09.77′ 251° 5.3 NM to fld. 1789/11E. **HIWAS.**
ILS/DME 111.9 I–PIR Chan 56 Rwy 31. Class IA ILS GS unusable for coupled apch blo 2,255′.

PINE RIDGE (IEN) 2 E UTC−7(−6DT) N43°01.35′ W102°30.66′ **CHEYENNE**
3333 B NOTAM FILE IEN **H–5B, L–12G**
RWY 12–30: H5000X60 (ASPH) S–12 MIRL 0.7% up SE **IAP**
RWY 12: P–line.
RWY 30: PAPI(P2L)—GA 3.0° TCH 26′. Fence.
RWY 06–24: H3003X50 (ASPH) S–12 0.7% up NE
RWY 24: Fence.



AIRPORT REMARKS: Unattended. Wildlife on and invof arpt. Rwy 06–24 CLOSED indef. MIRL Rwy 12–30 and PAPI Rwy 30 opr dusk–0530Z‡, after 0530Z‡ ACTIVATE—CTAF. Rotating bcn OTS indef.
WEATHER DATA SOURCES: ASOS 126.775 (605) 867–1584.
COMMUNICATIONS: CTAF 122.9
DENVER CENTER APP/DEP CON 127.95
RADIO AIDS TO NAVIGATION: NOTAM FILE RAP.
RAPID CITY (H) VORTAC 112.3 RAP Chan 70 N43°58.56′ W103°00.74′ 146° 61.3 NM to fld. 3160/13E.

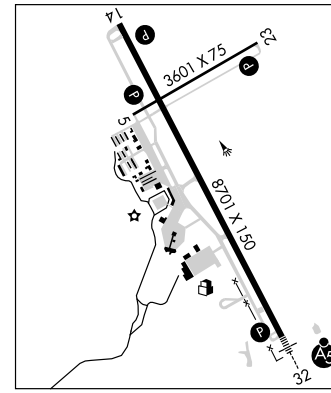
PLATTE MUNI (1D3) 1 NE UTC−6(−5DT) N43°24.20′ W98°49.77′ **OMAHA**
1618 B S3 NOTAM FILE HON **L–12H**
RWY 14–32: H3100X60 (ASPH) LIRL
RWY 14: Tree. **RWY 32:** Trees. Rgt tfc.
AIRPORT REMARKS: Attended Mon–Sat 1400–2300Z‡. During winter months rwy could be slippery, confirm winter conditions with arpt manager call 605–337–2334/3923. Deer and other wildlife on and invof arpt. ACTIVATE LIRL Rwy 14–32—CTAF.
COMMUNICATIONS: CTAF/UNICOM 122.8
RADIO AIDS TO NAVIGATION: NOTAM FILE MHE.
MITCHELL (L) VORW/DME 109.2 MHE Chan 29 N43°46.62′ W98°02.25′ 230° 41.2 NM to fld. 1301/7E.
HIWAS.

PRESHO MUNI (5P5) 1 E UTC−6(−5DT) N43°54.38′ W100°02.22′ **OMAHA**
1760 B NOTAM FILE HON
RWY 10–28: 3350X150 (TURF–GRVL) LIRL
RWY 10: Road. **RWY 28:** Fence.
AIRPORT REMARKS: Unattended. Wildlife and waterfowl on and invof arpt. Rwy 10–28 center 52′ gravel. Rwy 10–28 marked with yellow and black metal A-frame markers. ACTIVATE LIRL Rwy 10–28—CTAF.
COMMUNICATIONS: CTAF 122.9

RANCH N43°57.89′ W102°59.93′ NOTAM FILE RAP. **CHEYENNE**
NDB (HW/LOM) 254 RA 324° 5.5 NM to Rapid City Rgnl. **L–12G**

RAPID CITY RGNL (RAP) 8 SE UTC−7(−6DT) N44°02.72′ W103°03.44′ **CHEYENNE**
3204 B S4 **FUEL** 100LL, JET A OX 3 ARFF Index—See Remarks NOTAM FILE RAP **H–2G, L–12G**
RWY 14–32: H8701X150 (CONC–GRVD) S–140, D–190, ST–175, DT–300 HIRL **IAP, AD**
RWY 14: REIL. PAPI(P4L)—GA 3.0° TCH 47′. 0.6% down.
RWY 32: MALSR. PAPI(P4L)—GA 3.0° TCH 54′. 0.5% up.
RWY 05–23: H3601X75 (ASPH) S–12.5 MIRL 0.9% up NE
RWY 05: PAPI(P4L)—GA 3.0° TCH 32′. Rgt tfc.
RWY 23: PAPI(P4L)—GA 3.0° TCH 26′. Road.
RUNWAY DECLARED DISTANCE INFORMATION

RWY 05:	TORA–3601	TODA–3601	ASDA–3601	LDA–3601
RWY 14:	TORA–8701	TODA–8701	ASDA–8701	LDA–8701
RWY 23:	TORA–3601	TODA–3601	ASDA–3601	LDA–3601
RWY 32:	TORA–8701	TODA–8701	ASDA–8701	LDA–8701



AIRPORT REMARKS: Attended continuously. CAUTION: Extensive military jet traffic in vicinity of and NNW of arpt. Birds on and in vicinity of arpt. Be alert do not mistake Ellsworth AFB, located 6.5 NM NNW for Rapid City Rgnl. 152′ AGL twr 2.5 NM NNW of arpt. Line of sight is restricted between Rwy 14 and Rwy 23 physical ends. Twr has limited visibility of Twy T1 and Twy T2 and Twy B at AER Rwy 23. Rwy 05–23 not avbl for scheduled air carrier ops with acft designed for 10 plus passenger seats, and scheduled/unscheduled air carrier ops with acft designed for 31 plus passenger seats. ARFF Index ''C'' PPR, call airport manager 605–394–4195 or 605–593–3419. Rwy 32 touchdown runway visual range. When twr clsd ACTIVATE HIRL Rwy 14–32, MIRL Rwy 05–23, MALSR Rwy 32, PAPI Rwy 05, Rwy 23, Rwy 14 and Rwy 32, REIL Rwy 14 and Twy A and Twy B lgts —CTAF.
WEATHER DATA SOURCES: ASOS 118.525 (605) 393–2832.
COMMUNICATIONS: CTAF 125.85 **UNICOM** 122.95
RCO 122.65 122.1R 112.3T (HURON RADIO)
Ⓡ **ELLSWORTH APP/DEP CON** 119.5 (Opr 24 hrs, from Mon 1200Z‡ thru Sat 0400Z‡, Sat, Sun 1200–0400Z‡), other times ctc **DENVER CENTER** 127.95.
TOWER 125.85 (1300–0500Z‡) **GND CON** 121.9
AIRSPACE: CLASS D svc 1300–0500Z‡ other times CLASS E.
RADIO AIDS TO NAVIGATION: NOTAM FILE RAP.
(H) VORTAC 112.3 RAP Chan 70 N43°58.56′ W103°00.74′ 322° 4.6 NM to fld. 3160/13E
RANCH NDB (HW/LOM) 254 RA N43°57.89′ W102°59.93′ 324° 5.5 NM to fld.
ILS/DME 109.3 I–RAP Chan 30 Rwy 32. Class IE. LOM RANCH NDB.

REDFIELD MUNI (1D8) 1 SW UTC−6(−5DT) N44°51.75′ W98°31.77′ **TWIN CITIES**
1307 B S2 **FUEL** 100LL NOTAM FILE HON **L–12H, 14G**
RWY 13–31: H3300X60 (ASPH) S–13 LIRL
RWY 13: Tree. **RWY 31:** Trees.
RWY 01–19: 2600X250 (TURF)
RWY 19: Tree.
AIRPORT REMARKS: Unattended. Rwy 01–19 CLOSED winter months. Fuel avbl 24 hrs with credit card. Ultralight activity on and invof arpt. Migratory birds on and invof arpt. Rwy 01–19 marked with yellow and black metal A-frame markers.
COMMUNICATIONS: CTAF/UNICOM 122.8
RADIO AIDS TO NAVIGATION: NOTAM FILE HON.
HURON (L) VORTAC 117.6 HON Chan 123 N44°26.40′ W98°18.66′ 330° 27.0 NM to fld. 1300/10E.

RENEY N45°23.16′ W98°19.70′ NOTAM FILE ABR. **TWIN CITIES**
NDB (LOM) 203 AB 307° 5.4 NM to Aberdeen Rgnl.

RIVERBEND N45°32.99′ W100°24.61′ NOTAM FILE MBG. **TWIN CITIES**
NDB (MHW) 407 RVB at Mobridge Muni. NDB unmonitored. **L–14F**

ROKKY N43°29.65′ W96°49.73′ NOTAM FILE FSD. **OMAHA**
NDB (H/LOM) 245 FS 031° 6.5 NM to Joe Foss Fld. Unmonitored. **L–12I**

SIOUX FALLS N43°38.97′ W96°46.87′ NOTAM FILE FSD. **OMAHA**
(H) VORTACW 115.0 FSD Chan 97 148° 4.4 NM to Joe Foss Fld. 1570/9E. **HIWAS.** **H–5C, L–12I**
VOR portion unusable 320°–360° byd 20 NM blo 4000′.
RCO 122.2 (HURON RADIO)

SIOUX FALLS

JOE FOSS FLD (FSD) 3 NW UTC–6(–5DT) N43°34.92′ W96°44.52′ OMAHA

1429 B S4 **FUEL** 100LL, JET A OX 1, 3 Class I, ARFF Index B NOTAM FILE FSD **H–5C, L–12I**

RWY 03–21: H8999X150 (CONC–WC) S–200, D–200, ST–175, DT–444 HIRL CL **IAP, AD**

RWY 03: MALSR. PAPI(P4L). Tree.

RWY 21: MALSR. TDZL. VASI(V4L)—GA 3.0° TCH 51′. Railroad.

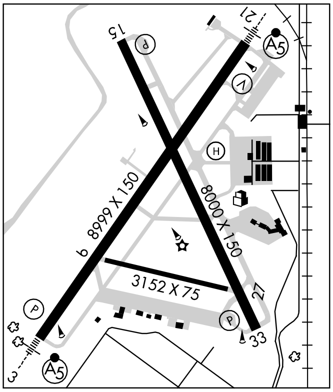
RWY 15–33: H8000X150 (CONC–GRVD) S–150, D–175, ST–175, DT–260 HIRL

RWY 15: REIL. PAPI(P4L)—GA 3.0° TCH 46′. Fence.

RWY 33: REIL. PAPI(P4L)—GA 3.0° TCH 42′. Trees.

RWY 09–27: H3152X75 (CONC–WC) S–30 MIRL

RWY 27: Poles.



RUNWAY DECLARED DISTANCE INFORMATION

RWY 03:	TORA–8999	TODA–8999	ASDA–8999	LDA–8999
RWY 09:	TORA–3152	TODA–3152	ASDA–3152	LDA–3152
RWY 15:	TORA–8000	TODA–8000	ASDA–8000	LDA–8000
RWY 21:	TORA–8999	TODA–8999	ASDA–8999	LDA–8999
RWY 27:	TORA–3152	TODA–3152	ASDA–3152	LDA–3152
RWY 33:	TORA–8000	TODA–8000	ASDA–8000	LDA–8000

ARRESTING GEAR/SYSTEM

RWY 03 ←BAK–14 BAK–12B(B) (1500′) BAK–14 BAK–12B(B) (1500′) →**RWY 21**

RWY 15 ←BAK–14 BAK–12B(B) (1500′) BAK–14 BAK–12B(B) (1500′) →**RWY 33**

AIRPORT REMARKS: Attended continuously. Waterfowl, birds and deer on and invof arpt. Migratory birds within 25 NM primarily between Mar–Nov. ATCT has limited visibility on Twy H, Twy G and Twy J between the east cargo ramp and Twy B. General aviation ramp restricted to 60,000 pounds. Rwy 09–27 avbl for taxi only, scheduled air carrier ops involve acft designed for 10 or more passengers seats and scheduled/unscheduled air carrier ops involv acft designed for 31 or more seats. Wide body acft must use wing walkers to taxi in front/behind parked F–16 acft. CAUTION: Marv skie–Lincoln county airport (Y14) located 7.2 miles sw of FSD and 2 miles east of Rokky has heavy VFR traffic. Arresting device BAK 14/12B(B) located 1500′ fm apch end Rwy 15 and Rwy 33. Arresting device BAK 14/12B(B) located 1500′ fm apch end Rwy 03 and Rwy 21. HIRL Rwys 03–21 and 15–33, MIRL Rwy 09–27 MALSR Rwy 03 and Rwy 21 preset on low ints 0600–1100Z‡. To increase ints and ACTIVATE REIL Rwys 15 and 33–CTAF. From 0600–1100Z‡ ACTIVATE HIRL Rwys 03–21 and 15–33, MIRL Rwy 09–27 and REIL Rwys 15 and 33, MALSR Rwy 03 and Rwy 21—CTAF. VASI Rwy 21 and PAPI Rwys 03, 15 and 33 opr 24 hrs. Flight Notification Service (ADCUS) avbl Mon–Fri 1400–2200Z‡ call 605–338–4384. After hrs call 605–373–3523 prior to departure.

WEATHER DATA SOURCES: ASOS (605) 331–7833. **HIWAS** 115.0 FSD. LLWAS.

COMMUNICATIONS: CTAF 118.3 **ATIS** 126.6 **UNICOM** 122.95

SIOUX FALLS RCO 122.2 (HURON RADIO)

® **SIOUX FALLS APP/DEP CON** 125.8 126.9 (1100–0600Z‡)

MINNEAPOLIS CENTER APP/DEP CON 132.05 (0600–1100Z‡)

SIOUX FALLS TOWER 118.3 (1100–0600Z‡) **GND CON** 121.9

AIRSPACE: CLASS D svc 1100–0600Z‡ other times CLASS E.

RADIO AIDS TO NAVIGATION: NOTAM FILE FSD.

SIOUX FALLS (H) VORTACW 115.0 FSD Chan 97 N43°38.97′ W96°46.87′ 148° 4.4 NM to fld. 1570/9E. **HIWAS.**

ROKKY NDB(H/LOM) 245 FS N43°29.65′ W96°49.73′ 030° 6.5 NM to fld. Unmonitored.

ILS 109.9 I–FSD Rwy 03. Class ID. LOM ROKKY NDB. LOM unmonitored. ILS unmonitored when twr clsd. LOC unusable byd 30° left of course.

ILS 111.1 I–JOU Rwy 21. Class ID. ILS unmonitored when twr clsd.

ASR (1100–0500Z‡)

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HELIPAD H1: H50X50 (ASPH)

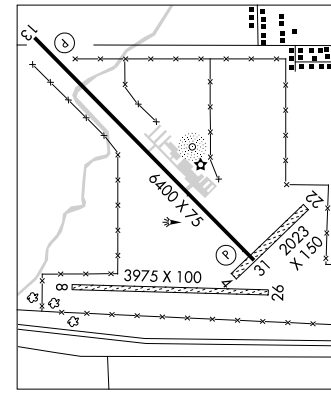
HELIPORT REMARKS: Helicopter landing ops rstd to helipad only. Perimeter lgts.

SISSETON MUNI (8D3) 3 E UTC−6(−5DT) N45°40.25′ W96°59.77′ **TWIN CITIES**
1161 B **FUEL** 100LL NOTAM FILE HON **L–14G**
RWY 16–34: H3400X60 (ASPH) S–12 MIRL
RWY 16: PAPI (P2L). Road. **RWY 34:** PAPI (P2L). Fence.
RWY 04–22: 1932X150 (TURF)
RWY 04: Poles. **RWY 22:** Tree.
AIRPORT REMARKS: Unattended. Fuel avbl 24 hrs with credit card. Rwy 04–22 CLOSED winter months. Waterfowl and gulls on and invof arpt. Rwy 04–22 marked with white cones.
COMMUNICATIONS: CTAF 122.9
RADIO AIDS TO NAVIGATION: NOTAM FILE ATY.
WATERTOWN (L) VORTACW 116.6 ATY Chan 113 N44°58.78′ W97°08.51′ 359° 41.9 NM to fld. 1762/9E.
HIWAS.

SPEARFISH N44°19.63′ W103°50.10′ **CHEYENNE**
RCO 122.55 (HURON RADIO) **L–13E**

SPEARFISH

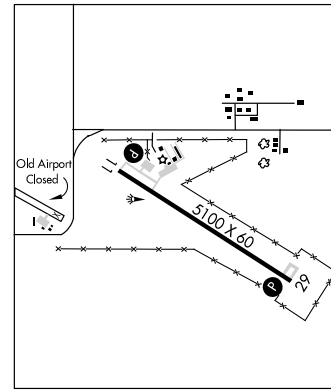
BLACK HILLS–CLYDE ICE FLD (SPF) 3 E UTC−7(−6DT) N44°28.87′ W103°47.16′ **CHEYENNE**
3931 B S4 **FUEL** 100LL, JET A OX 1, 3 NOTAM FILE SPF **H–2G, L–12F, 13E**
RWY 13–31: H6400X75 (ASPH) S–33, D–45 MIRL 0.4% up SE **IAP**
RWY 13: PAPI(P4L)—GA 3.0° TCH 25′. Hill. Rgt tfc.
RWY 31: PAPI(P4L)—GA 3.0° TCH 25′. Road.
RWY 08–26: 3975X100 (TURF) 0.7% up W
RWY 04–22: 2023X150 (TURF) 2% up SW
RWY 04: Highway. **RWY 22:** Fence.
AIRPORT REMARKS: Attended 1430Z‡–dusk. For attendant after hours call 605–642–2656/641–2787. Wildlife on and invof arpt. Rwy 22 4′ fence 50′ right 141′ fm thld and 50′ left 175′ fm thld. Irregular ops in and out of private airfield located approximately 3300′ S of arpt, check CTAF frequency for status. No snow removal on turf rwys, confirm conditions with arpt manager, call 605–642–4112/2656. Rwy 04–22 and Rwy 08–26 marked with black and white edge markers. ACTIVATE MIRL Rwy 13–31—CTAF.
WEATHER DATA SOURCES: AWOS–3 118.325 (605) 642–8536.
COMMUNICATIONS: CTAF/UNICOM 122.7
SPEARFISH RCO 122.55 (HURON RADIO)
ELLSWORTH APP/DEP 119.5 (Opr 24 hrs, from Mon 1200Z‡ thru Sat 0400Z‡, Sat, Sun 1200–0400Z‡), other times ctc **DENVER CENTER** 127.95.



RADIO AIDS TO NAVIGATION: NOTAM FILE RAP.
RAPID CITY (H) VORTAC 112.3 RAP Chan 70 N43°58.56′ W103°00.74′ 299° 45.0 NM to fld. 3160/13E.
NDB (MHW) 300 SPF N44°29.06′ W103°47.06′ at fld. NOTAM FILE SPF.

SPRINGFIELD MUNI (YØ3) 1 N UTC−6(−5DT) N42°52.80′ W97°54.07′ **OMAHA**
1324 B S7 **FUEL** 100LL, JET A NOTAM FILE HON **L–12H**
RWY 15–33: H3500X60 (ASPH) S–12.5 MIRL
RWY 15: PAPI(P2L)—GA 3.0° TCH 25′. **RWY 33:** PAPI(P2L)—GA 3.0° TCH 25′. Road.
RWY 01–19: 1900X100 (TURF)
RWY 19: Fence.
AIRPORT REMARKS: Unattended. For fuel call 605–369–2426. Wildlife on and invof arpt. Rwy 01 has a fence 75′ from thld; top of fence is 3′ blo rwy end. Rwy 01–19 marked with yellow and black metal A-frame markers. ACTIVATE MIRL Rwy 15–33 and PAPI Rwy 15 and Rwy 33—CTAF.
COMMUNICATIONS: CTAF 122.9
RADIO AIDS TO NAVIGATION: NOTAM FILE YKN.
YANKTON (L) VORW/DME 111.4 YKN Chan 51 N42°55.10′ W97°23.10′ 257° 22.9 NM to fld. 1301/7E.

STURGIS MUNI (49B) 4 E UTC−7(−6DT) N44°25.08′ W103°22.53′ **CHEYENNE**
3243 B S4 **FUEL** 100LL, JET A NOTAM FILE HON **H–2G, L–12G, 13E**
RWY 11–29: H5100X60 (ASPH) S–12.5 MIRL 0.7% up NW **IAP**
RWY 11: PAPI(P2L). **RWY 29:** PAPI(P2L).
AIRPORT REMARKS: Attended dalgt hours. For attendant other hours call 605–347–3356. Wildlife on and invof arpt. ACTIVATE MIRL Rwy 11–29 and PAPI Rwy 11 and Rwy 29—CTAF.
COMMUNICATIONS: CTAF/UNICOM 122.8
ELLSWORTH APP/DEP CON 119.5 (Opr 24 hrs, from Mon 1200Z‡ thru Sat 0400Z‡, Sat, Sun 1200–0400Z‡), other times ctc **DENVER CENTER** 127.95.
RADIO AIDS TO NAVIGATION: NOTAM FILE RAP.
RAPID CITY (H) VORTAC 112.3 RAP Chan 70 N43°58.56′ W103°00.74′ 317° 30.8 NM to fld. 3160/13E.



TEA

MARV SKIE–LINCOLN CO (Y14) 2 NE UTC−6(−5DT) N43°27.45′ W96°48.12′ **OMAHA**
1515 B S4 **FUEL** 100LL, JET A NOTAM FILE HON **L–12I**
RWY 16–34: H3650X60 (ASPH) S–22 MIRL
RWY 16: PAPI(P4L)—GA 3.0° TCH 22′. Road. **RWY 34:** PAPI(P4L)—GA 3.0° TCH 29′.
AIRPORT REMARKS: Attended 1400Z‡–dusk. Fuel avbl 24 hrs with credit card. Ultralights on and invof arpt. Be alert: Acft on apch to Rwy 03 at Joe Foss Fld (FSD) descending/holding at 3300′ over ROKKY LOM located 2.4 miles NNW of the arpt. Hay cutting operations May–Sep, farming equipment may be in apch zones. ACTIVATE MIRL Rwy 16–34—CTAF. NOTE: See Special Notices Section—Aerobatic Practice Areas.
COMMUNICATIONS: CTAF/UNICOM 122.8
RADIO AIDS TO NAVIGATION: NOTAM FILE FSD.
SIOUX FALLS (H) VORTACW 115.0 FSD Chan 97 N43°38.97′ W96°46.87′ 176° 11.6 NM to fld. 1570/9E. **HIWAS.**

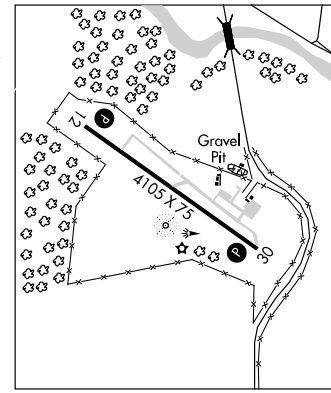
THE SIGURD ANDERSON (See WEBSTER)

TIMBER LAKE MUNI (D58) 1 SW UTC−7(−6DT) N45°24.90′ W101°04.99′ **BILLINGS**
2193 B S4 NOTAM FILE HON
RWY 12–30: 3300X150 (TURF) LIRL
RWY 30: Road.
RWY 17–35: 2400X120 (TURF)
RWY 17: Fence. **RWY 35:** Fence.
AIRPORT REMARKS: Attended dalgt hours. For field conditions call arpt manager 605–865–3500. Rwy 12–30 marked with yellow/black metal A–frame markers. Rwy 12–30 LIRL in poor condition. Rwy 12–30 LIRL OTS indef. ACTIVATE LIRL Rwy 12–30—122.8.
COMMUNICATIONS: CTAF 122.9

VERMILLION N42°45.80′ W96°56.06′ NOTAM FILE HON. **OMAHA**
NDB (MHW) 375 VMR at Harold Davidson Fld. NDB unmonitored. SHUTDOWN. **L–12I**

VERMILLION

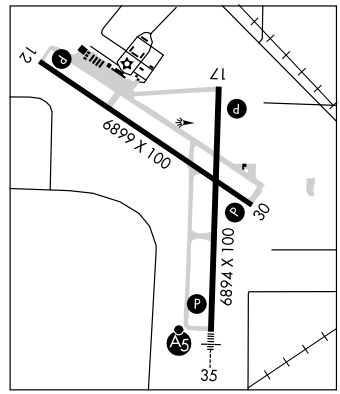
HAROLD DAVIDSON FLD (VMR) 1 S UTC−6(−5DT) N42°45.92′ W96°56.06′ **OMAHA**
1147 B S2 **FUEL** 100LL NOTAM FILE HON **L–12I**
RWY 12–30: H4105X75 (CONC) S–12 MIRL **IAP**
RWY 12: PAPI(P4L)—GA 3.0° TCH 38′. Rgt tfc.
RWY 30: PAPI(P4L)—GA 3.0° TCH 38′. Trees.
AIRPORT REMARKS: Attended 1400–2300Z‡. Fuel avbl 24 hrs with credit card. ACTIVATE MIRL Rwy 12–30, PAPI Rwy 12 and Rwy 30—CTAF.
WEATHER DATA SOURCES: AWOS–3 122.8 (617) 262–3825. OTS indef.
COMMUNICATIONS: CTAF/UNICOM 122.8
YANKTON RCO 122.55 (HURON RADIO)
Ⓡ **SIOUX CITY APP/DEP CON** 124.6 (1200–0330Z‡)
MINNEAPOLIS CENTER APP/DEP CON 124.1 (0330–1200Z‡)
RADIO AIDS TO NAVIGATION: NOTAM FILE YKN.
YANKTON (L) VORW/DME 111.4 YKN Chan 51 N42°55.10′ W97°23.10′ 108° 21.9 NM to fld. 1301/7E.
VERMILLION NDB (MHW) 375 VMR N42°45.80′ W96°56.06′ at fld. NOTAM FILE HON. NDB unmonitored. SHUTDOWN.



WAGNER MUNI (AGZ) 1 S UTC−6(−5DT) N43°03.80′ W98°17.77′ **OMAHA**
1475 B S4 **FUEL** 100LL NOTAM FILE HON **L–12H**
RWY 08–26: H3500X60 (ASPH) S–12.5 MIRL
RWY 08: P–line. **RWY 26:** Road.
RWY 14–32: 2228X150 (TURF)
RWY 14: Road. **RWY 32:** P-lines.
AIRPORT REMARKS: Attended Mon–Fri 1300–2300Z‡. For attendant after hrs call 605–487–6262/491–0470. Rwy 14–32 CLOSED Nov 1–Apr 15. Spray acft operating invof arpt Apr–Nov. Wildlife on and invof arpt. Rwy 14 and Rwy 32 thlds are marked with yellow and black half barrels. MIRL Rwy 08–26 opr dusk–0600Z‡, after 0600Z‡ ACTIVATE—CTAF.
COMMUNICATIONS: CTAF/UNICOM 122.8
RADIO AIDS TO NAVIGATION: NOTAM FILE ONL.
O'NEILL (H) VORTACW 113.9 ONL Chan 86 N42°28.23′ W98°41.22′ 016° 39.5 NM to fld. 2030/10E. **HIWAS.**
NDB (MHW) 392 AGZ N43°03.75′ W98°17.54′ at fld. NOTAM FILE HON. Unmonitored. VFR only.

WALL MUNI (6V4) 1 NW UTC−7(−6DT) N43°59.97′ W102°15.28′ **CHEYENNE**
2813 B **FUEL** 100LL TPA—3813(1000) NOTAM FILE HON **L–12G**
RWY 12–30: H3500X60 (ASPH) S–12 LIRL 0.4% up SE.
RWY 12: PAPI (P4L)—GA 3.0°. **RWY 30:** PAPI (P4L)—GA 3.0° TCH 29′. Antenna.
AIRPORT REMARKS: Unattended. Fuel avbl by req. call 605–279–2666. Deer/antelope/waterfowl on and invof arpt. LIRL Rwy 12–30 and PAPI Rwy 12 and Rwy 30 opr dusk–0400Z‡. After 0400Z‡ ACTIVATE CTAF.
COMMUNICATIONS: CTAF 122.8
RADIO AIDS TO NAVIGATION: NOTAM FILE PHP.
PHILIP (L) VORW/DME 108.4 PHP Chan 21 N44°03.50′ W101°39.85′ 250° 25.8 NM to fld. 2340/12E. **HIWAS.**

WATERTOWN RGNL (ATY) 2 NW UTC−6(−5DT) N44°54.84′ W97°09.28′ **TWIN CITIES**
1749 B S4 **FUEL** 100LL, JET A Class I, ARFF Index A NOTAM FILE ATY **H–2H, L–12H, 14G**
RWY 12–30: H6899X100 (ASPH–PFC) S–85, D–108, ST–137, DT–175 MIRL **IAP**
RWY 12: REIL. PAPI(P4L)—GA 3.0° TCH 48′. Tree.
RWY 30: REIL. PAPI(P4L)—GA 3.0° TCH 34′. Tree.
RWY 17–35: H6894X100 (ASPH–PFC) S–85, D–108, ST–137, DT–175 HIRL
RWY 17: REIL. PAPI(P4L)—GA 3.0° TCH 35′.
RWY 35: MALSR. PAPI(P4L)—GA 3.0° TCH 54′. Elevator.



RUNWAY DECLARED DISTANCE INFORMATION
RWY 12: TORA–6899 TODA–6899 ASDA–6899 LDA–6899
RWY 17: TORA–6894 TODA–6894 ASDA–6894 LDA–6894
RWY 30: TORA–6899 TODA–6899 ASDA–6899 LDA–6899
RWY 35: TORA–6894 TODA–6894 ASDA–6894 LDA–6894
AIRPORT REMARKS: Attended Mon–Fri 1300–0100Z‡, Sat–Sun 1400–0000Z‡. Glider ops May thru Sep. Gulls and geese on and invof arpt Apr–Nov. Annually Apr–Sep hay cutting ops in progress, farming equip may be in apchs. PPR 48 hrs unscheduled air carrier ops with more than 30 passenger seats call arpt manager 605–882–6209/886–4733. Air carrier ops involving acft with more than 9 passengers are not authorized in excess of 15 minutes before or after scheduled arrival/departure times without prior coordination with arpt manager and confirmation that ARFF is avbl prior to landing or takeoff. ACTIVATE MALSR Rwy 35, HIRL Rwy 17–35, MIRL Rwy 12–30, REIL Rwy 12 and Rwy 30 and PAPI Rwy 12, Rwy 17, Rwy 30, and Rwy 35—CTAF.
WEATHER DATA SOURCES: ASOS 126.625 (605) 882–0578. **HIWAS** 116.6 ATY.
COMMUNICATIONS: CTAF/UNICOM 123.05
RCO 122.5 (HURON RADIO)
MINNEAPOLIS CENTER APP/DEP CON 128.5
RADIO AIDS TO NAVIGATION: NOTAM FILE ATY.
(L) VORTACW 116.6 ATY Chan 113 N44°58.78′ W97°08.51′ 179° 4.0 NM to fld. 1762/9E. **HIWAS.**
LICAN NDB (LOM) 215 AT N44°48.20′ W97°09.01′ 352° 6.7 NM to fld.
ILS/DME 111.9 I–ATY Chan 56 Rwy 35. Class IT. LOM LICAN NDB.

WEBSTER

THE SIGURD ANDERSON (1D7) 2 S UTC−6(−5DT) N45°17.56′ W97°30.83′ **TWIN CITIES**
1854 B **FUEL** MOGAS NOTAM FILE HON **L–12H, 14G**
RWY 12–30: H3700X60 (ASPH) S–12.5 LIRL
RWY 12: Road.
RWY 01–19: 2200X150 (TURF)
RWY 01: Fence. **RWY 19:** Trees.
AIRPORT REMARKS: Unattended. Rwy 01–19 CLOSED winter months. Birds and waterfowl on and invof arpt. Rwy 01–19 marked with yellow and black metal A-frame markers. ACTIVATE LIRL Rwy 12–30—CTAF.
COMMUNICATIONS: CTAF 122.9
RADIO AIDS TO NAVIGATION: NOTAM FILE ATY.
WATERTOWN (L) VORTACW 116.6 ATY Chan 113 N44°58.78′ W97°08.51′ 311° 24.5 NM to fld. 1762/9E.
HIWAS.

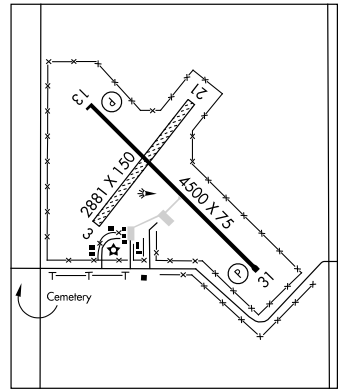
WENTWORTH N44°00.80′ W97°05.31′ NOTAM FILE HON. **OMAHA**
NDB (MHW) 400 MDS at Madison Muni. NDB unmonitored. **L–12H**

WESSINGTON SPRINGS (4X4) 2 E UTC−6(−5DT) N44°03.66′ W98°31.85′ **OMAHA**
1546 B NOTAM FILE HON **L–12H**
RWY 12–30: H3600X60 (ASPH) LIRL
RWY 12: P–line.
AIRPORT REMARKS: Unattended. ACTIVATE LIRL Rwy 12–30 and rotating bcn—CTAF.
COMMUNICATIONS: CTAF 122.9
RADIO AIDS TO NAVIGATION: NOTAM FILE HON.
HURON (L) VORTAC 117.6 HON Chan 123 N44°26.40′ W98°18.66′ 193° 24.6 NM to fld. 1300/10E.

WHITE RIVER MUNI (7Q7) 1 S UTC−7(−6DT) N43°33.70′ W100°44.51′ **TWIN CITIES**
2151 B NOTAM FILE HON
RWY 12–30: 3000X150 (TURF) LIRL
RWY 12: Pole.
AIRPORT REMARKS: Unattended. Wildlife on and invof arpt. Telephone avbl. ACTIVATE LIRL Rwy 12–30—CTAF.
COMMUNICATIONS: CTAF 122.8

WILDER (See DESMET)

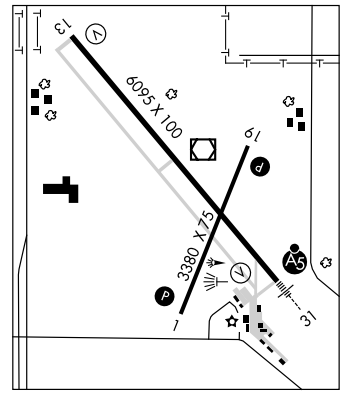
WINNER RGNL (ICR) 1 NE UTC−6(−5DT) N43°23.42′ W99°50.53′ **OMAHA**
2033 B S4 **FUEL** 100LL, JET A NOTAM FILE ICR **L–12H**
RWY 13–31: H4500X75 (CONC) S–12.5 MIRL **IAP**
RWY 13: PAPI(P2L)—GA 3.0° TCH 38′.
RWY 31: PAPI(P2L)—GA 3.0° TCH 35′.
RWY 03–21: 2881X150 (TURF)
RWY 21: Fence.
AIRPORT REMARKS: Attended continuously.
Deer on and invof arpt. Rwy 03–21 CLOSED winter months. High air tfc Oct–Nov. MIRL Rwy 13–31 opr dusk–0600Z‡ after 0600Z‡ ACTIVATE—CTAF.
WEATHER DATA SOURCES: ASOS 126.775 (605) 842–3989.
COMMUNICATIONS: CTAF/UNICOM 122.8
WINNER RCO 122.1R 112.8T (HURON RADIO)
RADIO AIDS TO NAVIGATION: NOTAM FILE PIR.
PIERRE (L) VORTACW 112.5 PIR Chan 72 N44°23.67′ W100°09.77′ 156° 61.8 NM to fld. 1789/11E. **HIWAS.**
(L) VOR 112.8 ISD N43°29.28′ W99°45.68′ 203° 6.8 NM to fld. NOTAM FILE ICR.



YANKTON N42°55.10′ W97°23.10′ NOTAM FILE YKN. **OMAHA**
(L) VORW/DME 111.4 YKN Chan 51 at Chan Gurney Muni. 1301/7E. **L–12H**
VOR unusable byd 30 NM blo 3200′.
DME unusable 230°–270° byd 25 NM blo 4000′, 271°–310° byd 30 NM blo 4000′, 311°–060° byd 30 NM blo 3500′.
RCO 122.55 (HURON RADIO)

YANKTON

CHAN GURNEY MUNI (YKN) 3 N UTC−6(−5DT) N42°55.00′ W97°23.16′ **OMAHA**
1306 B S4 **FUEL** 100LL, JET A NOTAM FILE YKN **H–5C, L–12H**
RWY 13–31: H6095X100 (CONC) S–30, D–50, DT–90 MIRL 0.6% up NW **IAP**
RWY 13: REIL. VASI(V4L)—GA 3.0° TCH 40′. Trees.
RWY 31: MALSR. VASI(V4L)—GA 3.0° TCH 40′.
RWY 01–19: H3380X75 (ASPH) S–12.5 HIRL
RWY 01: PAPI(P2L)—GA 3.0° TCH 25′. P–line.
RWY 19: PAPI(P2L)—GA 3.0° TCH 25′. Fence.
AIRPORT REMARKS: Attended 1400–0000Z‡. For svc after 0000Z‡ call 605–665–3473. PAEW mowing seasonal. Migratory waterfowl on and invof arpt. MIRL Rwy 13–31 preset medium ints SS–SR, HIRL Rwy 01–19 preset low ints SS–0500Z‡ to increase ints and ACTIVATE MALSR Rwy 31, PAPI Rwy 01 and 19 and Twy lgts—CTAF.
WEATHER DATA SOURCES: AWOS–3 111.4 YKN (605) 665–6072.
COMMUNICATIONS: CTAF/UNICOM 122.8
YANKTON RCO 122.55 (HURON RADIO)
MINNEAPOLIS CENTER APP/DEP CON 124.1
AIRSPACE: CLASS E svc continuous.
RADIO AIDS TO NAVIGATION: NOTAM FILE YKN.
YANKTON (L) VORW/DME 111.4 YKN Chan 51 N42°55.10′ W97°23.10′ at fld. 1301/7E. **AWOS–3.**
CAGUR NDB (LOM) 347 YK N42°50.62′ W97°18.13′ 313° 5.7 NM to fld. Unmonitored.
ILS 109.5 I–YKN Rwy 31. Class IE. LOM CAGUR NDB. ILS unmonitored.



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

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

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

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

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

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

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

Minneapolis, MN Class B Airspace

Due to the relocation and magnetic variation changes of the Flying Cloud (FCM), MN VOR/DME, two boundary radials of the Minneapolis, MN, Class B Airspace need to be relabeled on the Minneapolis VFR Terminal Area Chart. To the west of Minneapolis-St. Paul Intl. Airport, the boundary between the 4000′ floor airspace and the 7000′ floor airspace should be labeled as ''FCM 299°''. And to the southeast of Minneapolis-St. Paul Intl. Airport, the boundary between the 4000′ floor airspace and the 7000′ floor airspace should be labeled as ''FCM 119°''.

SEARCH LIGHT SHOW
Rosebud Casino, Valentine, Nebraska

Searchlight Activity will be conducted in an area within a 1 NM radius of 42 59 56N/100 34 29W (ANW315/36.5), 1500 AGL and above, from 1900 to 0200 local hours nightly. Searchlight beams may be injurious to pilots/passengers eyes at 1500 AGL and above. Flash blindness or cockpit illumination may occur at greater distances, up to several miles from the source. Huron AFSS, 866–732–1331, is the FAA coordination facility.

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

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.

AEROBATIC PRACTICE AREA
FORT SCOTT MUNICIPAL AIRPORT (FSK), FORT SCOTT, KS

Aerobatic practice will be conducted within 1 NM radius of Fort Scott Municipal Airport (FSK), SFC to 5,000 feet AGL. The practice area is for waiver holders only. Pilots should use caution when operating in this area. For further information contact Flight Services at 1–800–WX–BRIEF (992–7433).

HAROLD KRIER FIELD (K58), ASHLAND, KS

Aerobatic practice will be conducted within 2 NM radius of Harold Krier Field (K58), SFC to 3,500 feet AGL.The practice area is for waiver holders only. Pilots should use caution when operating in this area. For further information contact Flight Services at 1–800–WX–BRIEF (992–7433).

WAMEGO MUNICIPAL AIRPORT (69K), MANHATTAN, KS

Aerobatic practice will be conducted within 1 NM radius of Wamego Municipal Airport (69K) SFC to 4,500 feet MSL, SR–SS. For further information contact Flight Services at 1–800–WX–BRIEF (992–7433).

GRANITE FALLS MUNI/LENZEN-ROE, AIRPORT, (GDB) GRANITE FALLS, MN

Aerobatic practice will be conducted within 2 NM radius of MVE160012, SFC to 6,000 feet MSL, SR–SS. For further information contact Flight Services at 1–800–WX–BRIEF (992–7433).

SEWARD COUNTY AIRPORT (SWT), SEWARD, NE

Aerobatic practice will be conducted within 1 NM radius of Seward County Airport (SWT), SFC to 7,000 feet MSL The practice area is for waiver holders only. Pilots should use caution when operating in this area. For further information contact Flight Services at 1–800–WX–BRIEF (992–7433).

PIERRE REGIONAL AIRPORT (PIR), PIERRE, SD

Aerobatic practice will be conducted within 2 NM radius of Pierre Regional Airport (PIR, SFC to 3,300 feet MSL.The practice area is for waiver holders only. Pilots should use caution when operating in this area. For further information contact Flight Services at 1–800–WX–BRIEF (992–7433).

SKIE–LINCOLN AIRPORT (Y14), TEA, SD

Aerobatic practice will be conducted within 1 NM radius of Skie–Lincoln County Airport (Y14), SFC to 5,000 feet MSL. The practice area is for waiver holders only. Pilots should use caution when operating in this area. For further information contact Flight Services at 1–800–WX–BRIEF (992–7433).

MODEL ROCKET ACTIVITY

ANTHONY, KS

Model Rocket activity will be conducted within a 5 NM radius of ANY081021, SFC to 34,500 feet AGL, SR–SS. For further information contact Flight Services at 1–800–WX–BRIEF (992–7433).

ELLINWOOD, KS

Model Rocket activity will be conducted within a 3 NM radius of the Ellinwood Airport (1K6), with an alternate site of 2 NM Northwest of Ellinwood Airport (1K6), SFC to 10,000 feet AGL, SR–SS. For further information contact Flight Services at 1–800–WX–BRIEF (992–7433).

PITTSBURG, KS

Model Rocket activity will be conducted within a 3 NM radius of OSW045034, SFC to 18,000 feet MSL, SR–SS. For further information, contact Flight Services at 1–800–WX–BRIEF (992–7433).

HALLSVILLE, MO

Model Rocket activity will be conducted within a 2 NM radius of HLV299010, SFC to 6,000 feet AGL, SR–SS. For further information contact Flight Services at 1–800–WX–BRIEF (992–7433).

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 waters 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.

CONTROLLED FIRING
Parsons, Kansas
(Until Further Notice)

Controlled Firing Area 1 NM radius 37°17′39″N/95°08′46″W, SFC–3200 MSL, Eff weekdays 0630–1700 LCL

INTERSECTION DEPARTURES DURING PERIOD OF DARKNESS
MINNEAPOLIS-ST PAUL INTERNATIONAL/WOLD-CHAMBERLAIN AIRPORT (MSP)
MINNEAPOLIS, MINNESOTA

Minneapolis International Airport Traffic Control Tower has been granted a waiver to the guideline that prohibits the control tower from taxiing an aircraft into ''position and hold'' at an intersection, between sunset and sunrise.

This waiver allows the tower to taxi the aircraft into ''position and hold'' during period of darkness, at the intersections listed below.

Runway 4 at Taxiways ''S'', ''C2'', ''C3'', ''M2'', or ''M3''

Aircraft shall not taxi into position and hold under the provisions of this waiver when the subject intersection is not visible from the tower. When the provisions of this waiver are being exercised, the affected runway shall be used for departures only. Intersection depatures will continue to be utilized at other locations between sunset and sunrise. However, aircraft cannot be taxied into ''position and hold'' prior to takeoff clearance.

LAMBERT–ST LOUIS INTERNATIONAL (STL), MISSOURI

STL Precision Runway Monitor Electronic Scan Radar System (PRM) commissioned. Full utilization of PRM is pending the future implementation of simultaneous instrument approaches. Until then no operational impact will result from the commissioning of PRM.

SIMULTANEOUS OFFSET INSTRUMENT APPROACH (SOIA) PROCEDURE FOR PILOTS FILING FLIGHT PLANS TO LAMBERT–ST LOUIS INTERNATIONAL AIRPORT (STL)

Effective Thursday, October 27, 2005. During the hours of 0700–2200 local, STL ATC may utilize LDA PRM and ILS PRM approaches as weather and traffic demand dictate. Aircraft arriving from the northeast and northwest (primarily over PETTI and LORLE intersections) should expect ILS PRM Runway 30R. Aircraft arriving from the west and southeast (primarily over FTZ and QBALL) should expect LDA PRM Runway 30L. If unable to participate in PRM apchs acft operators are required to contact FAA ATCSCC directly at 1–800–333–4286 or 703—904–4452 prior to departure to obtain a precoordinated arrival time. Non–participating acft may encounter delays. Pilot requirements and procedures are outlined in U.S. Terminal Procedures Publications available on pages entitled ''ATTENTION ALL USERS OF ILS PRECISION RUNWAY MONITOR (PRM)'' or ''ATTENTION ALL USERS OF LDA PRECISION RUNWAY MONITOR (PRM)''. This notice is effective until further notice.

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.

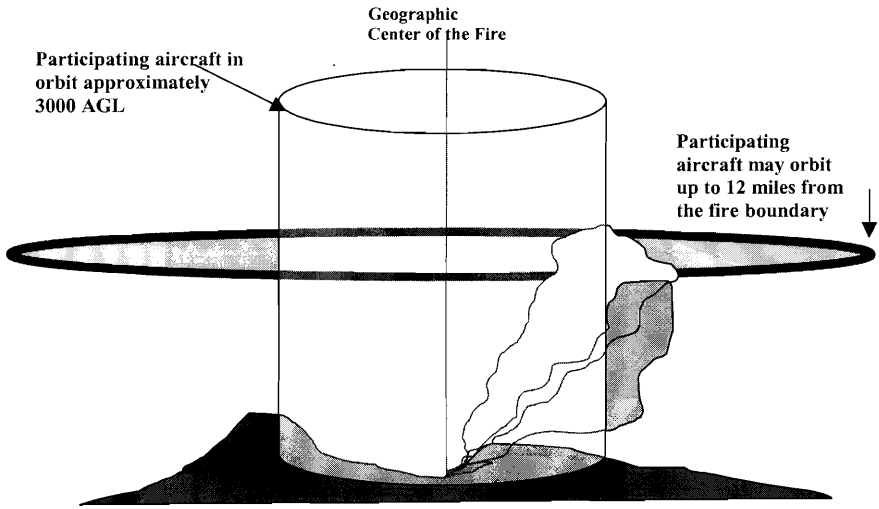
1. ILS (Localizer, Glide Slope, COMLO, Inner, Middle and Outer Markers)
2. Wind Measuring Capability
3. Approach Light System (ALS) or Short ALS (SALS)
4. Ceiling Measuring Capability
5. Touchdown Zone Lighting (TDZL)
6. Centerline Lighting (CL)
7. Runway Visual Range (RVR)
8. High Intensity Runway Lighting (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
Anchorage, AK (ANC)	07R	Minneapolis, MN (MSP)	30L
Andrews AFB, MD (ADW)	01L	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.

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.

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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.

NORTH CENTRAL U.S.

MINNESOTA: Princeton Municipal (PNM)–**PNM FSS**

MISSOURI: Columbia, Columbia Regional (COU)–**COU FSS**

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

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

NATIONAL FSS TELEPHONE NUMBER

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

OTHER FSS TELEPHONE NUMBERS (except in Alaska)

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

Clearance Delivery Only 1–888–766–8267

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

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

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

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

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

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

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

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

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

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

QUALIFIER

Intensity or Proximity

- Light "no sign" Moderate + Heavy

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

Descriptor

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

WEATHER PHENOMENA

Precipitation

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

UP Unknown precipitation in automated observations

Obscuration

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

Other

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

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

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

KEY AIR TRAFFIC FACILITIES

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.–4:00p.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.	206–768–2900
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.

Ⓡ CHICAGO CENTER — **H–2–5–10, L–12–27–28–31, A–1** **(KZAU)**
Burlington – 135.6
Cedar Rapids – 132.8
Des Moines – 127.05
Dubuque – 133.95 **127.775 125.225**
Moline – 135.825 118.75
Ottumwa – 118.15
Washington – 134.325 133.35 125.575

Ⓡ DENVER CENTER – 124.8 — **H–1–2–3–4–5–6, L–8–9–10–11–12–13–14–15** **(KZDV)**
Ainsworth – 132.7 127.95
Cheyenne – 125.9
Colby – 132.175 127.65
Crawford – 135.025 127.95
Goodland – 132.5
Grand Island West – 132.7
Hayes Center – 127.025
Hill City – 132.5
North Platte – 132.7 **124.225**
Ogallala – 132.7 **126.325**
O'Neill – 135.025 132.7
Rapid City – 127.95
Scottsbluff – 127.95
Sterling – 118.475

Ⓡ KANSAS CITY CENTER – 132.325 — **H–5–6, L–10–15–16–27, A–2** **(KZKC)**
Anthony – 133.2 118.35
Butler – 125.55
Chanute – 132.9
Chillicothe – 125.25
Columbia – 134.5 134.5 **119.475** 118.4
Dodge City –120.725
Edna – 128.6 **118.125**
Emporia – 132.25 127.725 **124.975** 120.2
Farmington – 132.65 120.825 127.475
Garden City – 133.45 125.2
Hallsville –126.975
Hutchinson – 134.3 132.825 118.8
Independence – 121.65
Kansas City – 127.125
Kirksville – 134.625 133.725 132.6
Liberal – 134.675 134.0
Manhattan – 127.35
Maples – 128.35
Richland – 128.35 **125.675** 124.1
Russell – 124.4
St. Charles – 125.9
St. Joseph – 127.9
St. Louis – 133.15 128.35
Salina – 134.9 **125.175**
Springfield – 133.475 127.5
Topeka – 134.725 125.425 123.8

Ⓡ MEMPHIS CENTER — **H–5–6–9, L–15–16–17–18–22–25–26** **(KZME)**
Malden – 134.65

Ⓡ MINNEAPOLIS CENTER – 134.45 125.5 120.3 — **H–2–5–10–11, L–10–12–13–14–27–28–31** — **(KZMP)**

Aberdeen – 120.6
Alexandria – 133.4 126.1
Bemidji – 134.75
Bismark – 125.6 **125.6**
Brainerd – 118.05
Darwin – 125.5
Des Moines – 135.775 118.825 125.65
Dickinson – 124.25
Duluth – 134.55 134.55 127.9
Dupree – 126.8
Fairmont – 127.75
Fargo – 127.35
Farmington – 133.7
Ft. Dodge – 134.0
Grand Forks – 132.15
Grand Island – 126.05
Green Bay – 125.55
Hastings – 135.1 119.4
Huron – 126.25
International Falls – 120.9
Iron Mountain – 133.45 121.25
Jamestown – 126.8 **124.2**
La Crosse – 128.6 **118.85**
Lincoln – 119.525
Mankato – 135.0
Marysville – 134.225 126.4
Mason City – 134.25 127.3
Minot – 127.6 127.6 118.9
Mosinee – 124.4
Omaha – 132.725 128.75 119.6
O'Neill – 128.0 **124.875**
Pierre – 128.425 125.1
Princeton – 121.05
Redwood Falls – 133.075 127.1 **119.875**
Rochester – 132.35
Roseau – 134.75
Sioux City – 119.725 124.1
Sioux Falls – 132.05
Traverse City – 338.3
Watertown – 128.5
White Cloud – 132.55 120.85

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

Watford City – 126.85 126.85

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.

COLUMBIA AFSS

BUTLER VORTAC 115.9T 122.1R
CHILLICOTHE RCO 122.25
CLINTON RCO 122.4
COLUMBIA RCO 119.3 122.2 122.65
DOGWOOD VORTAC 109.4T 122.1R
DOWNTOWN RCO **122.6**
HALLSVILLE VORTAC 114.2T 122.1R
JEFFERSON CITY RCO 122.25
JOHNSON COUNTY RCO 122.15
JOPLIN RCO 122.6
KANSAS CITY VORTAC 113.25T 122.1R 122.65
KIRKSVILLE VORTAC 114.6T 122.1R 122.2
LEBANON RCO 122.5
MACON VOR/DME 112.9T 122.1R
MAPLES VORTAC 113.4T 122.1R
NEOSHO VOR/DME 117.3 122.1R
POINT LOOKOUT RCO 122.65
ST JOSEPH VORTAC 115.5T 122.1R 122.3
SEDALIA RCO 122.05
SPRINGFIELD VORTAC 116.9T 122.1R **122.55**
SUNSHINE RCO 122.15
VICHY VOR/DME 117.7T 122.1R 122.35
WEST PLAINS RCO 122.15

COLUMBUS AFSS

AINSWORTH RCO 122.4
ALLIANCE RCO 122.3
BEATRICE RCO 122.5
CENTRAL NEBRASKA RCO 122.45
CHADRON VOR/DME 113.4T 122.1R 122.5
COLUMBUS RCO 122.2 122.4
HASTINGS VOR/DME 108.8T 122.1R
HAYES CENTER VORTAC 117.7T 122.1R
KEARNEY RCO 122.55
LEE BIRD RCO **122.5**
LINCOLN RCO **122.65**
MC COOK RCO **122.6**
NORFOLK VOR/DME 109.6T 122.15
OMAHA RCO **122.35**
O'NEILL RCO 122.45
PAWNEE CITY VORTAC 112.4T 122.1R
SCOTTSBLUFF VORTAC 112.6T 122.1R **122.6**
SIDNEY VORTAC 115.9T 122.1R **122.45**
THEDFORD RCO 122.4
WOLBACH VORTAC 114.8T 122.1R

FORT DODGE AFSS

BURLINGTON RCO 122.65
CEDAR RAPIDS RCO 122.55
CHARLES CITY RCO 122.4
DAVENPORT RCO 122.5
DENISON RCO 122.25
DES MOINES RCO 122.65
DUBUQUE RCO 122.05
FORT DODGE RCO 122.2 122.3
GRINNELL RCO **122.35**
IOWA CITY VORTAC 116.2T 122.1R 122.25
LAMONI VORTAC 116.7T 122.1R
MASON CITY RCO 122.6
NEWTON VOR/DME 112.5T 122.1R
OMAHA VORTAC 116.3T 122.1R
OTTUMWA RCO 122.4
SIOUX CITY VORTAC 116.5T 122.1R 122.45
SPENCER RCO 122.15
WATERLOO RCO 122.05
WAUKON VORTAC 116.6T 122.1R

GRAND FORKS AFSS

BISMARCK RCO 122.2
BOWMAN RCO 122.4
DEVILS LAKE RCO 122.3
DICKINSON RCO 122.2
FARGO RCO 122.425
GRAND FORKS RCO 122.2 **122.6**
GRAND FORKS VOR/DME 114.3T
HAZEN RCO 122.45
JAMESTOWN VOR/DME 114.5T 122.2 123.6
MINOT RCO 122.2
ROLLA RCO 122.65
WILLISTON RCO **123.6**

GREEN BAY AFSS 122.2 122.55

RED WING RCO 122.6

HURON AFSS

ABERDEEN VOR/DME 113.0T 122.1R 122.4
BROOKINGS RCO 122.65
BUFFALO RCO 122.15
DUPREE RCO 122.6
HURON VORTAC 117.6T 122.1R 122.2 122.6 123.6
MITCHELL RCO 122.3
MOBRIDGE RCO 122.35
PHILIP RCO 122.4
PIERRE RCO 122.2
RAPID CITY VORTAC 112.3T 122.1R 122.65
SIOUX FALLS RCO 122.2
SPEARFISH RCO 122.55
WATERTOWN RCO 122.5
WINNER VOR 112.8T 122.1R
YANKTON RCO 122.55

PRINCETON AFSS

ALBERT LEA RCO 122.05
ALEXANDRIA RCO 122.6
ANOKA COUNTY RCO 122.55
AUSTIN RCO 122.5
BAUDETTE RCO 122.4
BEMIDJI RCO 123.6
BRAINERD RCO 123.65
CRANE LAKE RCO 122.2
DARWIN VORTAC 109.0T 122.1R
DETROIT LAKES RCO 122.5
DULUTH RCO 122.35
ELY VOR/DME 109.6T 122.1R
EVELETH RCO 122.45
FAIRMONT VOR/DME 110.2T 123.6R
FARMINGTON VORTAC 115.7T 122.1R
FERGUS FALLS RCO 122.35
GRAND MARAIS RCO 122.3
GRAND RAPIDS RCO 122.05
HIBBING RCO 122.6
HUMBOLDT VORTAC 112.4T 122.1R
INTL FALLS RCO 123.6
MADISON RCO 122.3
MANKATO VOR/DME 110.8T 122.1R
MARSHALL RCO 122.35
MINNEAPOLIS RCO 122.3
MONTEVIDEO RCO 122.45
MORA RCO 122.4
MORRIS RCO 122.25
NODINE VORTAC 117.9T 122.1R
OWATONNA RCO 122.25
PARK RAPIDS VOR/DME 110.6T 122.1R
PRINCETON RCO 122.2
REDWOOD FALLS RCO 122.4
THIEF RIVER FALLS VOR/DME 108.4T 122.1R 123.6R
ROCHESTER RCO 122.45
ROSEAU RCO 122.25
ST CLOUD RCO 122.5
WARROAD RCO 122.55
WILLMAR RCO 122.15
WINONA RCO 122.15
WORTHINGTON VOR/DME 110.6T 122.1R 123.6R

SAINT LOUIS AFSS

BIBLE GROVE VORTAC 109.0T 122.05R
CAPE GIRARDEAU VOR/DME 112.9T 122.1R **122.4**
CAPITAL VORTAC 112.7T 122.1R 122.25
CENTRALIA VORTAC 115.0T 122.1R
CHAMPAIGN (URBANA) RCO 122.45
DECATUR RCO 122.3
FARMINGTON VORTAC 115.7T 122.1R 122.3
FORISTELL VORTAC 110.8T 122.1R
MALDEN VORTAC 111.2T 122.1R
MARION VOR/DME 110.4T 122.1R
MATTOON VOR/DME 109.4T 123.6R
QUINCY VORTAC 113.6T 122.1R 122.5
ST LOUIS VORTAC 117.4T 122.1R 122.2 122.6 122.45
ST LOUIS RGNL RCO 122.45 122.6
SAMSVILLE VOR/DME 116.6T 122.1R
SPINNER RCO 122.25
SPIRIT of ST LOUIS RCO 122.2 124.75
VANDALIA VORTAC 114.3T 122.1R

WICHITA AFSS

ANTHONY VORTAC 112.9T 122.1R
CHANUTE RCO 122.35
DODGE CITY RCO 122.35
EMPORIA RCO 122.3
FT LEAVENWORTH RCO 122.35
GARDEN CITY RCO 122.45
GOODLAND RCO 122.4
GREAT BEND RCO 122.5
HAYS RCO 122.3
HILL CITY RCO **122.65**
HUTCHINSON RCO 122.05
LIBERAL RCO 122.4
MANHATTAN RCO **122.65**
MANKATO VORTAC 109.8T 122.1R
MC PHERSON RCO 122.15
OSWEGO VORTAC 117.6T 122.1R
PARSONS RCO 122.35
RUSSELL RCO 122.6
SALINA RCO 122.4
STROTHER RCO 122.5
TOPEKA RCO 122.45
ULYSSES RCO 122.3
WICHITA RCO 122.2 **122.65**

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.

