# VFR TERMINAL AREA CHART
# MINNEAPOLIS - ST. PAUL

Airports having Control Towers are shown in Blue, all others in Magenta. Consult Chart Supplement for details involving airport lighting, navigation aids, and services. All times are local. For additional symbol information refer to the Chart User's Guide.

## AIRPORTS

Other than hard-surfaced runways — Seaplane Base

Hard-surfaced runways 1500 ft. or greater

Open dot within hard-surfaced runway configuration indicates approximate VOR, VOR-DME, DME or VORTAC location.

All recognizable hard-surfaced runways, including those closed, are shown for visual identification. Airports may be public or private.

## ADDITIONAL AIRPORT INFORMATION

Private "(Pvt)" - Non-public use having emergency or landmark value

Military - Other than hard-surfaced; all military airports are identified by abbreviations AFB, NAS, AAF, etc.

Heliport Selected — Unverified — Abandoned - paved having landmark value, 3000 ft. or greater — Ultralight Flight Park Selected

Fuel availability indicated by use of tick marks around basic airport symbol. Consult Supplement for details and availability at airports with hard-surfaced runways 1500 ft. or greater.

Rotating airport beacon in operation Sunset to Sunrise

OBJECTIONABLE - Airport may adversely affect airspace use.

## AIRPORT DATA

Box indicates FAR 93 Special Air Traffic Rules & Airport Traffic Patterns. — FSS — FAR 91 — NO SVFR — Location Identifier — NAME (NAM) (PNAM) — ICAO Location Indicator shown outside contiguous U.S.