IOWA

Des Moines FSDO
3753 Convenience Blvd
Ankeny, IA 50021
Telephone: 515–289–3840

KANSAS

Wichita FSDO
1801 Airport Road
Wichita, KS 67209
Telephone: 316–941–1200

MINNESOTA

Minneapolis FSDO
6020 28TH Ave. South, Room 201
Minneapolis, MN 55450
Telephone: 612–713–4211

MISSOURI

Kansas City FSDO
901 Locust, Room 403
Kansas City, MO 64106
Telephone: 816–329–4000

St. Louis FSDO
10801 Pear Tree Lane
St. Ann, MO 63074
Telephone: 314–429–1006

NEBRASKA

Lincoln FSDO
3431 Aviation Rd, Suite 120
Lincoln, NE 68524
Telephone: 402–475–1738

NORTH DAKOTA

Fargo FSDO
4620 Amber Valley Pkwy
Fargo, ND 58104
Telephone: 701 277–1245

SOUTH DAKOTA

Rapid City FSDO
909 St. Joseph Street
Suite 700
Rapid City, SD 57701
Telephone: 605–737–3050

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 flights are normally cleared directly on the airway.

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

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

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

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

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

7. Intersection names are spelled out.

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

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

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

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

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

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

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

14. Use current SIDs and STARSs for flight planning.

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

LOW ALTITUDE

Terminals	Route	Effective Times (UTC)
DES MOINES (DSM)		
Memphis (MEM)	V175 MAW	0000–2359
KANSAS CITY METRO AREA		
Chicago Midway (MDW)	PIA MOTIF–STAR	0000–2359
Chicago O'Hare (ORD)	EXCEL V116 PIA V262 BDF V10 PLANO	
Indianapolis (IND)	EXCEL V116 UIN V50	0000–2359
Louisville (SDF)	ANX V12 COU V44 HODGS V175 VIH V178 FAM V190 PXV V4	0000–2359
	or	
	ANX V159 AUGIE V234 VIH V178 FAM V190 PXV V4	0000–2359
St. Louis (STL)	LAKES–DP COU TRAKE TRAKE–STAR	0000–2359
Terre Haute (HUF)	EXCEL V116 UIN V50	0000–2359
MINNEAPOLIS METRO AREA		
Chicago Midway (MDW)	V2 LNR V171 RFD V128 V8 JOT	0000–2359
Chicago O'Hare (ORD)	V2 V97 KRENA	0000–2359
ST. LOUIS METRO AREA		
Chicago Midway (MDW)	CARDS–DP SPI V9 PNT V69 JOT	0000–2359

Terminals	Route	Effective Times (UTC)
Chicago O'Hare (ORD)	(at or blo 170) CARDS–DP SPI V9 PNT V227 PLANO	0000–2359
Cleveland (CLE)	(non–turbojets) TURBO–DP DEC VHP V14 MIE V210 ROD ABERZ–STAR	
Columbus (CMH)	TOY V12 J134 GBEES CVG V5 JOGER	
Indianapolis (IND)	(Turbojets) GATWY–DP VHP or (Non-turbojets) TURBO–DP DEC VHP	
Kansas City (MCI)	OZARK–DP MCM BQS–STAR	
SPRINGFIELD (SGF)		
Indianapolis (IND)	V190 FAM V72 BIB V12 KELLY or V190 PXV V11	0000–2359 0000–2359
Springfield (SPI)	V63 UIN V50 SPI	0000–2359
Terre Haute (HUF)	V190 PXV V7	0000–2359
WICHITA (ICT)		
Indianapolis (IND)	V12 EMP V234 ENL V72 BIB V12 KELLY	0000–2359
Louisville (IIU)	V350 CNU V132 SGF V190 PXV V4	0000–2359
Terre Haute (HUF)	V12 EMP V234 ENL V72 BIB	0000–2359

HIGH ALTITUDE

Terminals	Route	Effective Times (UTC)
KANSAS CITY (MCI)		
Baltimore (BWI)	LAKES–DP COU STL J24 VHP ROD J152 J162 MGW EMI–STAR	
Chicago O'Hare (ORD)	ROYAL–DP JTHRO IRK BDF BDF–STAR	0000–2359
Cleveland Metro Area (CLE) (CGF) (BKL) (LNN) (LPR)	OBK CRL HIMEZ–STAR	
Dallas/Fort Worth (DFW)	RACER TUL UKW	
Detroit Metro–Wayne (DTW)	MKG POLAR–STAR	
Kennedy (JFK)	LAKES–DP COU STL J24 VHP ROD J29 JHW J70 LVZ LENDY–STAR	
La Guardia (LGA)	ROYAL–DP JTHRO IRK BDF JOT J146 ETG MIP–STAR	
Milwaukee (MKE)	ROYAL–DP JTHRO IRK BDF JOT VEENA–STAR	1100–0400
Newark (EWR)	ROYAL–DP JTHRO IRK BDF JOT J146 GIJ J554 CRL J584 SLT FQM–STAR	
Washington Dulles (IAD)	LAKES–DP COU STL J24 VHP J80 J30 BUCKO JASEN–STAR or LAKES–DP COU STL J24 VHP J80 AIR MGW MGW 121 VERNI ESL ROYIL–STAR or (GPS or DME/DME IRU equipped) or LAKES–DP COU STL J24 VHP J80 AIR MGW VERNI ESL SHNON (RNAV)–STAR	
Washington Natl (DCA)	LAKES–DP COU STL J24 VHP J80 J30 BUCKO BUCKO–STAR or LAKES–DP COU STL J24 VHP J80 J30 SHAAR WZRRD–STAR or LAKES–DP COU STL J24 VHP J80 J30 SHAAR ELDEE (RNAV)–STAR	
LINCOLN (LNK)		
Chicago O'Hare (ORD)	FOD DBQ JVL–STAR	0700–2359
MINNEAPOLIS (MSP)		
Atlanta (ATL)	ZMBRO–DP ODI J30 BRIBE BDF ENL ENL162 PLESS TINGS J45 BNA RMG–STAR or	1100–0400

Terminals	Route	Effective Times (UTC)
	(RNAV only) ZMBRO–DP ODI J30 BRIBE ENL ENL162 PLESS TINGS J45 BNA ERLIN (RNAV)–STAR	1100–0400
Baltimore (BWI)	DLL J34 AIR J162 MGW EMI–STAR	
Chicago Midway (MDW)	DBQ CVA MOTIF–STAR	1100–0400
Chicago O'Hare (ORD)	RST JVL–STAR	0000–2359
Cleveland Metro Area (CLE) (CGF) (BKL) (LNN) (LPR)	COULT–DP DLL J34 GRR HIMEZ–STAR	
Dallas/Fort Worth (DFW)	J21 IRW UKW	
Denver (DEN)	FSD J114 SNY LANDR–STAR	
Detroit Metro Area (PTK), (YIP), (ARB) (DET), (CYQG)	DLL BAE MKG LAN SPRTN–STAR	
Fort Lauderdale (FLL)	ROCHESTER–DP ALO J233 J45 STL J45 BNA J73 SZW J43 PIE FORTL–STAR or (DME/DME–IRU or GPS) MSP ROCHESTER–DP ALO J233 J45 STL J45 BNA J73 SZW JINGL (RNAV)–STAR	
Fort Myers (RSW)	(DME/DME–IRU or GPS) ODI J30 BRIBE BDF ENL ENL162 PLESS J45 BNA J73 SZW TYNEE (RNAV)–STAR	1100–0300
Kansas City (MKC)	FOD RBA–STAR	
Kennedy (JFK)	DLL BAE J70 JHW J70 LVZ LENDY–STAR	0000–2359
La Guardia (LGA)	DLL BAE J34 J146 ETG MIP–STAR	
Madison (MSN)	ODI MSN	0700–2359
Marco Island (MKY)	(DME/DME/IRU or GPS) ODI J30 BRIBE BDF ENL ENL162 PLESS J45 BNA J73 SZW PIKKR (RNAV)–STAR	
Memphis (MEM)	ALO J233 STL J35 FAM GQE–STAR	
Miami (MIA)	ROCHESTER–DP ALO J233 J45 STL J45 BNA J73 SZW J43 PIE CYY–STAR or (/E, /G, /R, /J, /L, /Q) MSP ROCHESTER–DP ALO J233 J45 STL J45 BNA J73 SZW J43 PIE DEEDS (RNAV)–STAR	
Milwaukee (MKE)	ODI MSN V2 WAITS	0700–2359
Myrtle Beach (MYR)	EARND ELANR EMMLY ERECO IIU RYANS	
Naples (APF)	(GPS required) ODI J30 BRIBE BDF ENL ENL162 PLESS J45 BNA J73 SZW PIKKR (RNAV)–STAR	
Nashville (BNA)	ODI J30 BRIBE BDF ENL ENL162 PLESS J45	1100–0400
Newark (EWR)	DLL BAE J34 CRL J584 SLT FQM–STAR	
Oakland (OAK)	ABR J32 MLD J158 MVA ECA	
Orlando (ORL) (MCO)	ODI J30 BRIBE BDF ENL ENL162 PLESS J45 ATL J89 OTK LEESE–STAR or (GPS or DME/DME–IRU equipped) ODI J30 BRIBE BDF ENL ENL162 PLESS J45 ATL J89 OTK PIGLT (RNAV)–STAR	1100–0400 1100–0400
Palm Beach (PBI)	(GPS or DME/DME–IRU equipped) ROCHESTER–DP ALO J233 J45 STL J45 BNA J73 SZW WLACE	
Philadelphia (PHL)	COULT–DP DLL BAE J34 CRL CXR EWC JST BUNTS–STAR	
Phoenix (PHX)	ONL LBF PUB ALS J102 ZUN FOSSL–STAR	
Pottstown (PTW)	COULT–DP DLL BAE J34 CRL CXR EWC JST	
St. Louis (STL)	RST ALO J233 CNOTA RIVRS–STAR	
Salt Lake City (SLC)	ABR J158 DDY J202 OCS OGD	
San Francisco (SFO)	ABR J32 FMG ILA PYE	
Sarasota/Bradenton (SRQ)	ODI J30 BRIBE BDF ENL ENL162 PLESS J45 BNA J73 SZW CLAMP–STAR	1100–0400
Tampa (TPA)	ODI J30 BRIBE BDF ENL ENL162 PLESS J45 BNA J73 SZW DARBS–STAR	1100–0400

Terminals	Route	Effective Times (UTC)
Washington Dulles (DCA)	DLL J34 SHAAR WZRRD–STAR or DLL J34 SHAAR ELDEE (RNAV)–STAR	
Washington Natl (IAD)	DLL J34 AIR MGW MGW121 VERNI ESL ROYIL–STAR or (GPS or DME/DME–IRU equipped) DLL J34 AIR MGW VERNI SHNON (RNAV)–STAR	
West Palm Beach (PBI)	(GPS or DME/DME–IRU equipped) ROCHESTER–DP ALO J233 J45 STL J45 BNA J73 SZW CTY GULLO (RNAV)–STAR or ROCHESTER–DP ALO J233 J45 STL J45 BNA J73 SWZ CTY LLAKE–STAR	1100–0400
OMAHA (OMA)		
Chicago O'Hare (ORD)	FOD DBQ JVL–STAR	0700–2359
ROCHESTER (RST)		
Chicago O'Hare (ORD)	RST JVL–STAR	0000–2359
ST LOUIS (STL)		
Baltimore (BWI)	GATWY–DP IIU J526 BKW J147 CSN OTT–STAR	
Boca Raton (BCT)	(DME/DME/IRU OR GPS) PLESS–DP BNA J73 SZW PRRIE (RNAV)–STAR	
Boston (BOS)	GATWY–DP ROD J29 JHW J82 ALB GDM GDM–STAR	
Chicago Midway (MDW)	CARDS–DP SPI MOTIF–STAR	1200–0400
Chicago O'Hare (ORD)	CARDS–DP BDF BDF–STAR,.	0000–2359
Cleveland Metro Area (CLE) (CGF) (BKL) (LNN) (LPR)	GATWY–DP JIGSY J134 JUDDI CVG ABERZ–STAR or (turbojets) GATWY–DP JIGSY J134 JUDDI CVG ABERZ–STAR	
Columbus (CMH)	GATWY–DP ROD V210 GUNNE	
Dallas/Fort Worth (DFW)	LINDY–DP MAP RZC FSM BYP	
Detroit Metro Area (PTK), (YIP), (ARB) (DET), (CYQG)	GATWY–DP VHP FWA CRUXX–STAR GATWY–DP VHP FWA V96 VWV VWV051 POOFE	
Fort Lauderdale (FLL)	(all others) PLESS–DP BNA J73 SZW J43 PIE FORTL–STAR or (DME/DME/IRU OR GPS) PLESS–DP BNA J73 SZW JINGL (RNAV)–STAR	
Fort Myers (FMY)	(DME/DME/IRU OR GPS TURBOJET) LINDBERGH–DP MAW VUZ J39 MGM J41 SZW TYNEE (RNAV)–STAR	
Houston George Bush Intcntl (IAH)	(Turbojets–GPS or DME/DME–IRU equipped) LINDY–DP LIT J180 SWB TXMEX (RNAV)–STAR or (non–advanced NAV only) LINDY–DP LIT J180 SWB DAS–STAR	
Houston Hobby (HOU)	(GPS or DME/DME–IRU equipped) LINDY–DP LIT J180 SWB ROKIT (RNAV)–STAR or (non–advanced NAV only) LINDY–DP LIT J180 SWB DAS–STAR	
La Guardia (LGA)	GATWY–DP ROD J29 J146 ETG MIP–STAR	
Miami (MIA)	(all others) PLESS–DP BNA J73 SZW J43 PIE CYY–STAR or (DME/DME/IRU OR GPS TURBOJET) PLESS–DP BNA J73 SZW SSCOT (RNAV)–STAR	
Orlando Executive (ORL)	PLESS–DP BNA J73 SZW OTK LEESE–STAR or (GPS or DME/DME–IRU equipped) PLESS BNA J73 SZW OTK PIGLT (RNAV)–STAR	1100–0400

Terminals	Route	Effective Times (UTC)
Orlando Intl (MCO)	(GPS or DME/DME–IRU equipped) PLESS BNA J73 SZW OTK PIGLT (RNAV)–STAR	1000–0400
Tampa (TPA)	LINDY–DP MAW VUZ J41 SZW DARBS–STAR	1100–0400
Washington Dulles (IAD)	BLUES–DP IIU J526 BKW ROYIL–STAR or BLUES–DP IIU J526 BKW SHNON (RNAV)–STAR	
Washington Natl (DCA)	GATWY–DP IIU J526 BKW WZRRD–STAR or GATWY–DP IIU J526 BKW ELDEE (RNAV)–STAR	
West Palm Beach (PBI)	(DME/DME/IRU OR GPS) PLESS–DP BNA J73 SZW WLACE (RNAV)–STAR	

SPECIAL HIGH ALTITUDE DIRECTIONAL ROUTES

Terminals	Route	Effective Times (UTC)
Traffic overflying Kansas City VORTAC (MCI to IAD):		
MCI	J24 IIU J8 HVQ ROYIL–STAR or J24 IIU J8 HVQ SHNON (RNAV)–STAR	
Traffic overflying Lamoni VORTAC (LMN) to IAD:		
LMN	(GPS or DME/DME–IRU equipped) J64 FWA APE AIR MGW VERNI ESL ROYIL–STAR or (GPS or DME/DME–IRU equipped) J64 FWA APE AIR MGW VERNI ESL SHNON (RNAV)–STAR	
Traffic overflying Saint Louis VORTAC (STL) to IAD:		
STL	IIU J8 HVQ ROYIL–STAR or IIU J8 HVQ SHNON (RNAV)–STAR	

Q ROUTES REGULATORY

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

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

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

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

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

Route	Segment	DME
Q23	FORT SMITH–RAZORBACK	OKM, RZC, EOS, TUL
Q24	LAKE CHARLES–BATON ROUGE	AEX, DAS, LCH, MCB, LFT, BTR
	BATON ROUGE–IRUBE	AEX, LEV, MCB, LCH, RQR, HRV, BTR, GCV, MCB, PCU, SJI, LBY
	IRUBE–PAYTN	GCV, MCB, JYU, PCU, MEI, HRV, CEW, SJI
Q25	MEEOW–WALNUT RIDGE	ELD, MEM, LIT, FAM, RZC
	WALNUT RIDGE–WLSUN	MEM, STL, BWG, PXV, ENL, FAM, ARG, BNA, CSX, TTH
	WLSUN–POCKET CITY	BWG, PXV, ENL, BNA, TTH
Q26	WALNUT RIDGE–DEVAC	LIT, JKS,GQO, MEM, BNA, FAM, ARG, DYR, VUZ, RMG
Q27	FORT SMITH–ZALDA	OKM, SGF, RZC, EOS, TUL
Q28	GRAZN–PYRMD	EIC, LIT, ELD, OKM, TXK
	PYRMD–HAKAT	ARG, LIT, FAM, ELD, SGF, RZC, MEM, TXK
	HAKAT–ESTEE	ARG, LIT, FAM, SGF, MEM
	ESTEE–POCKET CITY	ARG, CSX, FAM, PXV, ENL, MEM, STL, BWG, TTH, BNA
Q29	HARES–MEMPHIS	MEM, ARG, LIT, JAN, ELD, SQS
	MEMPHIS–SIDAE	MEM, PXV, BNA, BWG, ARG, ENL
	SIDAE–POCKET CITY	PXV, TTH, BWG, ENL
Q30	SIDON–VULCAN	GLH, MEM, VUZ, JAN, JYU, MEI, MGM, SQS, RMG
Q31	DHART–JODOX	SQS, LIT, TXK
	JODOX–MARVELL	SQS, LIT, ELD, MEM, ARG
	MARVELL–TIIDE	ARG, BWG, PXV, FAM, LIT, MEM, ENL, TTH
	TIIDE–POCKET CITY	BWG, PXV, ENL, TTH
Q32	EL DORADO–GAGLE	AEX, JAN, MEM, SQS, SWB, ELD, LIT, TXK
	GAGLE–CRAMM	JAN, SQS, MEM, ARG, VUZ, BNA, LIT
	CRAMM–NASHVILLE	BWG, MEM, VUZ, BNA, GQO
	NASHVILLE–SWAPP	BWG, IIU, PXV, VXV, BNA, GQO
Q33	DHART-LITTLE ROCK	AEX, ELD, LIT, TXK, SWB, ARG, MEM, SQS
	LITTLE ROCK–PROWL	ELD, SGF, FAM, LIT, ARG, MEM, RZC, CSX, STL
Q34	TEXARKANA–MATIE	LIT, SWB, TXK, BYP, EIC, ELD, SQS
	MATIE–MEMPHIS	LIT, ARG, MEM, ELD, SQS
	MEMPHIS–SWAPP	BWG, ARG, MEM, MKL, SQS,PXV, BNA, GQO, IIU, VXV
Q35	KIMBERLY–NEERO	LTJ, PDT, DSD, IMB, LKV, BOI, REO, BAM, SDO
	NEERO–WINEN	BQU, SDO, BAM, REO, BVL, ILC, DTA, ELY, CDC, MLF, BCE
	WINEN–CORKR	CDC, BCE, BLD, ILC, MLF, TBC, PGS, INW, DRK
	CORKR–DRAKE	TBC, BCE, BLD, DRK, PGS, FLG, GCN, INW, TFD
Q36	RAZORBACK–TWITS	RZC, MEM, SGF, BUM, TUL, EOS, FAM, ARG, LIT
	TWITS–DEPEC	MEM, GQO, BNA, BWG, FAM, ARG, PXV, IIU
	DEPEC–NASHVILLE	GQO, BWG, BNA, PXV, IIU
	NASHVILLE–SWAPP	VXV, BWG, BNA, GQO, PXV, IIU
Q38	ROKIT–INCIN	DAS, LCH, SWB, IAH, LFK, HUB, AEX
	INCIN–LAREY	JAN, MCB, SWB, AEX
	LAREY–BESOM	JAN, JYU, MEI, SQS, VUZ
Q40	ALEXANDRIA–DOOMS	AEX, SWB, LCH, JAN, HEZ, MCB
	DOOMS–WINAP	JAN, SQS, MEI, MCB
	WINAP–MISLE	MEI, VUZ, JYU
Q42	KIRKSVILLE–STRUK	CID, IOW, UIN, LMN, IRK, BDF, STL, DEC, ENL, CSX
	STRUK–DANVILLE	ENL, IOW, UIN, BDF, DEC, STL, CSX, SPI, TTH, BVT, JOT, VHP, OXI, ENL, OKK, OBK, GIJ, FWA, GSH, IRK
	DANVILLE–MUNCIE	GIJ, SPI, BDF, OBK, OKK, VHP, BVT, DEC, GSH, FWA, JOT, TTH, OXI, ROD, FLM
	MUNCIE–HIDON	FLM, VHP, GSH, TTH, GIJ, OKK, FWA, ROD, OXI, CRL, GSH, APE, DJB, DXO, HNN, AIR, HVQ, CXR, EWC
	HIDON–BUBAA	AIR, APE, HNN, CXR, HVQ, EWC, DJB
	BUBAA–PSYKO	AIR, APE, DJB, CXR, HNN, EWC, SLT, CSN, JHW, ETG, PSB
	PSYKO–BRNAN	PSB, JHW, EWC, AIR, ETG, CSN, EMI, SLT
	BRNAN–MAALS	EMI, SLT, CSN, EWC, PSB, ETG, SAX, RBV, HNK, HUO, SIE
	MAALS–SUZIE	ETG, EMI, CSN, HUO, SIE, JFK, PSB, SLT, HNK
	SUZIE–EAST TEXAS	JFK, EMI, PSB, SLT, HNK, SIE, RBV, SAX, HUO, CYN
	EAST TEXAS–ELIOT	HUO, RBV, EMI, CYN, SAX, JFK, PSB, HNK
Q104	DEFUN–HEVVN	PIE, PZD, CRG, SZW, TAY, JYU, CEW, MGM, OTK, CRG
	HEVVN–PLYER	PIE, ORL, OMN, SRQ, TAY, LAL, CRG, SZW, PZD
	PLYER–SWABE	PIE, ORL, OMN, SRQ, TAY
	SWABE–ST PETERSBURG	LAL, ORL, OMN, SRQ, PHK, PIE
	ST PETERSBURG–CYPRESS	PHK, PBI, SRQ, PIE, VRB, ORL, FLL, LAL, OMN

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

RNAV Routing Pitch and Catch Points

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

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

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

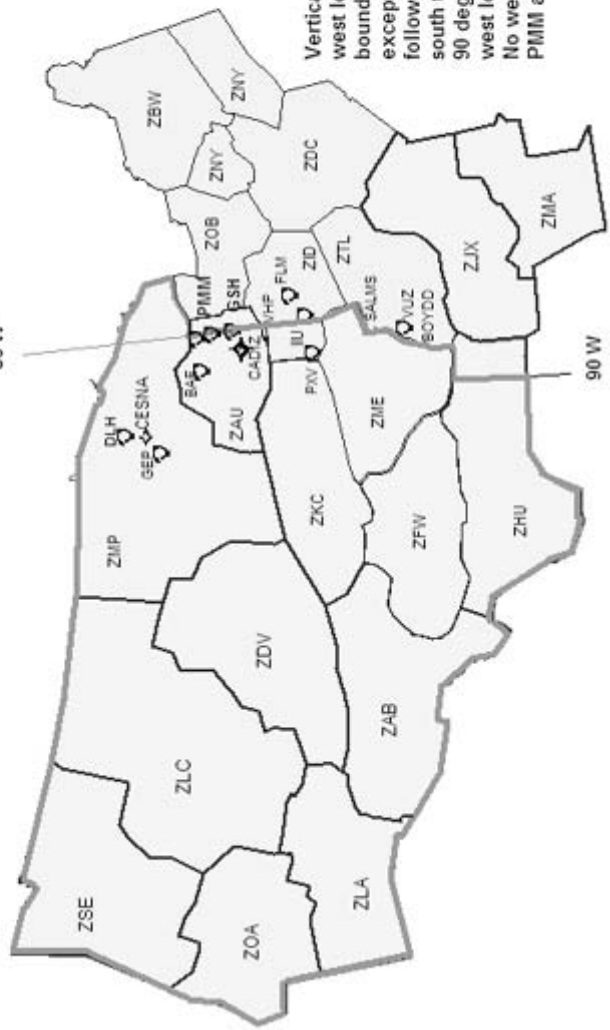
Where pitch points for a specific airport are not identified, aircraft should file an appropriate departure procedure (DP), or any other user preferred routing prior to the NRR portion of their routing. Where catch points for a specific airport are not identified aircraft should file, after the NRR portion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

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

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

High Altitude Redesign (HAR) Phase One Expansion Airspace

Except as noted, flights entering HAR expansion airspace may pitch at the airspace boundary, at the vertical pitch line, or at the fixes listed on the following page.



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 Oakland San Jose	GALLI, INSLO, HAROL JSICA GALLI, INSLO, HAROL JSICA GALLI or INSLO
Seattle	BLUIT
Southwest Florida Airports (RSW/FMY)	JOCKS KPASA Q118 LENIE or JOCKS KPASA Q116 CEEYA or JOCKS KPASA Q110 FEONA or JOCKS SMELZ Q106 GADAY or JOCKS SMELZ Q106 BULZI
Tampa Terminal Area	FEONA, BULZI or BRUTS Q118 LENIE or GULFR Q116 CEEYA or BULZI Q106 GADAY

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

Catch Points for Airports Located Outside HAR Phase I Expansion Airspace

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

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

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

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

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

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

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

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

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

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

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

VISUAL FLIGHT RULES (VFR) WAYPOINTS

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

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

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

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

BALTIMORE–WASHINGTON TERMINAL AREA CHART/FLYWAY CHART

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

BOSTON HELICOPTER CHART

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

BOSTON TERMINAL AREA CHART

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

CHARLOTTE SECTIONAL CHART

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

CHICAGO SECTIONAL CHART

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

DENVER TERMINAL AREA CHART/FLYWAY CHART

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

HOUSTON TERMINAL AREA CHART/FLYWAY CHART

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

JACKSONVILLE SECTIONAL CHART

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

KANSAS CITY SECTIONAL CHART

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

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

KANSAS CITY TERMINAL AREA CHART

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

KLAMATH FALLS SECTIONAL CHART

VPORO	_____	N43°57.38′/W123°02.22′

LOS ANGELES HELICOPTER CHART

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

LOS ANGELES SECTIONAL CHART

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

LOS ANGELES TERMINAL AREA CHART/FLYWAY CHART

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

MIAMI SECTIONAL CHART

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

MIAMI TERMINAL AREA CHART/FLYWAY CHART

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

NEW ORLEANS SECTIONAL CHART

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

NEW YORK HELICOPTER CHART

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

PHOENIX TERMINAL AREA CHART/FLYWAY CHART

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

ST LOUIS TERMINAL AREA CHART/FLYWAY CHART

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

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

SALT LAKE CITY HELICOPTER CHART

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

SALT LAKE CITY TERMINAL AREA CHART/FLYWAY CHART

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

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

SAN DIEGO TERMINAL AREA CHART/FLYWAY CHART

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

SAN FRANCISCO SECTIONAL CHART

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

SAN FRANCISCO TERMINAL AREA CHART/FLYWAY CHART

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

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

TAMPA/ORLANDO TERMINAL AREA CHART/FLYWAY CHART

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

WASHINGTON SECTIONAL CHART

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

VOR RECEIVER CHECKPOINTS AND VOR TEST FACILITIES (VOT)

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

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

IOWA

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
Burlington (Southeast Iowa Rgnl)	111.4/BRL	A/2500	288	9.6	Over intersection of Rwys 18–36 and 12–30.
Cedar Rapids (The Eastern Iowa)	114.1/CID	G	086	3.9	On runup pad Rwy 27.
	114.1/CID	G	087	2.6	On runup pad Rwy 09.
	114.1/CID	G	092	4	On runup pad Rwy 31.
Dubuque (Dubuque Rgnl)	115.8/DBQ	G	109	0.5	Apch end Rwy 31.
Fort Dodge (Fort Dodge Rgnl)	113.5/FOD	G	118	6.1	On W edge of terminal ramp.
Iowa City (Iowa City Municipal)	116.2/IOW	A/2000	019	8	Over rotg beacon.
Newton (Newton Muni)	112.5/TNU	A/2500	145	8	Over apch end Rwy 32.
Ottumwa (Ottumwa Rgnl)	111.6/OTM	A/2500	303	7.3	Over intersection of Rwys 13–31 and 04–22.
Sheldon (Sheldon Muni)	108.6/DDL	A/2700	098	8.0	Over grain elevator in city of Sanborn.
Spencer (Spencer Muni)	110.0/SPW	G	316	0.7	On painted circle on twy AER 12.
Waterloo (Waterloo Muni)	112.2/ALO	G	304	0.8	Twy B apch end Rwy 12.

VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
Davenport Muni	111.8	G	
Des Moines Intl	109.2	G	

KANSAS

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
Chanute (Chanute Martin Johnson)	109.2/CNU	A/2000	058	5.6	Over center of N/S rwy.
Emporia (Emporia Muni)	112.8/EMP	A/2700	320	9.0	Over intersection of Hwy 50 and I–35.
Fort Riley (Marshall AAF)	109.4/FRI	G	032	6.8	On parking ramp adjacent to radar antenna.

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Garden City (Garden City Rgnl)	113.3/GCK	G	359	1.0	Intersection of Twys A and D.
Goodland (Renner Fld/Goodland Muni)	115.1/GLD	G	201	1.2	On parking ramp in front of air terminal.
Hays	110.4/HYS	A/3000	071	12.2	Over grain elevator in Gorham.
Hill City (Hill City Muni)	113.7/HLC	A/4200	060	19.6	Over rotg bcn.
Hutchinson (Hutchinson Rgnl)	116.8/HUT	A/3500	033	5	Over apch end Rwy 04.
Manhattan	110.2/MHK	A/2500	054	3.9	Over water twr.
Manhattan (Manhattan Rgnl)	110.2/MHK	G	197	0.6	0.6 NM parallel twy at B intersection.
	110.2/MHK	G	201	0.9	Twy at Rwy 3 holdline.
Salina (Salina Muni)	117.1/SLN	G	180	7.8	On twy north of Twy E.
Topeka (Philip Billard Muni)	117.8/TOP	G	215	5.6	East side of terminal ramp.
Wichita (Wichita Mid–Continent)	113.8/ICT	A/3500	216	7.1	Over grain elevator. SW corner of Garden Plains.

VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
Topeka (Forbes Fld)	111.0	G	
Wichita (Wichita Mid-Continent)	114.0	G	

MINNESOTA

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
Albert Lea (Albert Lea Muni)	109.8/AEL	G	140	.5	Apch end Rwy 34.
Alexandria (Chandler Fld)	112.8/AXN	A/2600	224	8.3	Over apch end Rwy 22.
Baudette (Baudette Intl)	111.6/BDE	A/2000	277	13.8	Over grain elevator Williams, MN.
Baudette (Baudette Intl)	111.6/BDE	G	310	.8	Rwy 12 runup pad.
Detroit Lakes (Detroit Lakes–Wething Fld)	111.2/DTL	A/3000	132	19	Over grain elevator in Perham Mn.
Duluth (Duluth Intl)	112.6/DLH	G	012	2.2	Intersection of Taxiways C and D near Rwy 03 thld.
Ely (Ely Muni)	109.6/ELO	A/2500	266	17.1	Over water tower in 'TOWER MN'.
Fergus Falls	110.4/FFM	A/2500	126	7.5	Over underpass intersection of 2 hwys.
Flying Cloud	117.7/FCM	A/2000	278	6.0	Over Chaska water tower.
Gopher (Crystal)	117.3/GEP	A/1900	166	4.9	Over apch end Rwy 14L.
International Falls	111.0/INL	A/2200	135	11.0	Over highway bridge over railroad track.
International Falls (Falls Intl)	111.0/INL	G	113	0.6	On taxiway apch end Rwy 31.
Mankato (Mankato Rgnl)	110.8/MKT	G	317	.9	Twy A4 AER 15.
Marshall	111.0/MML	A/2700	308	9.6	Over grain elevator at Minneota.
Montevideo (Montevideo–Chippewa Co)	111.6/MVE	A/2000	105	11.1	Over grain elevator straddling train tracks.

Facility Name (Arpt Name)	Freq/Ident	Type Check Pt. Gnd. AB/ALT	Azimuth from Fac. Mag	Dist. from Fac. N.M.	Checkpoint Description
Park Rapids (Park Rapids Muni)	110.6/PKD	G	322	.6	On twy AER 13.
Rochester (Rochester Intl)	112.0/RST	A/3000	024	8.8	Over intersection of Rwys 02–20 and 13–31.
Roseau	108.8/ROX	A/2400	178	6.5	Over microwave twr.
Saint Cloud (St Cloud Rgnl)	112.1/STC	G	291	0.5	Runup area AER 13.
Worthington	110.6/OTG	A/2800	050	5.6	Over grain elevator Brewster.

VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
Minneapolis (Minneapolis St. Paul Intl/Wold Chamberlain)	111.0	G	Usable airborne 2500–4000′ MSL within a 15 NM radius of VOT.
St Paul (St Paul Downtown Holman Fld)	114.4	G	

MISSOURI

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
Butler	115.9/BUM	A/1800	035	9.2	Grain elevator. VOR Checkpoint unusable.
Cape Girardeau (Cape Girardeau Rgnl)	112.9/CGI	G	112	.6	On Twy C1 N of Twy C.
Forney (Waynesville–St Robert Rgnl Forney Fld)	110.0/TBN	G	173	0.53	On N edge of Army ramp.
Kirksville	114.6/IRK	A/2500	136	7.4	Over water tank at La Plata. Checkpoint unusable.
Kirksville (Kirksville Rgnl)	114.6/IRK	G	132	3.4	On twy just W of terminal area.
Malden	111.2/MAW	A/1500	351	13.4	Over intersection of Rwys 18–36 and 04–22 of Dexter Muni Arpt.
Neosho (Joplin Muni)	117.3/EOS	A/2500	344	19	Over apch end Rwy 31.
Saint Joseph (Rosecrans Mem)	115.5/STJ	A/2500	167	10.7	Over apch end Rwy 17.
Springfield (Springfield–Branson Natl)	116.9/SGF	G	193	6.8	At E end of Twy B.
Sunshine (Lee C Fine Mem)	108.4/SHY	A/2500	353	9	Highway bridge over Osage River.

VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
Jefferson City (Jefferson City Mem)	112.0	G	
Kansas City (Downtown)	108.6	G	
St. Louis (Lambert–St Louis Intl)	111.0	G	
Spirit of St. Louis	112.2	G	

NEBRASKA

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
Ainsworth	112.7/ANW	A/3600	090	13.0	Over grain elevator south edge at Long Pine.
Alliance	111.8/AIA	A/5000	310	12.1	Over grain elevator 1 NM SE of Berea.
Beatrice	110.6/BIE	A/2400	046	6.1	Over 260′ AGL antenna.
Chadron (Chadron Muni)	113.4/CDR	A/4500	017	19	Over intersection of Rwy 20 and 29.
Columbus	112.2/OLU	A/2500	082	12.7	Over bridge/railroad tracks at center of Schuyler.
Columbus (Columbus Muni)	112.2/OLU	G	167	0.5	On twy at apch end Rwy 32.
Grand Island (Central Nebraska Rgnl)	112.0/GRI	G	177	1.5	On parallel twy at AER 35.
Hastings	108.8/HSI	A/3200	266	8.1	Bridge over railroad.
Hastings (Hasting Muni)	108.8/HSI	G	330		Apch end Rwy 14.
Kearney (Kearney Muni)	111.2/EAR	G	211	0.5	South end of main ramp.
		G	319	0.5	North end of main ramp.
Lincoln (Lincoln)	116.1/LNK	G	176	4.9	On runup ramp for Rwy 35.
Norfolk	109.6/OFK	A/2600	098	10.0	Bridge over river south at Stanton.
Norfolk (Karl Stefan Mem)	109.6/OFK	G	144	0.5	On runup pad for Rwy 31.
North Platte (North Platte Rgnl Airport Lee Bird Field)	117.4/LBF	G	013	5.5	On S edge of ramp 200′ N of Twy B.
O'Neill	113.9/ONL	A/3000	119	13	Over triangle in road intersection.
Omaha (Eppley Airfield)	116.3/OVR	A/2500	310	10.2	Over apch end Rwy 32L.
Scottsbluff (William B. Heilig Fld)	112.6/BFF	G	240	5.1	On NE edge ramp opposite terminal bldg & W of twy to Rwy 30.
Searle (Searle Field)	110.2/SAE	A/4800	030	7.2	Over flood-ctl spillway SE end of Lake McConaughy.
Thedford (Thomas Co)	108.6/TDD	A/4000	090		Over apch end Rwy 11.

VOR TEST FACILITIES (VOT)

Facility Name (Airport Name)	Freq.	Type VOT Facility	Remarks
Omaha (Eppley Airfield)	109.0	G	

NORTH DAKOTA

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
Bismarck (Bismarck Muni)	116.5/BIS	G	262	3.0	On Twy C5.
Dickinson (Dickinson–Theodore Roosevelt Rgnl)	112.9/DIK	G	182	3.7	Twy B near ramp.
Fargo (Hector Intl)	116.2/FAR	A/2000	360	9.4	Over apch end Rwy 36.
Grand Forks (Grand Forks Intl)	114.3/GFK	G	157	1.0	On twy A5.
Jamestown (Jamestown Rgnl)	114.5/JMS	G	141	0.6	On twy strip adjacent to Rwy 31.
Minot	117.1/MOT	A/2800	091	6.5	Over railroad and highway overpass.

SOUTH DAKOTA

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
Brookings	108.8/BKX	A/3000	072	7.5	Over grain elevator.
Mitchell (Mitchell Muni)	109.2/MHE	A/2500	238	11.0	Over intersection of highways ½ NM south of town of Mt. Vernon.
	109.2/MHE	G	194	0.5	On main ramp.
Phillip	108.4/PHP	A/3300	156	4.7	Over radio twr.
Pierre (Pierre Rgnl)	112.5/PIR	G	251	5.5	On twy in front of terminal building. VOR Checkpoint unusable.
Rapid City (Rapid City Rgnl)	112.3/RAP	G	320	4.5	On ramp in front of administration building adjacent to center twy.
Sioux Falls	115.0/FSD	A/2500	009	6.9	Over water twr in Baltic S.D.
Sioux Falls (Joe Foss Field)	115.0/FSD	G	143	4.3	At intersection of E/W twy and east ramp.
Watertown (Watertown Muni)	116.6/ATY	G	184	3.8	On SE corner of terminal ramp.
Winner	112.8/ISD	A/3100	204	8.6	Over blue water tank S edge of town.

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
	IOWA		
(c) **Boone Muni Arpt**	37 NM; 293° Newton	15,000	6 NM radius. Continuous.
(c) **Cherokee Co Rgnl**	30 NM; 206° Spencer	12,500	5 NM radius. Summer continuous, winter weekends and holidays SR–SS
(c) **Dallas Center, Husband Field**	25 NM; 305° Des Moines	12,800	3 NM radius. Weekends and holidays
Davenport	13 NM; 258° Davenport	12,500	2 NM radius. Daily
Decorah Arpt	15 NM; 264° Waukon	7,000 AGL	Summer. Tue–Thu 1700–SS, Sat–Sun 1000–SS. Winter. 1000–SS Sat, Sun.
Fairfield Muni Arpt	16 NM; 079° Ottumwa	12,500	5 NM radius. Sat, Sun and holidays SR–SS.
Marion Arpt	14 NM; 047° Cedar Rapids	15,000 AGL	3 NM radius. Continuous.
(c) **New Hampton Muni Arpt**	32 NM; 359° Waterloo	15,000 AGL	1 NM radius. Daily.
(c) **Northwood Muni Arpt**	22 NM; 010° Mason City	11,500	5 NM radius. Apr–Oct, Sat–Sun SR–SS.
Perry Muni	33 NM; 310° Des Moines	12,500	3 NM radius. Weekends and holidays
Sioux City	13 NM; 285° Sioux City	10,000	0.5 NM radius. 0800–2000 daily
(c) **Vinton Veterans Mem Airpark Arpt**	24 NM; 330° Cedar Rapids	15,000	5 NM radious. Continuous.
(c) **Waterloo, Flyers Arpt**	10 NM; 140° Waterloo	12,000	3 NM radius. Summer continuous, winter weekends and holidays SR–SS.
(c) **Winterset–Madison Co Arpt**	17 NM; 248° Des Moines	14,000	5 NM radius. SR–SS daily.
	KANSAS		
Atchison, Amelia Earhart Arpt	26.2 NM; 199° St Joseph	12,500	5 NM radius. Continuous.
(c) **Baldwin City, Vinland Valley Aerodrome Arpt**	24 NM; 130° Topeka	13,000	5 NM radius. Sat–Sun Continuous.
(c) Derby, Cook Airfield Inc.	23 NM; 110° Wichita	13,500	5 NM radius. Daily.
(c) **Junction City, Ft. Riley, Marshall AAF**	6.3 NM; 034° Ft. Riley	10,000	1 NM radius. Daily SR–SS
(c) **Kingman, Kingman Arpt–Clyde Cessna Fld**	22 NM; 195° Hutchinson	15,000	1 NM radius. Fri, Sat, Sun and holidays, SR–SS.
(c) **Lyons–Rice Co Muni Arpt**	24.7 NM; 317° Hutchinson	14,000	5 NM radius. Continuous.
Osage Muni	26 NM; 030° Emporia	12,000	2 NM radius. Sat–Sun, SR–SS.
St Francis, Cheyenne County Muni	22.9 NM; 336° Goodland	16,000	3 NM radius Continuous.
Salina	20 NM; 247° Salina	2,700	0.3 NM radius. Occasional use
(c) **Suppesville**	18 NM; 200° Wichita	15,000	5 NM radius. Sat–Sun and holidays, SR–SS.
(c) **Topeka, Mesa Verde Arpt**	9 NM; 267° Topeka	13,000 AGL	2 NM radius weekdays 1600–SS weekdays SR–SS weekends and holidays.
(c) **Wamego Muni Arpt**	19.4 NM; 075° Manhattan	11,000	5 NM radius. Continuous.
Wichita, Maize Arpt	7 NM; 070° Wichita	11,500	1 NM radius. Continuous.
(c) Wichita, Sauerman Field	14NM; 253° Wichita	13,000	5 NM radius. Continuous.

LOCATION	DISTANCE AND RADIAL FROM NEAREST VOR/VORTAC	MAXIMUM ALTITUDE	REMARKS
	MINNESOTA		
Duluth	5 NM; 120° Duluth	10,000	Jun–Aug, Fridays 1800–2030
(c) Hutchinson Muni—Butler Fld Arpt	14 NM; 160° Darwin	13,000	5 NM radius. 0800–2359 daily.
Waseca Muni	11 NM; 223° Halfway	15,000	5 NM radius. Continuous.
	MISSOURI		
(c) **Butler Mem Arpt**	7 NM; 074° Butler	13,000	5 NM radius. Sat–Mon 0500–2200.
(c) **Charleston, Mississippi Co Arpt**	25 NM; 150° Cape Girardeau	13,000	2 NM radius SR–SS weekends and holidays.
(c) **Elton Hensley Mem Arpt**	10 NM; 078° Columbia	12,000	5 NM radius. Daily 0700–1900.
(c) **Kimberling Airways Arpt**	22 NM; 323° Harrison	10,000	2 NM radius. SR–SS Mon–Sat.
(c) **Lexington Muni Arpt**	13 NM; 048° Napoleon	12,500 AGL	SR–SS Sat, Sun, holidays & weekday evenings.
(c) **Mt Vernon Muni Arpt**	31.5 NM; 235° Springfield	15,000	2 NM radius. Daily SR–SS. **Springfield–Branson Natl Twr 124.95**
Neosho	28.7 NM; 337° Neosho	10,000	
(c) **Sullivan Rgnl Arpt**	26 NM; 073° Vichy	15,000	5 NM radius. SR–SS weekends. Occasional ngt and weekdays.
	NEBRASKA		
(c) **Blair Muni Arpt**	23 NM; 310° Omaha	14,000	2 NM radius. Sat–Sun SR–SS. **Omaha App/Dep Con 120.1**
(c) **Crete Muni Arpt**	22 NM; 195° Lincoln	14,500	2 NM radius. Continuous. **Lincoln App/Dep Con 124.0** (1130–0600Z‡) **Mineappolis Center 128.75** (0600–1130Z‡)
Mc Cook Rgnl Arpt	2 NM; 363°Mc Cook	10,500	2 NM radius Mon–Fri 1600–SS and Sat–Sun 0800–SS.
(c) **Weeping Water, Browns Arpt**	27 NM; 090°Lincoln	14,000	3 NM radius. Apr–Oct, SR–30 min after SS, daily; Oct–Apr, SR–30 min after SS, weekends and Federal holidays.
	NORTH DAKOTA		
(c) **West Fargo Muni Arpt.**	9 NM; 335° Fargo	13,500	1 NM radius. SR–SS Weekends. Occasional nights and weekdays.

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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.

CG-19 WORLD AERONAUTICAL CHART
39th Edition, 4 Jun 2009

OBSTRUCTIONS
2 Jul 2009 – 8 Apr 2010 No Major Changes.

AIRPORTS
2 Jul 2009 Add arpt elev 1071, lighting code *L, runway length 71 and unicom at GLENDALE arpt, 33°31′36″N, 112°17′42″W.
27 Aug 2009 – 8 Apr 2010 No Major Changes.

NAVAIDs
2 Jul 2009 – 8 Apr 2010 No Major Changes.

AIRSPACE
2 Jul 2009 – 8 Apr 2010 No Major Changes.

SPECIAL USE AIRSPACE
2 Jul 2009 – 8 Apr 2010 No Major Changes.

MILITARY TRAINING ROUTES
2 Jul 2009 – 8 Apr 2010 No Major Changes.

MISCELLANEOUS
2 Jul 2009 – 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.

CHICAGO SECTIONAL
79th Edition, 22 Oct 2009

OBSTRUCTIONS
22 Oct 2009 No Major Changes.
17 Dec 2009 Add obst 1055′MSL(268′AGL)UC, 40°39′52″N, 90°44′58″W.
Add obst 1047′MSL(240′AGL)UC, 40°02′51″N, 86°49′03″W.
Add obst 1270′MSL (600′AGL)UC, 41°38′06″N, 87°02′59″W.
Add obst 955′MSL(255′AGL)UC, 41°19′16″N, 87°12′38″W.
Add obst 875′MSL(215′AGL)UC, 41°30′57″N, 87°59′55″W.
Add obst 1087′MSL(260′AGL)UC, 43°58′08″N, 89°14′37″W.
Add obst 901′MSL (268′AGL)UC, 40°48′02″N, 90°10′30″W.
Add obst 984′MSL(250′AGL)UC, 41°01′59″N, 89°13′51″W.
Add obst 773′MSL(260′AGL)UC, 40°48′28″N, 89°34′47″W.
Add obst 1078′MSL(300′AGL)UC, 41°18′40″N, 90°10′40″W.
Add obst 1017′MSL(260′AGL)UC, 40°53′36″N, 89°02′03″W.
Add obst 998′MSL(258′AGL)UC, 40°13′17″N, 88°57′55″W.
Add obst 1200′MSL(450′AGL)UC, 40°37′48″N, 88°46′53″W.
Add obst 795′MSL(298′AGL)UC, 40°13′44″N, 90°45′34″W.
Add obst 974′MSL(228′AGL)UC, 40°52′58″N, 89°07′42″W.
Add obst 1428′MSL(280′AGL)UC, 44°15′56″N, 89°25′00″W.
Add obst 1295′MSL(299′AGL)UC, 40°17′18″N, 85°00′34″W.
Add obst 1054′MSL(310′AGL)UC, 40°12′26″N, 87°05′29″W.
Add obst 1119′MSL(260′AGL)UC, 40°56′34″N, 85°39′55″W.
Add obst 1220′MSL(330′AGL)UC, 41°15′05″N, 85°38′22″W.
Add obst 1017′MSL(325′AGL)UC, 41°15′57″N, 86°44′10″W.
Add obst 945′MSL(250′AGL)UC, 41°04′17″N, 86°46′20″W.
Add obst 1105′MSL(260′AGL)UC, 40°39′20″N, 85°09′16″W.
Add obst 1509′MSL(349′AGL)UC, 44°03′59″N, 92°01′14″W.
Add obst 1680′MSL(350′AGL)UC, 43°39′34″N, 92°17′59″W.
Add obst 1650′MSL(350′AGL)UC, 43°34′13″N, 91°36′42″W.
Add obst 1599′MSL (349′AGL)UC, 43°55′34″N, 91°26′10″W.
Add obst 1526′MSL(350′AGL)UC, 43°40′08″N, 91°24′15″W.
Add obst 1508′MSL(350′AGL)UC, 43°33′02″N, 91°21′41″W.
Add obst 1559′MSL(349′AGL)UC, 44°06′11″N, 91°51′18″W.
Add obst 1598′MSL(350′AGL)UC, 43°52′58″N, 92°00′11″W.
Add obst 1570′MSL(350′AGL)UC, 43°48′39″N, 91°38′41″W.
Add windmill farm. 1142′UC is highest MSL, 40°38′31″N, 86°58′09″W.
Add windmill farm. 1111′UC is highest MSL, 41°06′48″N, 88°39′20″W.
Add windmill farm. 1230′UC is highest MSL, 40°41′52″N, 87°15′19″W.
Add windmill farm. 1163′UC is highest MSL, 40°56′36″N, 88°24′22″W.
11 Feb 2010 Add obst 1410′MSL (630′AGL)UC, 40°03′14″N, 85°59′22″W.
Add obst 993′MSL (285′AGL)UC, 40°46′21″N, 86°29′33″W.
Add obst 1324′MSL (276′AGL)UC, 41°41′02″N, 84°54′15″W.
Add obst 837′MSL (235′AGL)UC, 41°28′55″N, 88°01′32″W.
Add obst 1049′MSL (256′AGL)UC, 41°05′37″N, 90°26′52″W.
Add obst 784′MSL (260′AGL), 40°18′17″N, 89°39′46″W.
Add obst 844′MSL (268′AGL), 40°18′18″N, 90°11′32″W.
Add obst 2589′MSL (2000′AGL)UC, 41°53′24″N, 87°36′54″W.
Add obst 939′MSL (213′AGL)UC, 40°19′20″N, 88°59′07″W.
Add obst 1399′MSL (320′AGL)UC, 43°45′01″N, 90°15′33″W.
Add obst 1227′MSL (310′AGL)UC, 43°56′20″N, 87°54′38″W.
Add obst 1003′MSL (258′AGL)UC, 40°12′40″N, 88°44′43″W.
Add obst 1156′MSL (300′AGL)UC, 41°49′10″N, 91°44′59″W.
Add obst 937′MSL (258′AGL)UC, 40°13′52″N, 90°59′17″W.
Add obst 959′MSL (258′AGL)UC, 40°55′56″N, 90°00′46″W.
Add obst 893′MSL (258′AGL)UC, 40°19′55″N, 89°19′14″W.
Add obst 969′MSL (258′AGL)UC, 40°18′41″N, 88°20′24″W.
Add obst 916′MSL (255′AGL)UC, 40°37′06″N, 87°41′28″W.
Add obst 1023′MSL (266′AGL)UC, 40°25′00″N, 87°57′08″W.
Add obst 902′MSL (265′AGL)UC, 40°52′57″N, 87°44′23″W.
8 Apr 2010 Add obst 1164′MSL (400′AGL)UC, 40°10′06″N, 89°05′56″W.
Add obst 1015′MSL (310′AGL)UC, 40°27′04″N, 87°13′40″W.
Add obst 899′MSL (260′AGL)UC, 40°17′03″N, 91°35′12″W.
Add obst 903′MSL (258′AGL) 40°17′26″N, 90°54′33″W.
Add obst 998′MSL (258′AGL), 40°37′59″N, 90°09′07″W.
Add obst 900′MSL (250′AGL), 40°06′39″N, 90°33′35″W.
Add obst 1053′MSL (258′AGL), 41°19′19″N, 90°29′29″W.
Add obst 1370′MSL (500′AGL)UC, 41°25′24″N, 84°51′36″W.
Add obst 1425′MSL (270′AGL)UC, 44°10′54″N, 89°22′36″W.
Add obst 1587′MSL (262′AGL)UC, 43°17′16″N, 92°25′42″W.
Add obst 930′MSL (260′AGL), 41°22′16″N, 89°29′02″W.
Add obst 1774′MSL (398′AGL)UC, 43°24′22″N, 92°29′54″W.

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AIRPORTS
22 Oct 2009 No Major Changes.
17 Dec 2009 Add CTAF 122.9 at FLYING FEATHERS arpt, 44°03′40″N, 88°11′42″W.
Delete KUNTZ arpt, 40°43′23″N, 88°52′00″W.
Delete MURKS arpt, 40°44′20″N, 90°22′50″W.
11 Feb 2010 Add CTAF 122.9 at DYERSVILLE arpt, 42°29′46″N, 91°10′47″W.
Add RP 29 to DYERSVILLE arpt, 42°29′46″N, 91°10′47″W.
8 Apr 2010 Delete BUSBOOM arpt, 40°18′40″N, 88°00′55″W.
Delete WALDERS arpt, 41°39′11″N, 89°00′05″W.
Delete abandoned arpt symbol, 42°22′30″N, 88°19′30″W.

NAVAIDs
22 Oct 2009 No Major Changes.
17 Dec 2009 Shutdown KETTLE MORAINE NDB, 43°25′30″N, 88°07′38″W.
11 Feb 2010 Delete BELLE PLAINE NDB, 41°53′08″N, 92°16′59″W.
8 Apr 2010 Delete GARRISON NDB, 42°13′18″N, 92°01′13″W.

AIRSPACE
22 Oct 2009 No Major Changes.
17 Dec 2009 Revise PEORIA, IL Class E: That airspace extending upward from 700 feet above the surface bounded by a line beginning at 40°54′00″N, 89°59′00″W; to 40°53′31″N, 89°41′35″W; to 40°54′41″N, 89°35′28″W; to 40°52′16″N, 89°29′22″W; to 40°46′40″N, 89°27′38″W; to 40°44′01″N, 89°29′35″W; to 40°22′00″N, 89°32′00″W; to lat.40°26′00″N, 90°07′00″W; to 40°34′00″N, 90°12′00″W; to 40°47′00″N, 90°08′00″W; to the point of beginning.
Revise WINONA, MN Class E: That airspace extending upward from 700 feet above the surface within a 7-mile radius of Winona Municipal Airport–Max Conrad Field, and within 8 miles southwest and 4 miles northeast of the 121° bearing from the airport extending from the 7-mile radius to 21 miles southeast of the airport, excluding that airspace within the La Crosse, WI Class D airspace area.
Revise PLATTEVILLE, WI Class E: That airspace extending upward from 700 feet above the surface within a 7.4-mile radius of Platteville Municipal Airport and within 4 miles each side of the 145° bearing from the airport extending from the 7.4-mile radius to 10.2 miles southeast of the airport.
11 Feb 2010 – 8 Apr 2010 No Major Changes.

SPECIAL USE AIRSPACE
22 Oct 2009 – 8 Apr 2010 No Major Changes.

MILITARY TRAINING ROUTES
22 Oct 2009 – 8 Apr 2010 No Major Changes.

MISCELLANEOUS
22 Oct 2009 – 17 Dec 2009 No Major Changes.
11 Feb 2010 Change MEF 2^5 to 2^7 in quadrant 41°30′-42°00′N, 87°30′-88°00′W.
8 Apr 2010 Change MEF 1^8 to 1^9 in quadrant 43°00′-43°30′N, 92°00′-92°30′W.

GREEN BAY SECTIONAL
79th Edition, 17 Dec 2009

OBSTRUCTIONS
17 Dec 2009 No Major Changes.
11 Feb 2010 Add obst 1681′MSL (320′AGL)UC, 46°58′34″N, 92°36′23″W.
Add obst 1626′MSL (320′AGL)UC, 45°41′43″N, 91°40′07″W.
Add obst 1642′MSL (420′AGL)UC, 46°19′56″N, 91°34′14″W.
Add obst 1383′MSL (259′AGL)UC, 44°58′37″N, 90°58′24″W.
Add obst 1455′MSL (350′AGL)UC, 44°15′20″N, 92°26′17″W.
Add obst 1722′MSL (320′AGL)UC, 47°30′04″N, 92°19′29″W.
Add obst 1299′MSL (318′AGL)UC, 45°53′25″N, 92°23′40″W.
8 Apr 2010 Add obst 1425′MSL (270′AGL)UC, 45°24′34″N, 91°36′42″W.
Add obst 1795′MSL (320′AGL)UC, 45°18′32″N, 89°28′56″W.

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

NAVAIDs
17 Dec 2009 No Major Changes.
11 Feb 2010 Shutdown BONG NDB, 46°41′29″N, 92°06′12″W.
8 Apr 2010 No Major Changes.

AIRSPACE
17 Dec 2009 – 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.

KANSAS CITY SECTIONAL
83rd Edition, 19 Nov 2009

OBSTRUCTIONS
17 Dec 2009 Add obst 1174′MSL (305′AGL)UC, 36°05′01″N, 96°35′42″W.
Change to group obst 1178′MSL (335′AGL)UC, 37°01′30″N, 94°45′08″W.
Add obst 1460′MSL (280′AGL), 36°32′20″N, 93°34′31″W.
Add obst 1624′MSL (339′AGL)UC, 36°02′15″N, 93°55′05″W.
Add obst 1591′MSL (315′AGL)UC, 36°53′31″N, 93°34′44″W.
Add obst 1230′MSL (320′AGL)UC, 40°11′57″N, 95°02′00″W.
11 Feb 2010 Change obst from 827′MSL (243′AGL) to 882′MSL (300′AGL), 38°44′06″N, 89°57′02″W.
Add obst 722′MSL (260′AGL)UC, 38°17′56″N, 89°59′34″W.
Add obst 1305′MSL (305′AGL)UC, 38°05′01″N, 95°37′34″W.
Add obst 1799′MSL (276′AGL)UC, 37°13′06″N, 92°17′24″W.
Add obst 888′MSL (258′AGL)UC, 39°40′32″N, 89°50′15″W.
Add obst 1265′MSL (315′AGL)UC, 37°45′31″N, 90°46′15″W.
Add obst 1512′MSL (334′AGL)UC, 36°52′52″N, 92°00′19″W.
Add obst 879′MSL (258′AGL)UC, 39°56′42″N, 89°55′56″W.
Add obst 937′MSL (258′AGL)UC, 40°13′52″N, 90°59′17″W.
Add obst 1040′MSL (318′AGL)UC, 39°29′32″N, 91°58′26″W.
Add obst 836′MSL (242′AGL)UC, 40°01′00″N, 89°51′49″W.
Add obst 885′MSL (258′AGL)UC, 39°02′32″N, 89°53′08″W.
Add obst 838′MSL (258′AGL)UC, 39°50′25″N, 89°48′10″W.
Add obst 887′MSL (258′AGL)UC, 39°04′50″N, 89°48′26″W.
Add obst 1142′MSL (324′AGL)UC, 39°44′31″N, 92°14′37″W.
Add obst 947′MSL (320′AGL)UC, 39°57′22″N, 91°37′59″W.
Add windmill farm. 1522′ is highest MSL, 40°05′46″N, 94°29′59″W.
Add windmill farm. 1540′ is highest MSL, 40°12′42″N, 94°42′11″W.
8 Apr 2010 Add obst 1419′MSL (275′AGL)UC, 39°14′53″N, 95°43′14″W.
Add obst 1101′MSL (260′AGL)UC, 39°30′57″N, 92°23′55″W.
Add obst 1565′MSL (334′AGL)UC, 37°06′24″N, 91°48′50″W.
Add obst 1132′MSL (260′AGL)UC, 39°17′56″N, 92°30′58″W.
Add obst 1491′MSL (298′AGL)UC, 36°15′37″N, 94°40′55″W.
Add obst 900′MSL (250′AGL)UC, 40°06′39″N, 90°33′35″W.
Add obst 1066′MSL (330′AGL)UC, 36°18′11″N, 91°24′06″W.
Add obst 1469′MSL (320′AGL)UC, 36°49′34″N, 91°48′00″W.
Add obst 977′MSL (260′AGL)UC, 39°09′51″N, 90°48′57″W.
Add obst 1087′MSL (265′AGL)UC, 39°57′13″N, 92°38′46″W.
Add obst 1031′MSL (215′AGL)UC, 39°40′44″N, 92°21′57″W.
Add obst 1187′MSL (275′AGL)UC, 37°55′01″N, 93°20′44″W.
Add obst 834′MSL (234′AGL)UC, 38°17′02″N, 90°35′42″W.
Add obst 955′MSL (232′AGL)UC, 38°19′22″N, 90°50′28″W.

AIRPORTS
17 Dec 2009 Delete TERAMIRANDA arpt, 36°36′30″N, 94°52′21″W.
11 Feb 2010 Delete RP 36 at MIDWEST NATL, 39°19′57″N, 94°18′35″W.
8 Apr 2010 No Major Changes.

NAVAIDs
17 Dec 2009 No Major Changes.
11 Feb 2010 Delete BOONVILLE NDB, 38°56′58″N, 92°41′03″W.
Shutdown KENNETT NDB, 36°13′43″N, 90°02′21″W.
8 Apr 2010 No Major Changes.

AIRSPACE
17 Dec 2009 Revise TOPEKA, KS Class D: That airspace extending upward from the surface to and including 3,600 feet MSL within a 4.9-mile radius of Forbes Field Airport,and within 2.2 miles each side of the RIPLY LOM 317° bearing extending from the 4.9-mile radius to 5.3 miles northwest of the airport and within 1.8 miles each side of the Forbes Field Airport ILS Localizer southeast course extending from the 4.9-mile radius to 0.9 miles southeast of the RIPLY LOM. This Class D airspace area is effective during the specific dates and times established in advance by a Notice to Airmen. The effective dates and times will thereafter be continuously published in the Airport/Facility Directory.
Revise TOPEKA, KS Class E: That airspace within a 4.9-mile radius of Forbes Field Airport, and within 2.2 miles each side of the RIPLY LOM 317° bearing extending from the 4.9-mile radius to 5.3 miles northwest of the airport and within 1.8 miles each side of the Forbes Field Airport ILS Localizer southeast course extending from the 4.9-mile radius to 0.9 miles southeast of the RIPLY LOM. That airspace extending upward from 700 feet above the surface within a 7.4-mile radius of Forbes Field Airport, and within 3.1 miles each side of the Forbes Field Airport ILS localizer course extending from the 7.4-mile radius to 13 miles southeast of the airport, and within 3.5 miles each side of the Forbes Field Airport ILS localizer course extending from the 7.4-mile radius to 13 miles northwest of the airport.

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Revise ST. LOUIS, MO Class E: That airspace extending upward from 700 feet above the surface within a 7.1-mile radius of Lambert-St. Louis International Airport, and within 4 miles southeast and 7 miles northwest of the Lambert- St. Louis International Airport Runway 24 ILS localizer course extending from the airport to 10.5 miles northeast of the ZUMAY LOM, and within 4 miles southwest and 7.9 miles northeast of the Lambert- St. Louis International Airport Runway 12R ILS localizer course extending from the airport to 10.5 miles northwest of the OBLIO LOM, and within 4 miles southwest and 7.9 miles northeast of the Lambert- St. Louis International Airport Runway 30L ILS localizer course extending from the airport to 8.7 miles southeast of the airport, and within a 6.8-mile radius of Spirit of St. Louis Airport, and within 3.9 miles each side of the 258° bearing from Spirit of St. Louis Airport extending from the 6.8-mile radius of Spirit of St. Louis Airport to 10.6 miles west of the airport, and within 2.6 miles each side of the 098° radial of the Foristell VORTAC extending from the 6.8-mile radius of Spirit of St. Louis Airport to 8.3 miles west of the airport, and within a 6.4-mile radius of St. Charles County Smartt Airport, and within a 6.9-mile radius of St. Louis Regional Airport, and within 4 miles each side of the 014° bearing from the Civic Memorial NDB extending from the 6.9-mile radius of St. Louis Regional Airport to 7 miles north of the airport, and within 4.4 miles each side of the 190° radial of the St. Louis VORTAC extending from 2 miles south of the VORTAC to 22.1 miles south of the VORTAC.

11 Feb 2010 No Major Changes.

8 Apr 2010 Revise ST. LOUIS, MO Class D: That airspace extending upward from the surface to and including 3,000 feet MSL within a 4.3-mile radius of Spirit of St. Louis Airport, and within 1 mile each side of the 258° bearing from the airport extending from the 4.3-mile radius to 4.6 miles west of the airport, excluding that airspace within the St. Louis, MO Class B airspace area. This Class D airspace area is effective during the specific dates and times established in advance by a Notice to Airmen. The effective dates and times will thereafter be continuously published in the Airport/Facility Directory.

SPECIAL USE AIRSPACE

17 Dec 2009 No Major Changes.

11 Feb 2010 Add SHIRLEY A MOA: That airspace beginning at 35°19′00″N, 92°38′00″W to 35°19′00″N, 93°12′00″W to 35°38′15″N, 93°35′00″W to 36°02′00″N, 93°13′00″W to 36°02′00″N, 92°38′00″W to the point of beginning.

Add SHIRLEY B MOA: That airspace beginning at 35°19′00″N, 92°38′00″W to 36°02′00″N, 92°38′00″W to 36°02′00″N, 91°55′00″W to 35°58′53″N, 91°46′00″W to 35°19′00″N, 92°02′00″W to the point of beginning.

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.

KANSAS CITY TERMINAL AREA CHART
70th Edition, 19 Nov 2009

OBSTRUCTIONS
17 Dec 2009 – 11 Feb 2010 No Major Changes.
8 Apr 2010 Add obst 1419′MSL (275′AGL)UC, 39°14′53″N, 95°43′14″W. Add windmill farm. 1522′UC is highest MSL, 40°05′46″N, 94°29′59″W.

AIRPORTS
17 Dec 2009 No Major Changes.
11 Feb 2010 Delete RP 36 at MIDWEST NATL, 39°19′57N, 94°18′35″W.
8 Apr 2010 No Major Changes.

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

AIRSPACE
17 Dec 2009 Revise TOPEKA, KS Class D: That airspace extending upward from the surface to and including 3,600 feet MSL within a 4.9-mile radius of Forbes Field Airport,and within 2.2 miles each side of the RIPLY LOM 317° bearing extending from the 4.9-mile radius to 5.3 miles northwest of the airport and within 1.8 miles each side of the Forbes Field Airport ILS Localizer southeast course extending from the 4.9-mile radius to 0.9 miles southeast of the RIPLY LOM. This Class D airspace area is effective during the specific dates and times established in advance by a Notice to Airmen. The effective dates and times will thereafter be continuously published in the Airport/Facility Directory.
Revise TOPEKA, KS Class E: That airspace within a 4.9-mile radius of Forbes Field Airport, and within 2.2 miles each side of the RIPLY LOM 317° bearing extending from the 4.9-mile radius to 5.3 miles northwest of the airport and within 1.8 miles each side of the Forbes Field Airport ILS Localizer southeast course extending from the 4.9-mile radius to 0.9 miles southeast of the RIPLY LOM. That airspace extending upward from 700 feet above the surface within a 7.4-mile radius of Forbes Field Airport, and within 3.1 miles each side of the Forbes Field Airport ILS localizer course extending from the 7.4-mile radius to 13 miles southeast of the airport, and within 3.5 miles each side of the Forbes Field Airport ILS localizer course extending from the 7.4-mile radius to 13 miles northwest of the airport.
11 Feb 2010 – 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.

MEMPHIS SECTIONAL
84th 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.

MINNEAPOLIS-ST. PAUL TERMINAL AREA CHART
73rd Edition, 14 Jan 2010

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

AIRPORTS
11 Feb 2010 Delete RP 4, 22 at MAPLE LAKE arpt, 45°14′10″N, 93°59′08″W.
8 Apr 2010 Chang FLYING CLOUD ATCT freq from 118.1 to 119.15, 44°49′38″N, 93°27′30″W.

NAVAIDs
11 Feb 2010 Change FLYING CLOUD VOR/DME position from 44°49′33″N, 93°27′24″W to 44°49′31″N, 93°26′34″W. Raise all outbound bearings from FLYING CLOUD VOR/DME by 6 degrees, 44°49′31″N, 93°26′34″W.
8 Apr 2010 Change FLYING CLOUD VOR/DME freq from 111.8 to 117.7, 44°49′32″N, 93°27′24″W.

AIRSPACE
11 Feb 2010 Add MANKATO, MN Class E: That airspace extending upward from 700 feet above the surface within a 7-mile radius of Mankato Regional Airport, and within 2 miles each side of the 047° bearing from the airport extending from the 7-mile radius to 8 miles northeast of the airport; and within 4 miles each side of the 020° bearing from the airport extending from the 7-mile radius to 11 miles north of the airport; and within a 6-mile radius of the point in space serving Immanuel-St. Joseph's Hospital, 44°09′48″N, 93°57′40″W.
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.

OMAHA SECTIONAL
81st Edition, 11 Feb 2010

OBSTRUCTIONS
11 Feb 2010 No Major Changes.
8 Apr 2010 Add obst 2180′MSL (1000′AGL)UC, 40°48′04″N, 94°54′07″W.
Add obst 1892′MSL (356′AGL)UC, 41°54′40″N, 95°17′22″W.
Add obst 1693′MSL (305′AGL)UC, 44°21′31″N, 97°51′14″W.
Add obst 1718′MSL (350′AGL)UC, 42°48′54″N, 98°11′28″W.
Add obst 2078′MSL (300′AGL)UC, 43°52′11″N, 99°35′57″W.
Add obst 1624′MSL (398′AGL)UC, 42°18′04″N, 93°27′37″W.
Add obst 1969′MSL (327′AGL)UC, 43°58′53″N, 96°25′10″W.

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

NAVAIDs
11 Feb 2010 No Major Changes.
8 Apr 2010 Delete PILOT ROCK NDB, 42°43′54″N, 95°33′11″W.

AIRSPACE
11 Feb 2010 No Major Changes.
8 Apr 2010 Revise RED OAK, IA Class E: That airspace extending upward from 700 feet above the surface within a 6.4-mile radius of Red Oak Municipal Airport; and within 2 miles each side of the 354° bearing from the airport extending from the 6.4-mile radius to 11 miles north of the airport; and within 2.6 miles each side of the 326° bearing from the Red Oak NDB extending from the 6.4-mile radius to 8.3 miles northwest of the airport.

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 No Major Changes.
8 Apr 2010 Change MEF 1^{8} to 2^{3} in quadrant 40°30′-41°00′N, 94°30′-95°00′W.

ST. LOUIS SECTIONAL
81st Edition, 17 Dec 2009

OBSTRUCTIONS
17 Dec 2009 No Major Changes.
11 Feb 2010 Add obst 1097′MSL (275′AGL)UC, 39°03′46″N, 84°59′04″W.
Add obst 1410′MSL (630′AGL)UC, 40°03′14″N, 85°59′22″W.
Change obst from 827′MSL (243′AGL) to 882′MSL (300′AGL), 38°44′06″N, 89°57′02″W.
Add obst 738′MSL (226′AGL)UC, 38°11′11″N, 89°40′09″W.
Add obst 722′MSL (260′AGL)UC, 38°17′56″N, 89°59′34″W.
Add obst 692′MSL (260′AGL)UC, 37°15′35″N, 88°58′50″W.
Add obst 851′MSL (349′AGL)UC, 38°45′25″N, 89°06′09″W.
Add obst 756′MSL (275′AGL)UC, 38°32′04″N, 89°31′26″W.
Add obst 865′MSL (220′AGL), 39°17′43″N, 88°00′03″W.
Add obst 1200′MSL (237′AGL)UC, 39°12′34″N, 86°38′31″W.
Add obst 917′MSL (227′AGL)UC, 37°53′08″N, 86°03′40″W.
Add obst 1003′MSL (258′AGL)UC, 40°12′40″N, 88°44′43″W.
Add obst 851′MSL (258′AGL)UC, 39°55′55″N, 89°40′00″W.
Add obst 888′MSL (258′AGL)UC, 39°40′32″N, 89°50′15″W.
Add obst 1265′MSL (315′AGL)UC, 37°45′31″N, 90°46′15″W.
Add obst 868′MSL (258′AGL)UC, 39°58′06″N, 89°43′48″W.
Add obst 879′MSL (258′AGL)UC, 39°56′42″N, 89°55′56″W.
Add obst 838′MSL (258′AGL)UC, 39°50′25″N, 89°48′10″W.
Add obst 885′MSL (258′AGL)UC, 39°02′32″N, 89°53′08″W.
Add obst 887′MSL (258′AGL)UC, 39°04′50″N, 89°48′26″W.
8 Apr 2010 Add obst 1164′MSL (400′AGL)UC, 40°10′06″N, 89°05′56″W.
Add obst 1566′MSL (204′AGL)UC, 37°39′55″N, 83°57′21″W.
Add obst 817′MSL (300′AGL)UC, 38°37′03″N, 86°42′35″W.
Add obst 1142′MSL (295′AGL)UC, 38°45′58″N, 84°53′45″W.
Add obst 1022′MSL (256′AGL)UC, 37°30′50″N, 86°25′55″W.
Add obst 703′MSL (258′AGL)UC, 38°15′24″N, 89°03′24″W.
Add obst 900′MSL (250′AGL)UC, 40°06′39″N, 90°33′35″W.
Add obst 1385′MSL (279′AGL)UC, 36°10′15″N, 84°02′17″W.
Add obst 712′MSL (280′AGL)UC, 36°40′56″N, 88°44′19″W.
Add obst 1578′MSL (235′AGL)UC, 36°52′32″N, 84°12′59″W.
Add obst 1409′MSL (255′AGL)UC, 36°46′20″N, 84°45′59″W.
Add obst 863′MSL (280′AGL)UC, 37°48′34″N, 85°34′52″W.
Add obst 1133′MSL (299′AGL)UC, 38°20′55″N, 85°02′02″W.
Add obst 1170′MSL (280′AGL)UC, 38°15′12″N, 84°37′40″W.
Add obst 1199′MSL (299′AGL)UC, 38°16′32″N, 84°57′02″W.
Add obst 1119′MSL (265′AGL)UC, 38°26′43″N, 85°10′39″W.
Add obst 829′MSL (255′AGL)UC, 37°16′08″N, 86°40′28″W.
Add obst 902′MSL (255′AGL)UC, 36°45′38″N, 86°43′03″W.
Add obst 682′MSL (300′AGL)UC, 36°55′13″N, 87°58′37″W.
Add obst 1032′MSL (255′AGL)UC, 36°50′24″N, 85°56′34″W.
Add obst 905′MSL (310′AGL)UC, 37°51′44″N, 86°45′00″W.
Add obst 1477′MSL (255′AGL)UC, 36°55′42″N, 84°14′33″W.
Add obst 1052′MSL (255′AGL)UC, 37°05′29″N, 85°36′52″W.
Add obst 977′MSL (260′AGL)UC, 39°09′51″N, 90°48′57″W.
Add obst 834′MSL (234′AGL)UC, 38°17′02″N, 90°35′42″W.
Add obst 955′MSL (232′AGL)UC, 38°19′22″N, 90°50′28″W.
Add obst 787′MSL (400′AGL)UC, 36°15′29″N, 88°11′11″W.
Add obst 1178′MSL (286′AGL)UC, 36°30′51″N, 86°33′57″W.
Add obst 988′MSL (290′AGL)UC, 36°27′48″N, 87°37′08″W.
Add obst 2210′MSL (260′AGL)UC, 36°23′13″N, 84°20′11″W.
Add obst 1792′MSL (306′AGL)UC, 37°36′25″N, 83°59′58″W.
Add obst 1020′MSL (349′AGL)UC, 37°06′51″N, 87°56′32″W.
Add obst 887′MSL (259′AGL)UC, 39°35′02″N, 89°44′44″W.
Add obst 1008′MSL (216′AGL)UC, 39°20′01″N, 84°46′34″W.
Add obst 959′MSL (260′AGL)UC, 38°24′38″N, 90°45′42″W.
Add obst 962′MSL (215′AGL)UC, 37°41′57″N, 84°29′03″W.

AIRPORTS
17 Dec 2009 No Major Changes.
11 Feb 2010 Delete ACTION arpt, 39°07′57″N, 84°49′43″W.
Delete RP 19, RP 14 at SMYRNA arpt, 36°00′32″N, 86°31′12″W.
8 Apr 2010 Delete RICHARDSON arpt, 38°22′50″N, 87°13′14″W.

NAVAIDs
17 Dec 2009 No Major Changes.
11 Feb 2010 Delete CLAYE NDB, 39°03′23″N, 86°35′58″W.
Shutdown KENNETT NDB, 36°13′43″N, 90°02′21″W.
Shutdown LITCHFIELD NDB, 39°09′55″N, 89°40′32″W.
8 Apr 2010 No Major Changes.

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AIRSPACE
17 Dec 2009 – 11 Feb 2010 No Major Changes.
8 Apr 2010 Revise ST. LOUIS, MO. Class D: That airspace extending upward from the surface to and including 3,000 feet MSL within a 4.3-mile radius of Spirit of St. Louis Airport, and within 1 mile each side of the 258° bearing from the airport extending from the 4.3-mile radius to 4.6 miles west of the airport, excluding that airspace within the St. Louis, MO Class B airspace area. This Class D airspace area is effective during the specific dates and times established in advance by a Notice to Airmen. The effective dates and times will thereafter be continuously published in the Airport/Facility Directory.

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.

ST. LOUIS TERMINAL AREA CHART
73rd Edition, 17 Dec 2009

OBSTRUCTIONS
17 Dec 2009 No Major Changes.
11 Feb 2010 Change obst from 827′MSL (243′AGL) to 882′MSL (300′AGL), 38°44′06″N, 89°57′02″W.
Add obst 738′MSL (226′AGL)UC, 38°11′11″N, 89°40′09″W.
Add obst 722′MSL (260′AGL)UC, 38°17′56″N, 89°59′34″W.
Add obst 885′MSL (258′AGL)UC, 39°02′32″N, 89°53′08″W.
Add obst 887′MSL (258′AGL)UC, 39°04′50″N, 89°48′26″W.
8 Apr 2010 Add obst 977′MSL (260′AGL)UC, 39°09′51″N, 90°48′57″W.
Add obst 834′MSL (234′AGL)UC, 38°17′02″N, 90°35′42″W.
Add obst 955′MSL (232′AGL)UC, 38°19′22″N, 90°50′28″W.
Add obst 959′MSL (260′AGL)UC, 38°24′38″N, 90°45′42″W.

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

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

AIRSPACE
17 Dec 2009 – 11 Feb 2010 No Major Changes.
8 Apr 2010 Revise ST. LOUIS, MO. Class D:That airspace extending upward from the surface to and including 3,000 feet MSL within a 4.3-mile radius of Spirit of St. Louis Airport, and within 1 mile each side of the 258° bearing from the airport extending from the 4.3-mile radius to 4.6 miles west of the airport, excluding that airspace within the St. Louis, MO Class B airspace area. This Class D airspace area is effective during the specific dates and times established in advance by a Notice to Airmen. The effective dates and times will thereafter be continuously published in the Airport/Facility Directory.

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.

TWIN CITIES SECTIONAL
79th Edition, 14 Jan 2010

OBSTRUCTIONS
11 Feb 2010 Add obst 1519′MSL (349′AGL)UC, 45°43′12″N, 94°23′04″W.
8 Apr 2010 Add obst 2523′MSL (398′AGL)UC, 47°07′12″N, 100°32′48″W.
Add obst 1949′MSL (499′AGL)UC, 45°27′13″N, 98°48′12″W.
Add obst 1688′MSL (299′AGL)UC, 45°45′56″N, 98°29′27″W.
Add obst 2135′MSL (306′AGL)UC, 44°58′09″N, 99°10′36″W.
Add obst 1465′MSL (225′AGL)UC, 46°40′26″N, 94°06′28″W.
Add obst 1441′MSL (350′AGL)UC, 48°50′42″N, 95°50′20″W.
Add obst 1647′MSL (300′AGL)UC, 47°01′13″N, 93°34′45″W.
Add obst 1600′MSL (228′AGL)UC, 47°10′36″N, 93°31′49″W.

AIRPORTS
11 Feb 2010 Delete RP 4, 22 at MAPLE LAKE arpt, 45°14′10″N, 93°59′08″W.
8 Apr 2010 Change FLYING CLOUD ATCT freq from 118.1 to 119.15, 44°49′38″N, 93°27′30″W.
Add RP 9R to GRAND FORKS INTL arpt, 47°56′50″N, 97°10′25″W.

NAVAIDS
11 Feb 2010 Change FLYING CLOUD VOR/DME position from 44°49′33″N, 93°27′24″W to 44°49′31″N, 93°26′34″W. Raise all outbound bearings from FLYING CLOUD VOR/DME by 6 degrees, 44°49′31″N, 93°26′34″W.
8 Apr 2010 Change FLYING CLOUD VOR/DME freq from 111.8 TO 117.7, 44°49′32″N, 93°27′24″W.

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.

WICHITA SECTIONAL
84th Edition, 14 Jan 2010

OBSTRUCTIONS
11 Feb 2010 Add obst 1665′MSL (349′AGL)UC, 36°21′39″N, 98°33′03″W.
Add obst 4492′MSL (350′AGL)UC, 38°07′04″N, 103°31′00″W.
Add obst 5430′MSL (350′AGL)UC, 39°50′33″N, 103°53′05″W.
8 Apr 2010 Add obst 1729′MSL (349′AGL)UC, 36°24′58″N, 98°44′43″W.
Add obst 2487′MSL (730′AGL)UC, 37°24′09″N, 98°34′52″W.
Add obst 3688′MSL (270′AGL)UC, 38°31′06″N, 101°29′49″W.
Add obst 1755′MSL (349′AGL)UC, 36°32′58″N, 98°15′31″W.
Add obst 2753′MSL (295′AGL)UC, 36°08′18″N, 99°32′31″W.

AIRPORTS
11 Feb 2010 Add RP 8 and RP 26 to MC PHERSON arpt, 38°21′08″N, 97°41′28″W.
8 Apr 2010 Change RP 8 to RP 18 at MC PHERSON arpt, 38°21′08″N, 97°41′28″W.

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 No Major Changes.
8 Apr 2010 IR-504 Revised

MISCELLANEOUS
11 Feb 2010 No Major Changes.
8 Apr 2010 Change MEF 2^5 to 2^6 in quadrant 37°00′-37°30′N, 98°30′-99°00′W.

SUPPLEMENTAL COMMUNICATION REFERENCE

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

UNITED STATES

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

CANADA

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

FACILITY NAME	CHART & PANEL
Collingwood, ON (CNY3) Toronto Center App/Dep Con 124.02	H–11B, L–31D
Cornwall Rgnl, 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 (CYZD) 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 Rgnl), 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 (CYZX) ATIS 128.85 244.3 (1100–0000Z‡) App/Dep Con 120.6 335.9 Tower 119.5 126.2 236.6 324.3 Gnd Con 133.75 289.4 Clnc Del 128.05 283.9	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 Clnc 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/Huronia, ON (CYEE) Toronto Center App/Dep 124.025	L–31D
Miramichi, NB (CYCH) Moncton Center App/Dep Con 123.7	H–11E, L–32J
Moncton/Greater Moncton Intl, NB (CYQM) ATIS 128.65 App/Dep 124.4 Tower 120.8 236.6 Gnd Con 121.8 275.8 Apron Advisory 122.075	H–11E, L–32J
Mont–Laurier, QC (CSD4) Montreal Center App/Dep Con 126.57	L–32G
Montreal Intl (Mirabel), QC (CYMX) ATIS 125.7 Montreal Center App Con 124.65 132.85 268.3 Montreal Dep Con 132.85 MF 119.1 (7 NM shape irregular to 2000′) VFR Advisory 134.15	H–11C, 12K, L–32G
Montreal/Pierre Elliott Trudeau Intl, QC (CYUL) ATIS 133.7 Montreal Trml App Con 118.9 124.65 126.9 132.85 268.3 Tower 119.9 267.1 Gnd Con 121.9 275.8 Clnc Del 125.6 Apron 122.075 Montreal Trml Dep Con 118.9 (SE–S–SW) 124.65 268.3 (W–NW–NE) VFR Advisory 134.15	H–11C, 12K, L–32G
Montreal/St–Hubert, QC (CYHU) ATIS 124.9 (Apr–Oct 1045–0500Z‡, Nov–Mar 1045–0400Z) AWOS 124.9 Montreal Center App/Dep Con 125.15 268.3 St. Hubert Tower 118.4 (Apr–Oct 1045–0500Z‡, Nov–Mar 1045–0400Z) Gnd Con 126.4 MF 118.4 (Apr–Oct 0500–1045Z‡, Nov–Mar 0400–1045Z 5 NM shape irregular to 2500′) VFR Advisory 134.15	H–11C, L–32G
Muskoka, ON (CYQA) AWOS 124.575 MF 122.3 (5 NM to 3900′)	H–11B, L–31D
Nanaimo, BC (CYCD) Victoria Trml App/Dep 120.8 133.95 252.3 MF 122.1 1330–0530Z‡ (5 NM to 2500′)	H–1B, L–1E
North Bay, ON (CYYB) ATIS 124.9 (1130–0300Z‡) Toronto Center App/Dep 121.225 127.25 MF 118.3 (1130–0330Z‡ 7 NM to 5000′)	H–11B, L31D

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

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

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

MEXICO

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

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

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

GENERAL INFORMATION

PILOT CONTROLLED AIRPORT LIGHTING SYSTEMS

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

1. Approach lighting systems that bear a system identification are symbolized using negative symbology, e.g., (A1), (V), (✿)
2. Approach lighting systems that do not bear a system identification are indicated with a negative "(L)" beside the name.

A star (★) indicates non-standard PCL, consult the individual airport in the front portion of the A/FD, e.g., (L★)

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

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

CHART CURRENCY INFORMATION

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

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

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

MISCELLANEOUS

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

10042
LEGEND

INSTRUMENT APPROACH PROCEDURES (CHARTS)

AIRPORT DIAGRAM/AIRPORT SKETCH

Runways

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

Closed Runway | Closed Taxiway | Under Construction | Metal Surface

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

uni-directional | bi-directional | Jet Barrier

ARRESTING SYSTEM

REFERENCE FEATURES

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

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

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

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

Helicopter Alighting Areas

Negative Symbols used to identify Copter Procedures

landing point.....

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

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

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

Approach light symbols are shown in the Flight Information Handbook.

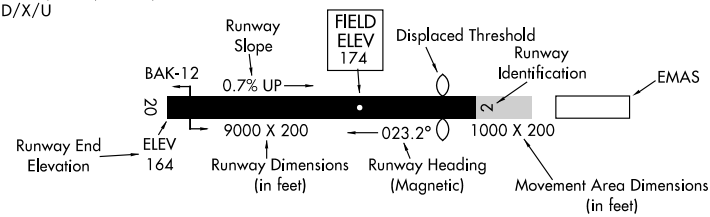
Airport diagram scales are variable.

True/magnetic North orientation may vary from diagram to diagram

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

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

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



SCOPE

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

HOT SPOTS

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

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

CITY/AIRPORT	HOT SPOT	DESCRIPTION
IOWA		
CEDAR RAPIDS		
THE EASTERN IOWA (CID)	HOT[1]	Twy A crosses Rwy 13–31. Twy A is used frequently by vehicles and aircraft to transition to and from the west hangar/FBO area.
	HOT[2]	Intersection of Rwy 13–31 and Rwy 9–27.
	HOT[3]	Twy C becomes Twy A on the north side of the approach end of Rwy 27. Aircraft taxiing from the east hangars to Rwy 9 and Rwy 13 are required to cross Rwy 9–27.
DES MOINES		
DES MOINES INTS (DSM)	HOT[1]	Westbound tfc on Twy B must remain alert so as to not miss the right turn onto Twy D when taxiing to Rwy 13. Comply with rwy hold signs, sfc painted signs and elevated rwy guard lgts at the intersection of Twy B and Rwy 13–31.
	HOT[2]	Use caution and comply with the signs and markings when taxiing near this complex intersection.
	HOT[3]	The apch end of Rwy 5 at Twy P has limited visibility from the twr.
	HOT[4]	Iowa ANG complex is located north of Twy D on the northwest part of the arpt. Vehicle movement in this area is obstructed from the tower's view. Be vigilant for vehicles while taxiing in the area.
DUBUQUE		
DUBUQUE RGNL (DBQ)	HOT[1]	Use caution when taxiing to Rwy 18 or Rwy 13 via Twy A. Comply with rwy hold signs, sfc painted signs and elevated rwy guard lgts at the intersection of Twy A and Rwy 18–36.
	HOT[2]	Use caution exiting the ramp area on Twy D. Twy D crosses Runway 13–31 immediately after leaving ramp area.
	HOT[3]	Use caution exiting the ramp area on Twy C. Twy C crosses Rwy 13–31 immediately after leaving ramp area.
FORT DODGE		
FORT DODGE RGNL (FOD)	HOT[1]	Westbound tfc on Twy B must remain alert at the intersection where Twy B splits with Twy D. Holding position markings for Rwy 6–24 and Rwy 12–30 are immediately after the twy split.
MASON CITY		
MASON CITY MUNI (MCW)	HOT[1]	Single twy leads to the apch end of Rwy 30 and Rwy 35. When departing northbound, cross check compass on rwy to verify use of correct rwy for departure. Approximately half of Rwy 12 and Rwy 18 are not mutually visible due to rising terrain and trees located between rwys. Use caution when operating on either Rwy 12 or Rwy 18 for crossing traffic. Broadcast your position and intentions on CTAF.
SIOUX CITY		
SIOUX GATEWAY/ COLONEL BUD DAY FIELD (SUX)	HOT[1]	Rwy 17–35 and Rwy 13–31 intersect at Twy B. When departing northbound, cross check compass on rwy to verify use of correct rwy for departure.
	HOT[2]	Twy A and Twy G are located in the movement area near the approach end of Rwy 31. Do not traverse from Twy A and G visa versa without ATC authorization.

WATERLOO		
WATERLOO RGNL (ALO)	HOT[1]	The intersection of Twy B and Twy C outbound holding position markings for Rwy 12–30 and Rwy 18–36 are immediately after the split of Twy B and Twy C.
	HOT[2]	Twy A crosses the apch end of Rwy 36 prior to Rwy 6. When departing northbound, cross check compass on rwy to verify use of correct rwy for departure.
	HOT[3]	Use caution exiting the ramp area on Twy B. Twy B intersects Rwy 6–24 immediately after leaving ramp area.
	HOT[4]	Use caution when crossing Rwy 12–30 on Twy A inbound and outbound. Twy A is used as a pass through twy to the ANG hangar and Rwy 6–24.

KANSAS

DODGE CITY		
DODGE CITY RGNL (DDC)	HOT[1]	Ramp is in close proximity to rwys.
GARDEN CITY		
GARDEN CITY RGNL (GCK)	HOT[1]	Twy C intersects Rwy 12–30 1300 feet from approach end. Back taxi clearance required for full length departure on Rwy 12.
	HOT[2]	Use caution exiting the ramp area on Twy C. Twy C crosses Rwy 17–35 immediately after leaving ramp area. Pilots must use caution when exiting the rwy on Twy C, as the non–movement area boundary is on the twy prior to the ramp.
	HOT[3]	While taxiing southbound on Twy A to Rwy 30, left turn on Twy B required to reach approach end of Rwy 30. If pilot is not extra vigilant, it is easy for an aircraft to miss the turn on Twy B and cross the active rwy.
HUTCHINSON		
HUTCHINSON MUNI (HUT)	HOT[1]	Twy A and Twy C intersect with multiple rwys.
	HOT[2]	Twy B hold markings for Rwy 4 and Rwy 35 are very close. Use caution to hold short at proper hold marking.
LIBERAL		
LIBERAL MID-AMERICA RGNL (LBL)	HOT[1]	After leaving main ramp on Twy A northbound, use caution for traffic landing Rwy 22. Rwy 22 Rwy Boundary marking is on Twy A prior to the left turn on Twy B. Twy B is an extension of the Rwy 22 overrun. Rwy 17 Runway Boundary is on Twy A past Twy B. Use caution for close proximity approach ends of Rwy 17 and Rwy 22.
	HOT[2]	Use caution exiting the ramp area on Twy C. Twy C intersects Rwy 17–35 immediately after leaving ramp area. Pilots must use caution when exiting the ramp and the rwy on Twy C, as Twy C is identified with blue reflectors.
MANHATTAN		
MANHATTAN RGNL (MHK)	HOT[1]	Use caution when taxiing to/from the terminal area via Twy D. Twy D is the primary entrance and exit from the main ramp and is in close proximity to Rwy 3–21.
	HOT[2]	Use caution when taxiing northeast on Twy A to the east ramp. Do not mistake Rwy 13–31 for Twy E.
OLATHE		
JOHNSON CO EXECUTIVE (OJC)	HOT[1]	Twy C crosses the approach end of Rwy 18.
	HOT[2]	Aircraft on the east side of the rwy taxiing to Rwy 36 utilizing Twy B, cross Rwy 18–36. Rwy holding position marking is not fully visible until after marking the westbound turn.
SALINA		
SALINA MUNI (SLN)	HOT[1]	Twy E crossing Rwy 17–35 is active with student pilot midfield departures. Note the elevated rwy guard lights located on the east side of Rwy 17–35 at Twy E.
	HOT[2]	Traffic landing Rwy 12 use caution when exiting onto Twy B. Hold line for Rwy 17–35 approaches quickly. Note the elevated rwy guard lights located on the west side of Rwy 17–35 on Twy B.

TOPEKA		
FORBES FIELD (FOE)	HOT[1]	Southbound traffic on Twy A must remain alert so as to not miss the right turn on Twy A when taxiing to Rwy 3. Twy D continues to an intersection with Rwy 3. Twy A turns to the southwest.
	HOT[2]	Use caution Twy A becomes Twy E just past access to the approach end of Rwy 3. Twy A turns left, Twy E continues southwest bound to the KS ANG ramp.
	HOT[3]	Twy E is not visible from the ATCT. Twy E also accesses KS ANG ramp and is not maintained by the Airport Authority.
PHILIP BILLARD MUNI (TOP)	HOT[1]	Twy A and Twy D intersect inside of the Runway Safety Area for Rwy 4–22. Twy A intersects 4–22 at two different locations.
WICHITA		
WICHITA MID-CONTINENT (ICT)	HOT[1]	Twy R exits Air Carrier Gates & Ramps. Aircraft may enter Twy R from different directions at different angles.
	HOT[2]	Twy B crosses or intersects all rwys. Intersection with Rwy 14–32 can be confusing.
	HOT[3]	Twy K and Twy C complex on west side of the Air Carrier Ramp leads to Twy K1 intersection with Rwy 14–32 which is a common intersection departure point.

MINNESOTA

MINNEAPOLIS MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLIAN (MSP)	HOT[1]	Expansive pavement at the intersection of Twy A, Twy B, Twy C, Twy D, and Twy H in near proximity to Rwy 12R–30L and Rwy 4–22. Use caution for rwy crossings in this area.
	HOT[2]	Complex twy/rwy geometry.
	HOT[3]	Expansive pavement at the intersection of Twy C, Twy D, Twy P, and Twy Q in near proximity to Rwy 12R–30L and Rwy 4–22. Use caution for rwy crossings in this area.
	HOT[4]	Complex geometry at Rwy 4 apch end. Rwy 4 depart check compass to verify correct rwy heading.

MISSOURI

BRANSON		
BRANSON (BBG)	HOT[1]	Westbound traffic on Twy C must remain alert so as to not mistake Rwy 14–32 for a parallel twy. First left turn out of ramp area is Rwy 14–32.
	HOT[2]	Use caution for aircraft utilizing Twy E and Twy F as a turn around after landing on Rwy 14 or taxiing to hold while waiting to depart Rwy 32. Back taxi required on Rwy 14–32 for full length departure on Rwy 32 and frequently utilized by aircraft landing Rwy 14.
COLUMBIA		
COLUMBIA RGNL (COU)	HOT[1]	Use caution approaching the intersection of Twy A and Twy B due to the close proximity of rwy holding position markings for Rwy 2–20 and Rwy 13–31.
	HOT[2]	Aircraft departing Rwy 20. Taxiing on Rwy 13–31 may be authorized to reach the apch end of Rwy 20. Use caution not to confuse rwy holding position marking for Rwy 13 with the marking for Rwy 20.
	HOT[3]	Acft departing Rwy 20. Runway holding position line for Rwy 20 is on Rwy 13–31.

FORT LEONARD WOOD WAYNESVILLE-ST. ROBERT RGNL FORNEY FLD (TBN)	HOT[1]	Arriving and departing aircraft must use the intersection at the souteast end of Rwy 14–32 to access the rwy. There is no parallel twy. Arriving and departing traffic may be required to back-taxi.
JEFFERSON CITY JEFFERSON CITY MEMORIAL (JEF)	HOT[1]	Complex intersection of twys and rwys. Rwy 12–30 intersects with Twy B and Rwy 9–27. Aircraft eastbound on Twy B from Rwy 12–30, holding position markings are for Rwy 12–30.
	HOT[2]	Aircraft taxiing on Twy B to Rwy 27, be prepared for the holding position markings just out of the turn.
KANSAS CITY CHARLES B. WHEELER DOWNTOWN (MKC)	HOT[1]	On Twy G, holding position markings for Rwy 3–21 are unsual due to the angle that Rwy G intersects with Rwy 3–21.
	HOT[2]	Twy D intersects with Rwy 3–21 and Rwy 1–19. Holding position markings for Rwy 3–21 and Rwy 1–19 are within the runway safety area for each other. Twy D is also utilized by aircraft and vehicles to transition from the east ramps to the west ramps. Aircraft/vehicles often mistake the second hold short markings when exiting Rwy 1–19 at Twy D as the hold short markings for Rwy 3–21.
	HOT[3]	Twy F, Twy D, Twy L transition when aircraft are taxiing northbound. Aircraft have the tendency to miss the left turn onto Twy L to continue across Rwy 1–19. Utilize extreme caution at night and in low visibility conditions.
KANSAS CITY KANSAS CITY INTL (MCI)	HOT[1]	Busy vehicle svc road crosses Twy G east of Twy B. Non–movement area begins just west of svc road.
	HOT[2]	Twy E and Twy F intersection with Rwy 9–27. Immediately after crossing Twy C, both Twy E and Twy F cross Rwy 9–27.
	HOT[3]	Twy C and Twy D intersection with Rwy 1R–19L. Immediately after crossing Twy E, both Twy C and Twy D cross Rwy 1R–19L.
	HOT[4]	The intersection of Twy B–2 and Ottawa Ave. (vehicle svc road). Twy B–2 is the only entrance to the general aviation ramp. This svc road is a high traffic vehicle route for airlines and cargo carriers.
KIRKSVILLE KIRKSVILLE RGNL (IRK)	HOT[1]	Turf Rwy 9–27 taxi route enters Rwy 18–36 approximately 1000 feet south of the approach end of Rwy 18 between Twy A and Twy B.
ST. JOSEPH, MO ROSECRANS MEMORIAL (STJ)	HOT[1]	Use caution exiting the ramp area on Twy B. Twy B crosses Rwy 17–35 immediately after leaving ramp area.
	HOT[2]	Apch ends of Rwy 35 and Rwy 31 are both accessed via Twy A. When departing northbound, cross check compass on runway to verify use of correct runway for departure.
	HOT[3]	Twy B intersects Rwy 13 approximately 2000 feet from apch end. Back taxi clearance required for full length departure on Rwy 13.
ST. LOUIS LAMBERT-ST. LOUIS INTL. (STL)	HOT[1]	Use caution when approaching the intersection of Twy D and Twy L be careful not to cross the hold marking for Rwy 12R–30L without ATC authorization.
	HOT[2]	Aircraft approaching Rwy 29 on Twy T, do not turn left on Twy A. Taxi straight ahead to Rwy 29.

	HOT[3]	Aircraft northwest on Twy F from the FBO or cargo ramp to Rwy 12L use diligence to not miss the left turn onto Twy S. If the left turn at Twy S is missed, do not cross the hold marking for Rwy 6–24 without ATC authorization.
ST. LOUIS SPIRIT OF ST. LOUIS (SUS)	HOT[1]	Northwest bound tfc on Twy B use caution entering complex intersection with Twy Z, Twy D, and Twy C. The close proximity of Twy C and Twy D, immediately after the turn onto Twy Z can be confusing.
	HOT[2]	On Twy B west of the blue port–a–ports, twr can not maintain visual contact with vehicles and small acft.
	HOT[3]	On Twy B northwest of Twy A, twr can not maintain visual contact with vehicles and acft.
SPRINGFIELD SPRINGFIELD-BRANSON NATIONAL (SGF)	HOT[1]	Acft exiting the Old Terminal ramp to the west, use caution as Twy D and Twy N are in close proximity to the rwys and angles create unusual holding positions.
	HOT[2]	Northeast bound tfc on Twy F must remain alert so as to not mistake Rwy 14–32 for a parallel twy. First left turn out of ramp area is Rwy 14–32.
	HOT[3]	Due to large acft parked on the Air Cargo Ramp, Twr may be unable to maintain visual ctc with small acft taxiing northbound on Twy U north of Twy B.

NEBRASKA

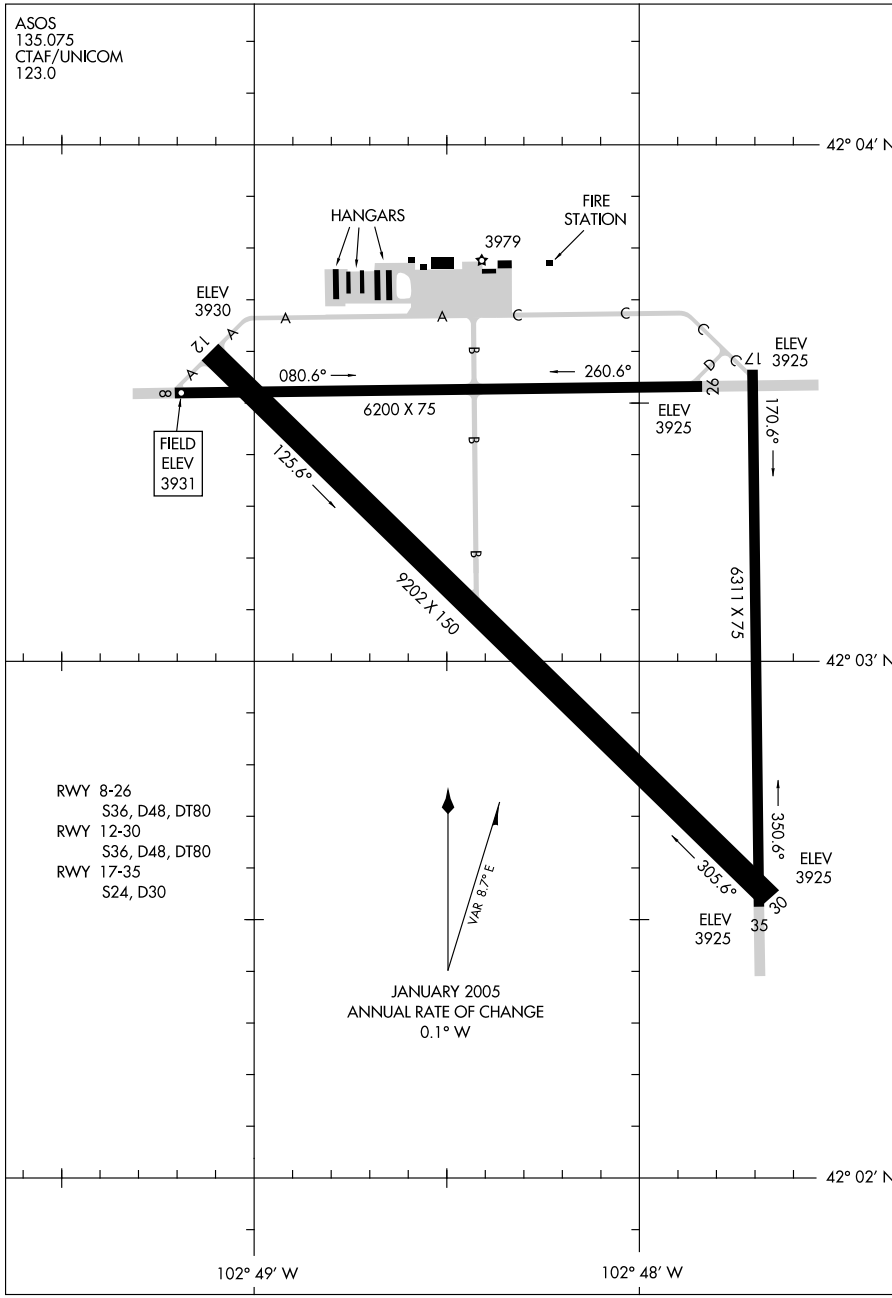
GRAND ISLAND CENTRAL NEBRASKA RGNL (GRI)	HOT[1]	When taxiing to the apch end of Rwy 13, use caution as Twy B crosses the apch end of Rwy 17. Rwy 17 holding position markings are accompanied by rwy guard lights on both sides of the rwy.
	HOT[2]	Twy C crossed Rwy 17 immediately after leaving ramp area. Intersection of Rwy 17–35 and Twy C has rwy guard lights on both sides of the rwy.
OMAHA EPPLEY AIRFIELD (OMA)	HOT[1]	A complex intersection of Twy S, Twy F, and Twy B is located between Rwy 14R–32L and the intersection of Rwy 14L–32R and Rwy 18–36.
	HOT[2]	Intersection of Twy F and Rwy 14R–32L is in close proximity to the ramp at Twy C.
	HOT[3]	Intersection of Twy A and Rwy 18–36 is in close proximity to the ramp at Twy C.

09183

AIRPORT DIAGRAM

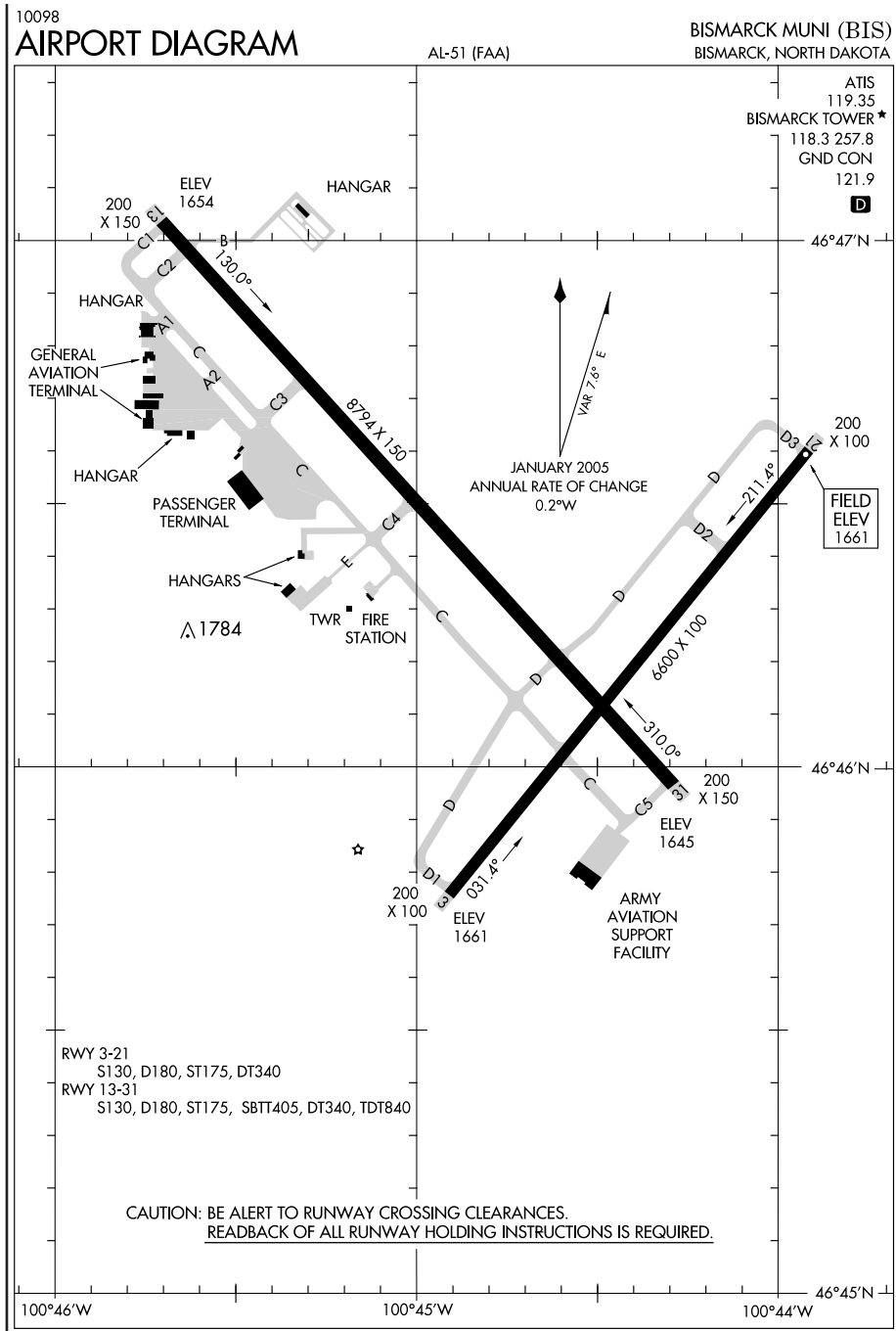
AL-16 (FAA)

ALLIANCE MUNI (AIA)
ALLIANCE, NEBRASKA



AIRPORT DIAGRAM
09183

ALLIANCE, NEBRASKA
ALLIANCE MUNI (AIA)

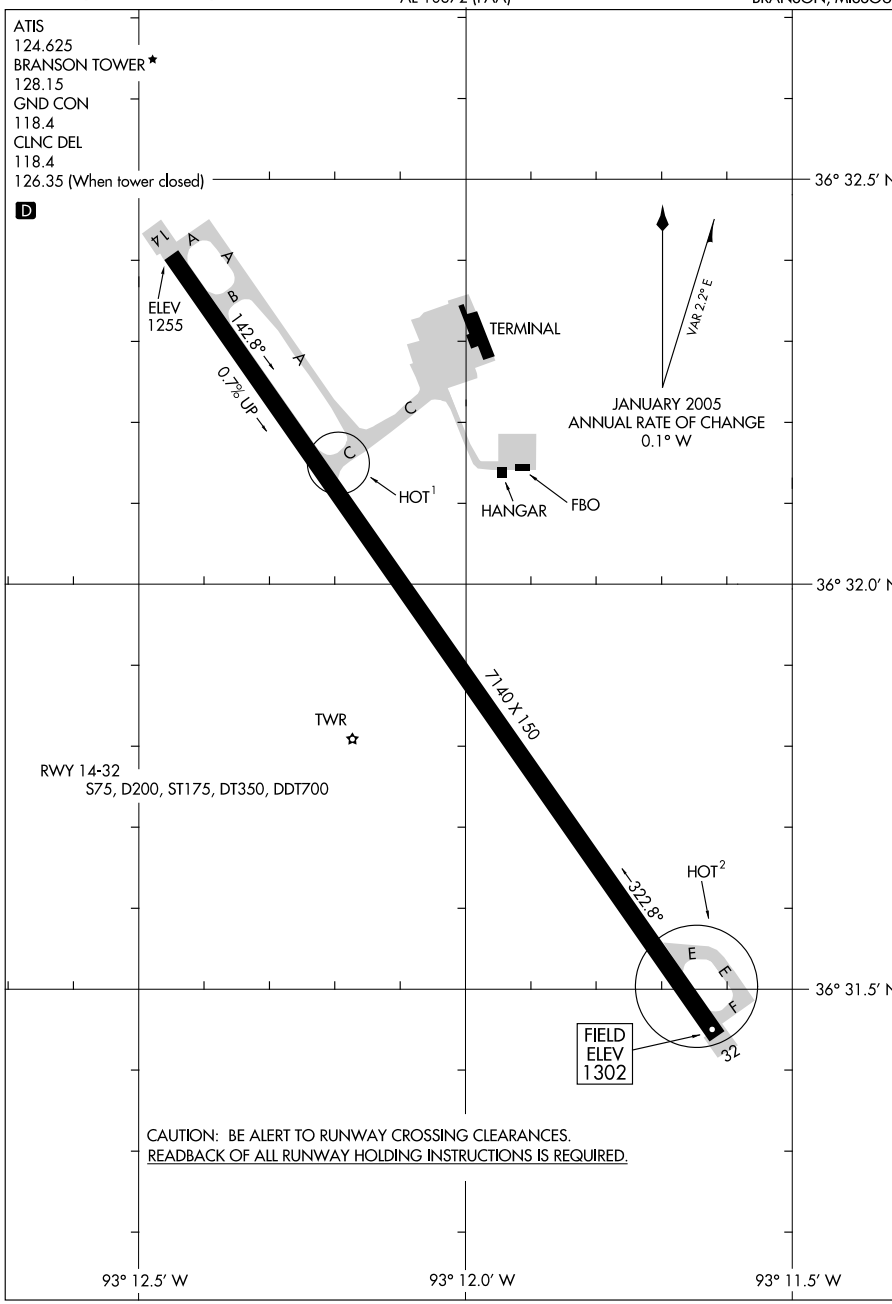

10098
AIRPORT DIAGRAM
AL-51 (FAA)
BISMARCK MUNI (BIS)
BISMARCK, NORTH DAKOTA
ATIS
119.35
BISMARCK TOWER
118.3 257.8
GND CON
121.9
D
ELEV
1654
HANGAR
200
X 150
130.0°
HANGAR
GENERAL
AVIATION
TERMINAL
HANGAR
PASSENGER
TERMINAL
HANGARS
TWR
FIRE
STATION
1784
8794 X 150
VAR 7.6° E
JANUARY 2005
ANNUAL RATE OF CHANGE
0.2°W
200
X 100
211.4°
FIELD
ELEV
1661
6600 X 100
310.0°
200
X 150
ELEV
1645
200
X 100
031.4°
ELEV
1661
ARMY
AVIATION
SUPPORT
FACILITY
46°47'N
46°46'N
46°45'N
100°46'W
100°45'W
100°44'W
RWY 3-21
S130, D180, ST175, DT340
RWY 13-31
S130, D180, ST175, SBTT405, DT340, TDT840
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
AIRPORT DIAGRAM
10098
BISMARCK, NORTH DAKOTA
BISMARCK MUNI (BIS)

10042

AIRPORT DIAGRAM

AL-10372 (FAA)

BRANSON (BBG)
BRANSON, MISSOURI



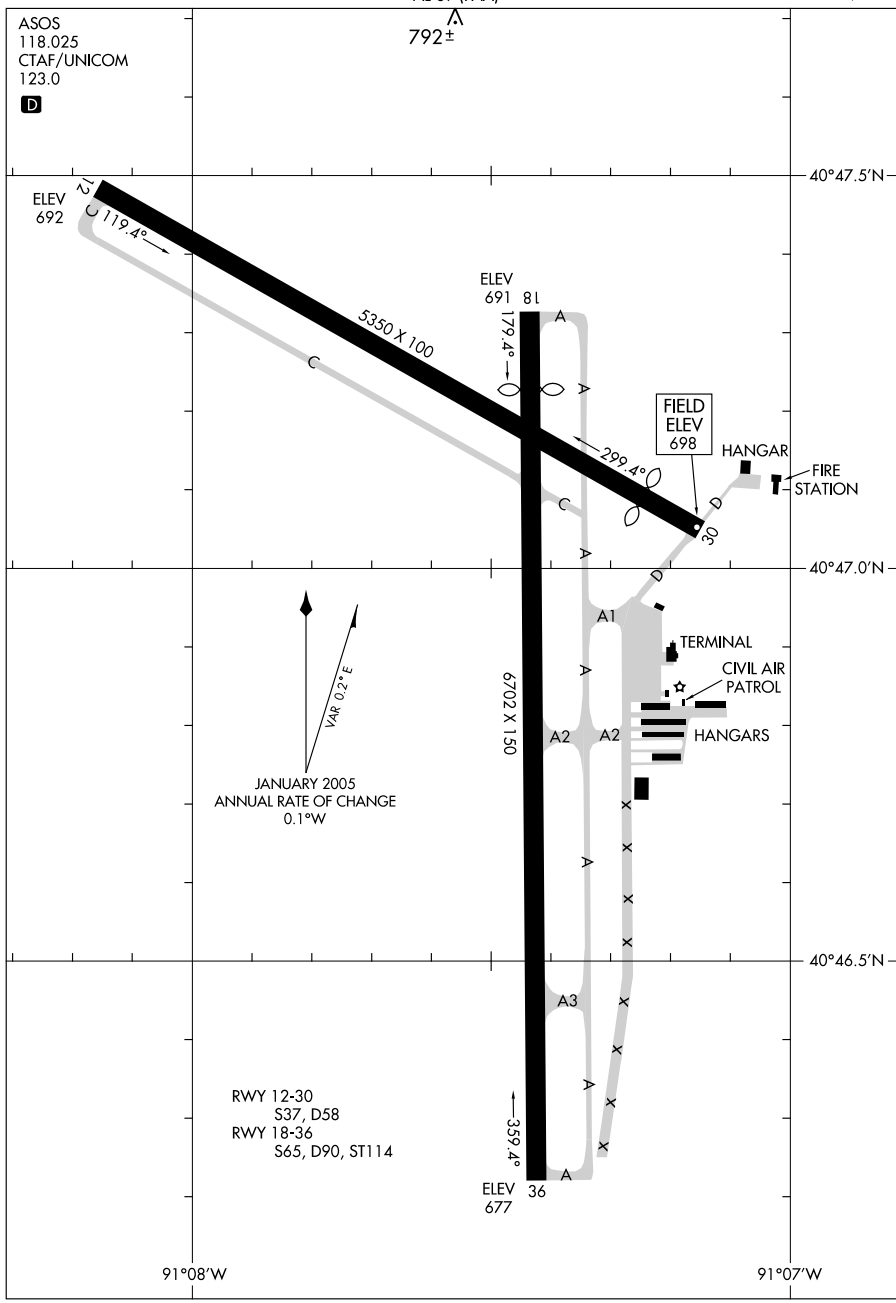
AIRPORT DIAGRAM
10042

BRANSON, MISSOURI
BRANSON (BBG)

09071

AIRPORT DIAGRAM

BURLINGTON/SOUTHEAST IOWA RGNL (BRL)
BURLINGTON, IOWA



AIRPORT DIAGRAM

09071

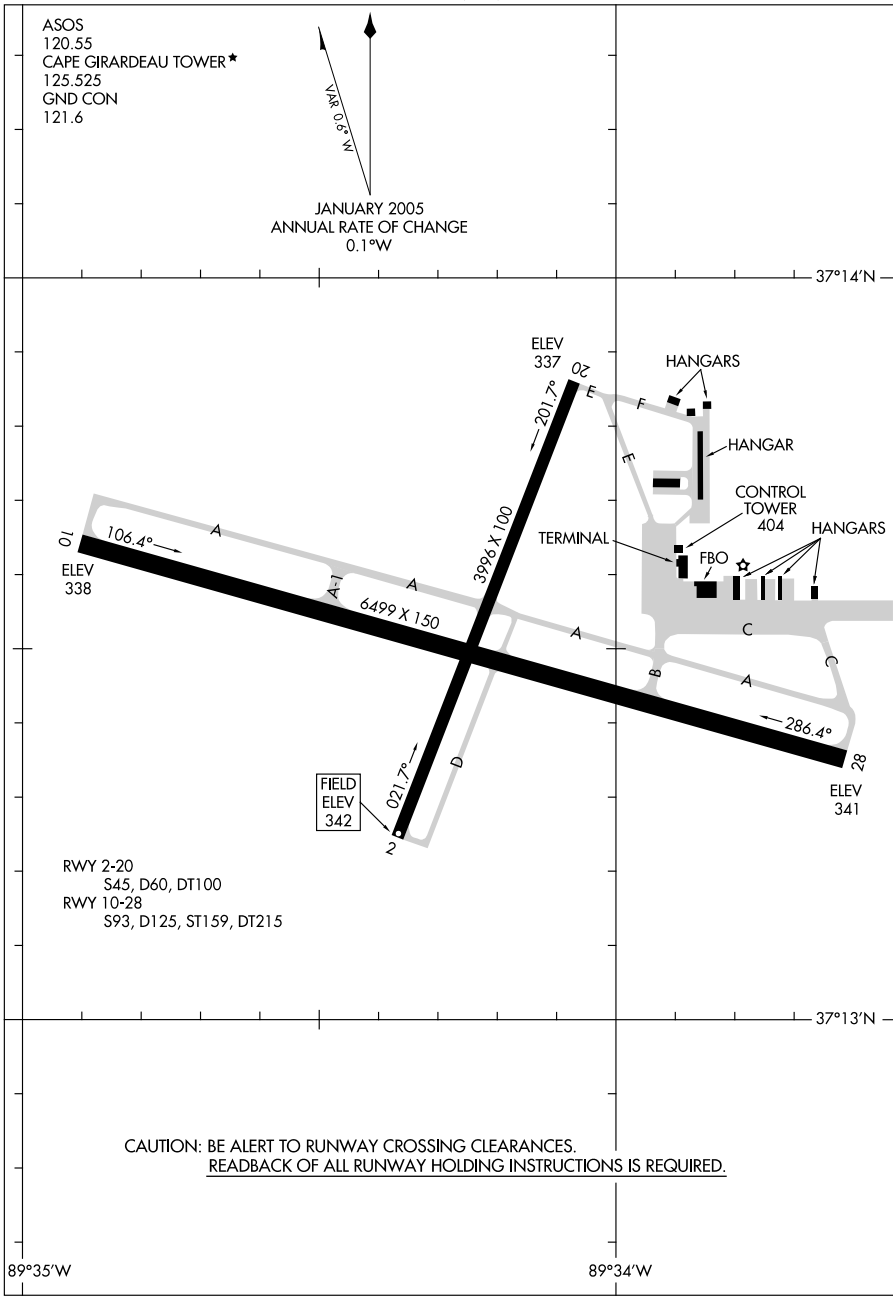
BURLINGTON, IOWA
BURLINGTON/SOUTHEAST IOWA RGNL (BRL)

09295

AIRPORT DIAGRAM

AL-943 (FAA)

CAPE GIRARDEAU RGNL (CGI)
CAPE GIRARDEAU, MISSOURI



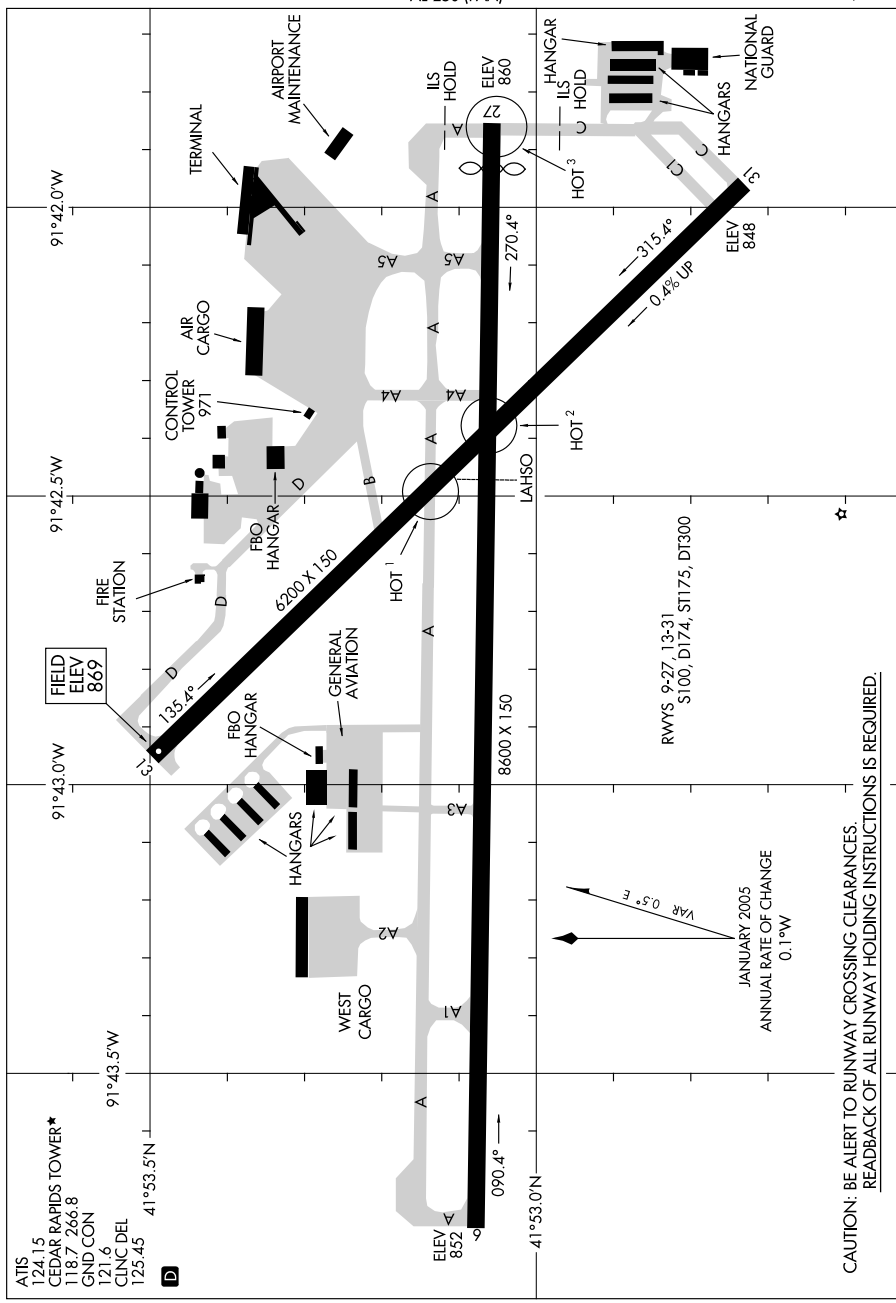
AIRPORT DIAGRAM
09295

CAPE GIRARDEAU, MISSOURI
CAPE GIRARDEAU RGNL (CGI)

09239

AIRPORT DIAGRAM

CEDAR RAPIDS/ THE EASTERN IOWA (CID)
CEDAR RAPIDS, IOWA



AIRPORT DIAGRAM

09239

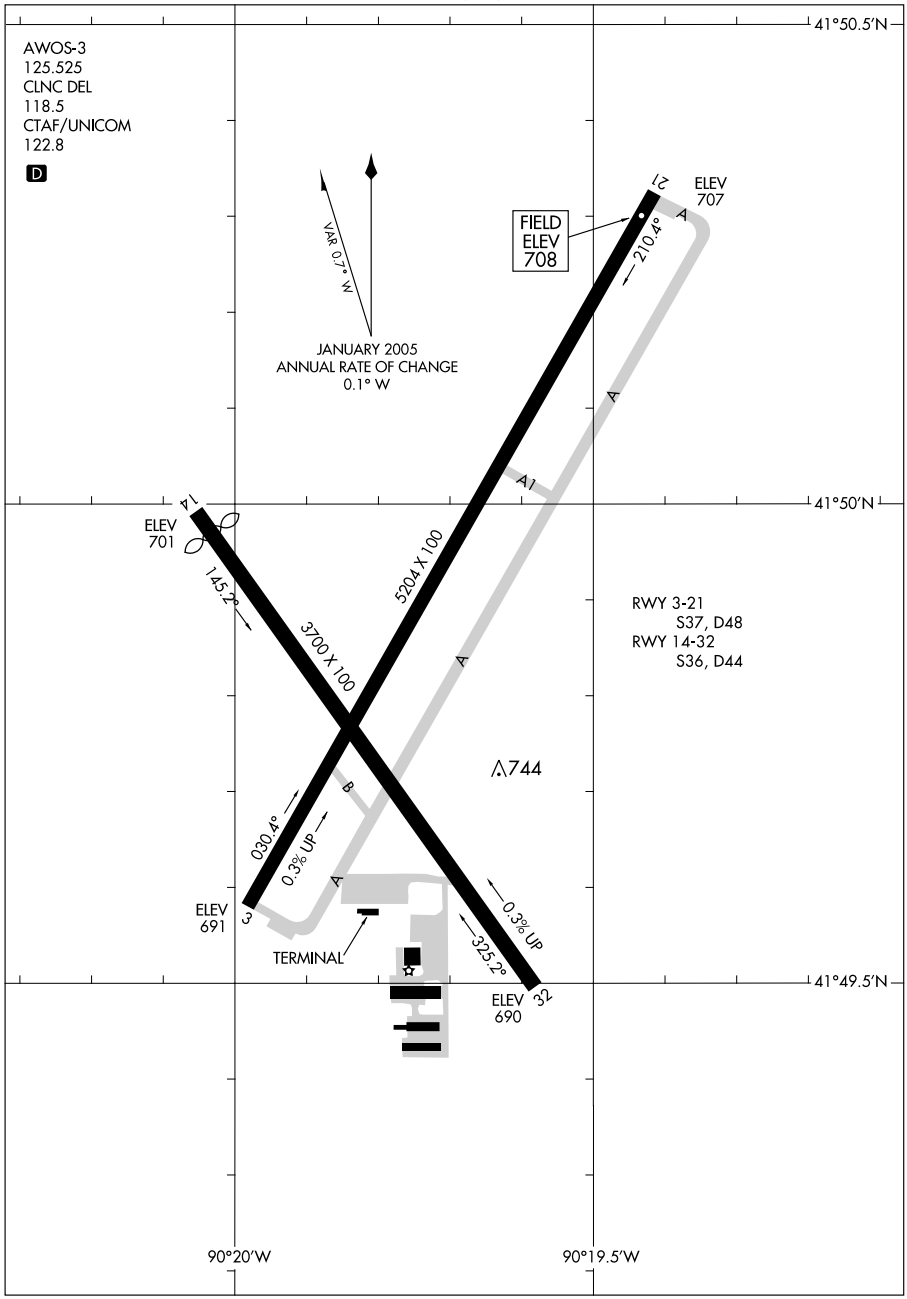
CEDAR RAPIDS, IOWA
CEDAR RAPIDS/ THE EASTERN IOWA (CID)

09071

AIRPORT DIAGRAM

AL-972 (FAA)

CLINTON MUNI (CWI)
CLINTON, IOWA



AIRPORT DIAGRAM

09071

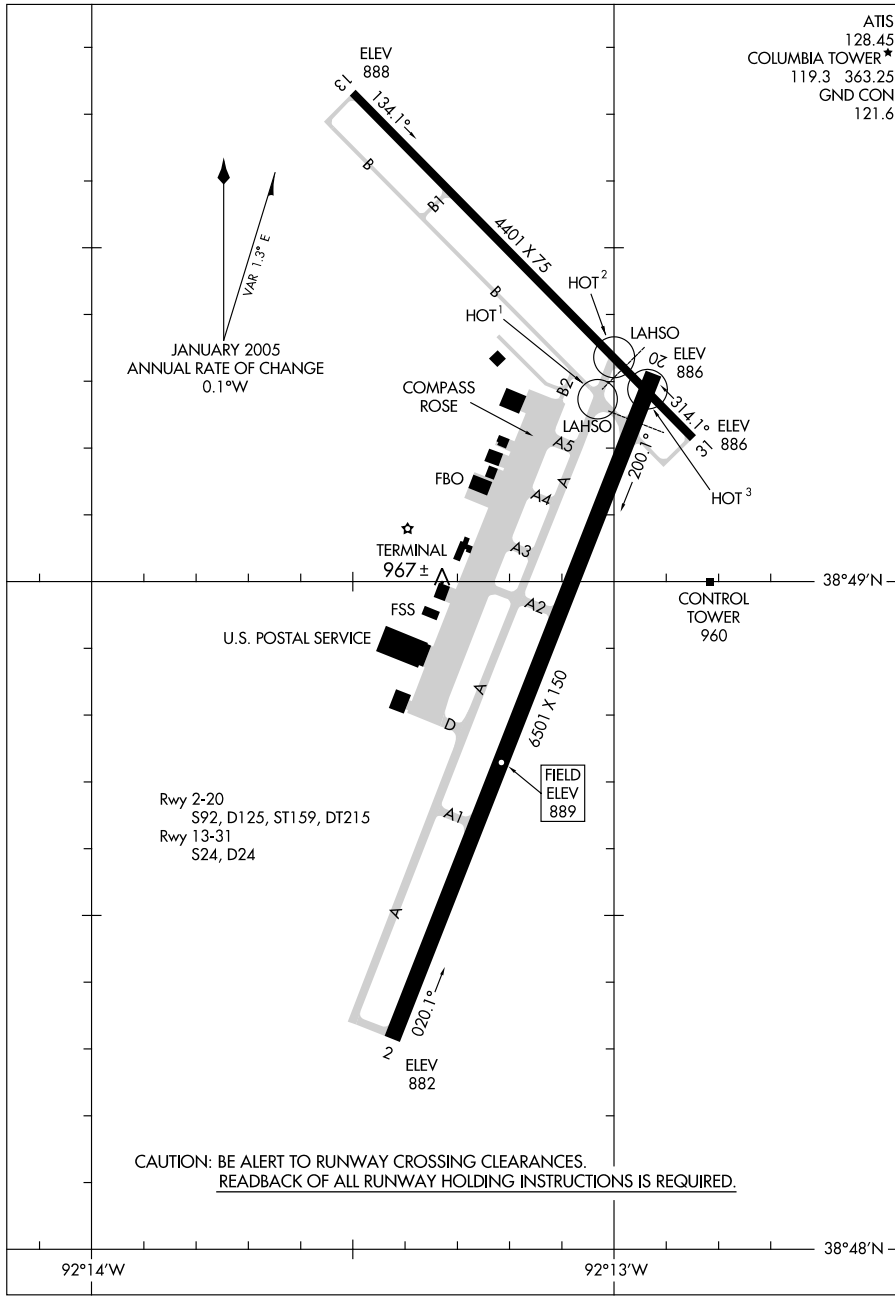
CLINTON, IOWA
CLINTON MUNI (CWI)

09351

AIRPORT DIAGRAM

AL-5595 (FAA)

COLUMBIA RGNL (COU)
COLUMBIA, MISSOURI



AIRPORT DIAGRAM

09351

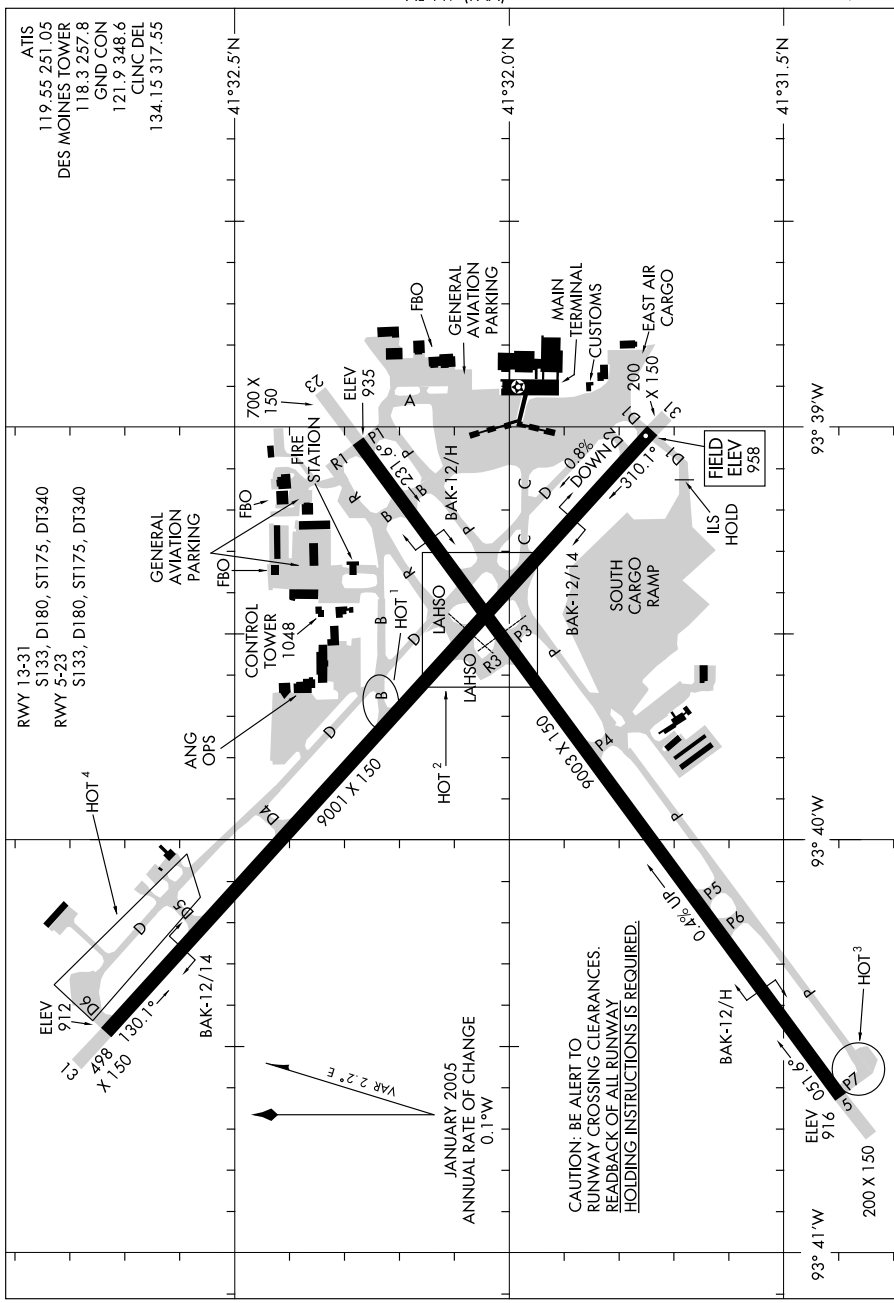
COLUMBIA, MISSOURI
COLUMBIA RGNL (COU)

09295

AIRPORT DIAGRAM

DES MOINES INTL (DSM)
DES MOINES, IOWA

AL-117 (FAA)



AIRPORT DIAGRAM
09295

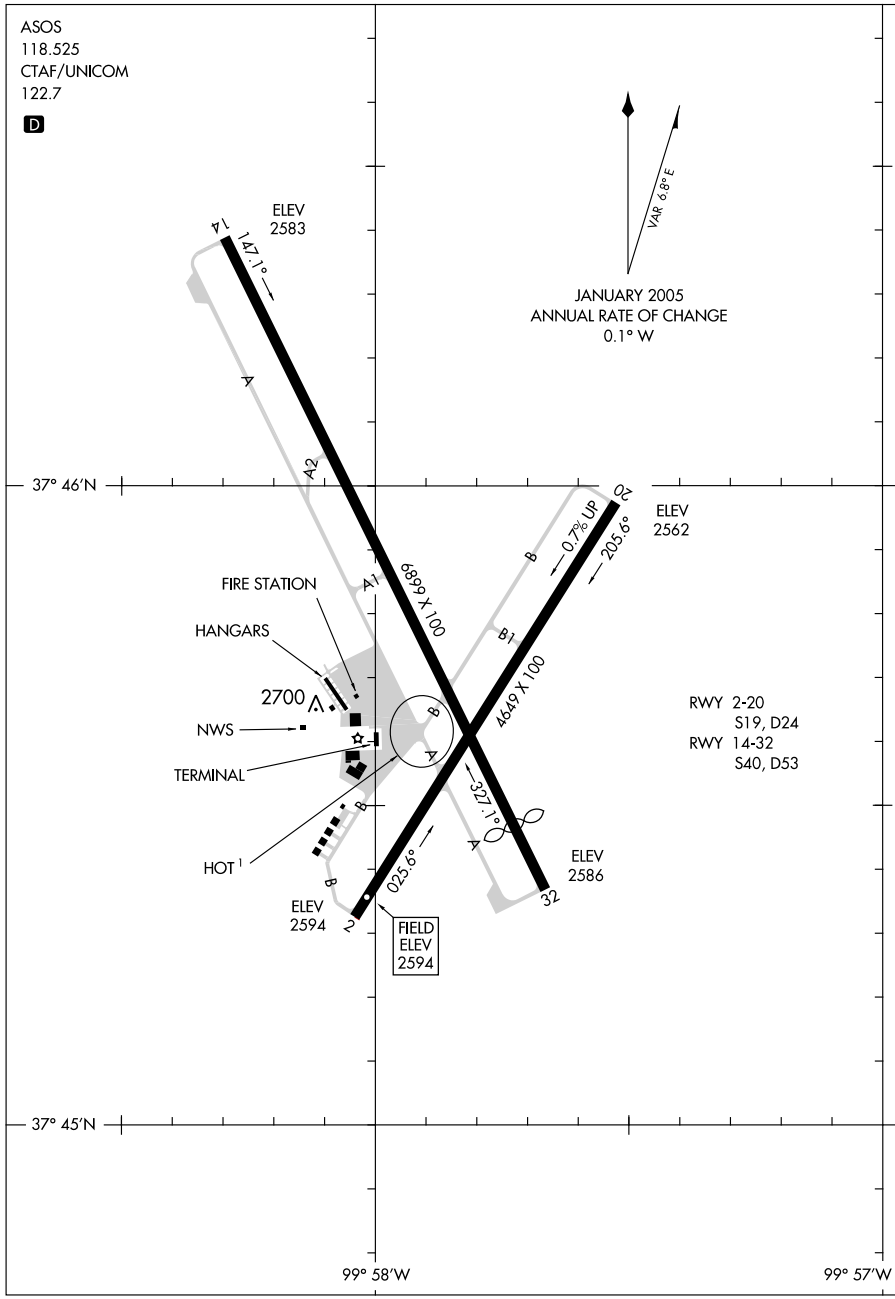
DES MOINES, IOWA
DES MOINES INTL (DSM)

09295

AIRPORT DIAGRAM

DODGE CITY RGNL (DDC)
DODGE CITY, KANSAS

AL-676 (FAA)



AIRPORT DIAGRAM

09295

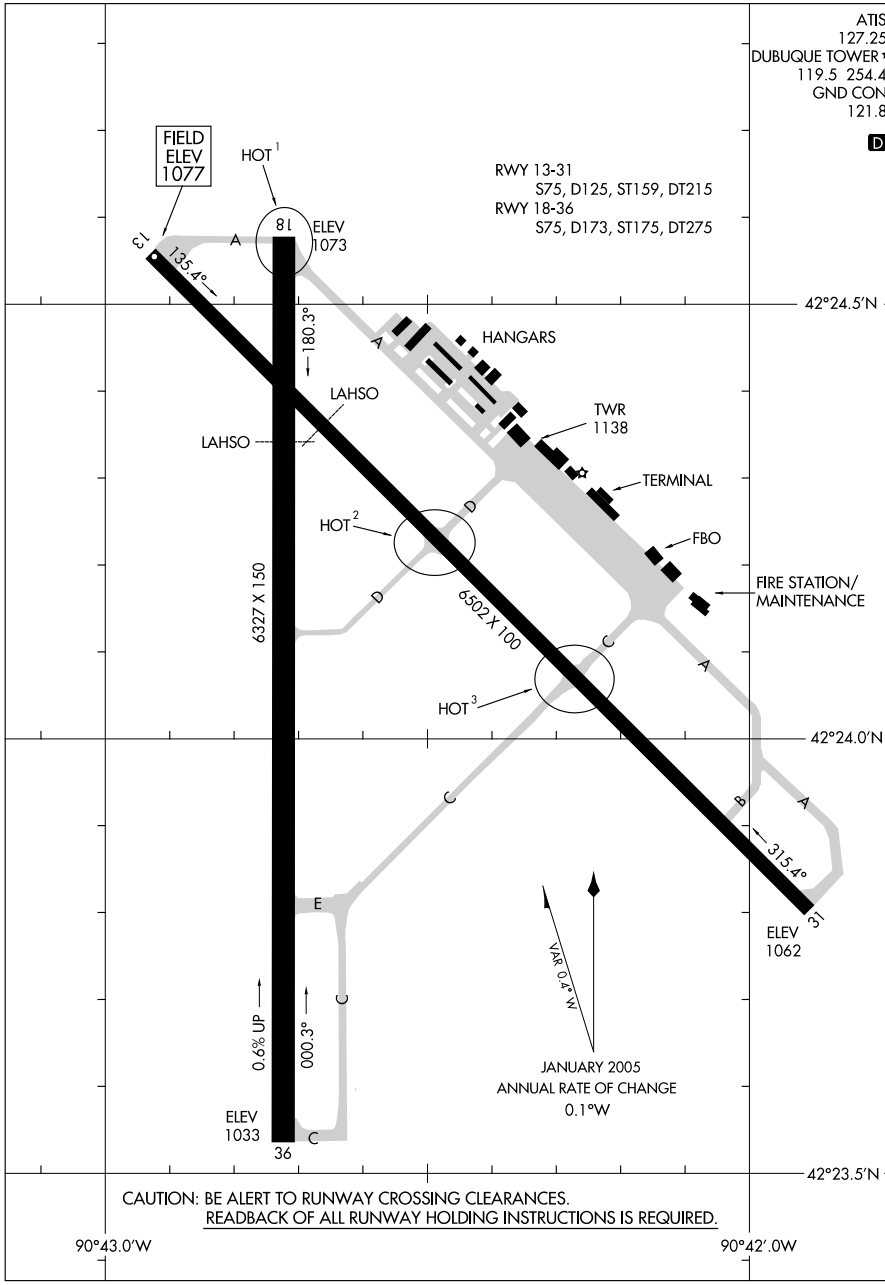
DODGE CITY, KANSAS
DODGE CITY RGNL (DDC)

10042

AIRPORT DIAGRAM

DUBUQUE RGNL (DBQ)
DUBUQUE, IOWA

AL-923 (FAA)



AIRPORT DIAGRAM

10042

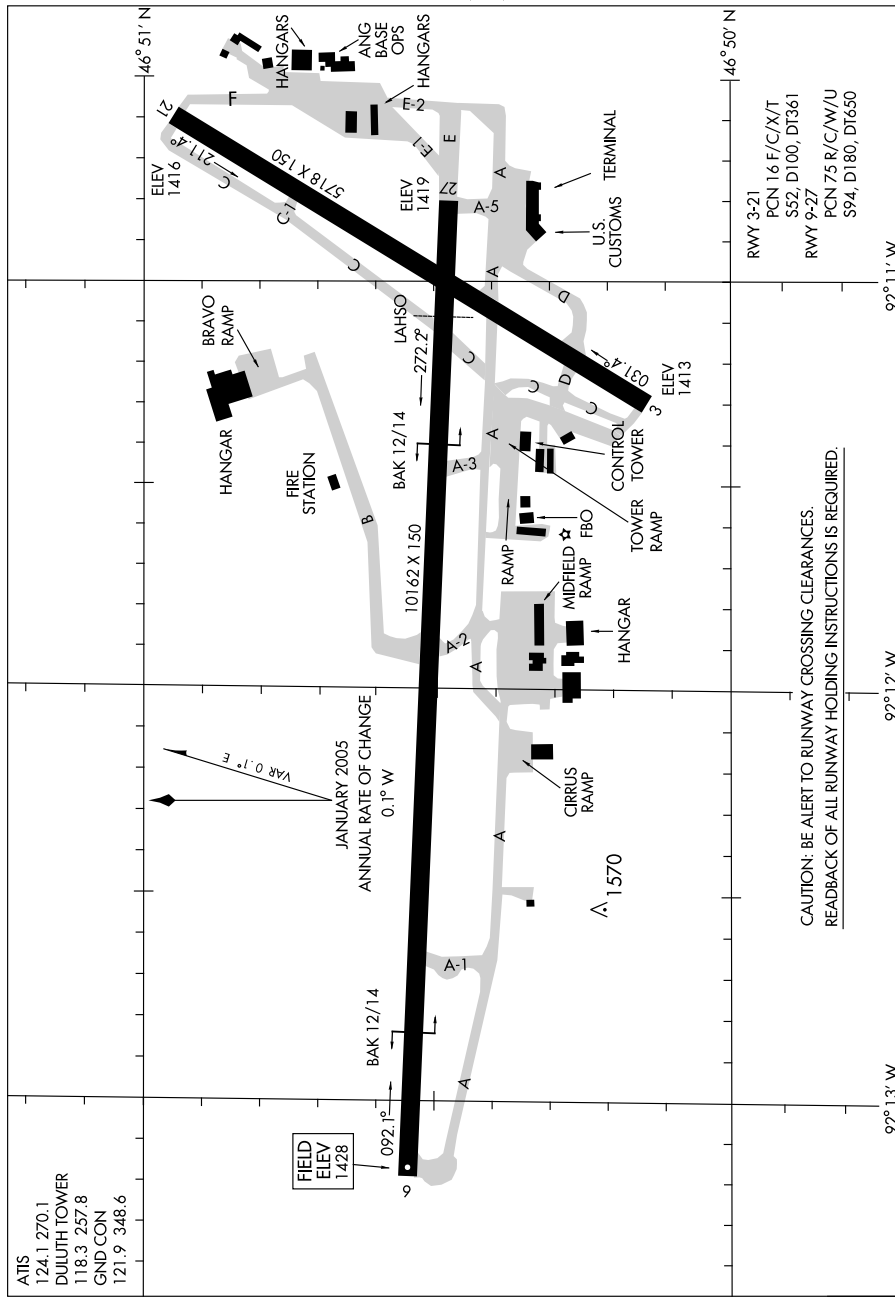
DUBUQUE, IOWA
DUBUQUE RGNL (DBQ)

09071

AIRPORT DIAGRAM

DULUTH INTL (DLH)
DULUTH, MINNESOTA

AL-125 (FAA)



AIRPORT DIAGRAM

09071

DULUTH, MINNESOTA
DULUTH INTL (DLH)

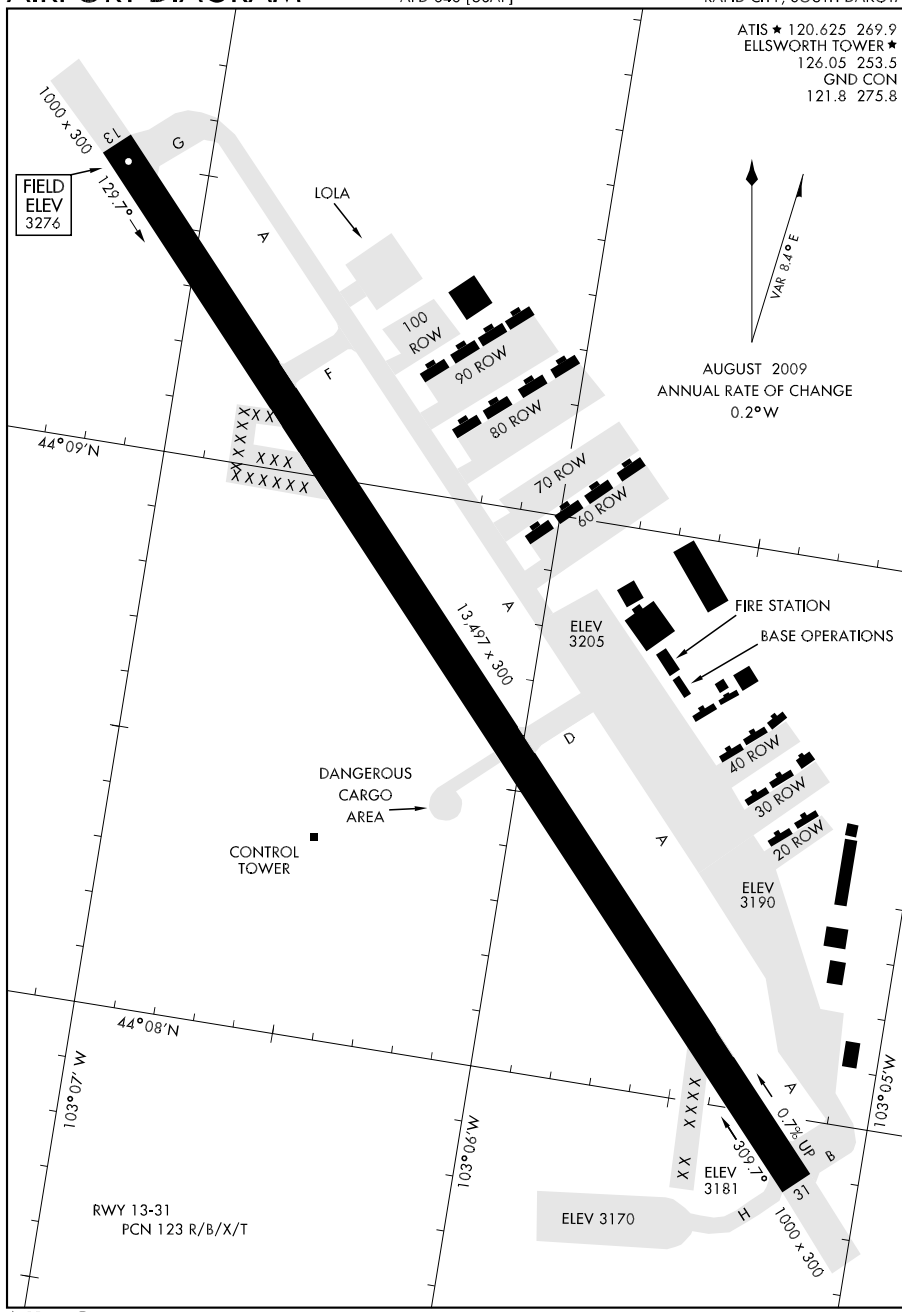
09239

AIRPORT DIAGRAM

AFD-343 [USAF]

ELLSWORTH AFB (KRCA)

RAPID CITY, SOUTH DAKOTA



AIRPORT DIAGRAM

RAPID CITY, SOUTH DAKOTA

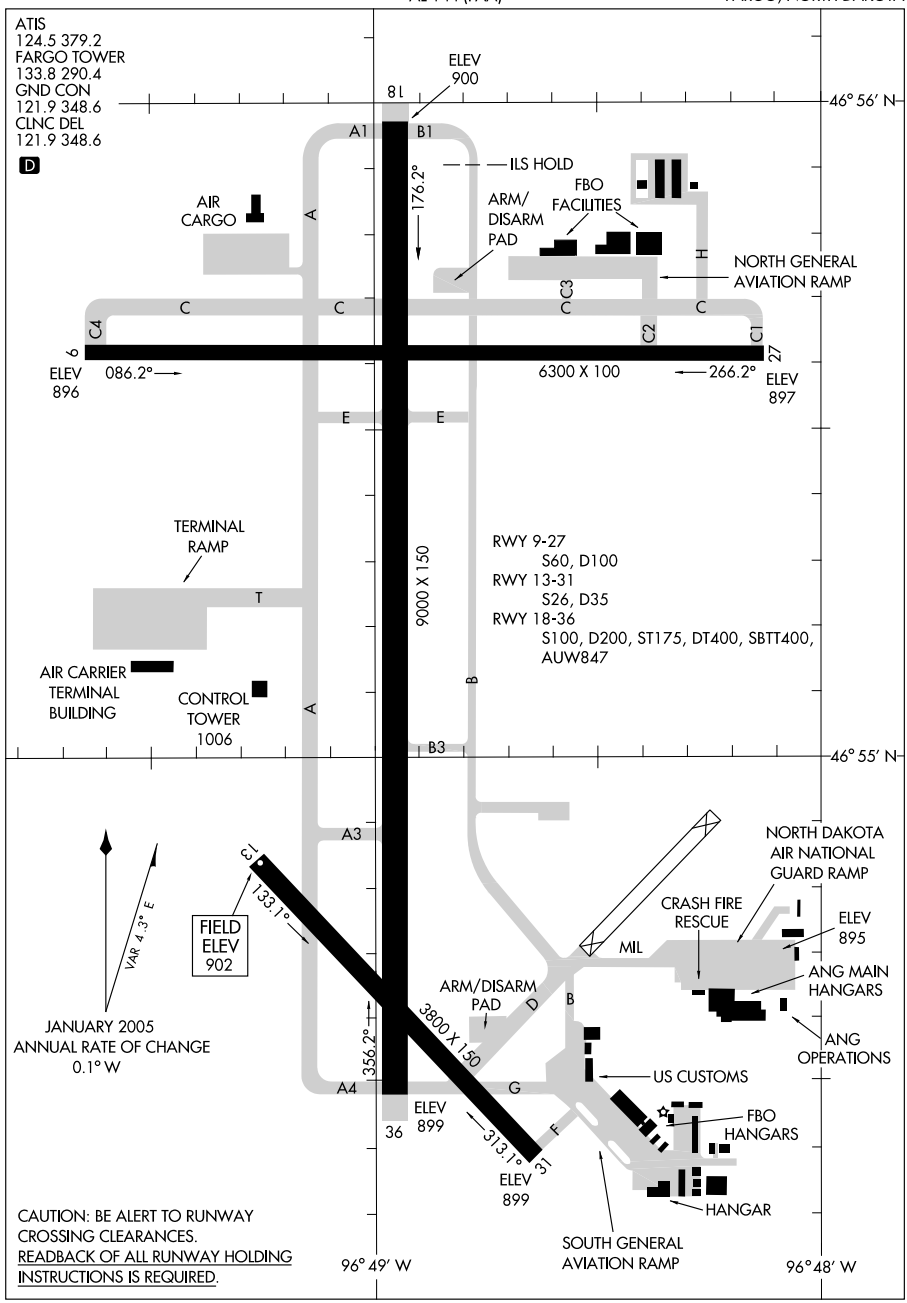
ELLSWORTH AFB (KRCA)

09295

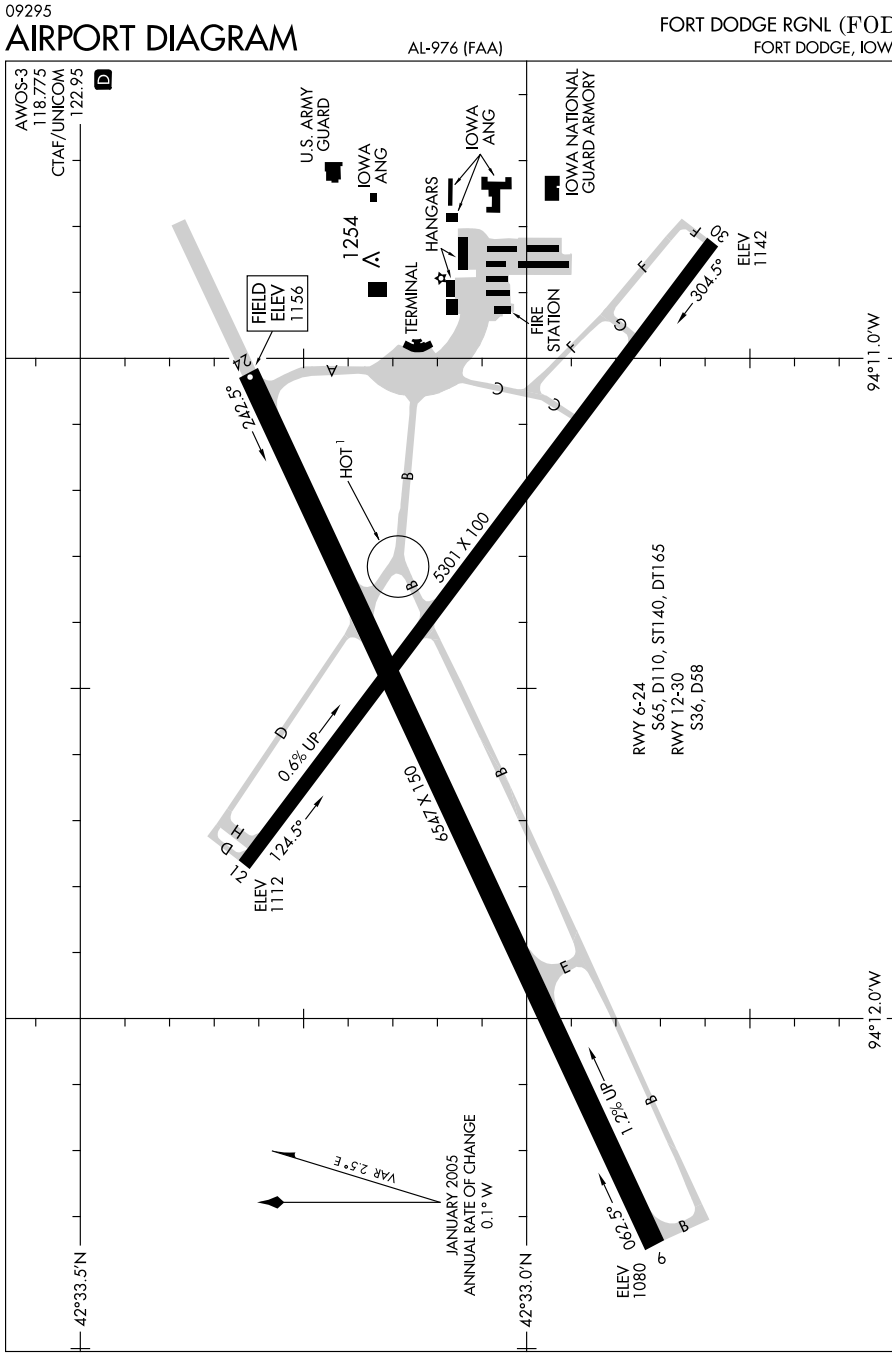
AIRPORT DIAGRAM

AL-144 (FAA)

FARGO/HECTOR INTL (FAR)
FARGO, NORTH DAKOTA



AIRPORT DIAGRAM
09295
FARGO, NORTH DAKOTA
FARGO/HECTOR INTL (FAR)


09295
AIRPORT DIAGRAM
AL-976 (FAA)
FORT DODGE RGNL (FOD)
FORT DODGE, IOWA
AWOS-3
118.775
CTAF/UNICOM
122.95
U.S. ARMY GUARD
IOWA ANG
IOWA ANG
IOWA NATIONAL GUARD ARMORY
1254
HANGARS
TERMINAL
FIRE STATION
FIELD ELEV 1156
ELEV 1142
24
247.5°
304.5°
06
HOT 1
5301 X 100
6547 X 150
0.6% UP
124.5°
ELEV 1112
RWY 6-24
S65, D110, ST140, DT165
RWY 12-30
S36, D58
1.2% UP
062.5°
ELEV 1080
VAR 2.5°E
JANUARY 2005
ANNUAL RATE OF CHANGE
0.1° W
94°11.0'W
94°12.0'W
42°33.5'N
42°33.0'N
AIRPORT DIAGRAM
09295
FORT DODGE, IOWA
FORT DODGE RGNL (FOD)

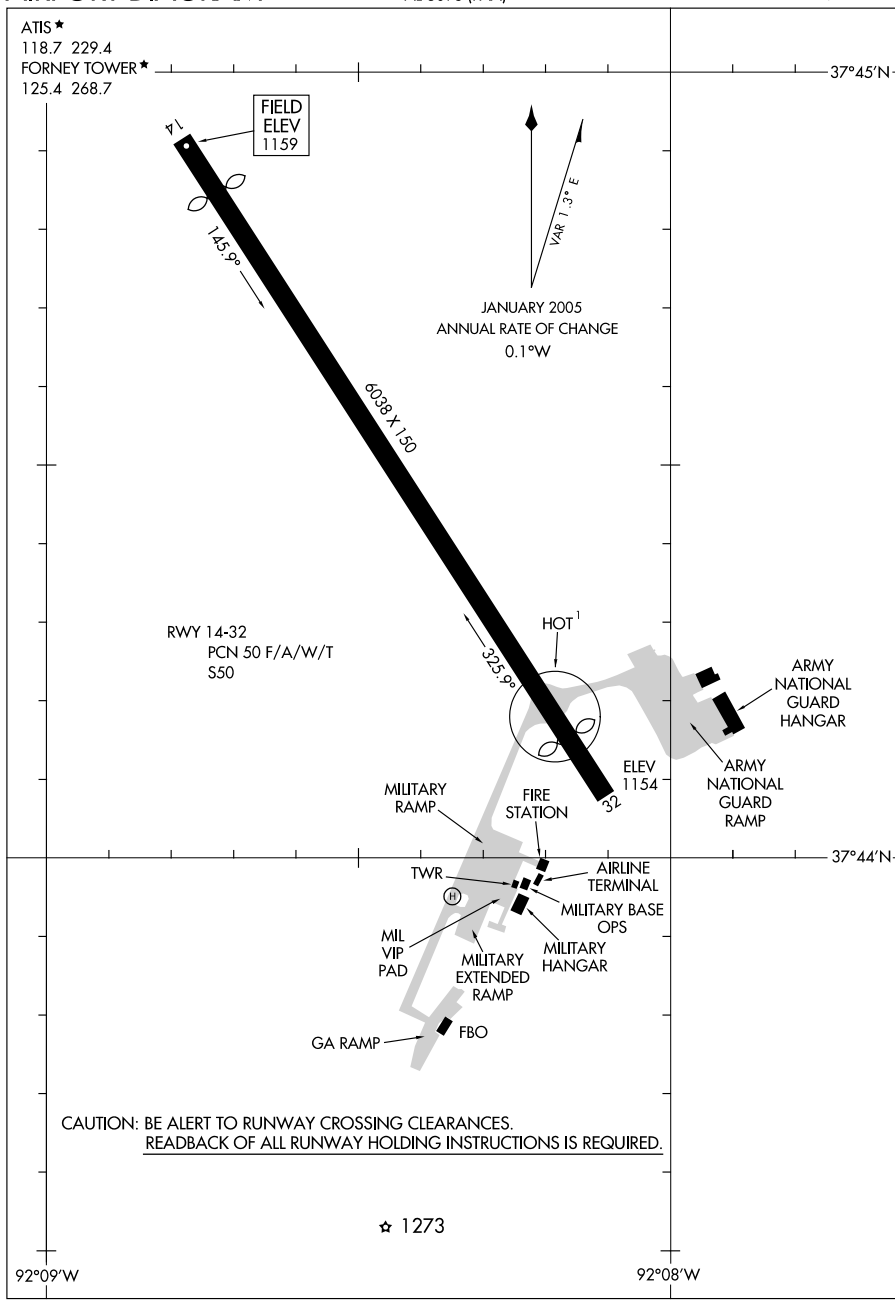
10042

FT. LEONARD WOOD/WAYNESVILLE-ST. ROBERT RGNL FORNEY FIELD (TBN)

AIRPORT DIAGRAM

AL-5093 (FAA)

FT. LEONARD WOOD, MISSOURI



AIRPORT DIAGRAM

FT. LEONARD WOOD, MISSOURI

10042

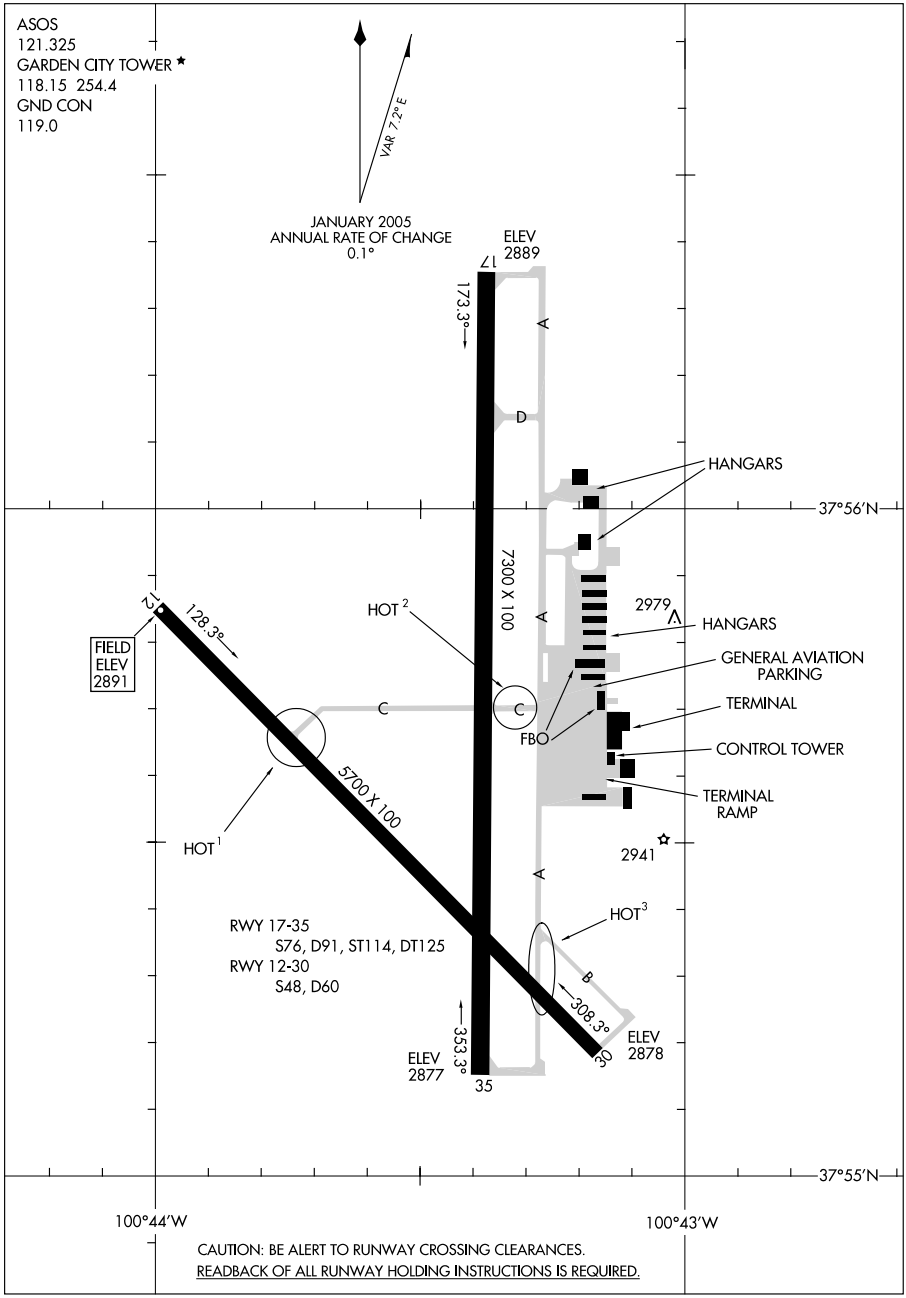
FT. LEONARD WOOD/WAYNESVILLE-ST. ROBERT RGNL FORNEY FIELD (TBN)

09295

AIRPORT DIAGRAM

GARDEN CITY RGNL (GCK)
GARDEN CITY, KANSAS

AL-491 (FAA)



AIRPORT DIAGRAM

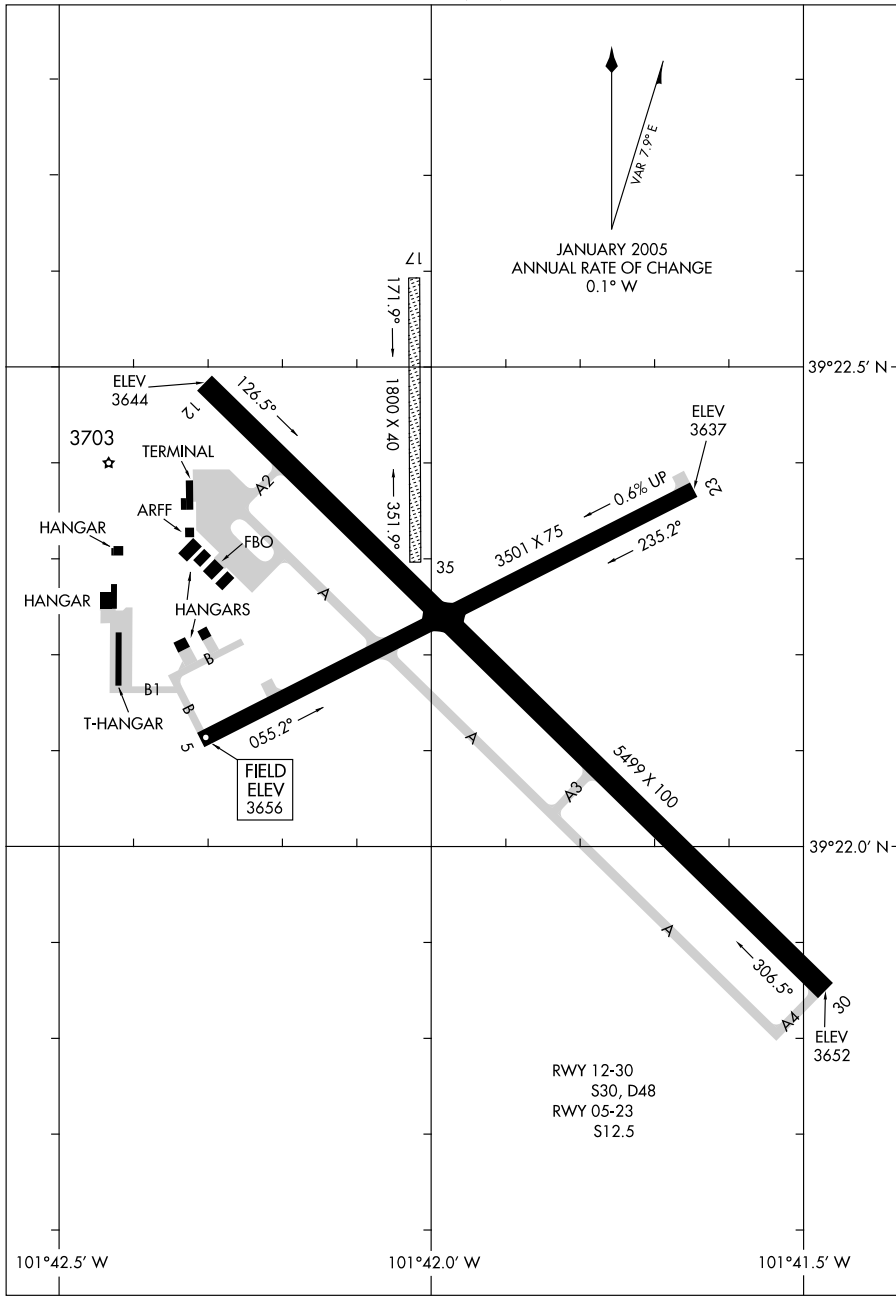
09295

GARDEN CITY, KANSAS
GARDEN CITY RGNL (GCK)

06271

AIRPORT DIAGRAM

GOODLAND/ RENNER FIELD/GOODLAND MUNI (GLD)
AL-684 (FAA)
GOODLAND, KANSAS



AIRPORT DIAGRAM

06271

39°22′ N - 101°42′ W

GOODLAND, KANSAS
GOODLAND/ RENNER FIELD/GOODLAND MUNI (GLD)

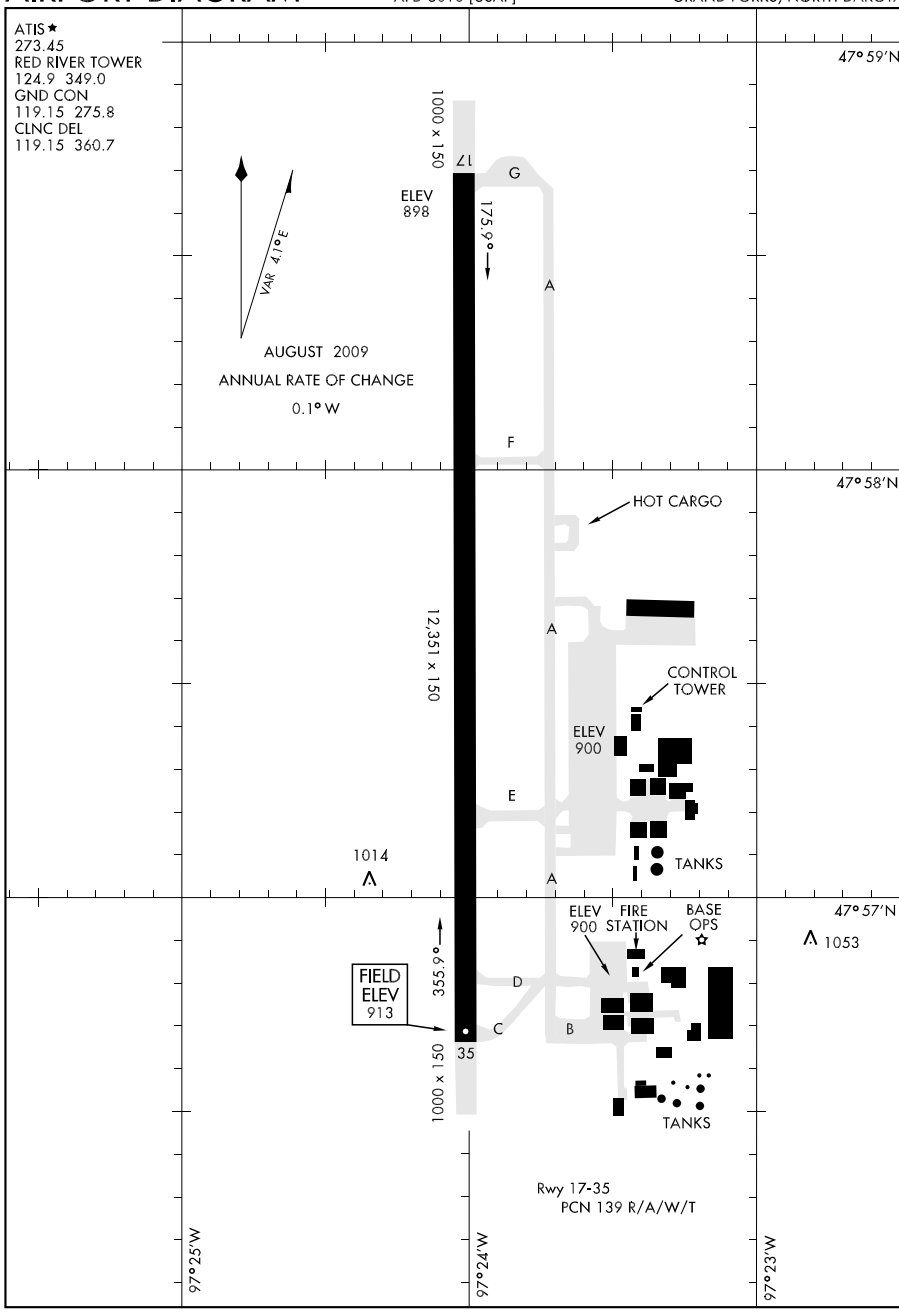
09239

AIRPORT DIAGRAM

AFD-5010 [USAF]

GRAND FORKS AFB (KRDR)

GRAND FORKS, NORTH DAKOTA



AIRPORT DIAGRAM

GRAND FORKS, NORTH DAKOTA

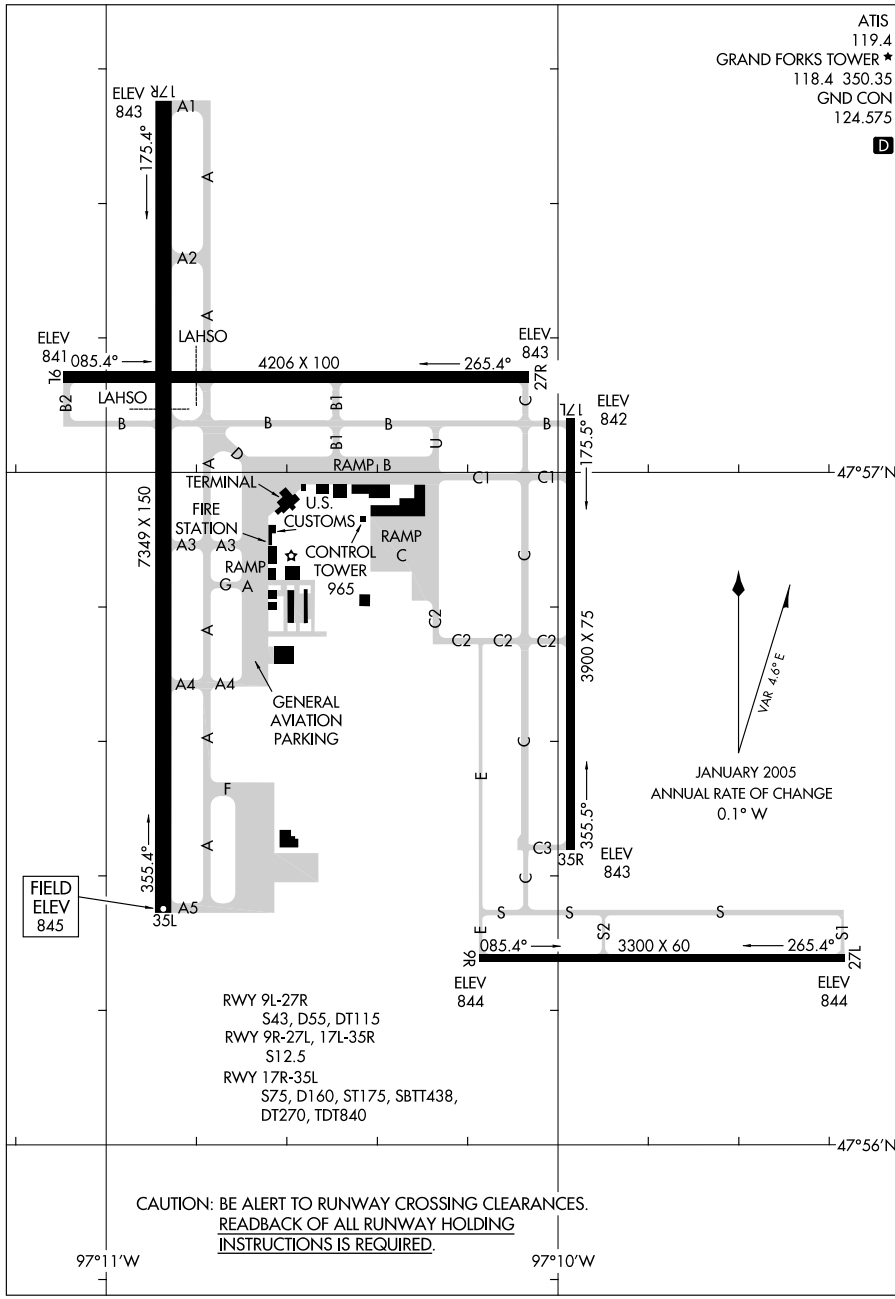
GRAND FORKS AFB (KRDR)

09295

AIRPORT DIAGRAM

AL-5187 (FAA)

GRAND FORKS INTL (GFK)
GRAND FORKS, NORTH DAKOTA



AIRPORT DIAGRAM

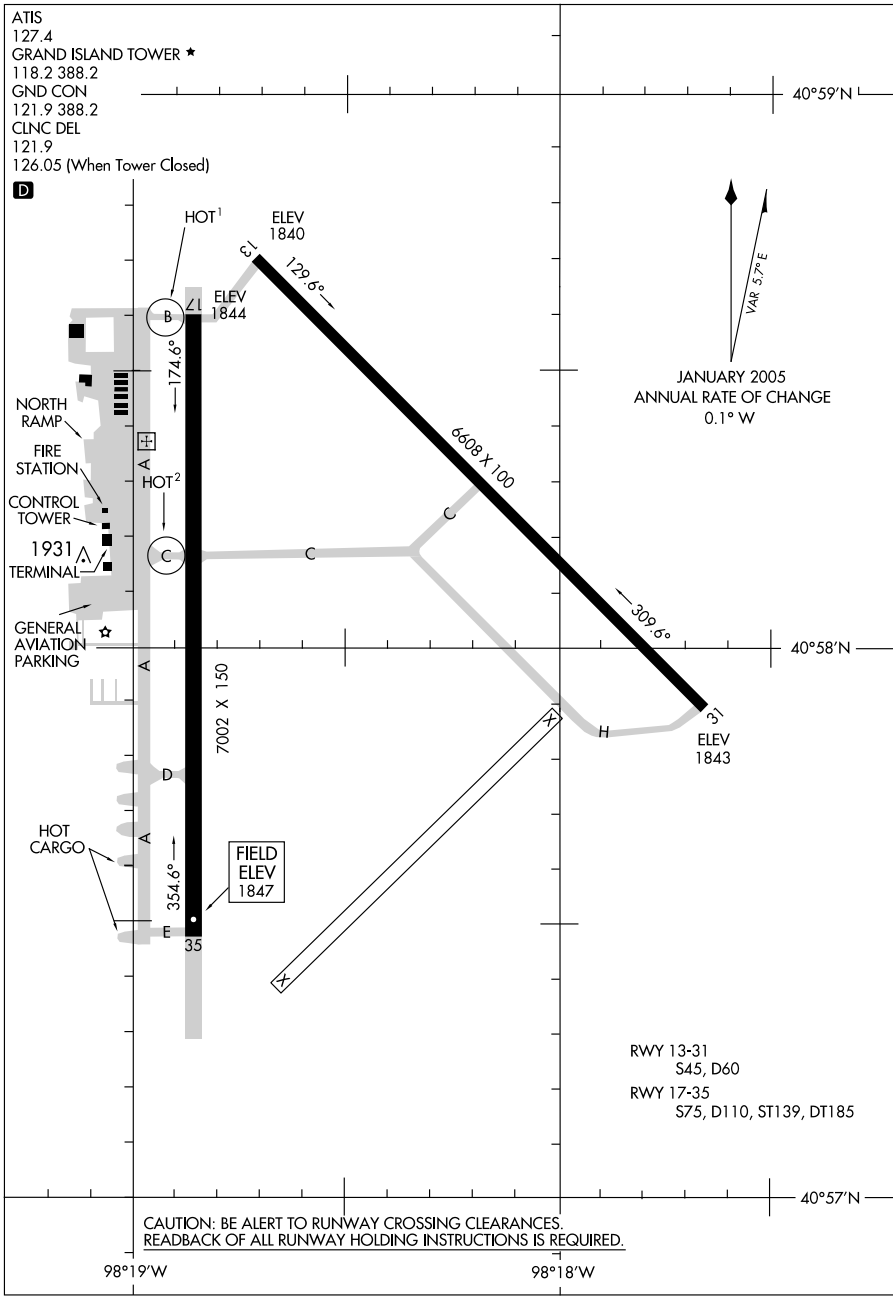
09295

GRAND FORKS, NORTH DAKOTA
GRAND FORKS INTL (GFK)

10042

AIRPORT DIAGRAM

GRAND ISLAND/ CENTRAL NEBRASKA RGNL (GRI)
AL-173 (FAA)
GRAND ISLAND, NEBRASKA



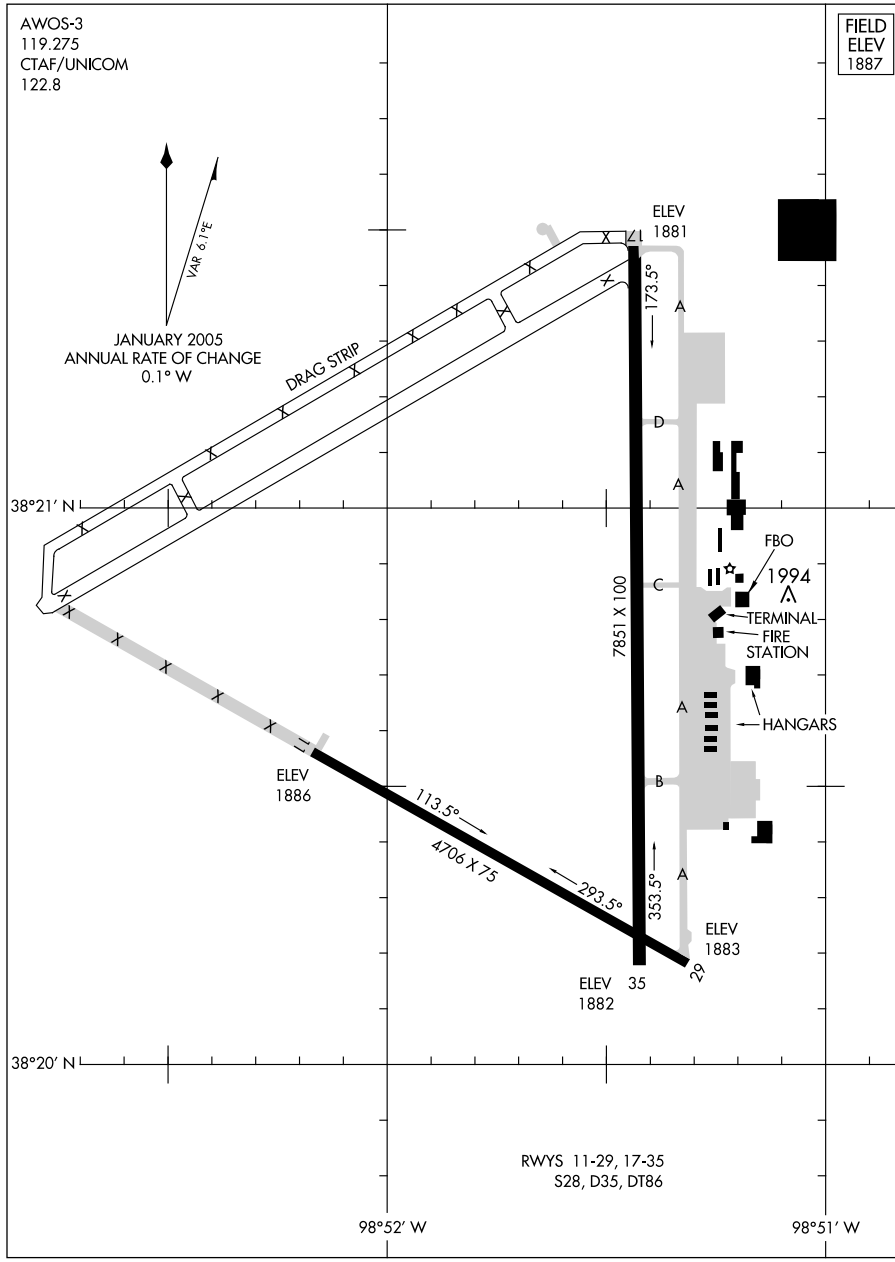
AIRPORT DIAGRAM
10042
GRAND ISLAND, NEBRASKA
GRAND ISLAND/ CENTRAL NEBRASKA RGNL (GRI)

10042

AIRPORT DIAGRAM

AL-175 (FAA)

GREAT BEND MUNI (GBD)
GREAT BEND, KANSAS



AIRPORT DIAGRAM

10042

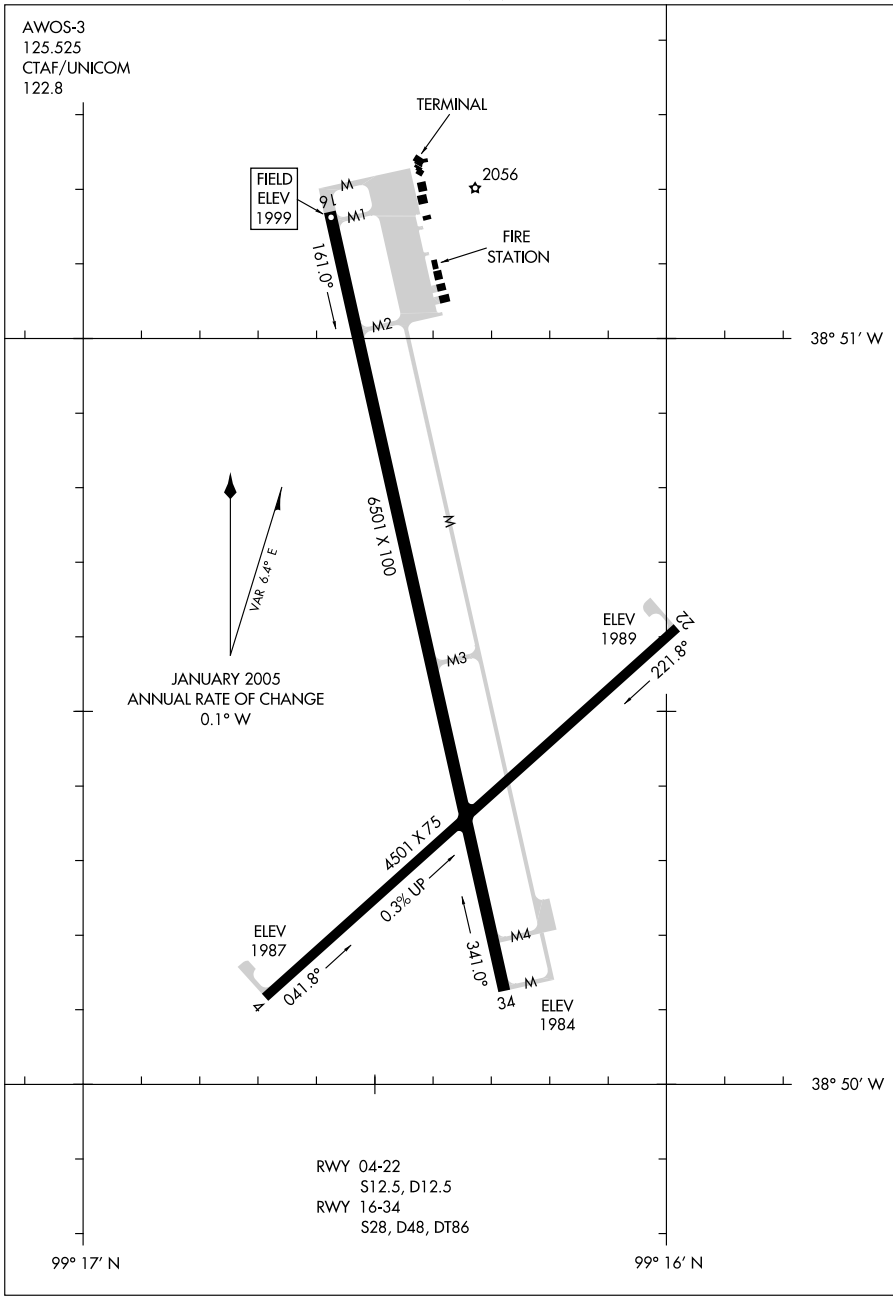
GREAT BEND, KANSAS
GREAT BEND MUNI (GBD)

09127

AIRPORT DIAGRAM

AL-5440 (FAA)

HAYS RGNL (HYS)
HAYS, KANSAS



AIRPORT DIAGRAM

09127

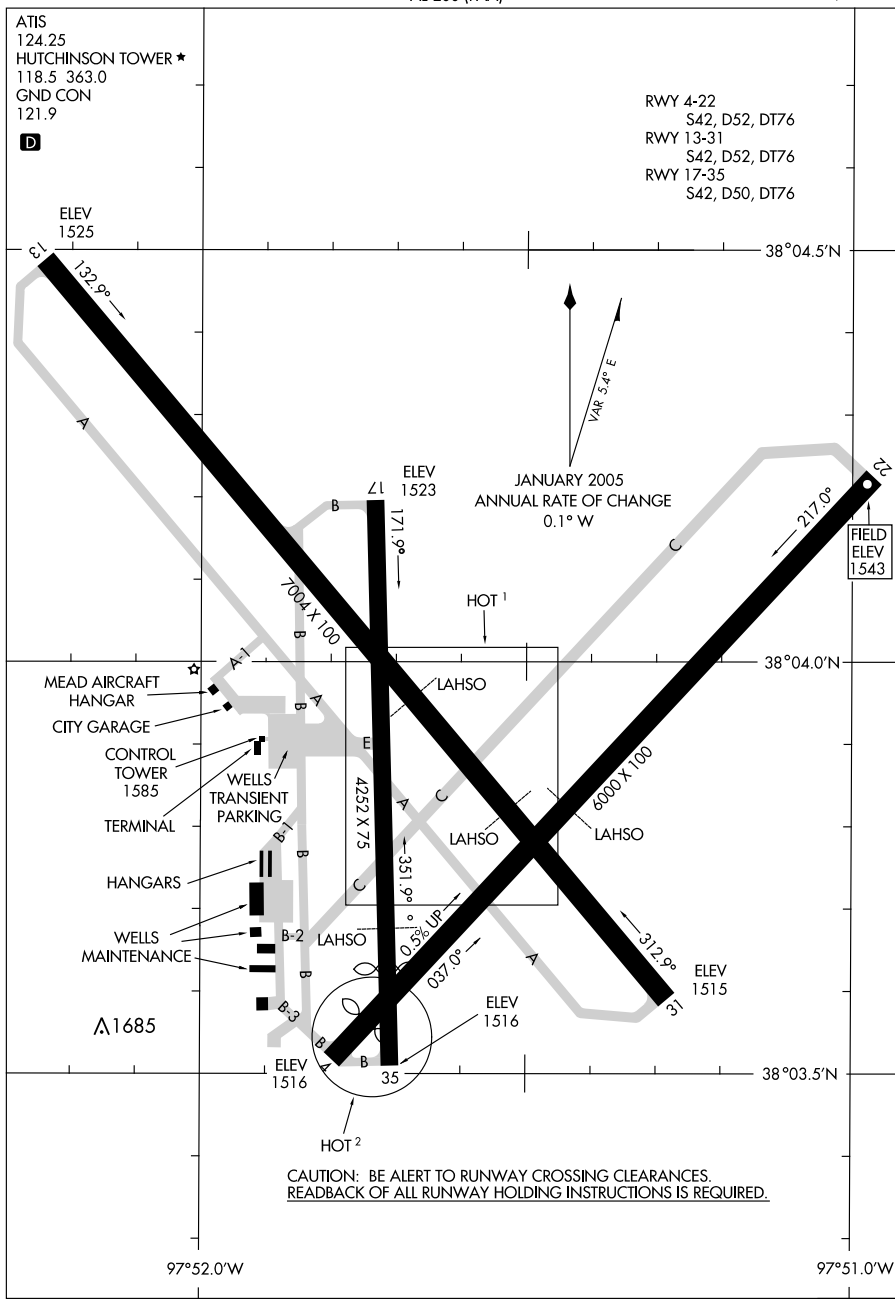
HAYS, KANSAS
HAYS RGNL (HYS)

09295

AIRPORT DIAGRAM

AL-200 (FAA)

HUTCHINSON MUNI (HUT)
HUTCHINSON, KANSAS



AIRPORT DIAGRAM
09295

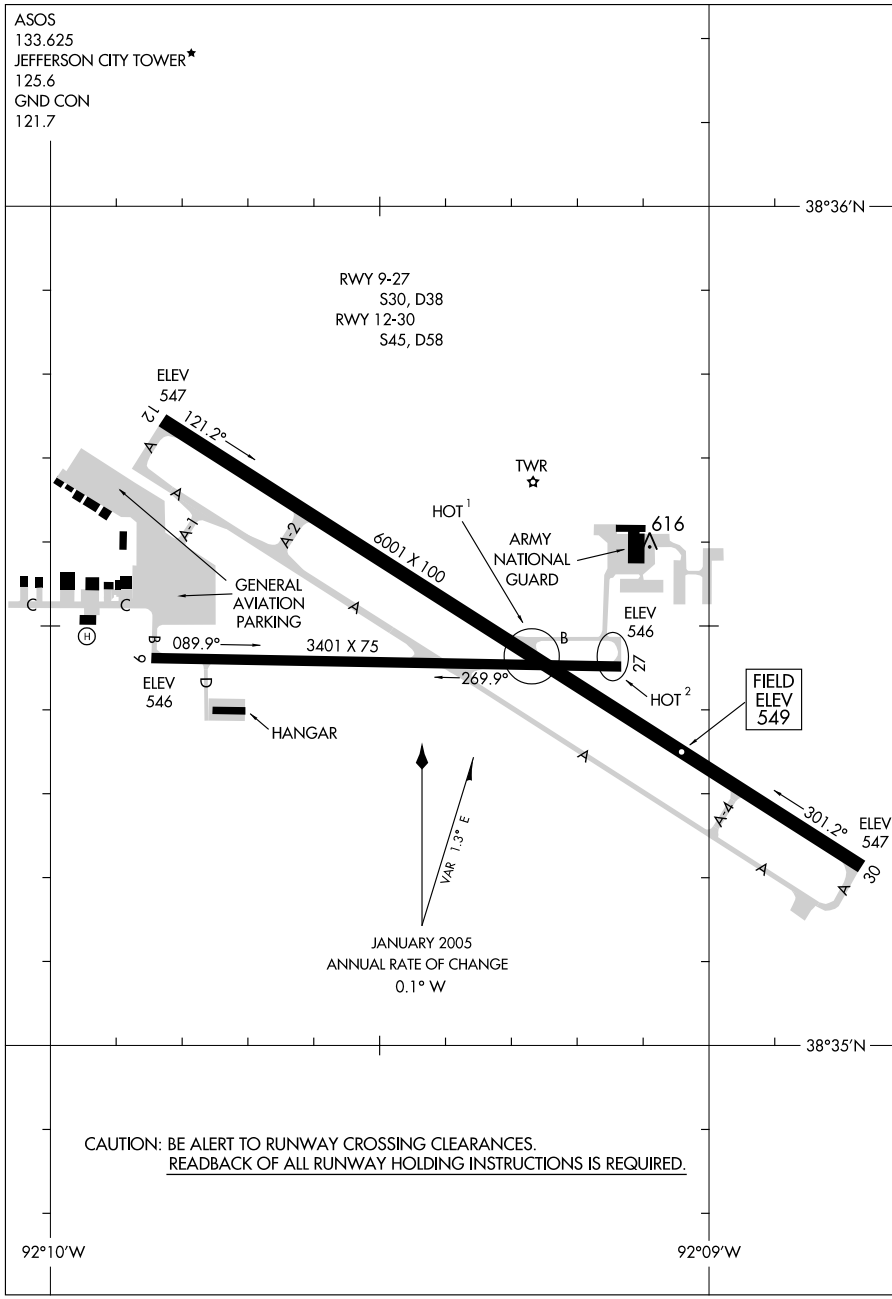
HUTCHINSON, KANSAS
HUTCHINSON MUNI (HUT)

09351

AIRPORT DIAGRAM

AL-796 (FAA)

JEFFERSON CITY MEMORIAL (JEF)
JEFFERSON CITY, MISSOURI



AIRPORT DIAGRAM

09351

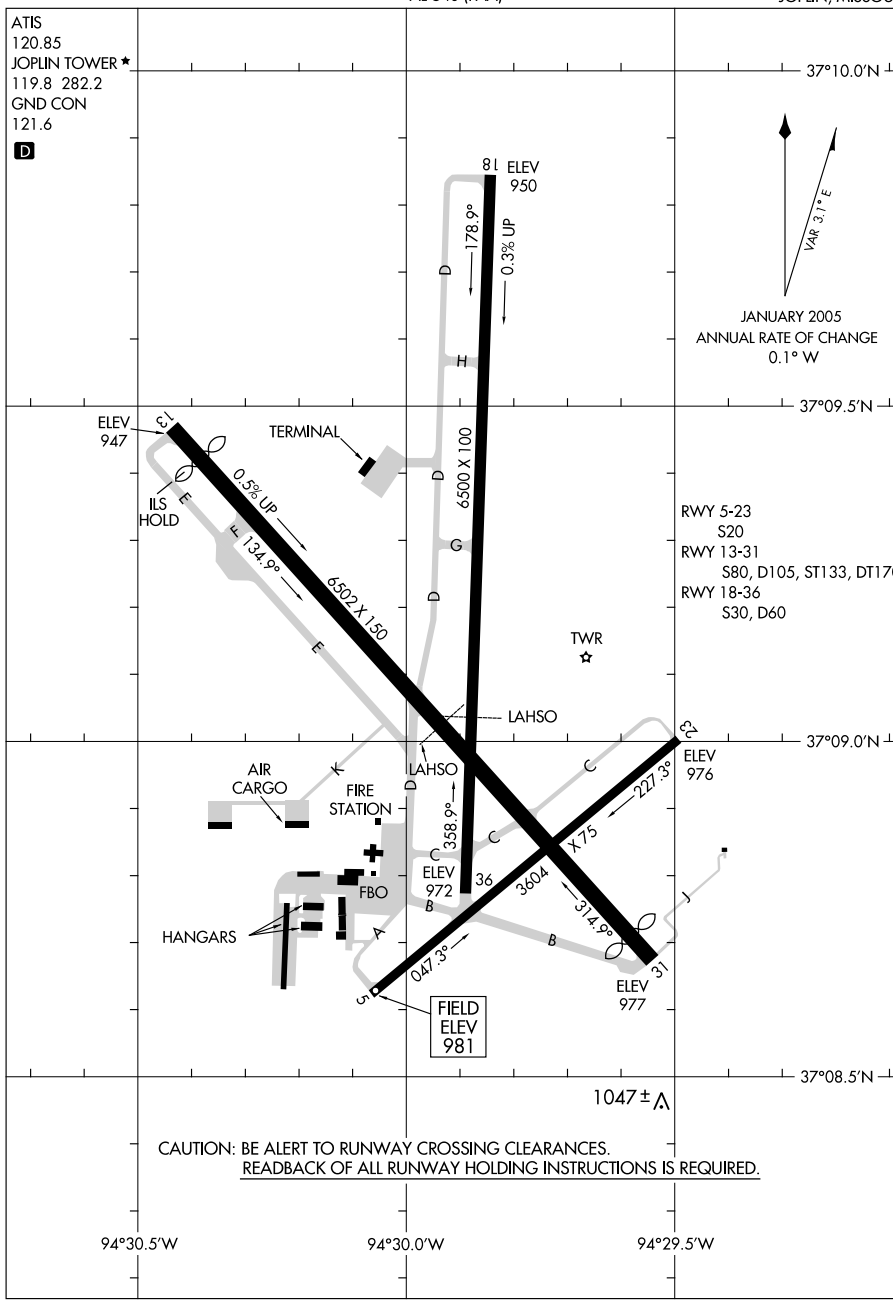
JEFFERSON CITY, MISSOURI
JEFFERSON CITY MEMORIAL (JEF)

10042

AIRPORT DIAGRAM

AL-540 (FAA)

JOPLIN RGNL (JLN)
JOPLIN, MISSOURI



AIRPORT DIAGRAM

10042

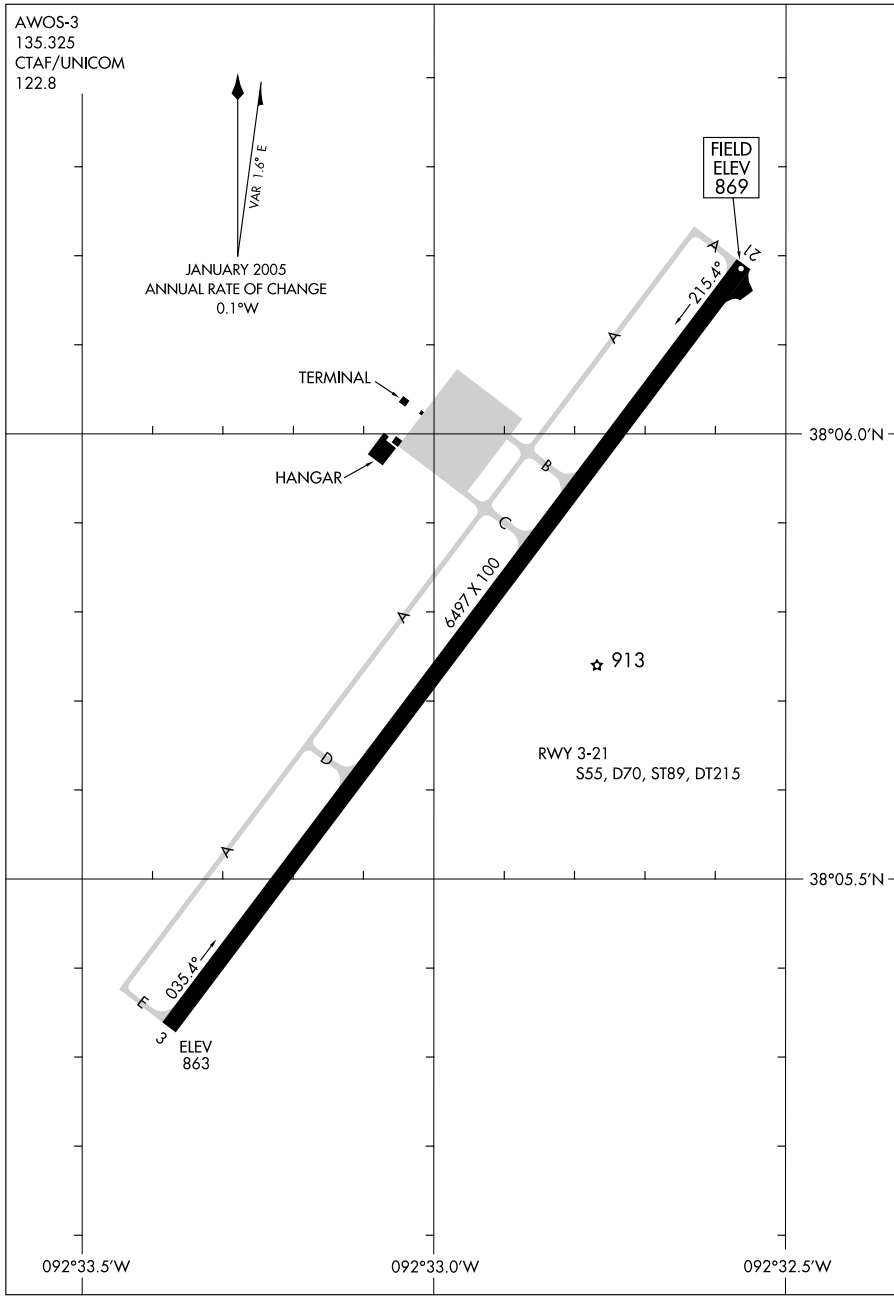
JOPLIN, MISSOURI
JOPLIN RGNL (JLN)

09295

AIRPORT DIAGRAM

KAISER/LEE C. FINE MEMORIAL (AIZ)
KAISER/LAKE OZARK, MISSOURI

AL-5765 (FAA)



AIRPORT DIAGRAM

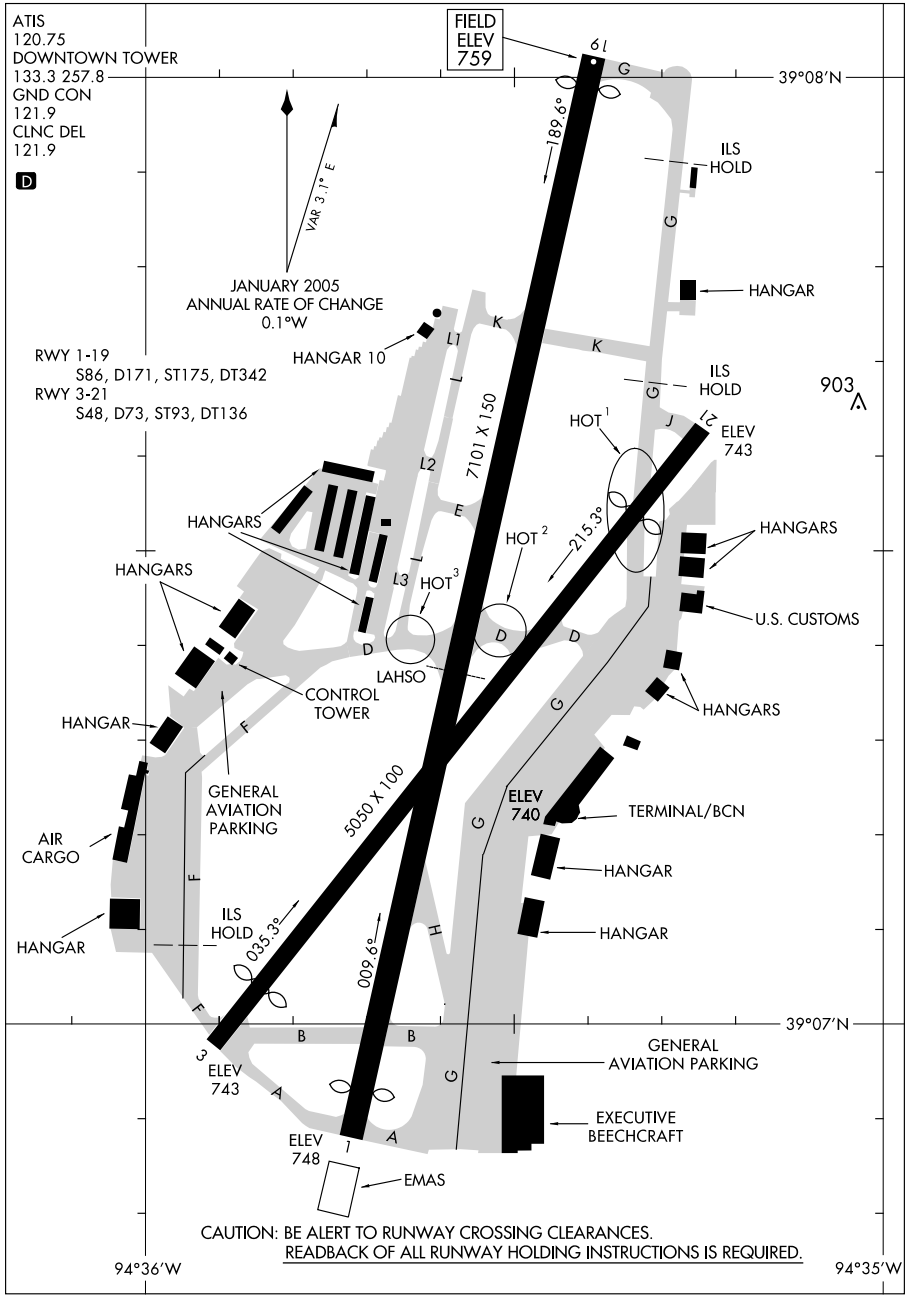
09295

KAISER/LAKE OZARK, MISSOURI
KAISER/LEE C. FINE MEMORIAL (AIZ)

10042

AIRPORT DIAGRAM

KANSAS CITY/CHARLES B. WHEELER DOWNTOWN (MKC)
AL-213 (FAA)
KANSAS CITY, MISSOURI



AIRPORT DIAGRAM

10042

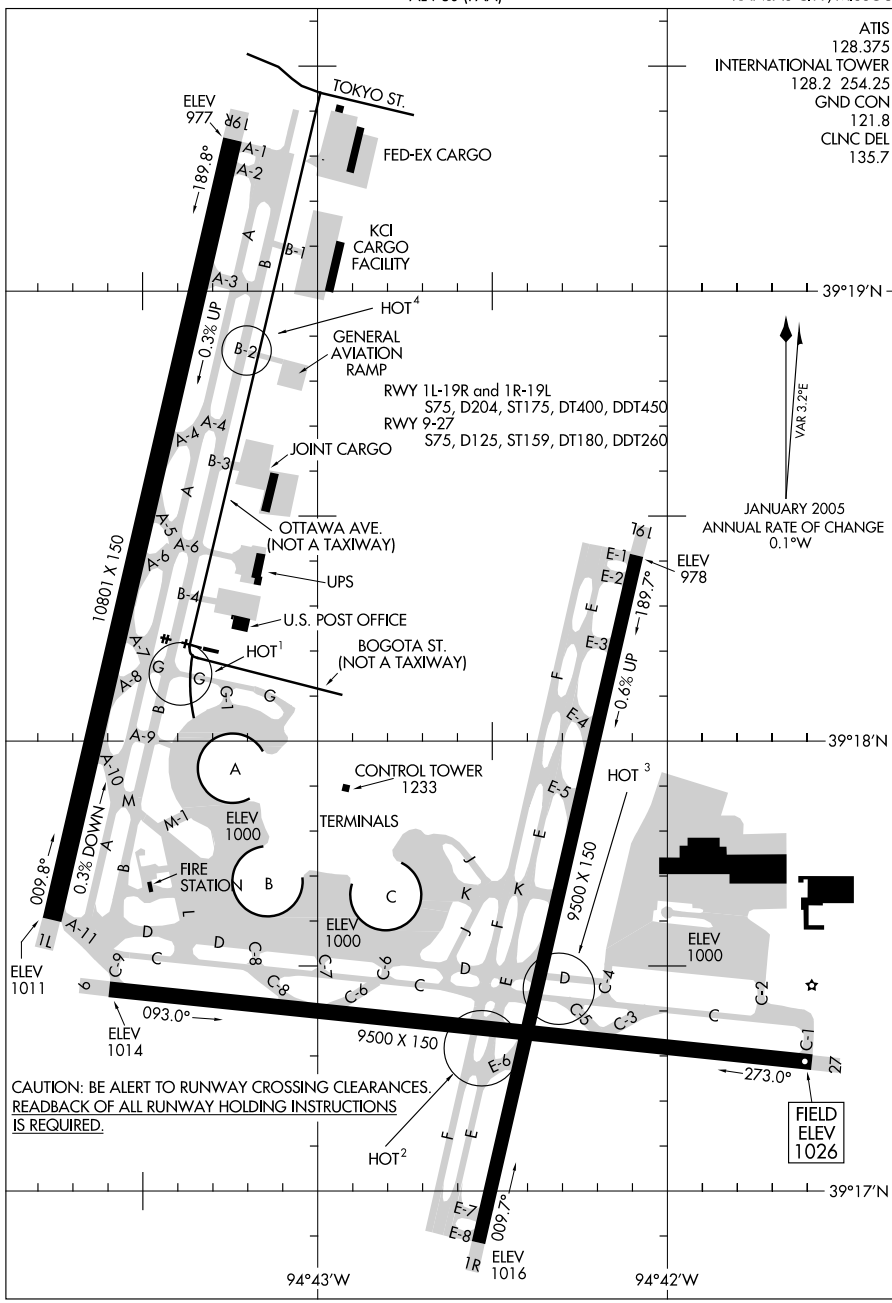
KANSAS CITY, MISSOURI
KANSAS CITY/CHARLES B. WHEELER DOWNTOWN (MKC)

09295

AIRPORT DIAGRAM

AL-780 (FAA)

KANSAS CITY INTL (MCI)
KANSAS CITY, MISSOURI



AIRPORT DIAGRAM

KANSAS CITY, MISSOURI
KANSAS CITY INTL (MCI)

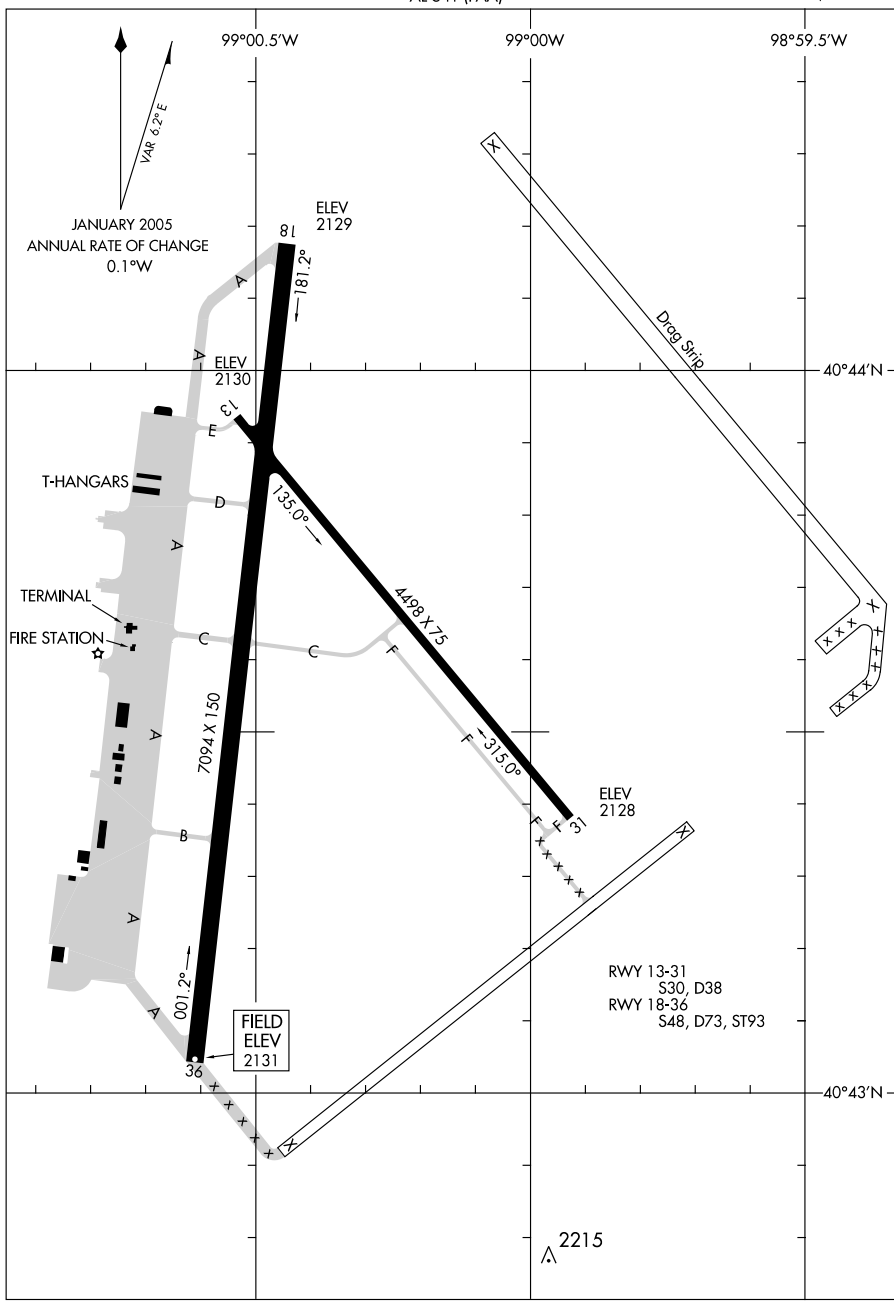
09295

07298

AIRPORT DIAGRAM

KEARNEY RGNL (EAR)
KEARNEY, NEBRASKA

AL-541 (FAA)



AIRPORT DIAGRAM

07298

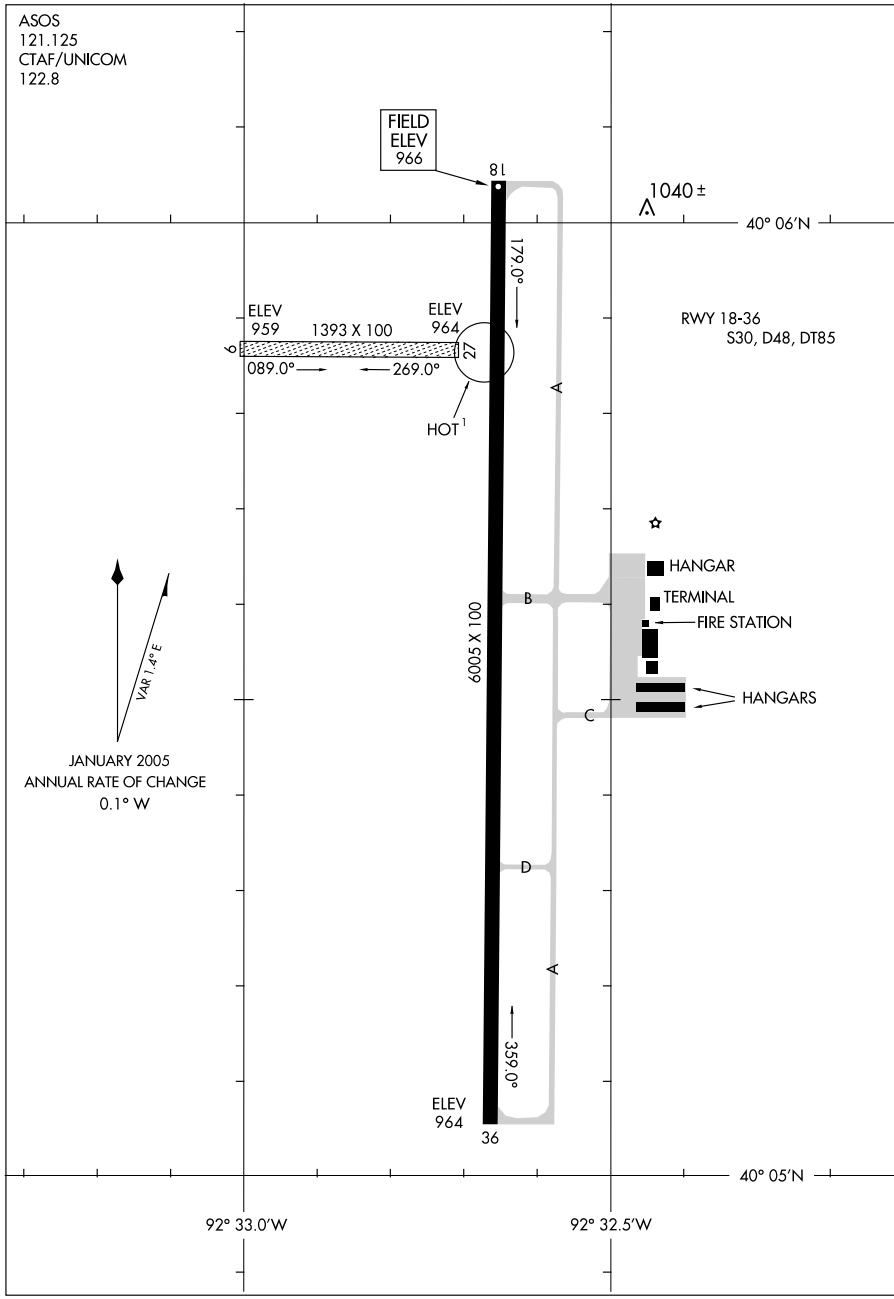
KEARNEY, NEBRASKA
KEARNEY RGNL (EAR)

09239

AIRPORT DIAGRAM

AL-217 (FAA)

KIRKSVILLE RGNL (IRK)
KIRKSVILLE, MISSOURI



AIRPORT DIAGRAM
09239

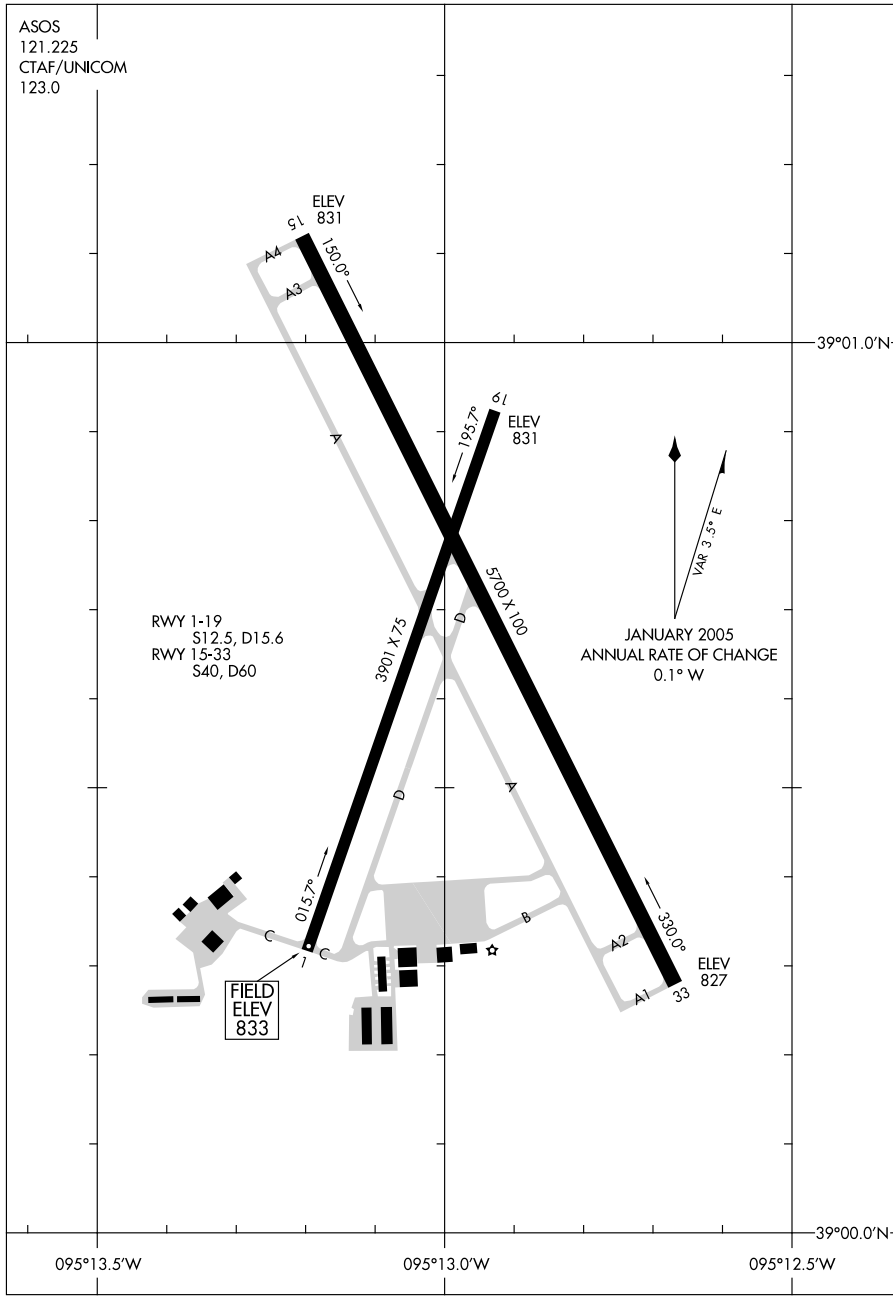
KIRKVILLE, MISSOURI
KIRKSVILLE RGNL (IRK)

10098

AIRPORT DIAGRAM

AL-5481 (FAA)

LAWRENCE MUNI (LWC)
LAWRENCE, KANSAS



AIRPORT DIAGRAM

10098

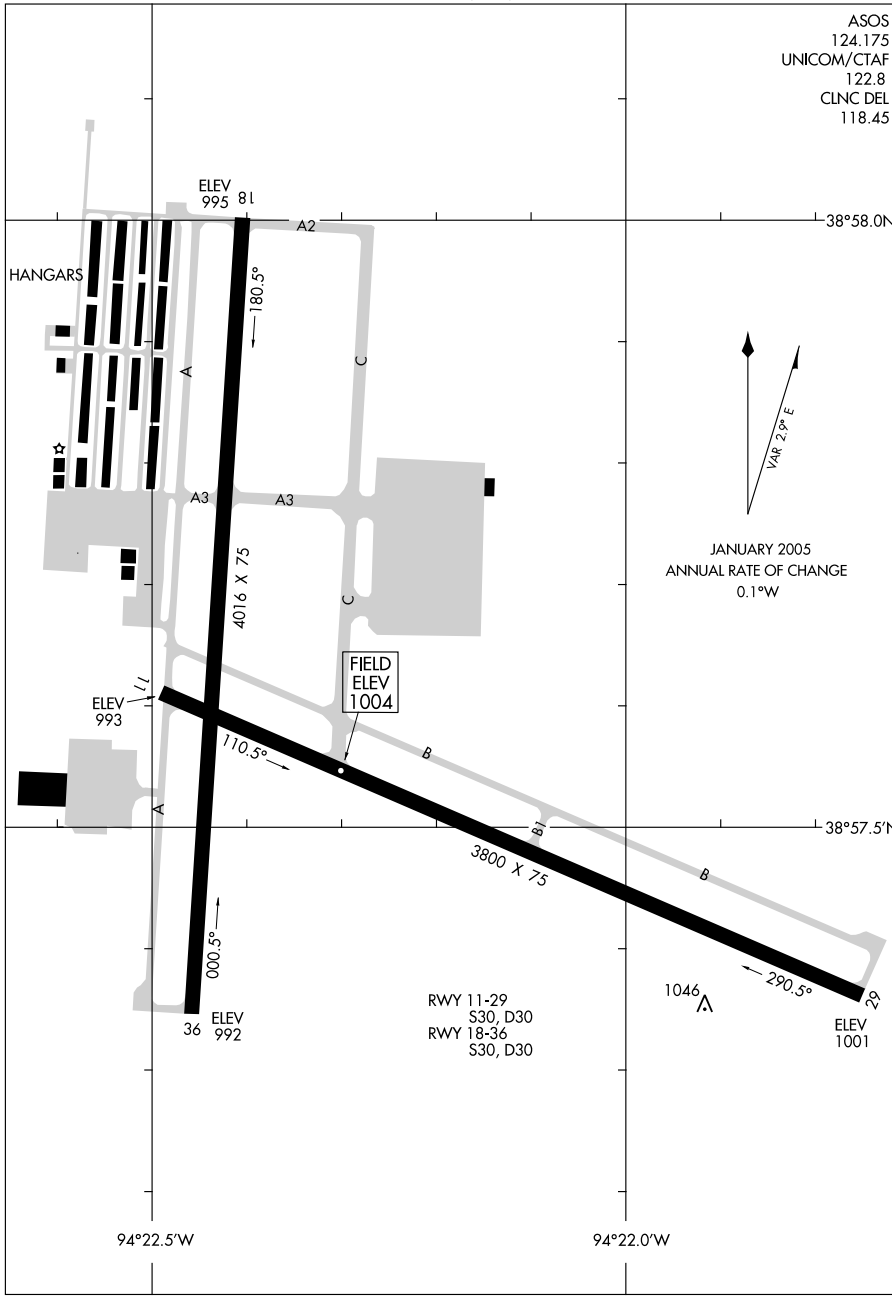
LAWRENCE, KANSAS
LAWRENCE MUNI (LWC)

10098

AIRPORT DIAGRAM

AL-6104 (FAA)

LEE'S SUMMIT MUNI (LXT)
LEE'S SUMMIT, MISSOURI



AIRPORT DIAGRAM

10098

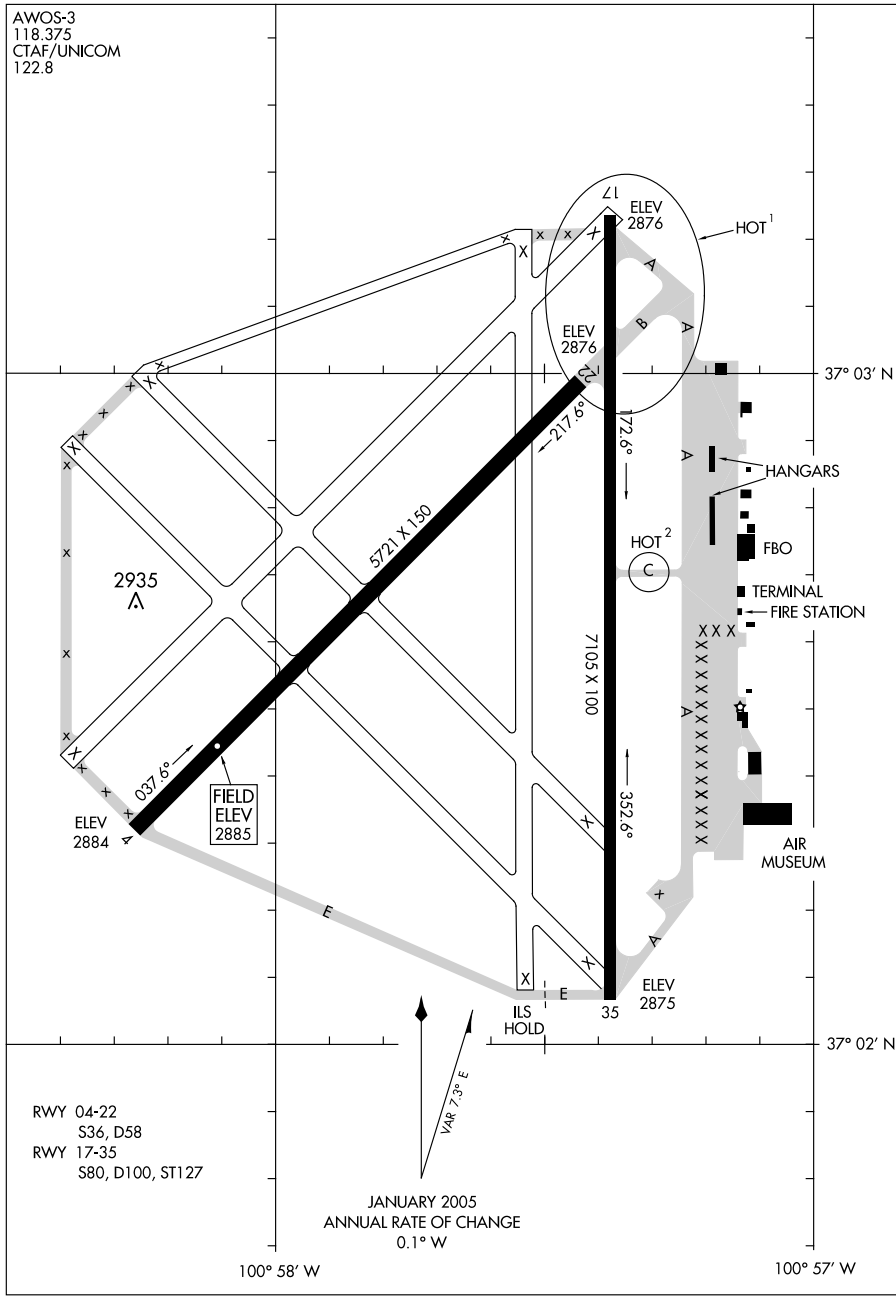
LEE'S SUMMIT, MISSOURI
LEE'S SUMMIT MUNI (LXT)

09351

AIRPORT DIAGRAM

LIBERAL MID-AMERICA RGNL (LBL)
LIBERAL, KANSAS

AL-498 (FAA)



AIRPORT DIAGRAM

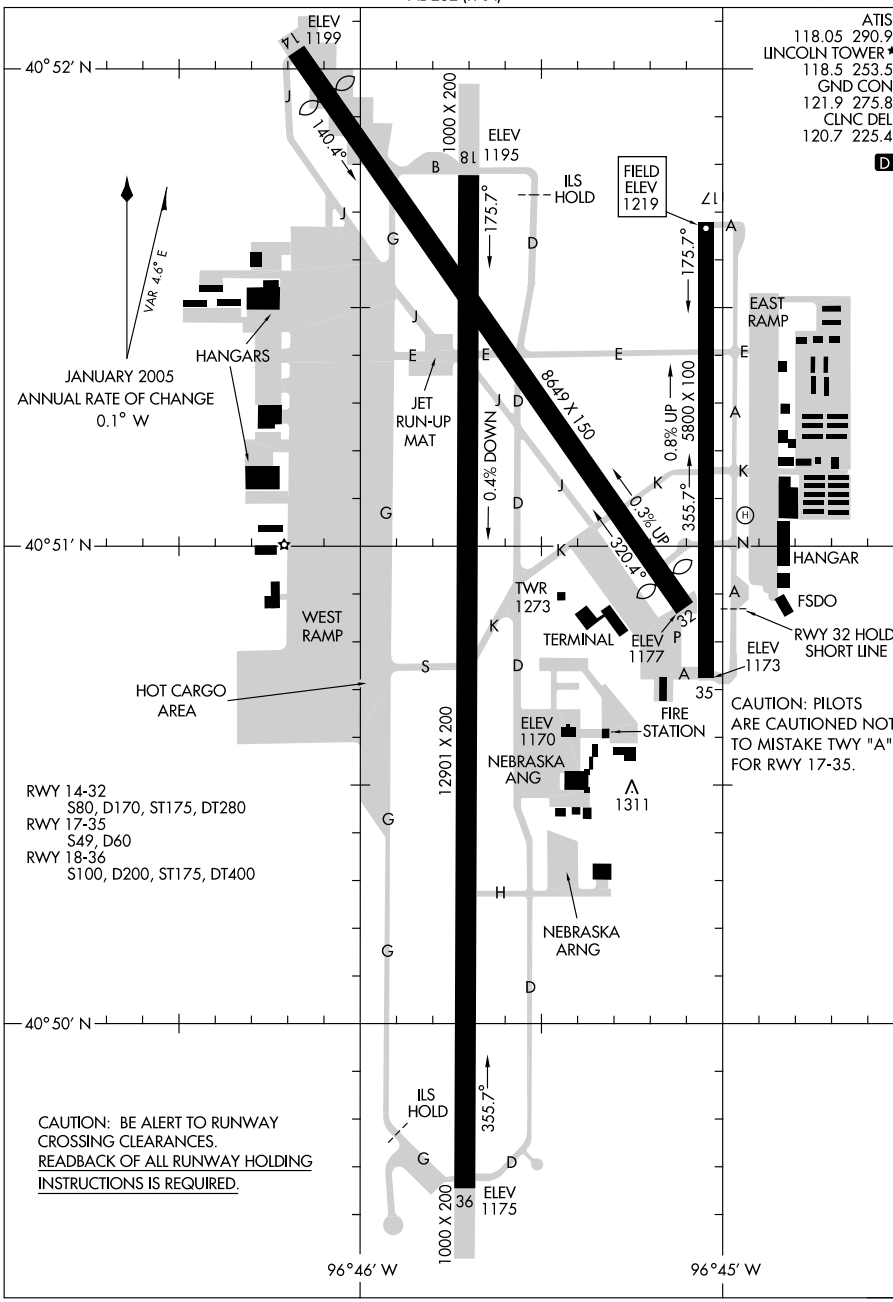
09351

LIBERAL, KANSAS
LIBERAL MID-AMERICA RGNL (LBL)

10098

AIRPORT DIAGRAM

LINCOLN (LNK)
LINCOLN, NEBRASKA



AIRPORT DIAGRAM

10098

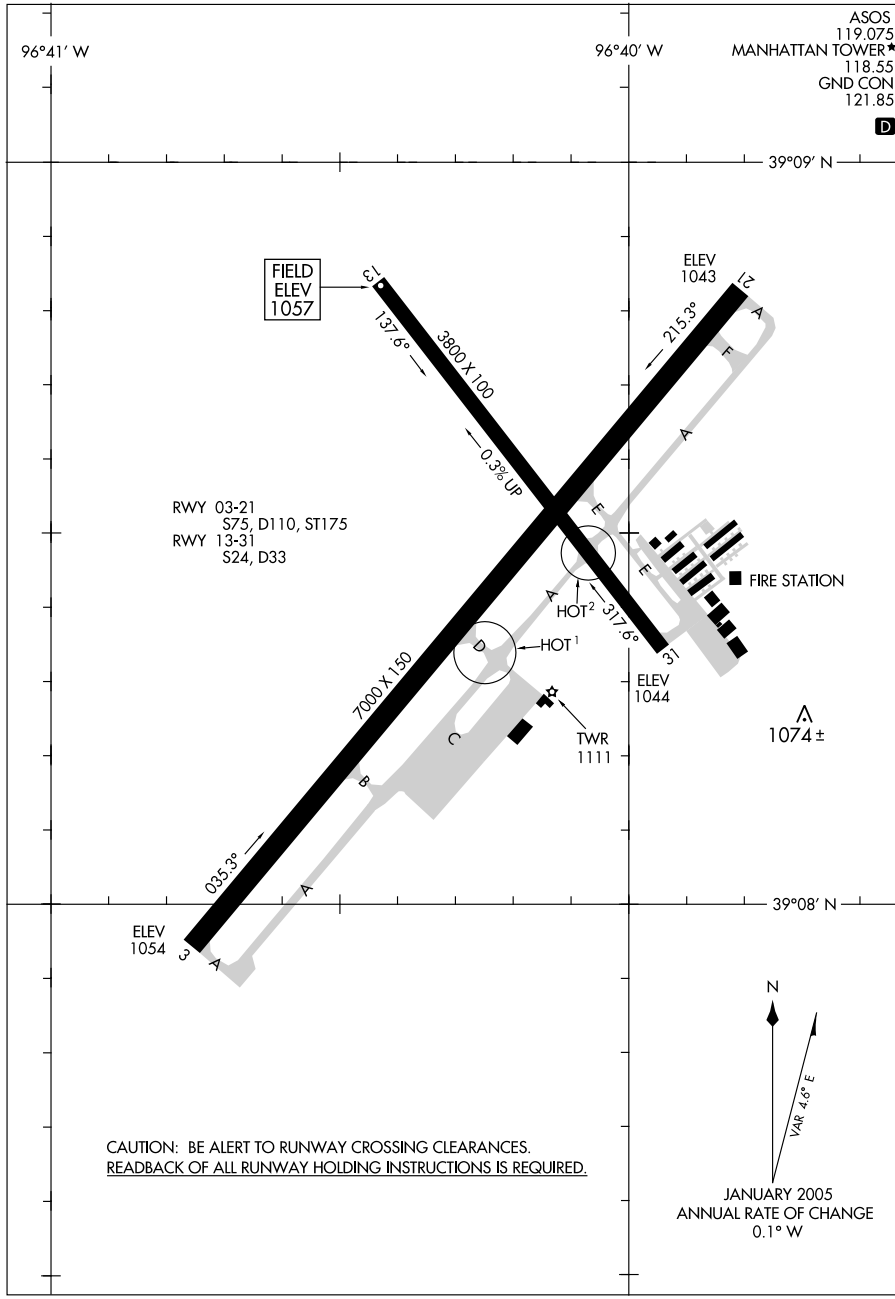
LINCOLN, NEBRASKA
LINCOLN (LNK)

09351

AIRPORT DIAGRAM

AL-5241 (FAA)

MANHATTAN RGNL (MHK)
MANHATTAN, KANSAS



CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.

AIRPORT DIAGRAM

09351

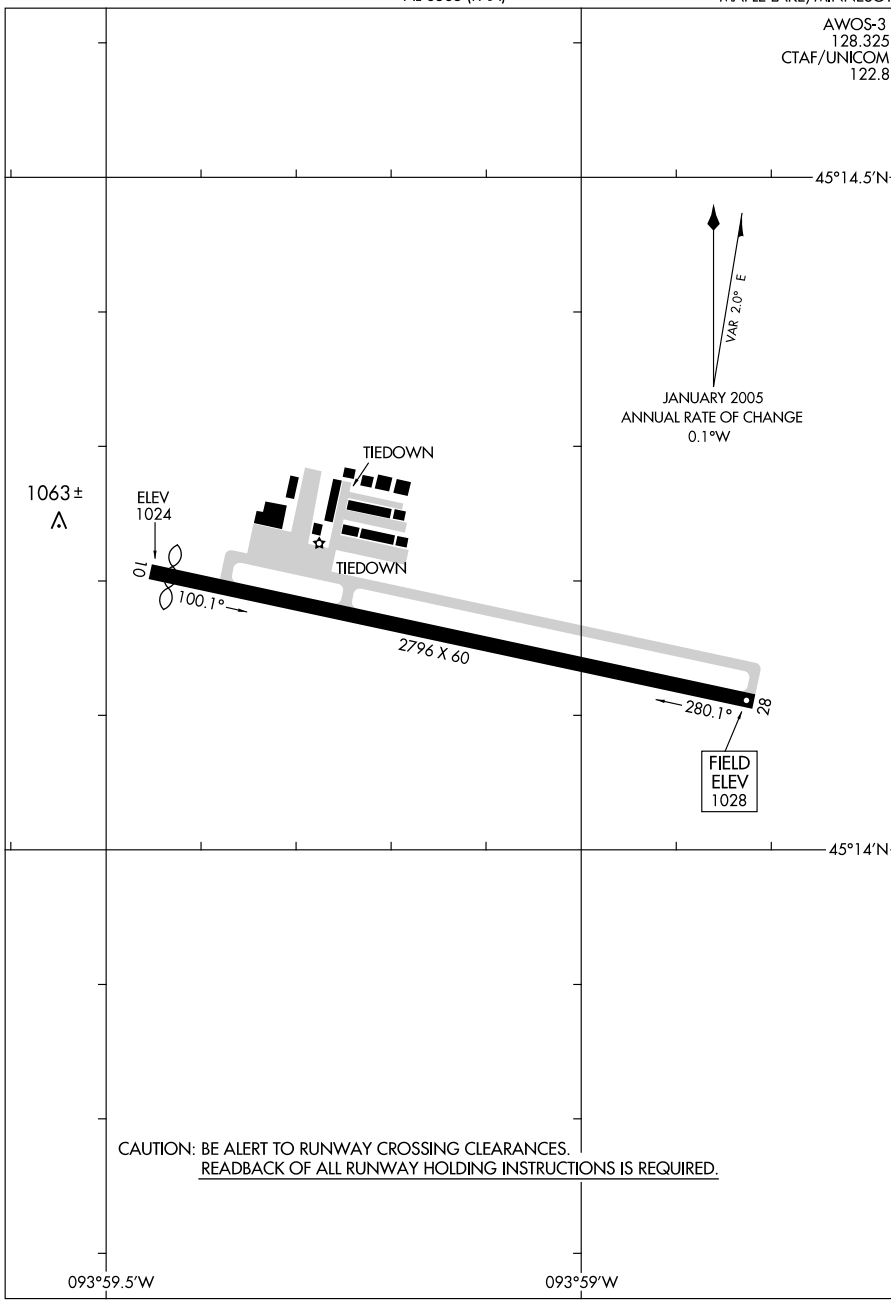
MANHATTAN, KANSAS
MANHATTAN RGNL (MHK)

09071

AIRPORT DIAGRAM

AL-6585 (FAA)

MAPLE LAKE MUNI (MGG)
MAPLE LAKE, MINNESOTA



AIRPORT DIAGRAM

09071

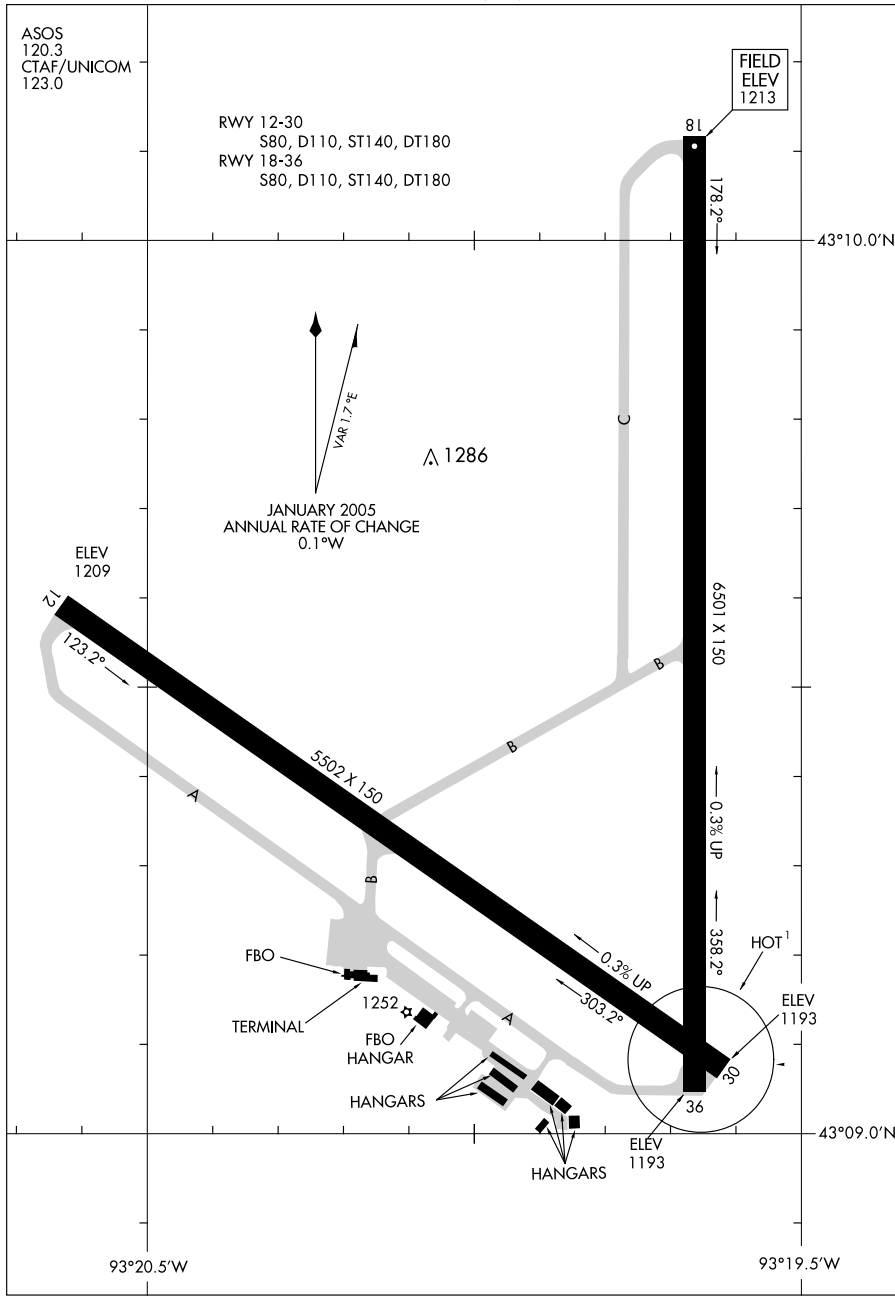
MAPLE LAKE, MINNESOTA
MAPLE LAKE MUNI (MGG)

09295

AIRPORT DIAGRAM

AL-667 (FAA)

MASON CITY MUNI (MCW)
MASON CITY, IOWA



AIRPORT DIAGRAM

09295

MASON CITY, IOWA
MASON CITY MUNI (MCW)

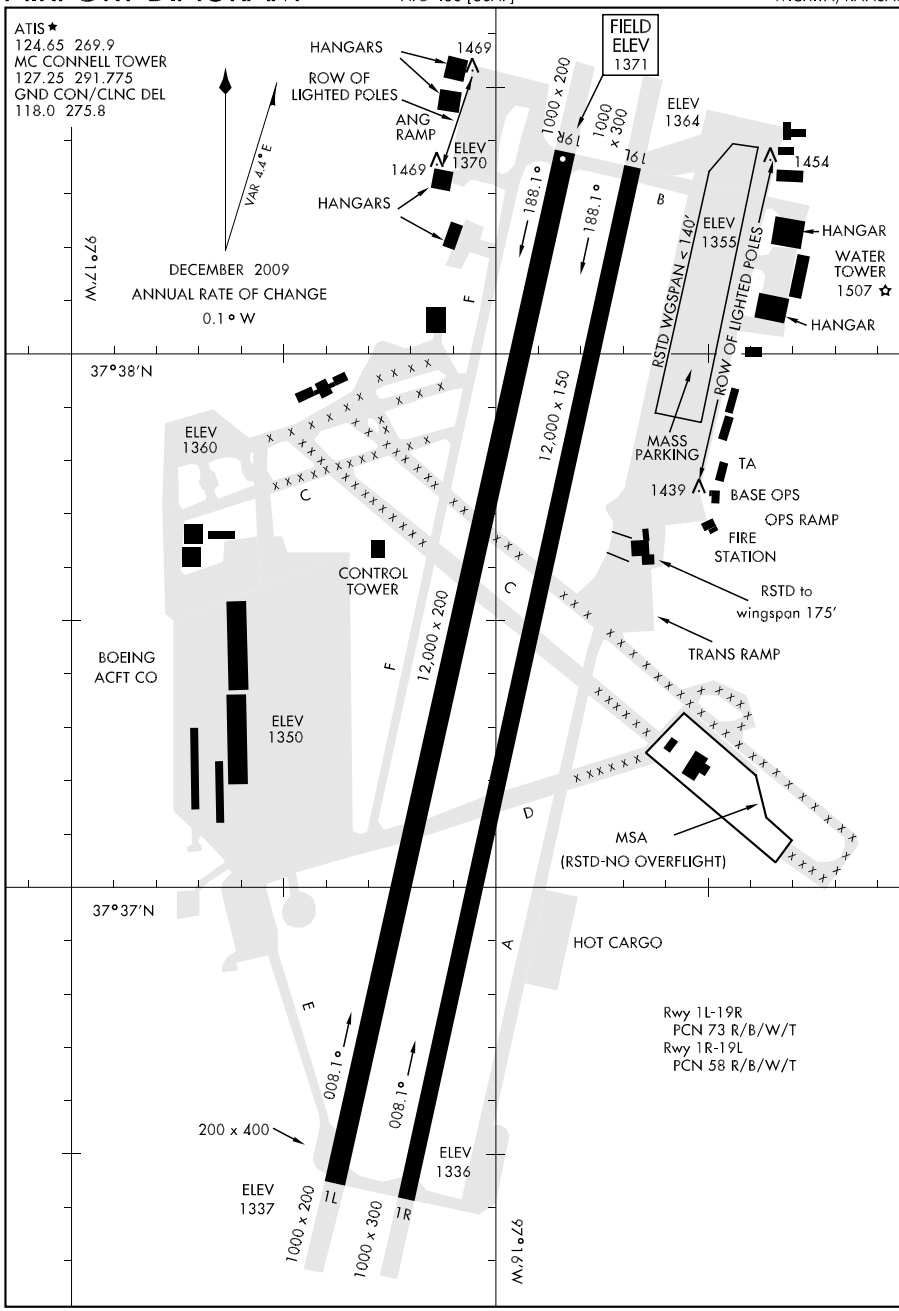
09351

AIRPORT DIAGRAM

MC CONNELL AFB (KIAB)

AFD-453 [USAF]

WICHITA, KANSAS



AIRPORT DIAGRAM

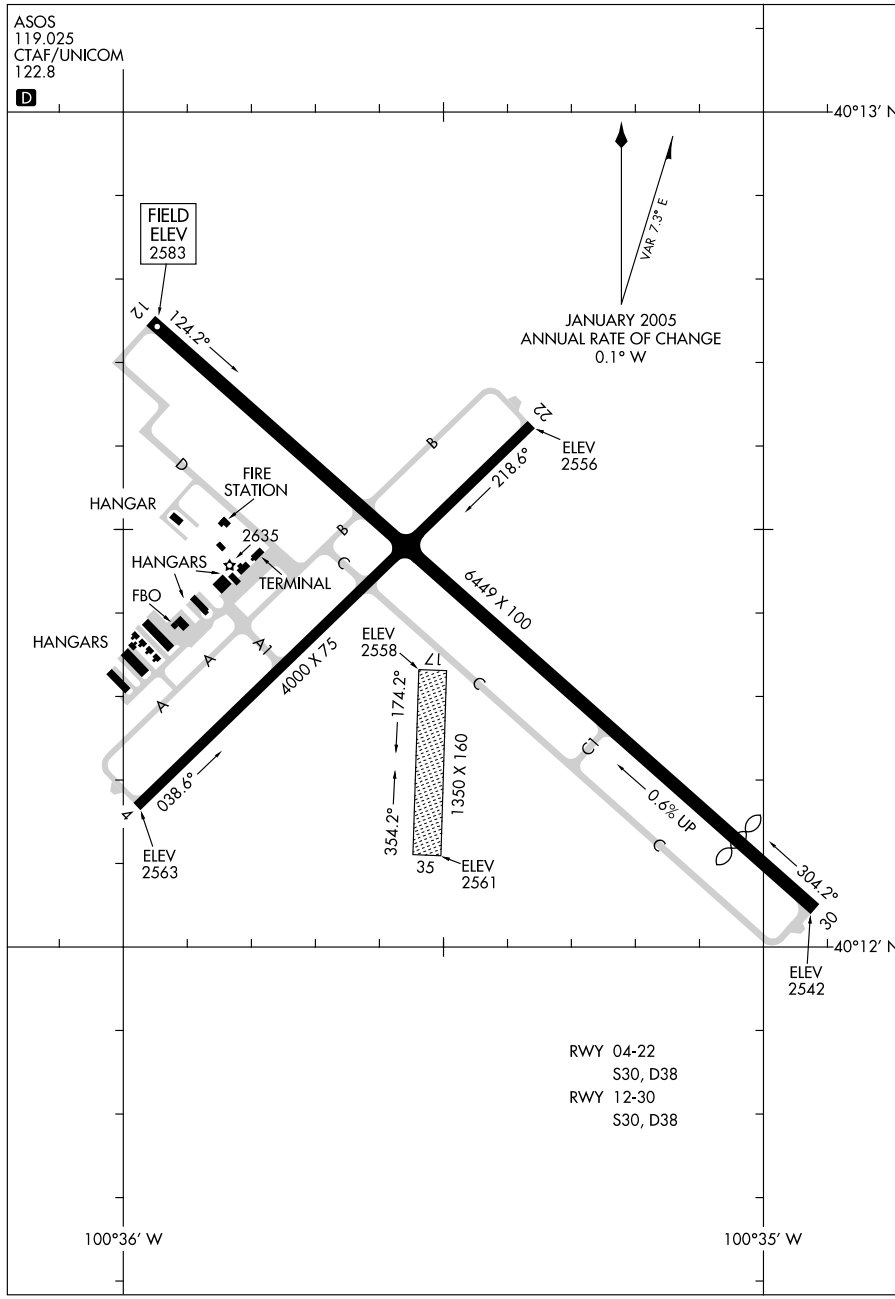
WICHITA, KANSAS
MC CONNELL AFB (KIAB)

09351

AIRPORT DIAGRAM

AL-5301 (FAA)

MC COOK BEN NELSON RGNL (MCK)
MC COOK, NEBRASKA



AIRPORT DIAGRAM

09351

MC COOK, NEBRASKA
MC COOK BEN NELSON RGNL (MCK)

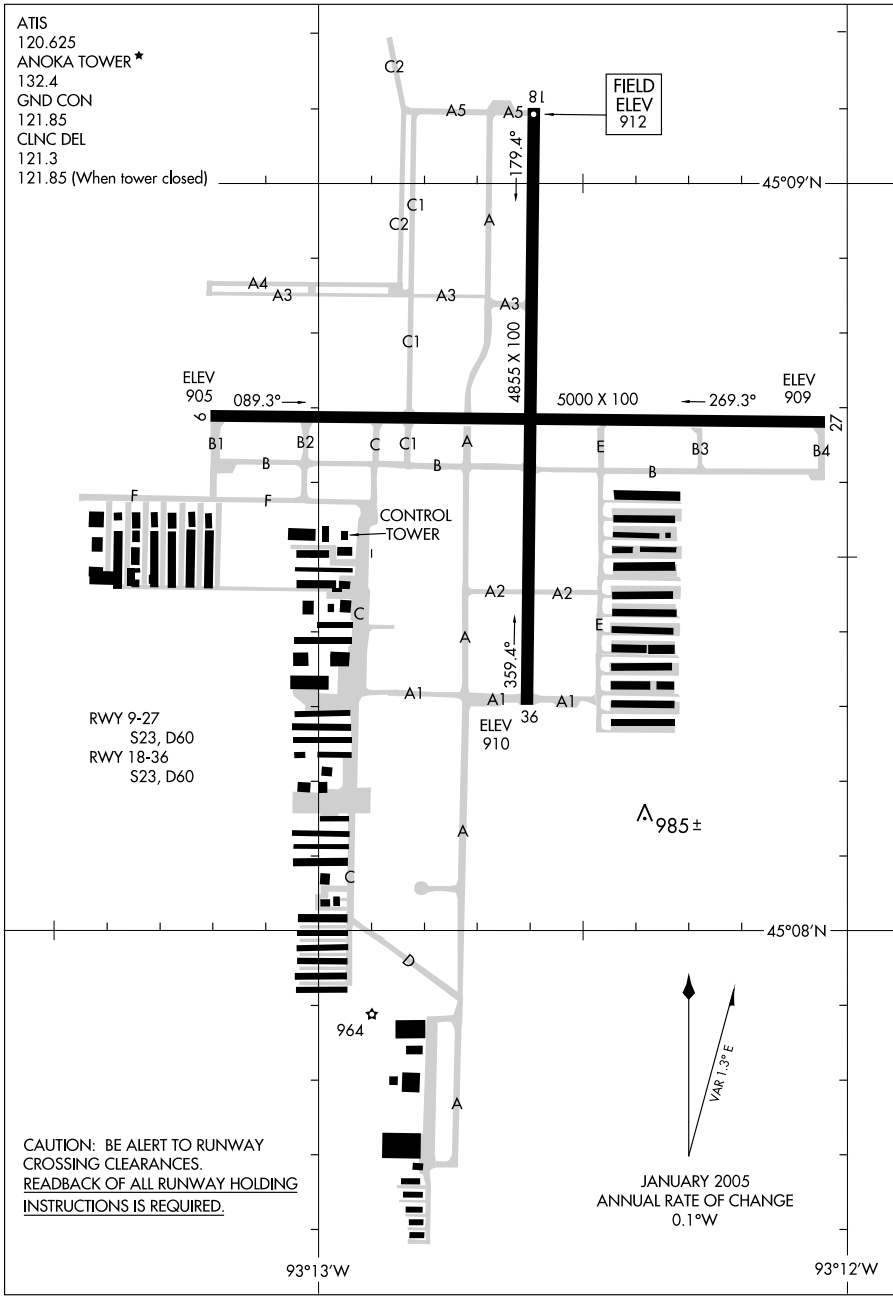
09351

AIRPORT DIAGRAM

MINNEAPOLIS/ANOKA COUNTY- BLAINE AIRPORT (JANES FIELD) (ANE)

AL-5202 (FAA)

MINNEAPOLIS, MINNESOTA



AIRPORT DIAGRAM

MINNEAPOLIS, MINNESOTA

09351

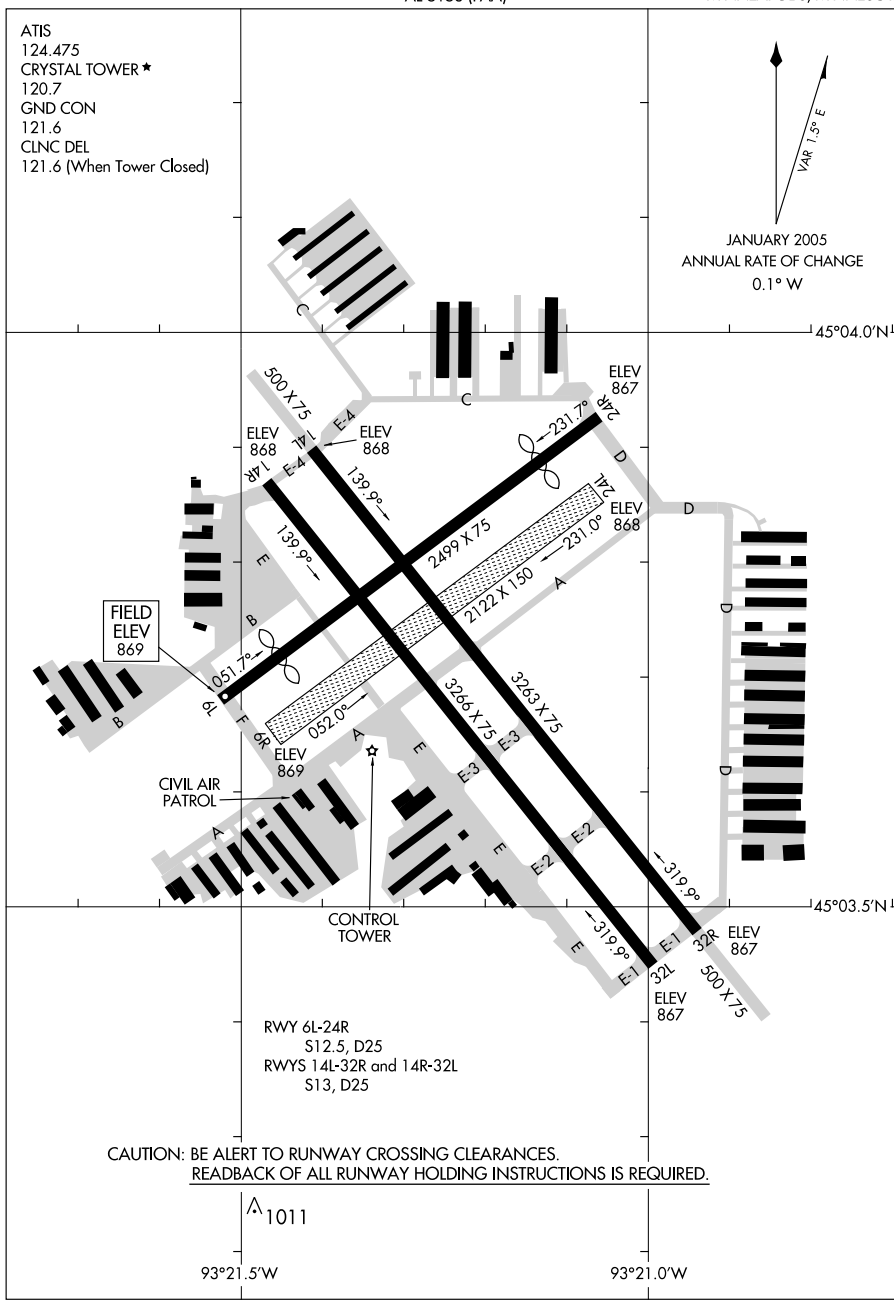
MINNEAPOLIS/ANOKA COUNTY- BLAINE AIRPORT (JANES FIELD) (ANE)

09127

AIRPORT DIAGRAM

AL-5158 (FAA)

MINNEAPOLIS/CRYSTAL (MIC)
MINNEAPOLIS, MINNESOTA



AIRPORT DIAGRAM

09127

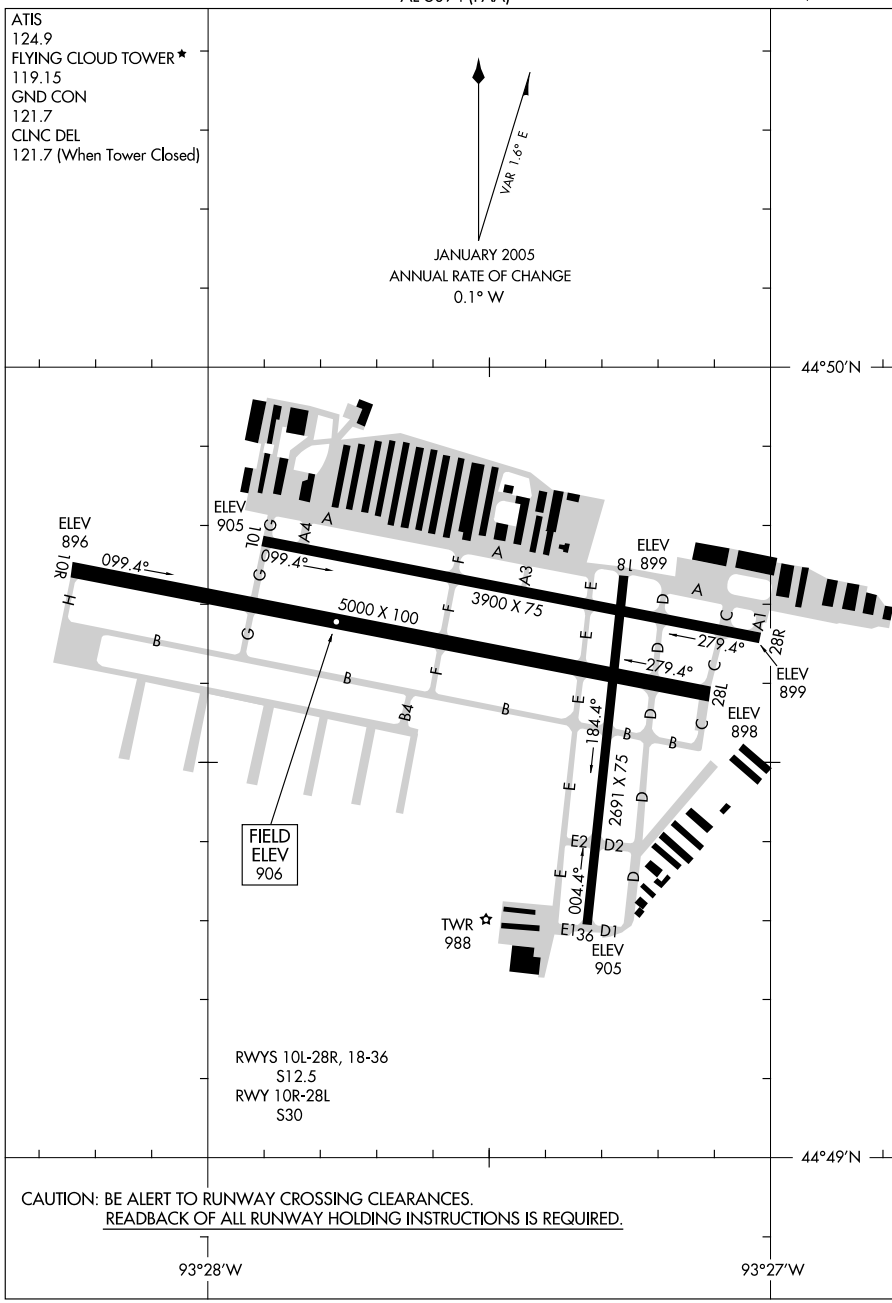
MINNEAPOLIS, MINNESOTA
MINNEAPOLIS/CRYSTAL (MIC)

10098

AIRPORT DIAGRAM

AL-5094 (FAA)

MINNEAPOLIS/ FLYING CLOUD (FCM)
MINNEAPOLIS, MINNESOTA



AIRPORT DIAGRAM

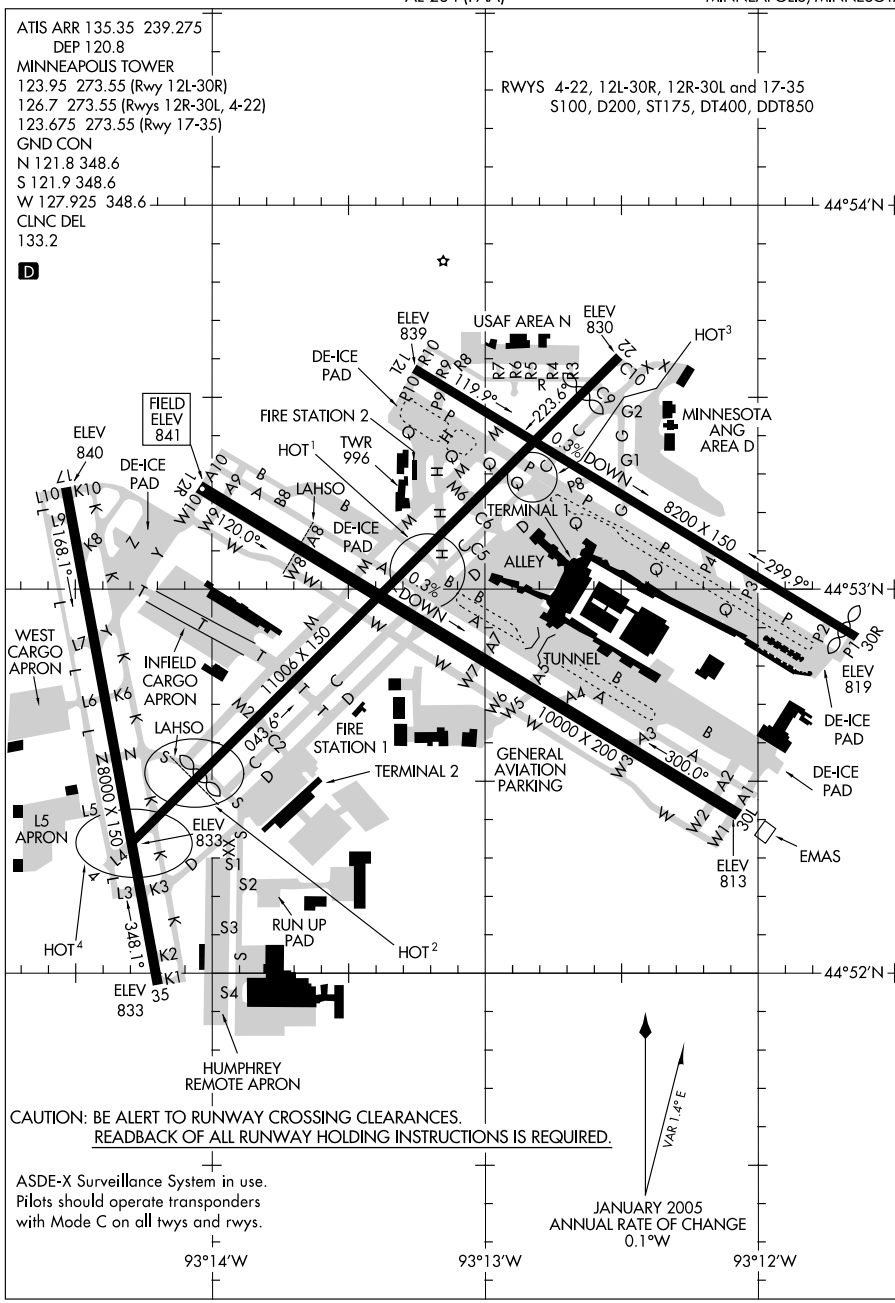
10098

MINNEAPOLIS, MINNESOTA
MINNEAPOLIS/ FLYING CLOUD (FCM)

10098

AIRPORT DIAGRAM

MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)
AL-264 (FAA) MINNEAPOLIS, MINNESOTA



AIRPORT DIAGRAM
10098
MINNEAPOLIS, MINNESOTA
MINNEAPOLIS-ST PAUL INTL/WOLD-CHAMBERLAIN (MSP)

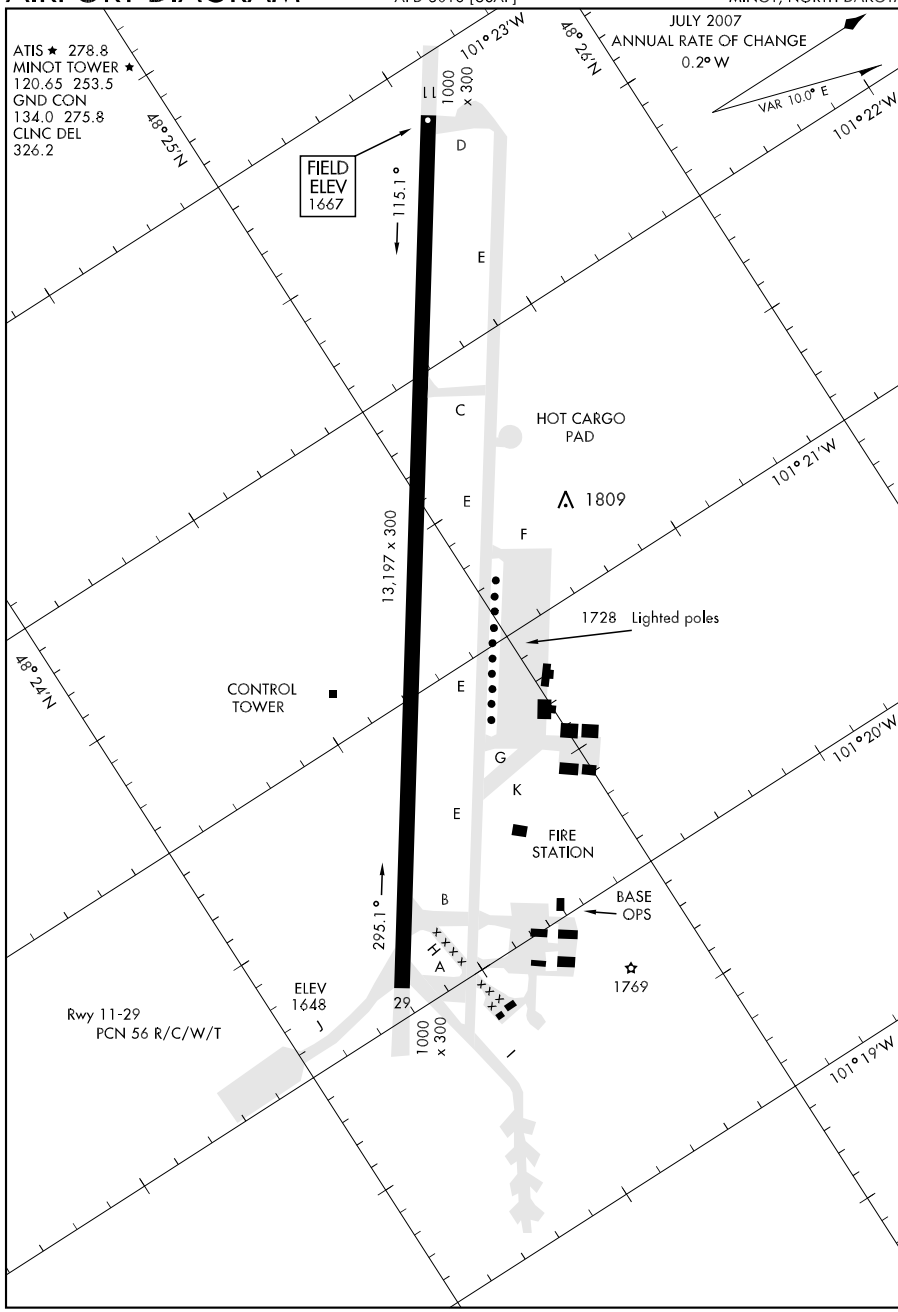
07186

AIRPORT DIAGRAM

MINOT AFB (KMIB)

AFD-5013 [USAF]

MINOT, NORTH DAKOTA



AIRPORT DIAGRAM

MINOT, NORTH DAKOTA

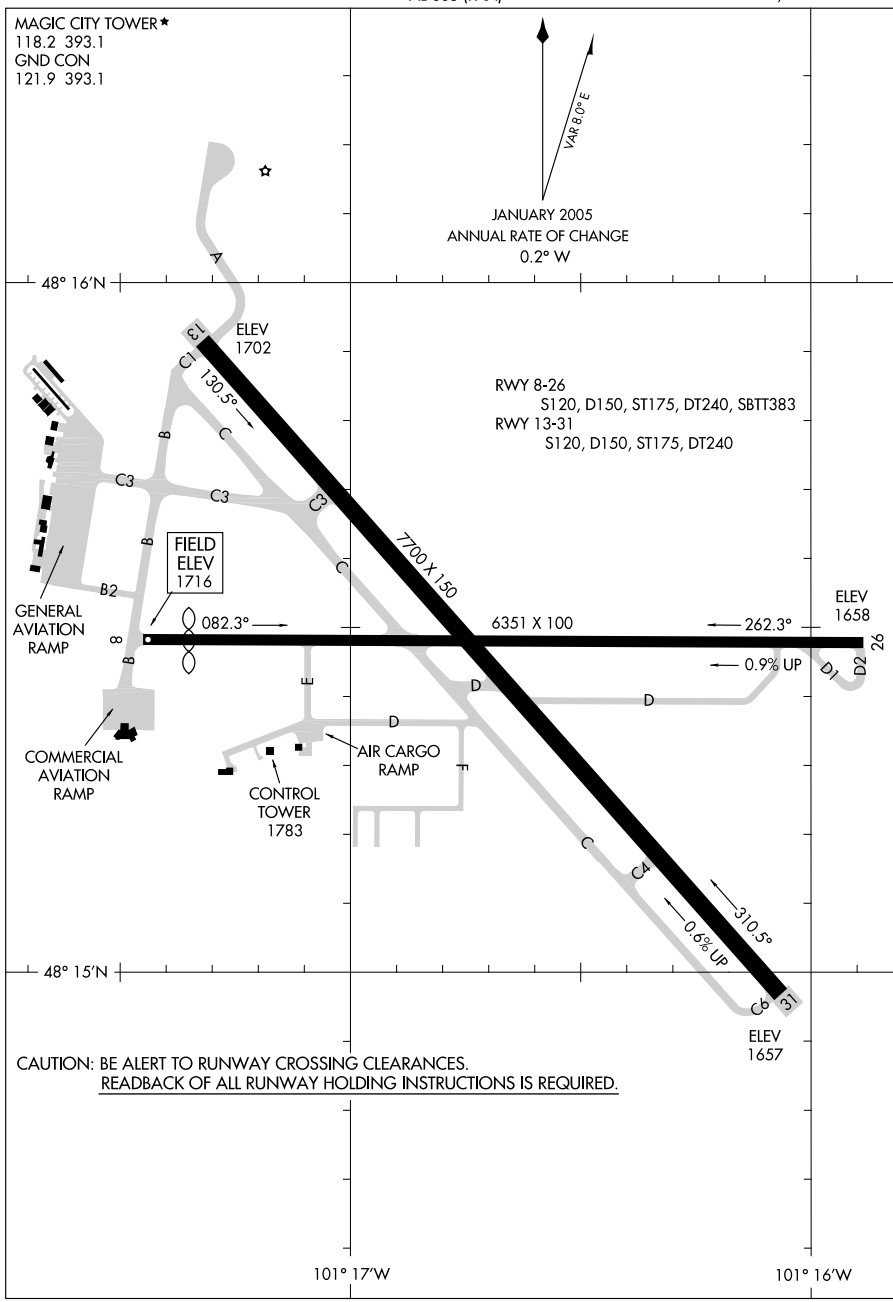
MINOT AFB (KMIB)

09015

AIRPORT DIAGRAM

AL-635 (FAA)

MINOT INTL (MOT)
MINOT, NORTH DAKOTA



AIRPORT DIAGRAM

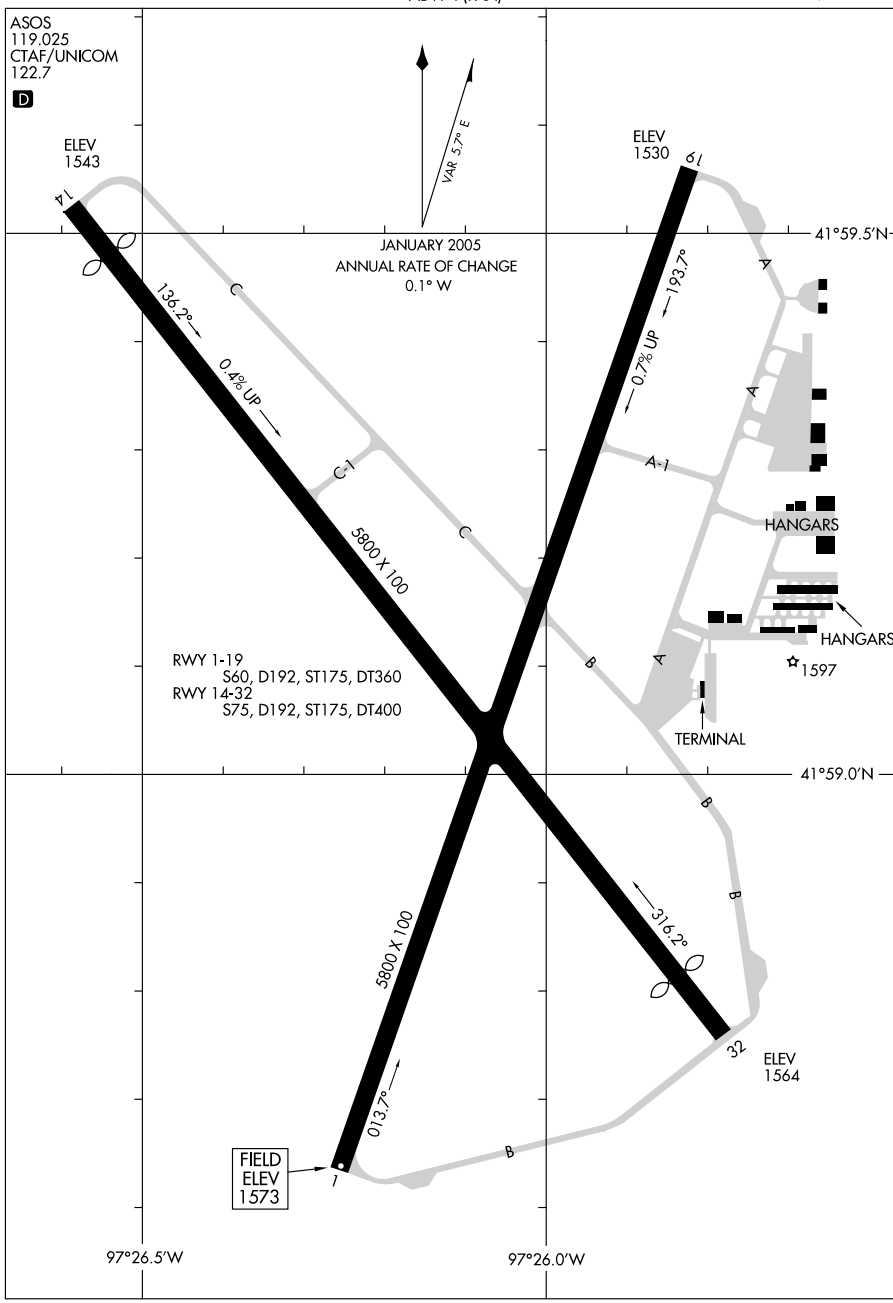
09015

MINOT, NORTH DAKOTA
MINOT INTL (MOT)

09295

AIRPORT DIAGRAM

NORFOLK/KARL STEFAN MEMORIAL (OFK)
NORFOLK, NEBRASKA



AIRPORT DIAGRAM

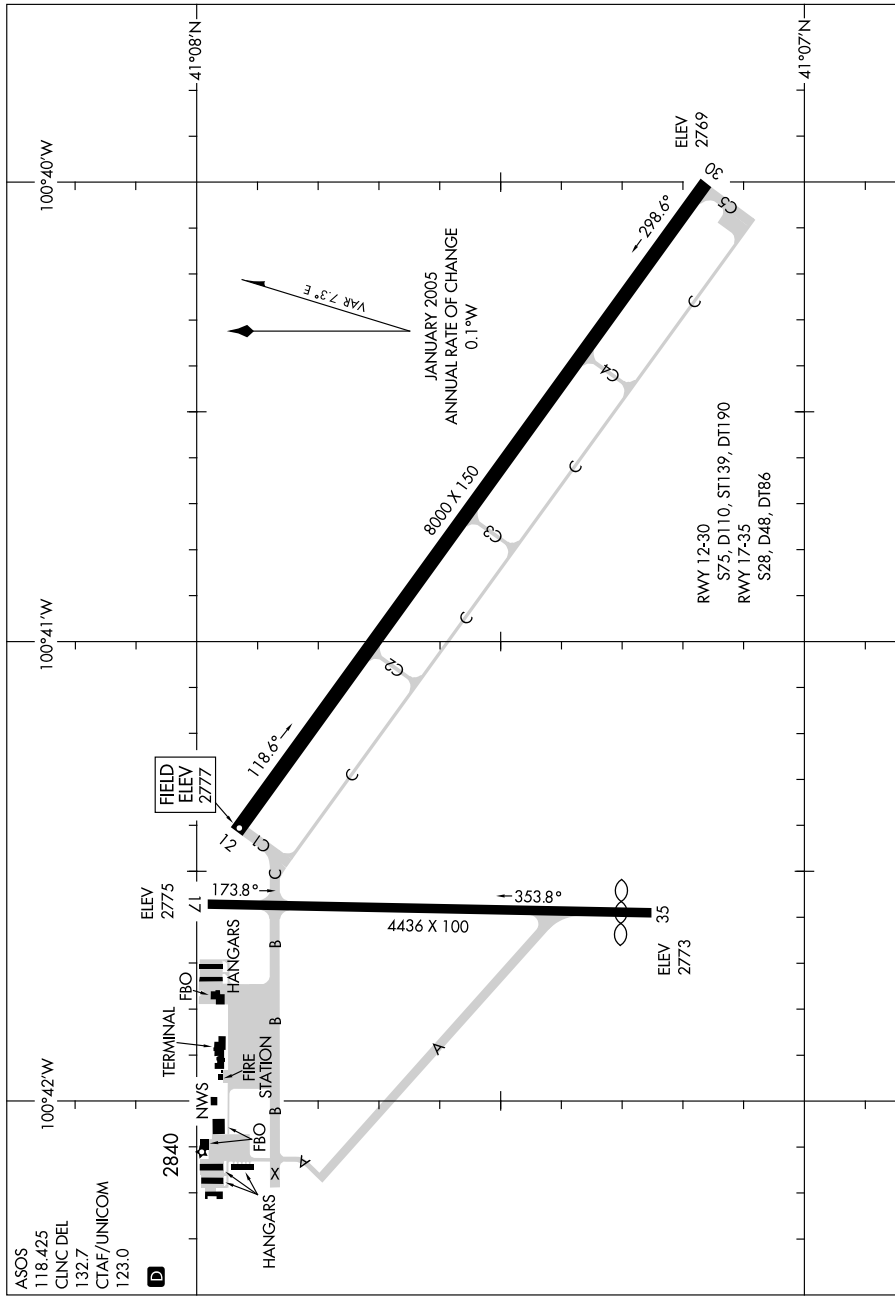
09295

NORFOLK, NEBRASKA
NORFOLK/KARL STEFAN MEMORIAL (OFK)

09295

AIRPORT DIAGRAM

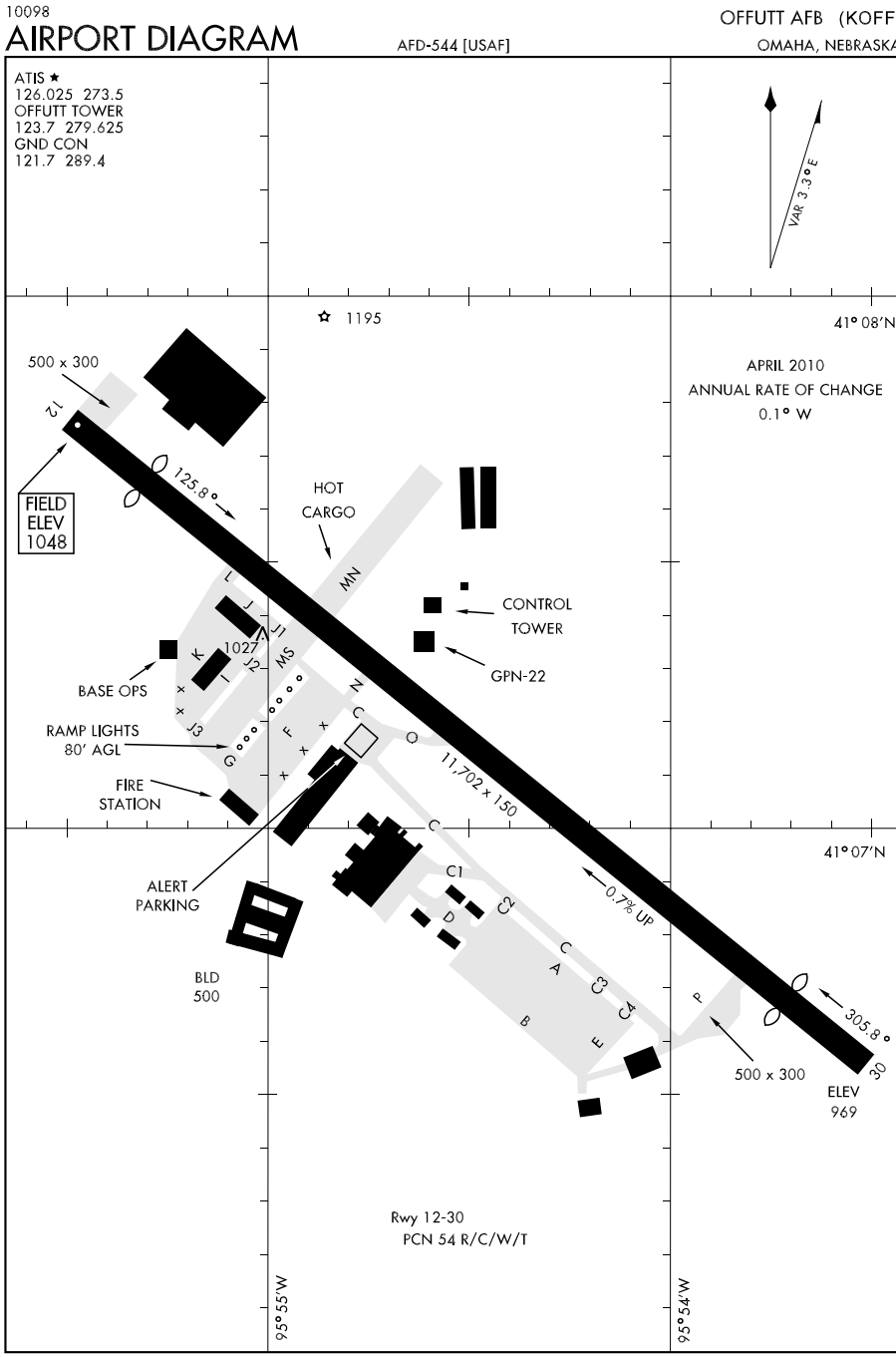
NORTH PLATTE RGNL AIRPORT LEE BIRD FIELD (LBF)
AL-292 (FAA)
NORTH PLATTE, NEBRASKA



AIRPORT DIAGRAM

09295

NORTH PLATTE, NEBRASKA
NORTH PLATTE RGNL AIRPORT LEE BIRD FIELD (LBF)

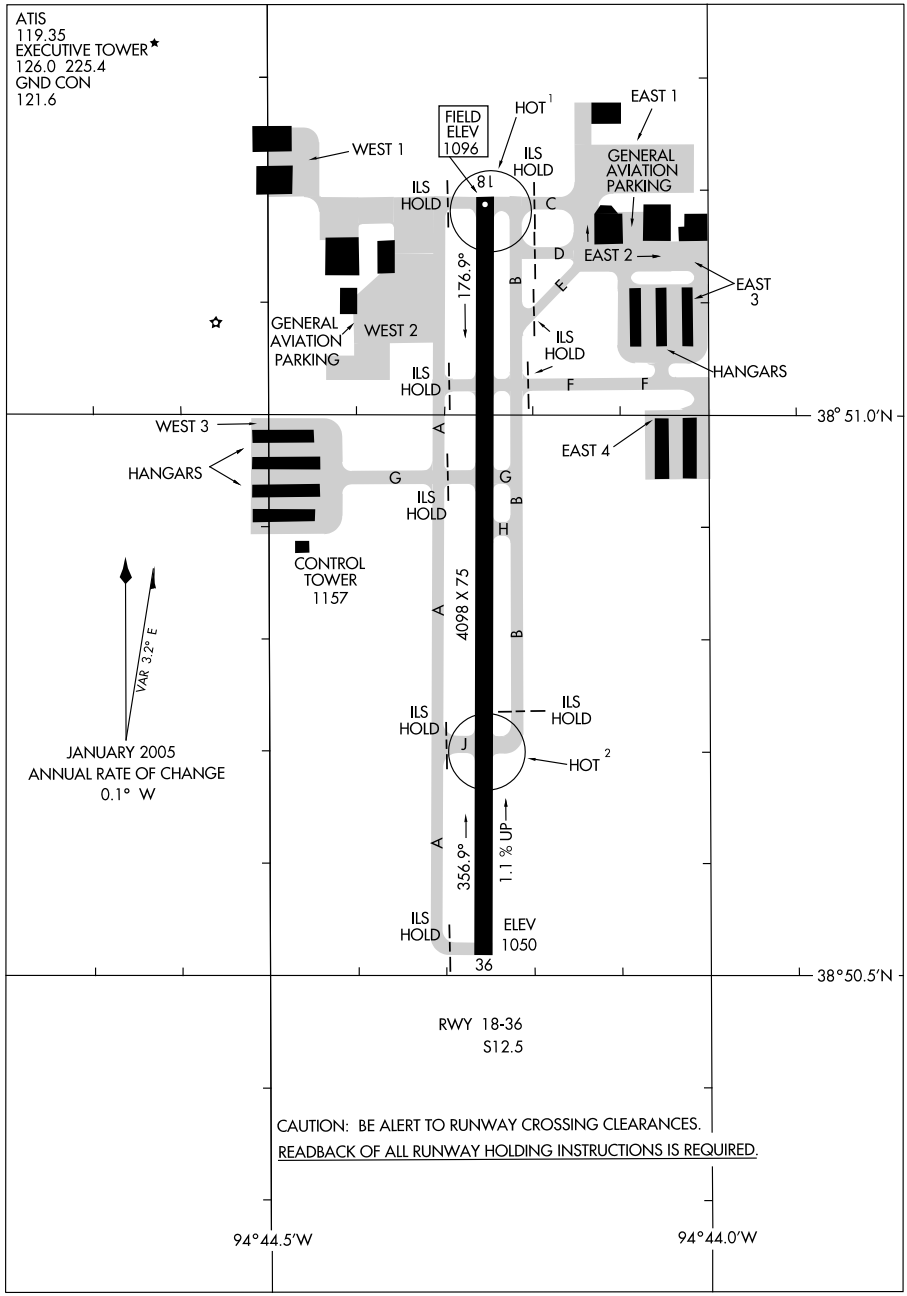

10098
AIRPORT DIAGRAM
AFD-544 [USAF]
OFFUTT AFB (KOFF)
OMAHA, NEBRASKA
ATIS ★
126.025 273.5
OFFUTT TOWER
123.7 279.625
GND CON
121.7 289.4
VAR 3.3° E
1195
41° 08′N
APRIL 2010
ANNUAL RATE OF CHANGE
0.1° W
500 x 300
12
125.8°
FIELD
ELEV
1048
HOT
CARGO
MN
CONTROL
TOWER
GPN-22
1027
BASE OPS
RAMP LIGHTS
80′ AGL
FIRE
STATION
11,702 x 150
0.7% UP
41° 07′N
ALERT
PARKING
C1
BLD
500
305.8°
30
500 x 300
ELEV
969
Rwy 12-30
PCN 54 R/C/W/T
95° 55′W
95° 54′W
AIRPORT DIAGRAM
OMAHA, NEBRASKA
OFFUTT AFB (KOFF)

09351

AIRPORT DIAGRAM

OLATHE/JOHNSON COUNTY EXECUTIVE (OJC)
OLATHE, KANSAS

AL-5687 (FAA)



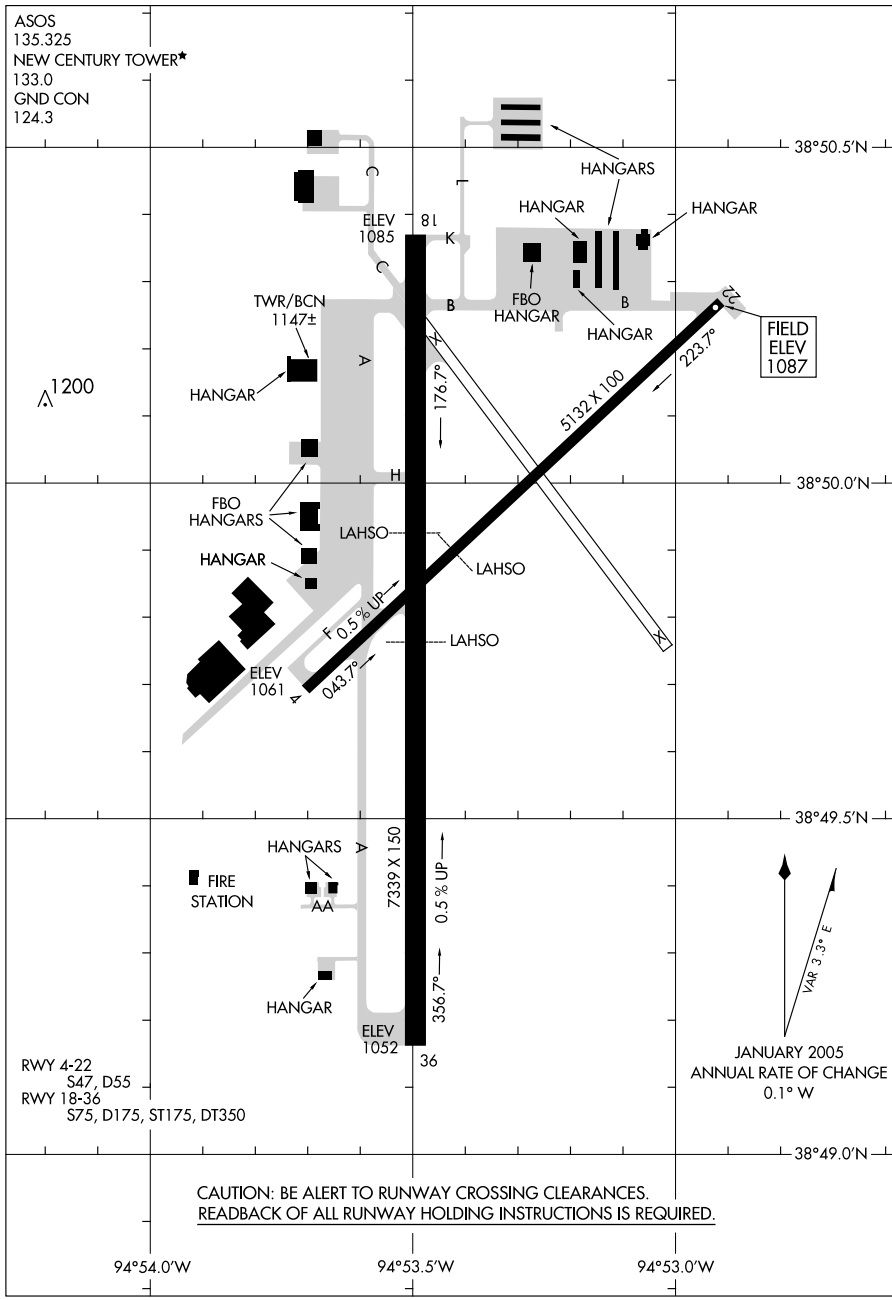
AIRPORT DIAGRAM
09351
OLATHE, KANSAS
OLATHE/JOHNSON COUNTY EXECUTIVE (OJC)

10098

AIRPORT DIAGRAM

OLATHE/NEW CENTURY AIRCENTER (IXD)
OLATHE, KANSAS

AL-302 (FAA)



AIRPORT DIAGRAM
10098
OLATHE, KANSAS
OLATHE/NEW CENTURY AIRCENTER (IXD)

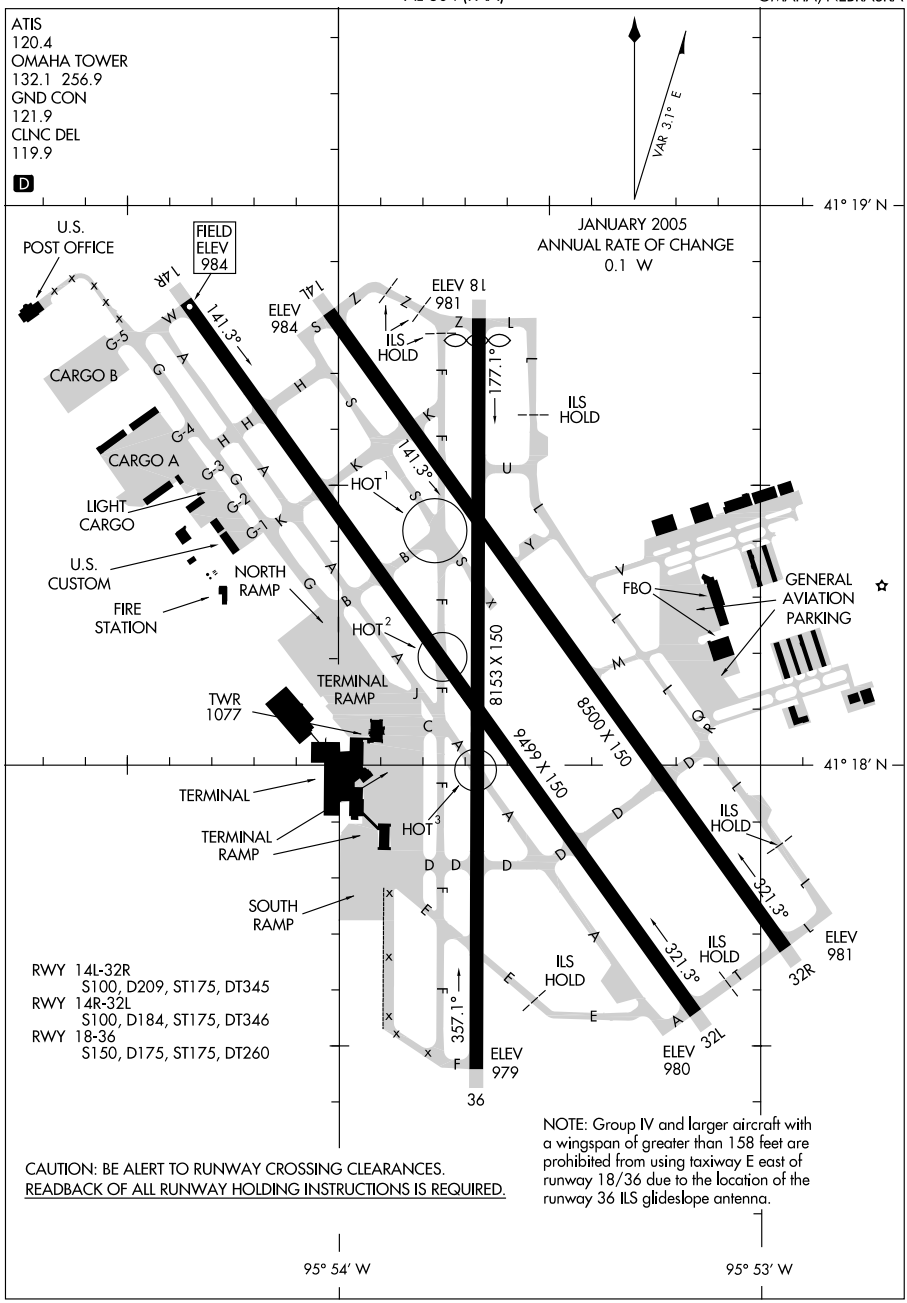
10042

AIRPORT DIAGRAM

OMAHA/EPPLEY AIRFIELD (OMA)

AL-304 (FAA)

OMAHA, NEBRASKA

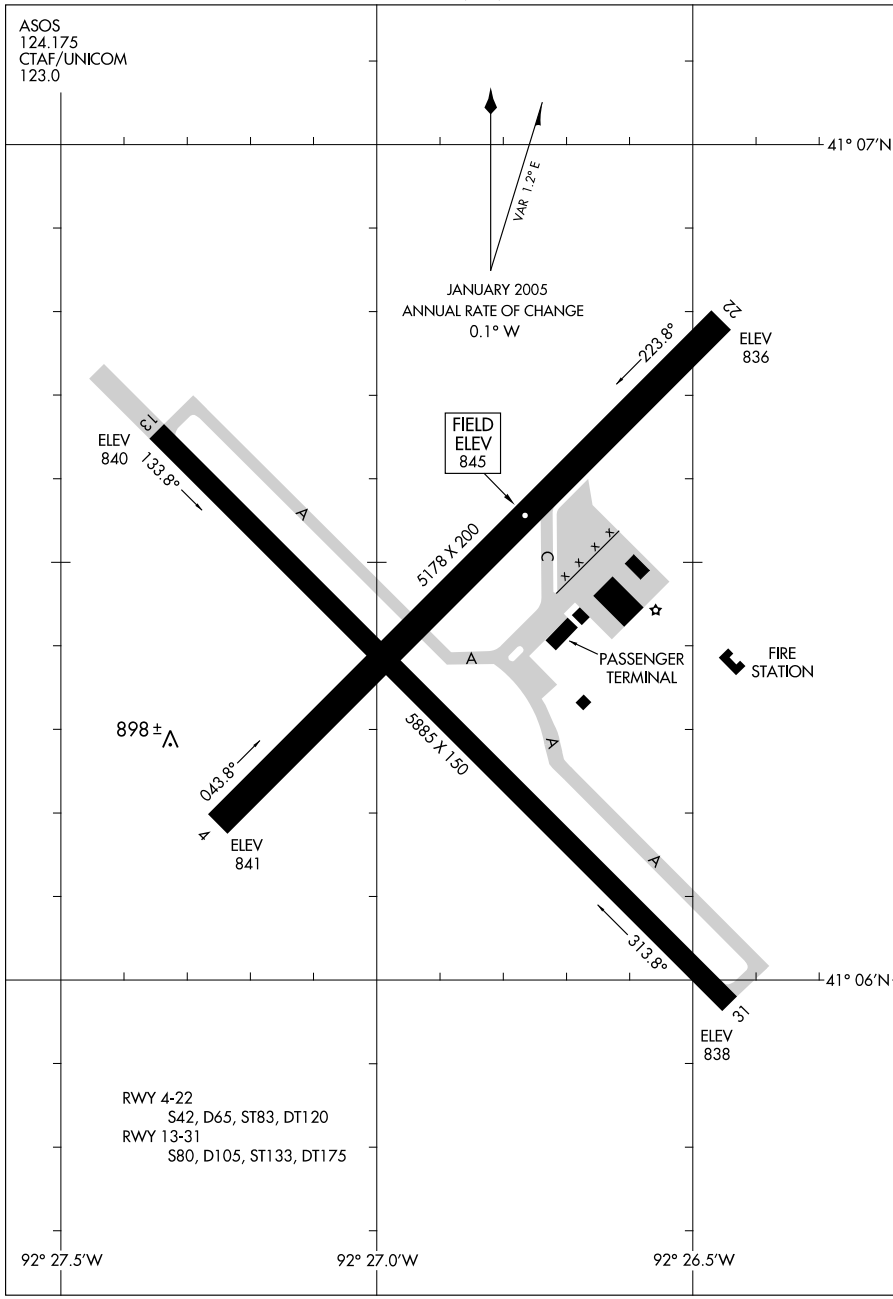


AIRPORT DIAGRAM
10042
OMAHA, NEBRASKA
OMAHA/EPPLEY AIRFIELD (OMA)

09071

AIRPORT DIAGRAM

OTTUMWA RGNL (OTM)
OTTUMWA, IOWA



AIRPORT DIAGRAM

09071

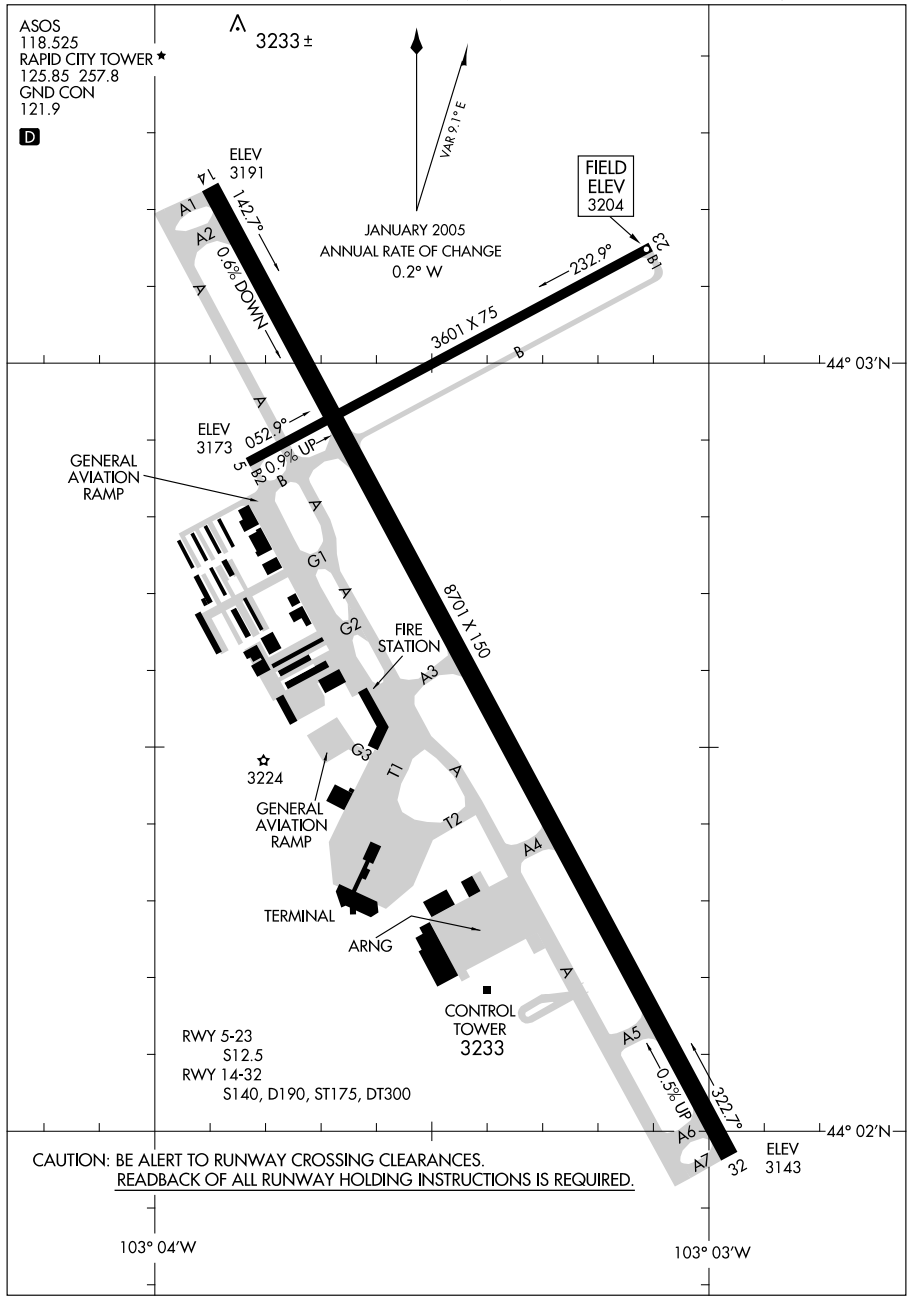
OTTUMWA, IOWA
OTTUMWA RGNL (OTM)

09295

AIRPORT DIAGRAM

RAPID CITY RGNL (RAP)
RAPID CITY, SOUTH DAKOTA

AL-877 (FAA)



AIRPORT DIAGRAM

09295

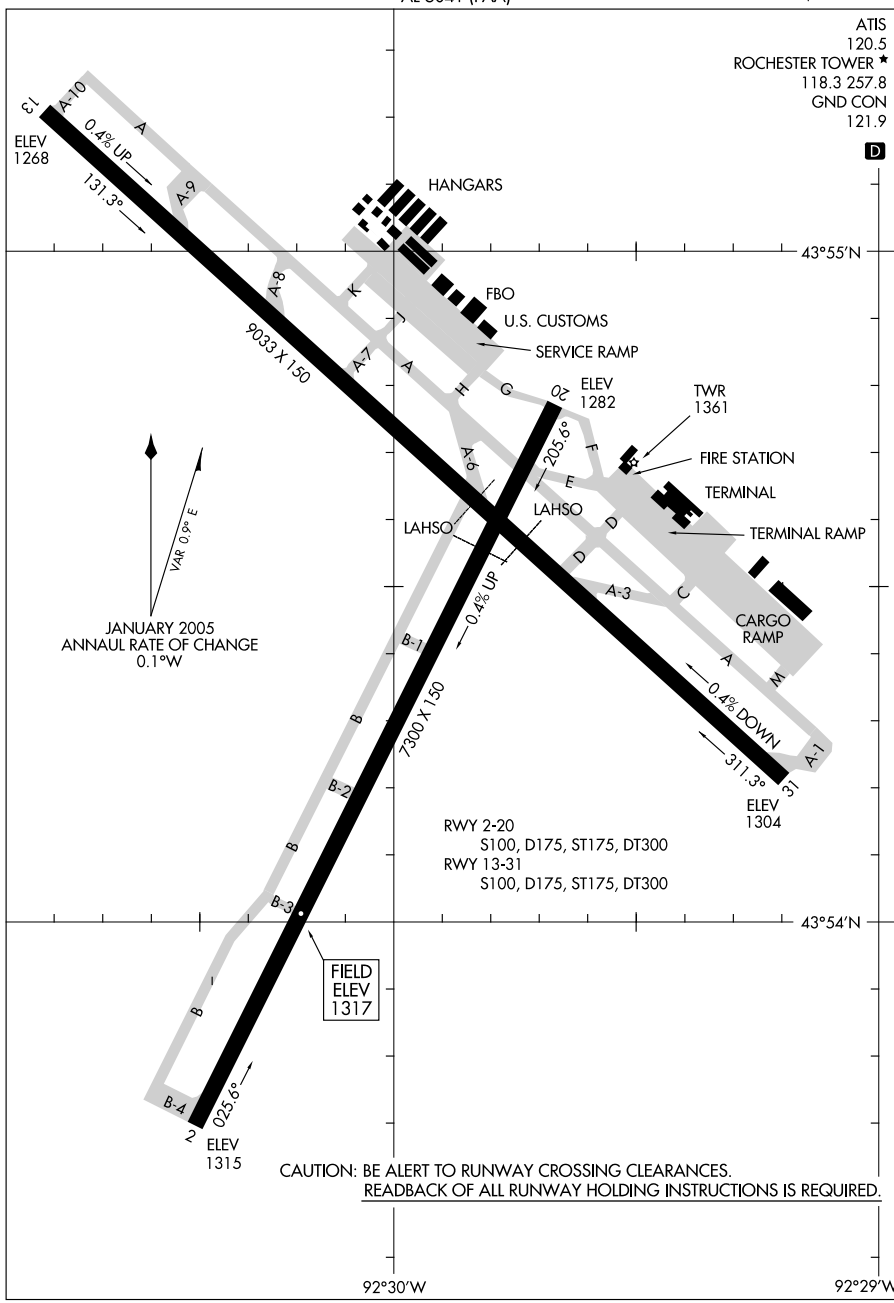
RAPID CITY, SOUTH DAKOTA
RAPID CITY RGNL (RAP)

09295

AIRPORT DIAGRAM

ROCHESTER INTL (RST)
ROCHESTER, MINNESOTA

AL-5041 (FAA)



AIRPORT DIAGRAM

09295

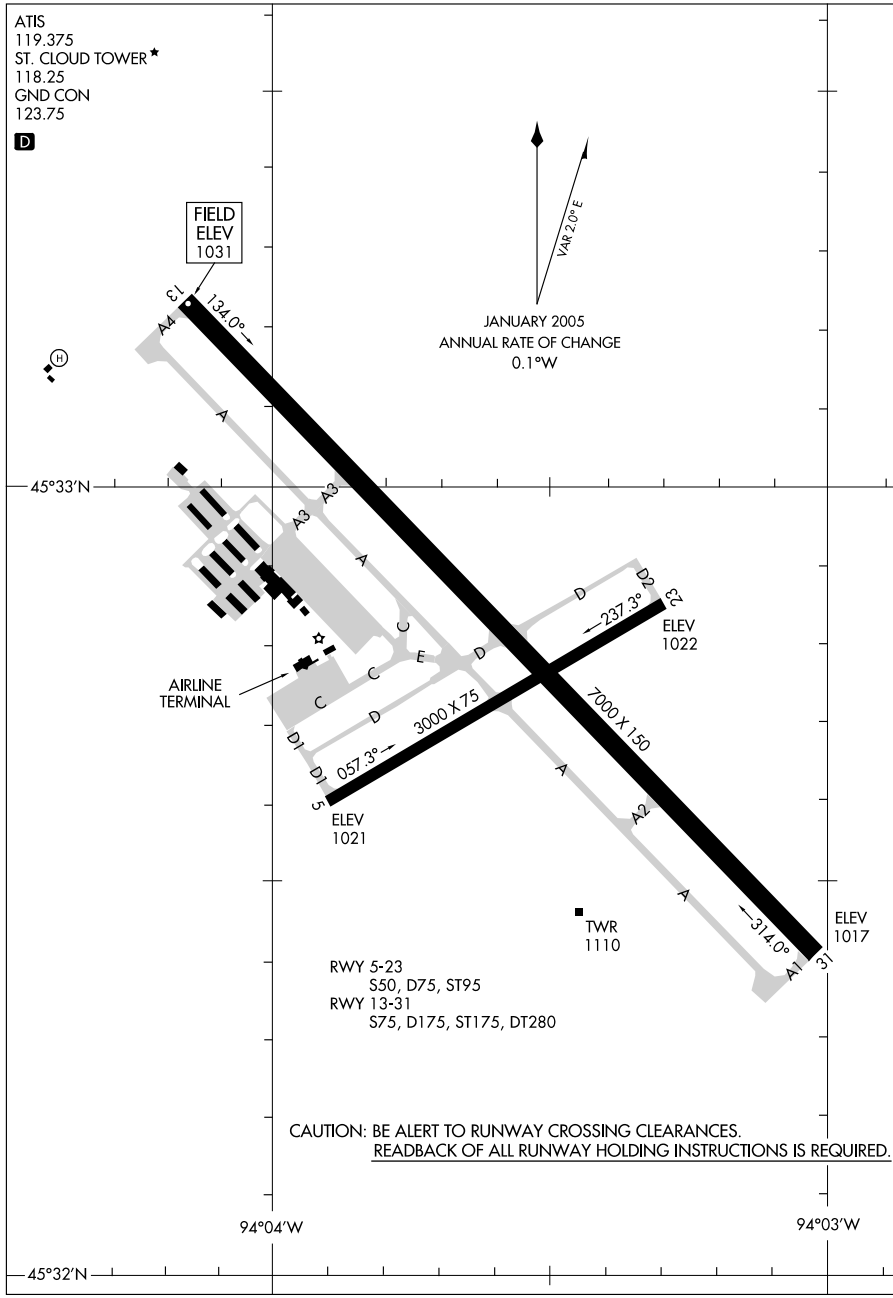
ROCHESTER, MINNESOTA
ROCHESTER INTL (RST)

10042

AIRPORT DIAGRAM

AL-5799 (FAA)

ST. CLOUD RGNL (STC)
ST. CLOUD, MINNESOTA



AIRPORT DIAGRAM

10042

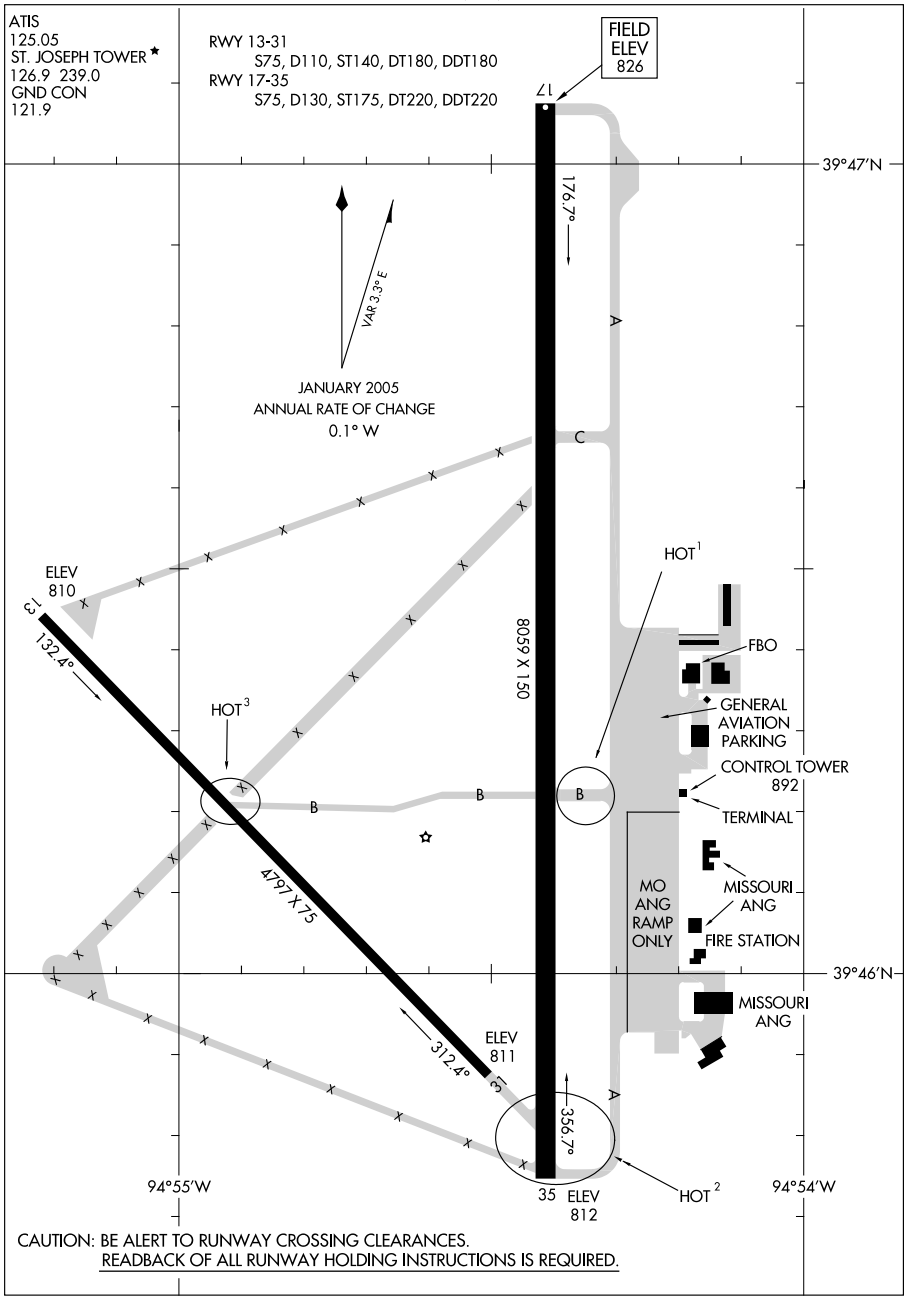
ST. CLOUD, MINNESOTA
ST. CLOUD RGNL (STC)

09351

AIRPORT DIAGRAM

AL-359 (FAA)

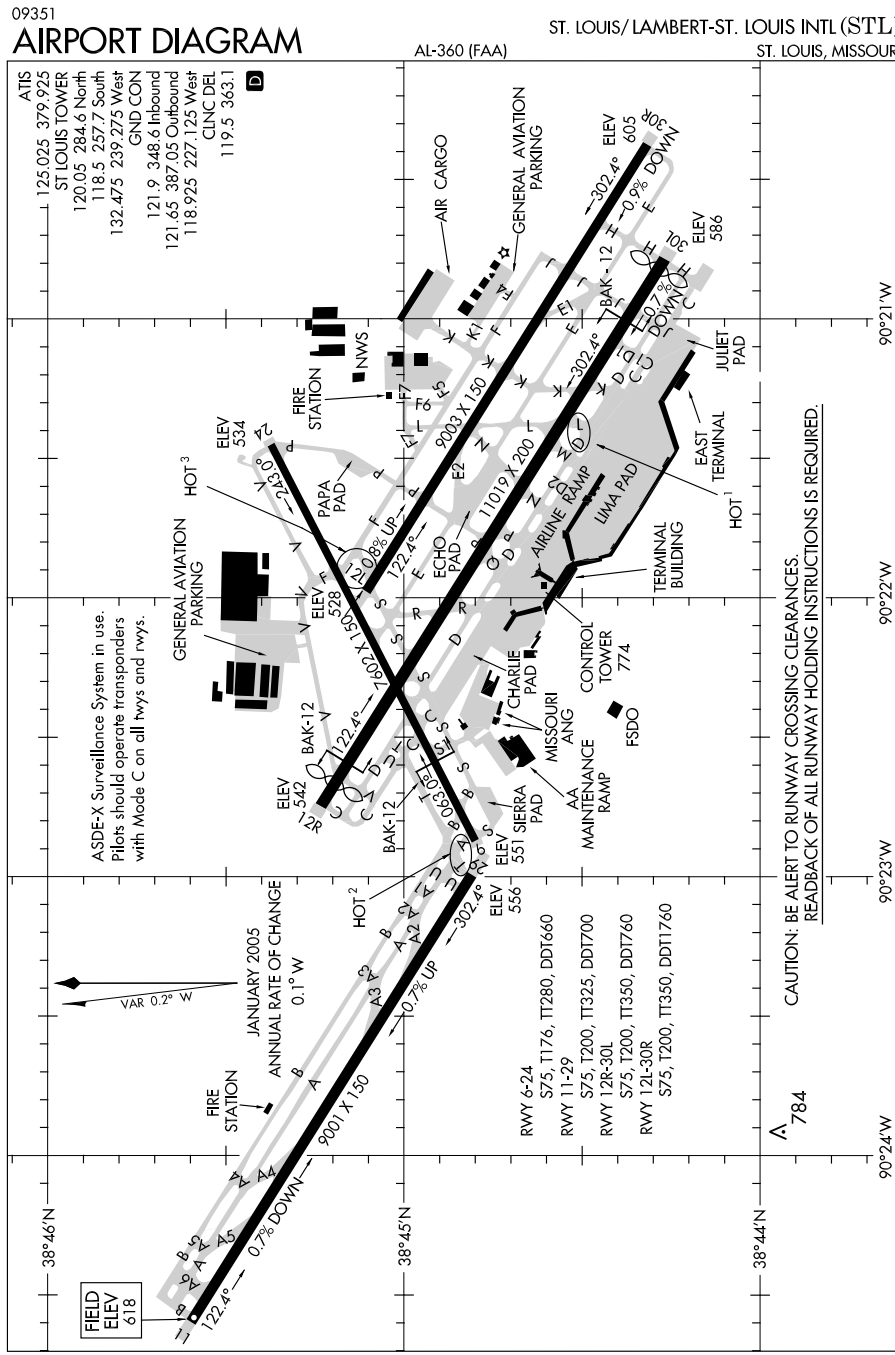
ST. JOSEPH/ROSECRANS MEMORIAL (STJ)
ST. JOSEPH, MISSOURI

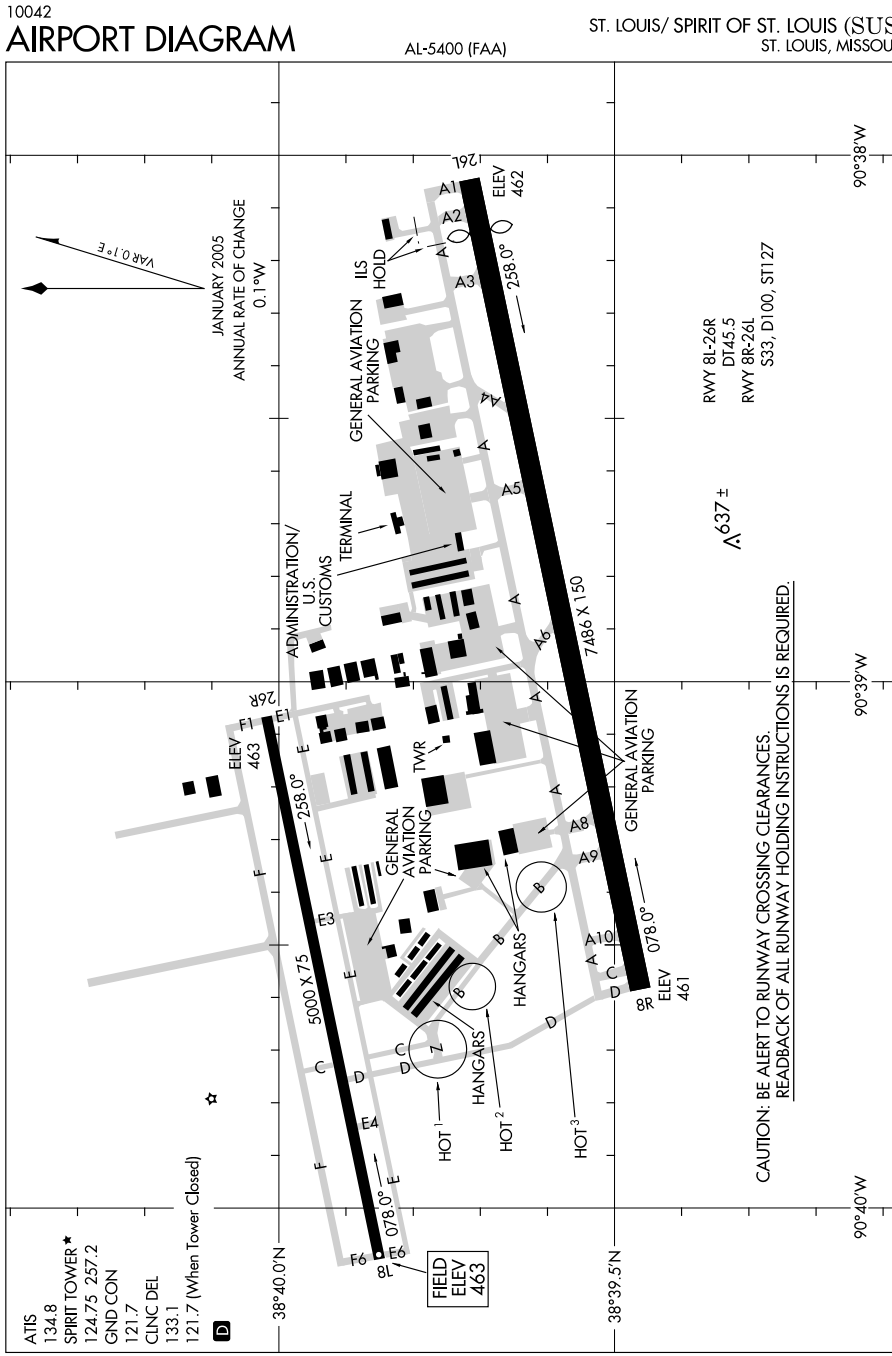


AIRPORT DIAGRAM

09351

ST. JOSEPH, MISSOURI
ST. JOSEPH/ROSECRANS MEMORIAL (STJ)

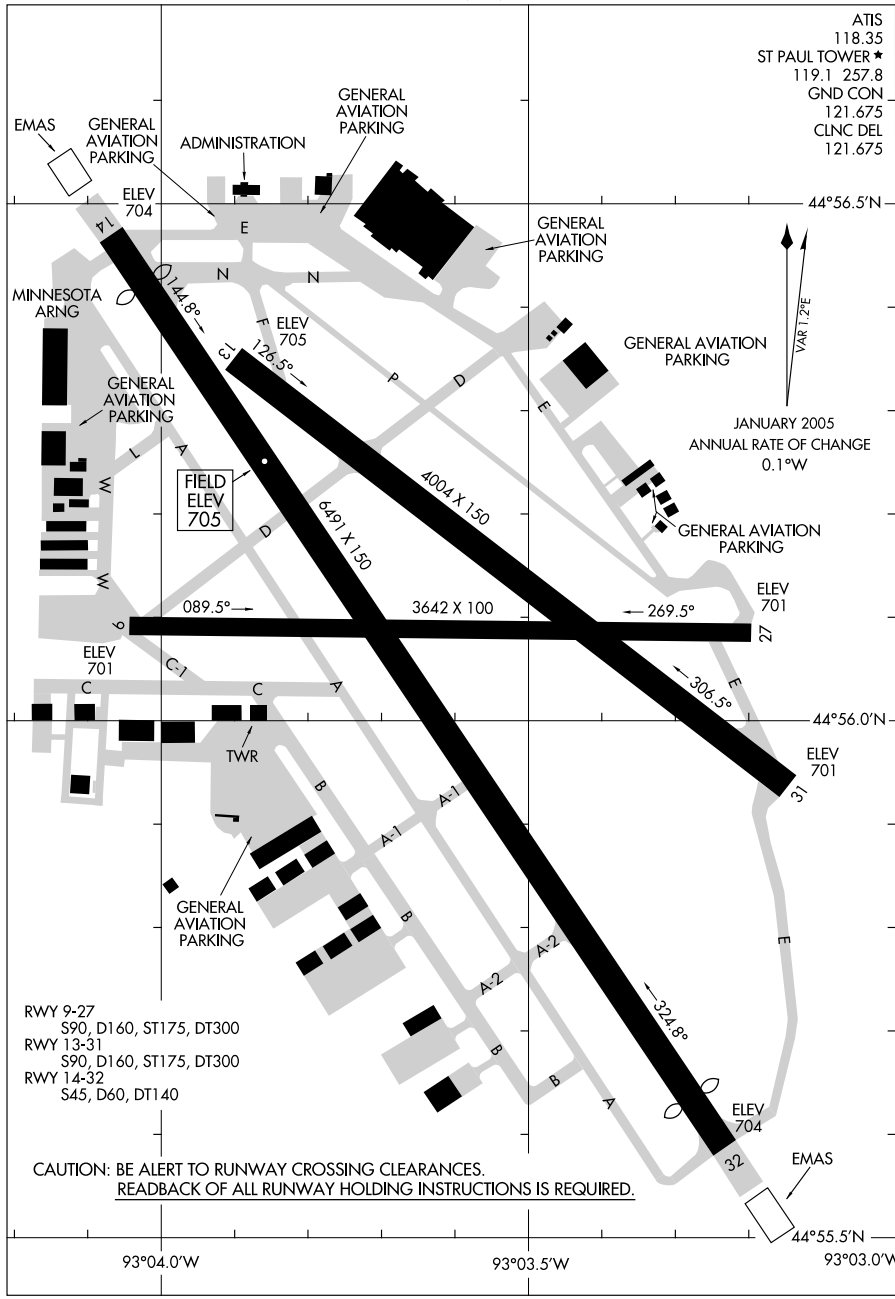

09351
AIRPORT DIAGRAM
ST. LOUIS/ LAMBERT-ST. LOUIS INTL (STL)
AL-360 (FAA)
ST. LOUIS, MISSOURI
ATIS 125.025 379.925
ST LOUIS TOWER 120.05 284.6 North 118.5 257.7 South
GND CON 132.475 239.275 West
CLNC DEL 121.9 348.6 Inbound 121.65 387.05 Outbound 118.925 227.125 West 119.5 363.1
AIR CARGO
GENERAL AVIATION PARKING
ELEV 605
ELEV 586
FIRE STATION
NWS
ELEV 534
HOT 3
PAPA PAD
ECHO PAD
AIRLINE RAMP
LIMA PAD
EAST TERMINAL
JULIET PAD
HOT 1
TERMINAL BUILDING
CONTROL TOWER 774
CHARLIE PAD
MISSOURI ANG
AA MAINTENANCE RAMP
FSDO
ELEV 542
ELEV 528
ELEV 551
SIERRA PAD
ELEV 556
HOT 2
ASDE-X Surveillance System in use.
Pilots should operate transponders with Mode C on all twys and rwys.
JANUARY 2005
ANNUAL RATE OF CHANGE 0.1° W
VAR 0.2° W
FIELD ELEV 618
9001 X 150
9003 X 150
11019 X 200
16071 X 150
0.7% DOWN
0.7% UP
0.8% UP
0.9% DOWN
302.4°
122.4°
243.0°
BAK-12
BAK - 12
RWY 6-24 S75, T176, TT280, DDT660
RWY 11-29 S75, T200, TT325, DDT700
RWY 12R-30L S75, T200, TT350, DDT760
RWY 12L-30R S75, T200, TT350, DDT1760
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
A 784
38°46'N
38°45'N
38°44'N
90°24'W
90°23'W
90°22'W
90°21'W
AIRPORT DIAGRAM
09351
ST. LOUIS, MISSOURI
ST. LOUIS/ LAMBERT-ST. LOUIS INTL (STL)


10042
AIRPORT DIAGRAM
AL-5400 (FAA)
ST. LOUIS/ SPIRIT OF ST. LOUIS (SUS)
ST. LOUIS, MISSOURI
JANUARY 2005
ANNUAL RATE OF CHANGE
0.1°W
VAR 0.1°E
ILS
HOLD
GENERAL AVIATION PARKING
ADMINISTRATION/
U.S.
CUSTOMS
TERMINAL
TWR
GENERAL AVIATION PARKING
GENERAL AVIATION PARKING
HANGARS
HANGARS
HOT 1
HOT 2
HOT 3
26L
ELEV 462
258.0°
7486 X 150
26R
ELEV 463
258.0°
5000 X 75
078.0°
078.0°
8R
ELEV 461
8L
FIELD ELEV 463
RWY 8L-26R DT45.5
RWY 8R-26L S33, D100, ST127
637 ±
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
ATIS 134.8
SPIRIT TOWER* 124.75 257.2
GND CON 121.7
CLNC DEL 133.1
121.7 (When Tower Closed)
D
38°40.0'N
38°39.5'N
90°38'W
90°39'W
90°40'W
AIRPORT DIAGRAM
10042
ST. LOUIS, MISSOURI
ST. LOUIS/ SPIRIT OF ST. LOUIS (SUS)

10042

AIRPORT DIAGRAM

ST. PAUL DOWNTOWN HOLMAN FIELD (STP)
AL-263 (FAA)
ST. PAUL, MINNESOTA



AIRPORT DIAGRAM

10042

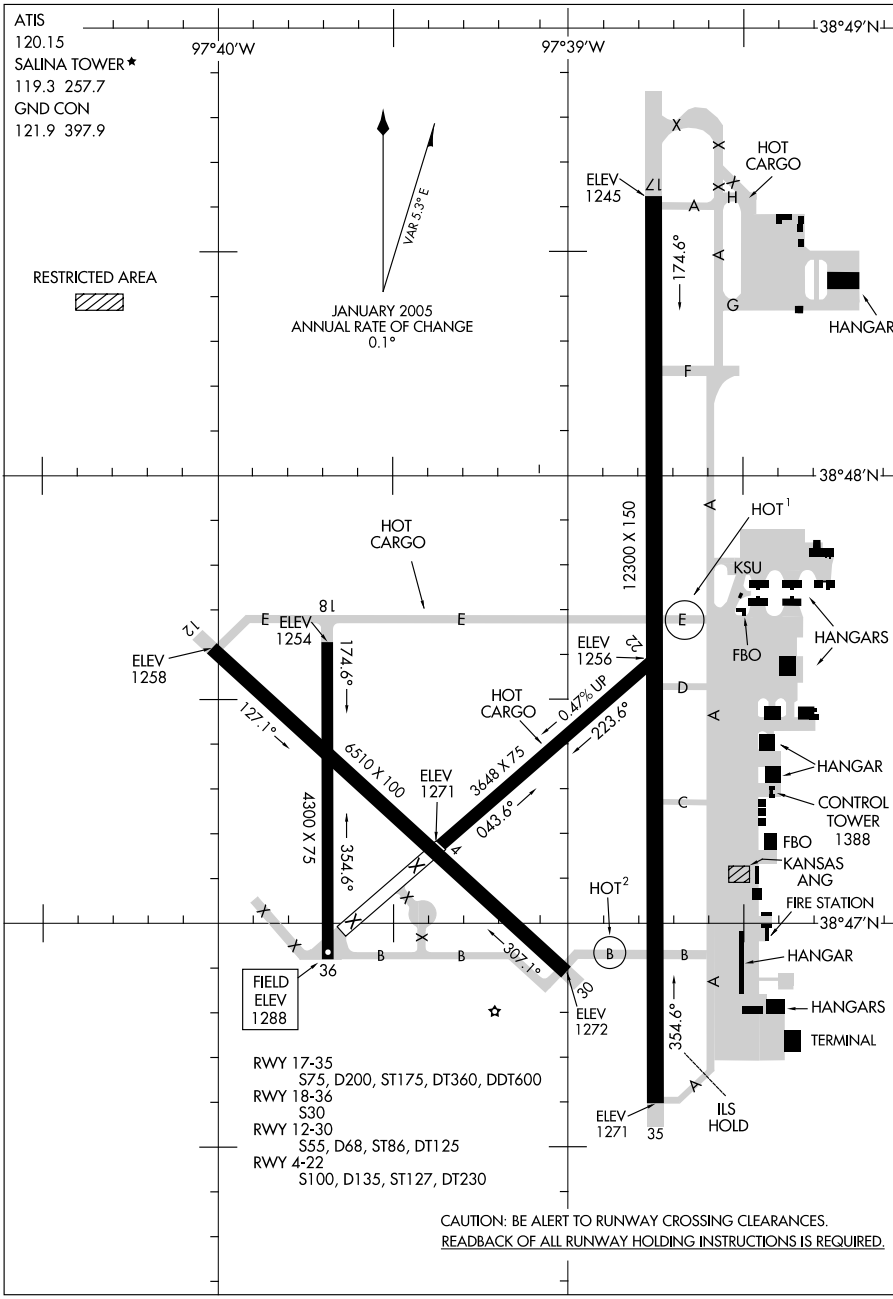
ST. PAUL, MINNESOTA
ST. PAUL DOWNTOWN HOLMAN FIELD (STP)

09239

AIRPORT DIAGRAM

SALINA MUNI (SLN)
SALINA, KANSAS

AL-362 (FAA)



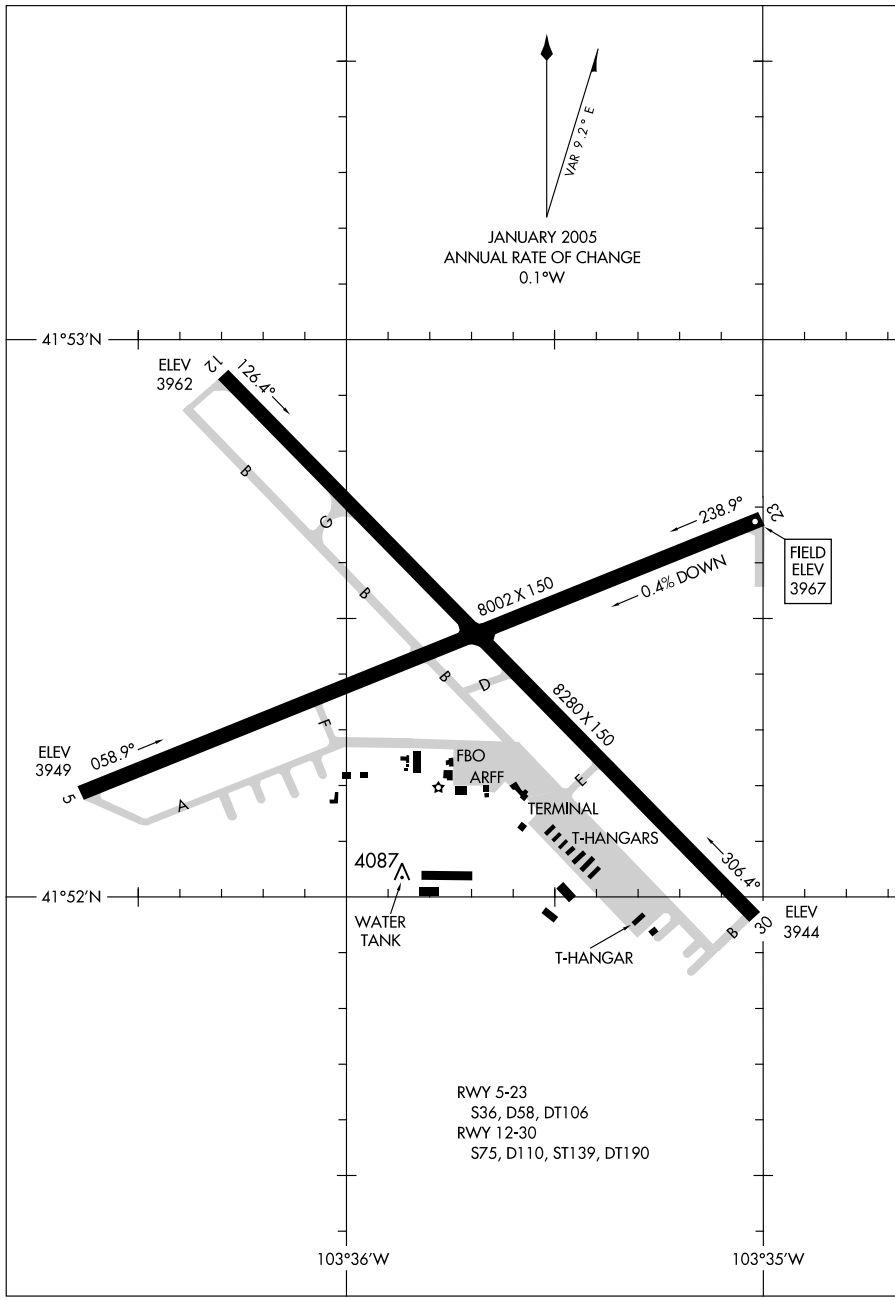
AIRPORT DIAGRAM
09239

SALINA, KANSAS
SALINA MUNI (SLN)

07298

AIRPORT DIAGRAM

WESTERN NEBRASKA RGNL/WILLIAM B. HEILIG FIELD (BFF)
SCOTTSBLUFF/ AL-383 (FAA) SCOTTSBLUFF, NEBRASKA



AIRPORT DIAGRAM

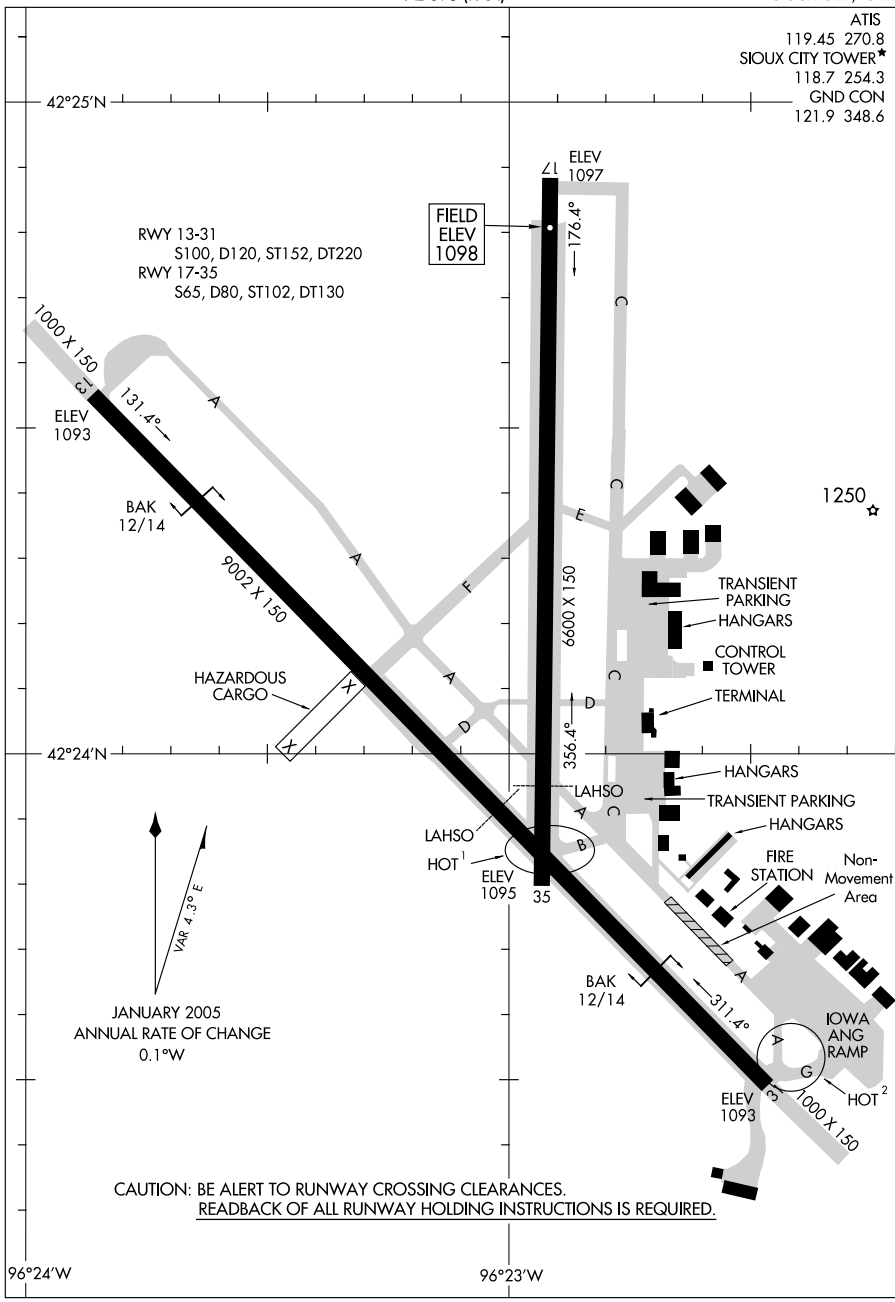
SCOTTSBLUFF/ SCOTTSBLUFF, NEBRASKA
WESTERN NEBRASKA RGNL/WILLIAM B. HEILIG FIELD (BFF)

07298

09239

AIRPORT DIAGRAM

SIOUX GATEWAY/COLONEL BUD DAY FIELD (SUX)
AL-395 (FAA)
SIOUX CITY, IOWA



AIRPORT DIAGRAM
09239

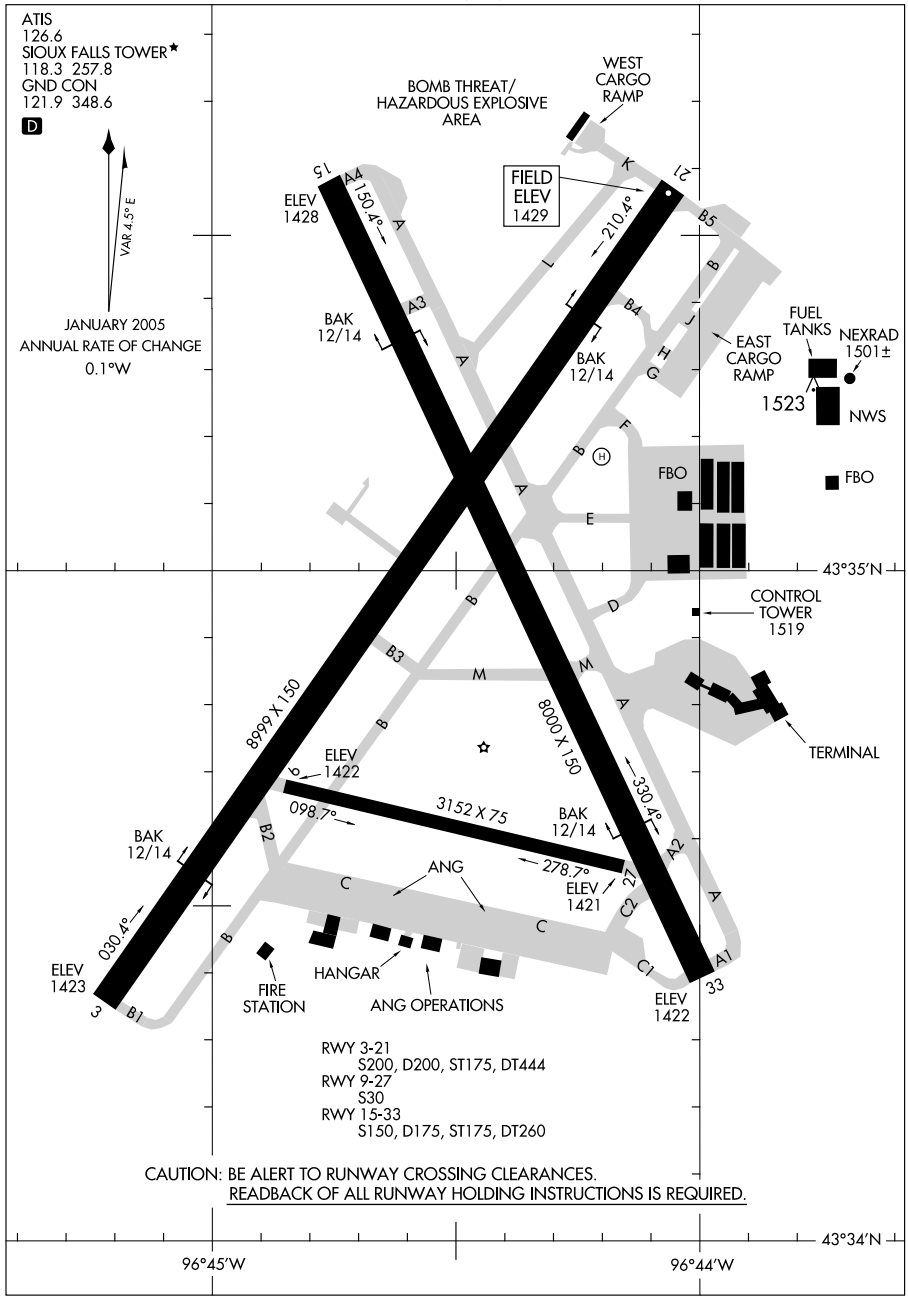
SIOUX CITY, IOWA
SIOUX GATEWAY/COLONEL BUD DAY FIELD (SUX)

09295

AIRPORT DIAGRAM

SIOUX FALLS/JOE FOSS FIELD (FSD)
SIOUX FALLS, SOUTH DAKOTA

AL-396 (FAA)



AIRPORT DIAGRAM
09295
SIOUX FALLS, SOUTH DAKOTA
SIOUX FALLS/JOE FOSS FIELD (FSD)

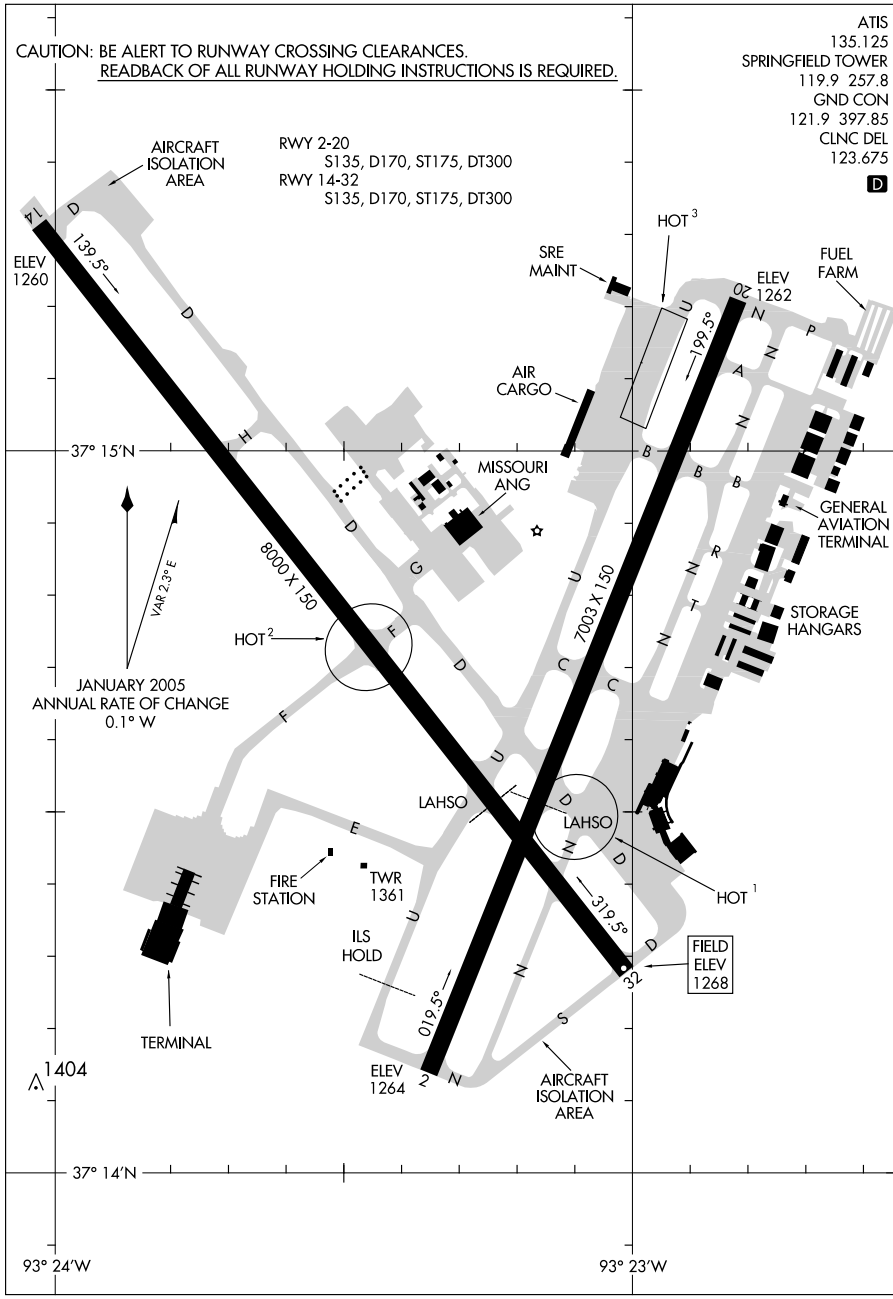
10042

AIRPORT DIAGRAM

SPRINGFIELD-BRANSON NATIONAL (SGF)

SPRINGFIELD, MISSOURI

AL-604 (FAA)



AIRPORT DIAGRAM

10042

SPRINGFIELD, MISSOURI

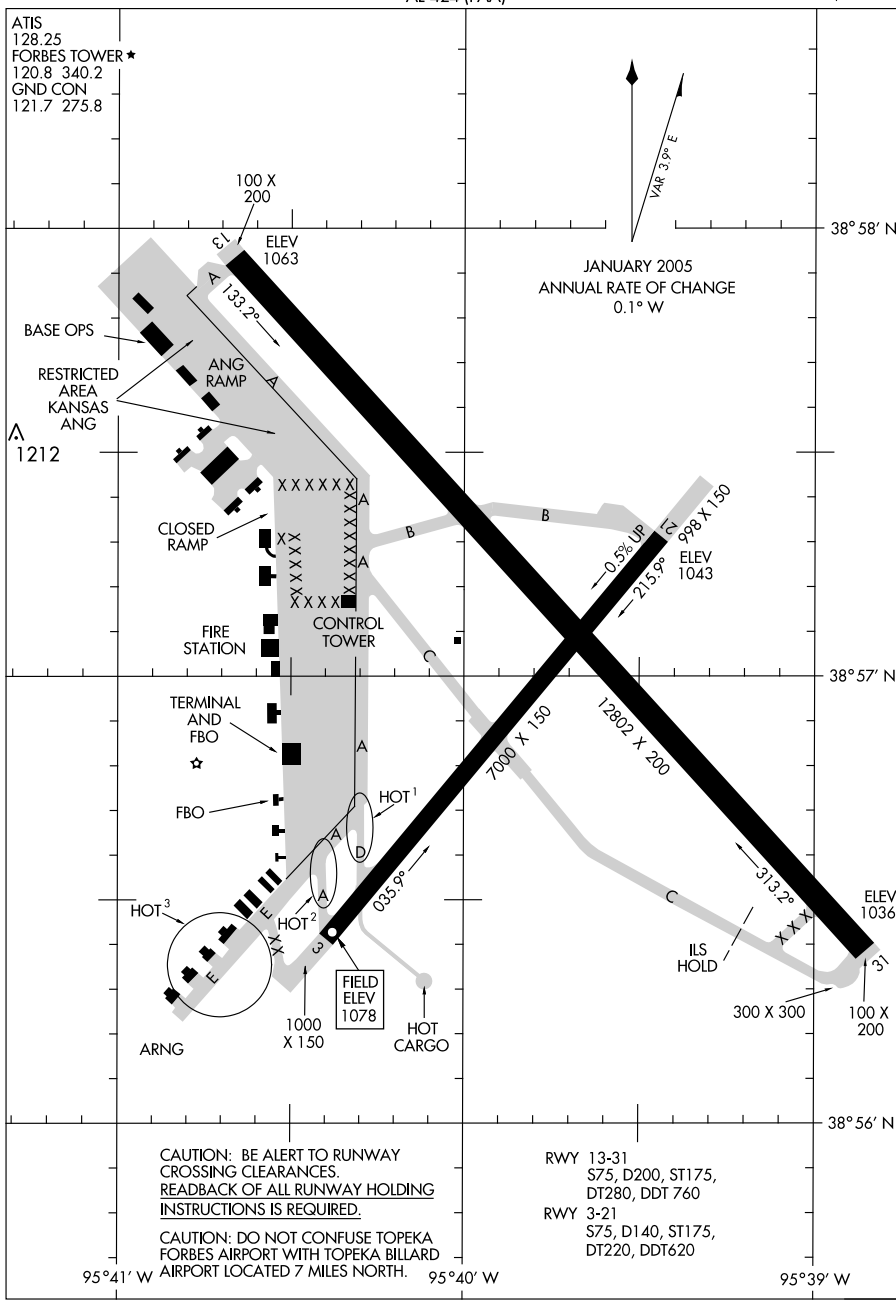
SPRINGFIELD-BRANSON NATIONAL (SGF)

09351

AIRPORT DIAGRAM

AL-424 (FAA)

TOPEKA/FORBES FIELD (FOE)
TOPEKA, KANSAS



AIRPORT DIAGRAM

09351

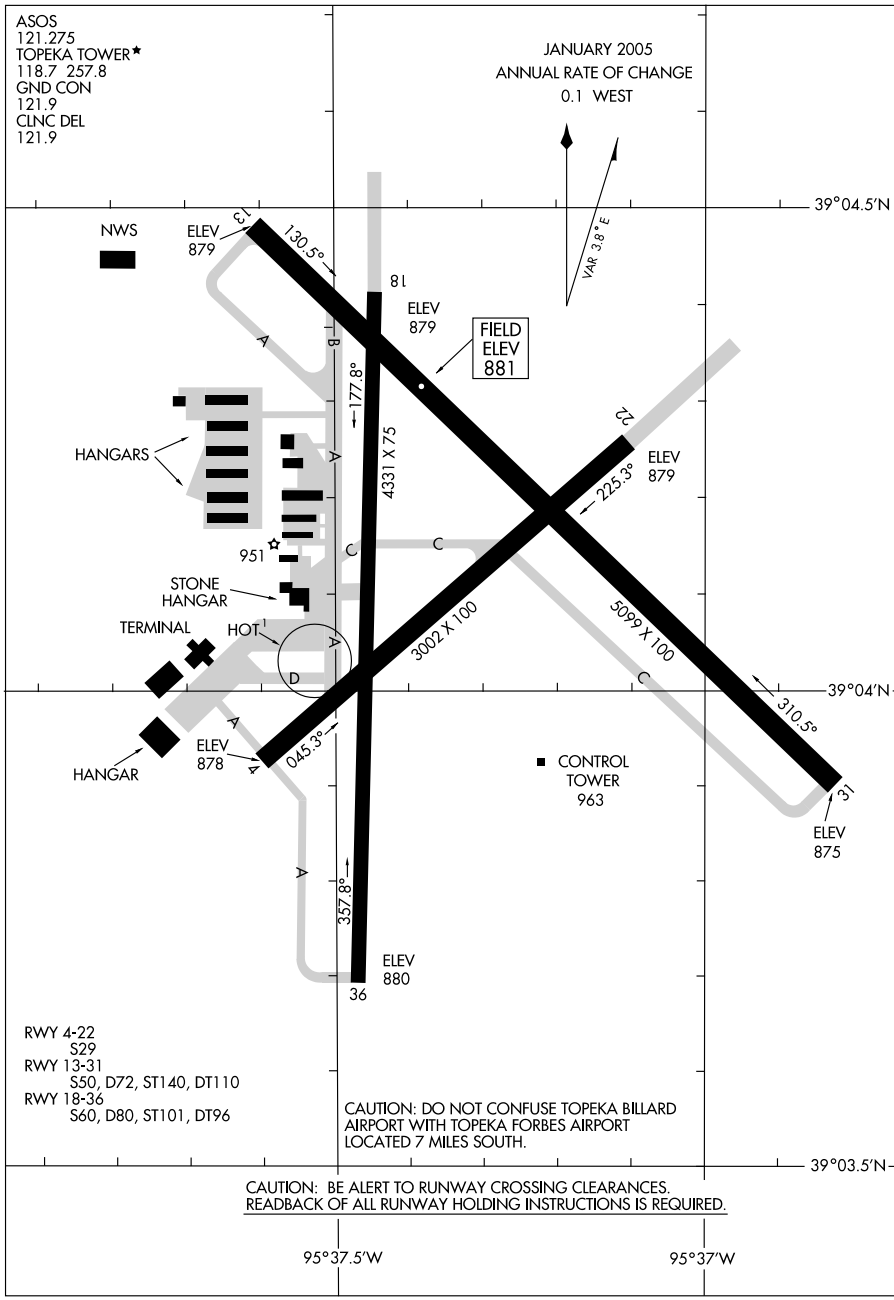
TOPEKA, KANSAS
TOPEKA/FORBES FIELD (FOE)

09239

AIRPORT DIAGRAM

TOPEKA/PHILIP BILLARD MUNI (TOP)
TOPEKA, KANSAS

AL-620 (FAA)



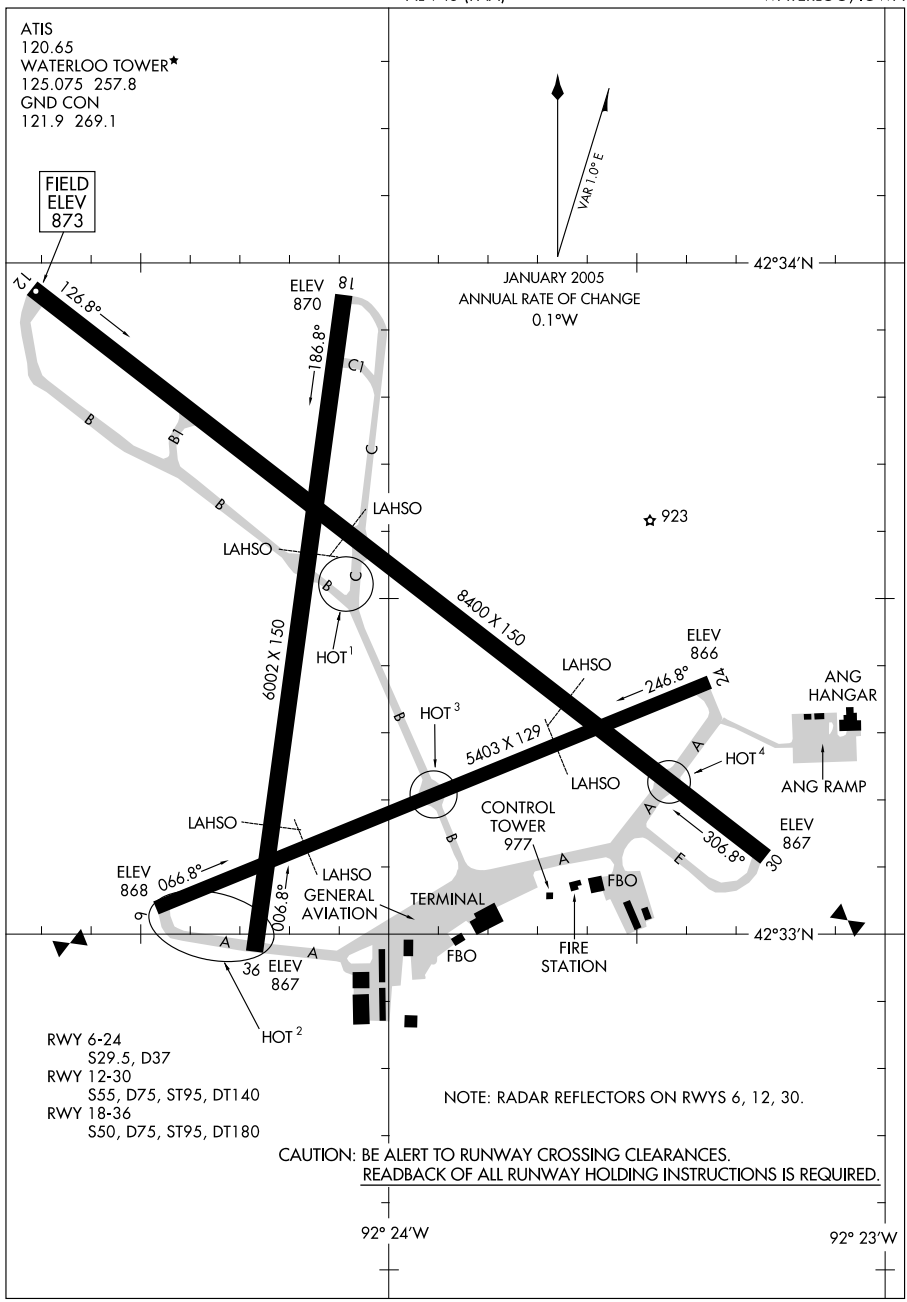
AIRPORT DIAGRAM
09239
TOPEKA, KANSAS
TOPEKA/PHILIP BILLARD MUNI (TOP)

09295

AIRPORT DIAGRAM

WATERLOO RGNL (ALO)
WATERLOO, IOWA

AL-945 (FAA)



AIRPORT DIAGRAM
09295
WATERLOO, IOWA
WATERLOO RGNL (ALO)

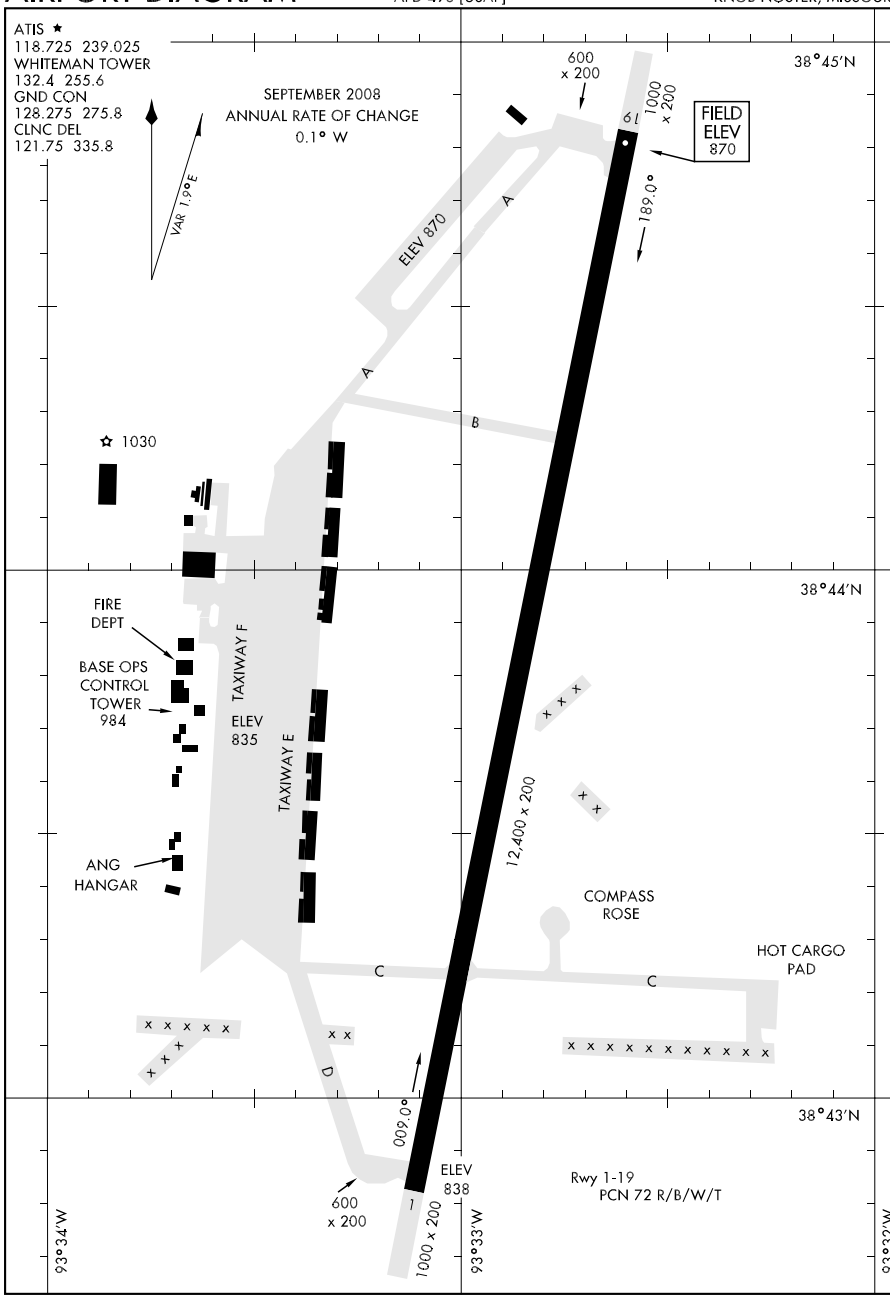
08325

AIRPORT DIAGRAM

WHITEMAN AFB (KSZL)

AFD-496 [USAF]

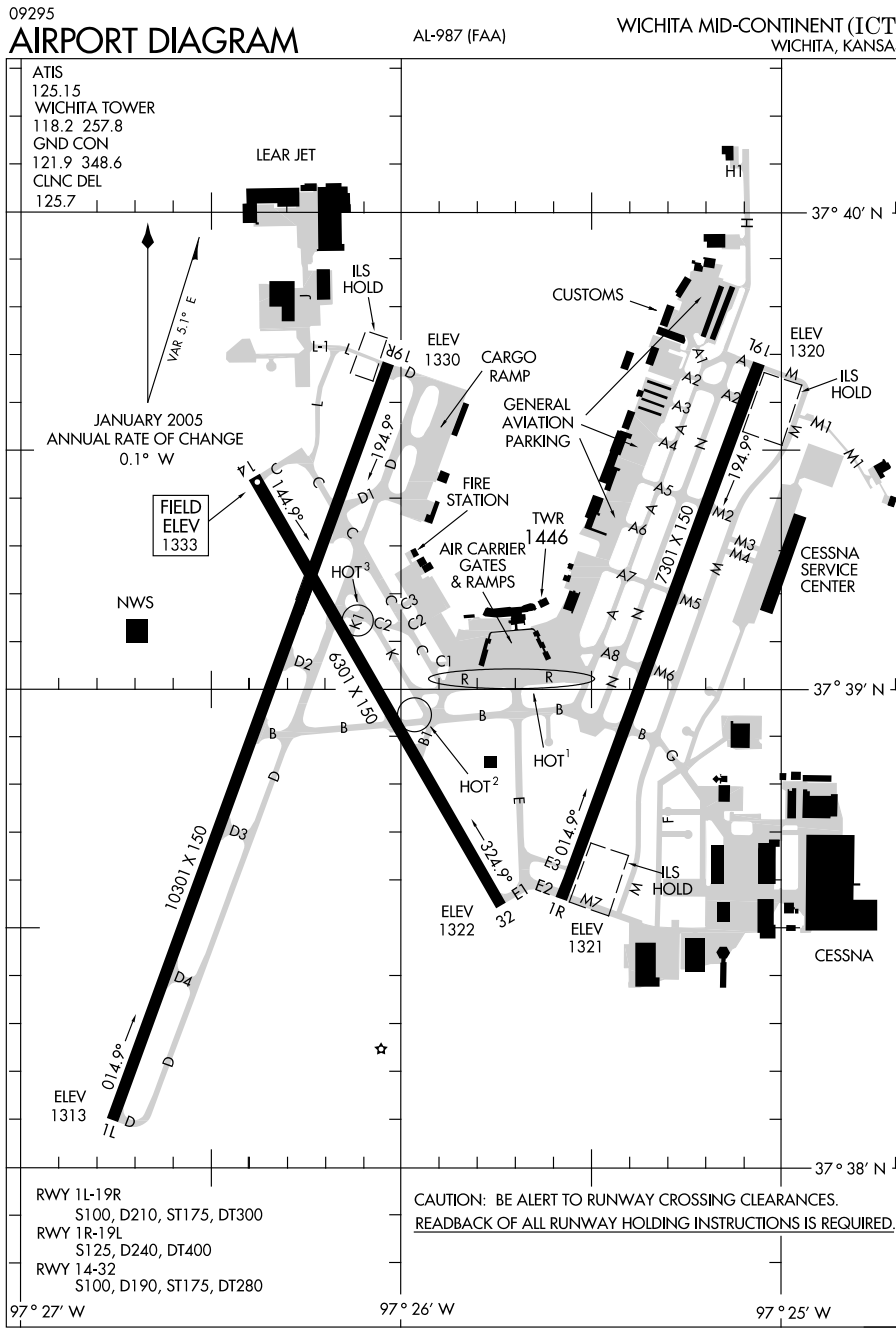
KNOB NOSTER, MISSOURI



AIRPORT DIAGRAM

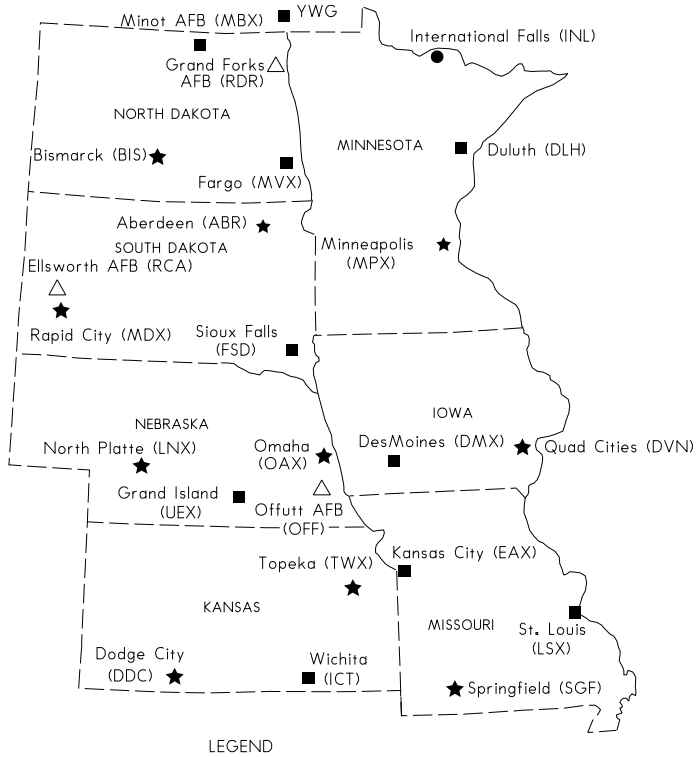
KNOB NOSTER, MISSOURI

WHITEMAN AFB (KSZL)


09295
AIRPORT DIAGRAM
AL-987 (FAA)
WICHITA MID-CONTINENT (ICT)
WICHITA, KANSAS
ATIS
125.15
WICHITA TOWER
118.2 257.8
GND CON
121.9 348.6
CLNC DEL
125.7
LEAR JET
ILS HOLD
VAR 5.1° E
JANUARY 2005
ANNUAL RATE OF CHANGE
0.1° W
FIELD ELEV 1333
NWS
ELEV 1330
CARGO RAMP
FIRE STATION
AIR CARRIER GATES & RAMPS
TWR 1446
HOT 3
HOT 1
HOT 2
CUSTOMS
GENERAL AVIATION PARKING
ELEV 1320
ILS HOLD
7301 X 150
CESSNA SERVICE CENTER
6301 X 150
10301 X 150
ELEV 1322
ELEV 1321
ELEV 1313
CESSNA
37° 40′ N
37° 39′ N
37° 38′ N
97° 27′ W
97° 26′ W
97° 25′ W
RWY 1L-19R
S100, D210, ST175, DT300
RWY 1R-19L
S125, D240, DT400
RWY 14-32
S100, D190, ST175, DT280
CAUTION: BE ALERT TO RUNWAY CROSSING CLEARANCES.
READBACK OF ALL RUNWAY HOLDING INSTRUCTIONS IS REQUIRED.
AIRPORT DIAGRAM
09295
WICHITA, KANSAS
WICHITA MID-CONTINENT (ICT)

INTENTIONALLY
LEFT
BLANK

NATIONAL WEATHER SERVICE (NWS)
UPPER AIR OBSERVING STATIONS (UAOS)
AND
WEATHER RADAR NETWORK



LEGEND

△ AVIATION WEATHER SERVICE (MILITARY

▲ AIR TRAFFIC CONTROL RADAR

★ UPPER AIR OBSERVING STATION/RADAR

■ RADAR ONLY

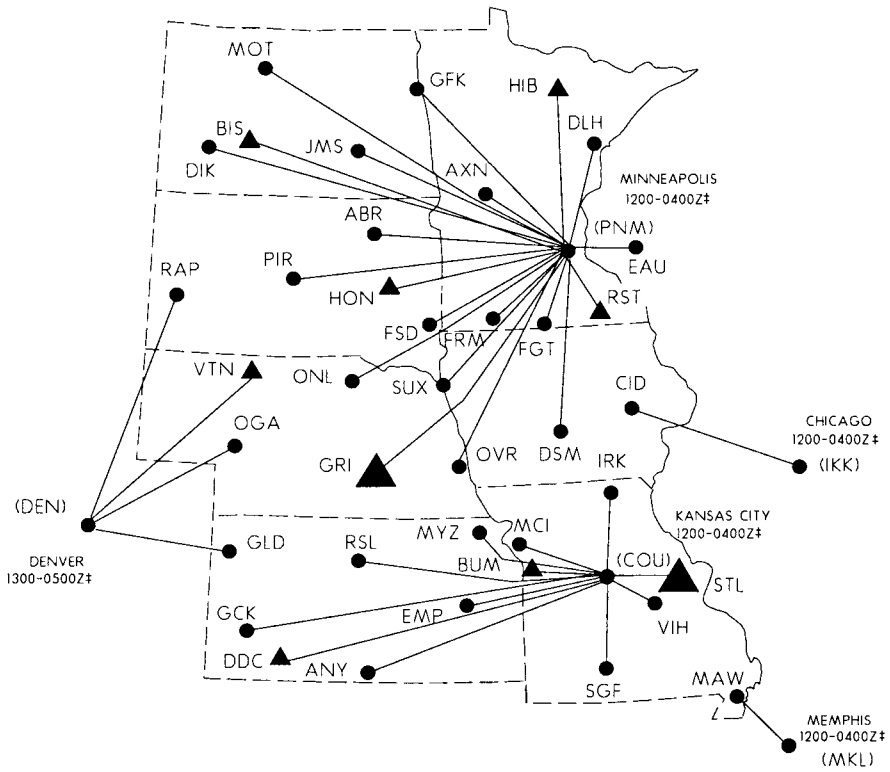
● UAOS-BALLOON RELEASES AROUND 1100 UTC AND 2300 UTC DAILY

○ OTHER NWS UPPER AIR STATIONS-BALLOON RELEASE TIMES ARE FLEXIBLE BUT GENERALLY AROUND SUNRISE AND/OR EARLY AFTERNOON

NOTE: FOR RELEASES LATER THAN 1130 UTC AND 2300 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



DENVER EFAS HIGH ALTITUDE FREQUENCY 124.675

KANSAS CITY EFAS HIGH ALTITUDE FREQUENCY 123.625

MINNEAPOLIS EFAS HIGH ALTITUDE FREQUENCY 135.675

● LOW ALTITUDE COMMUNICATIONS OUTLET (122.0)

▲ HIGH ALTITUDE COMMUNICATIONS OUTLET

▲ BOTH LOW AND HIGH ALTITUDE COMMUNICATIONS OUTLET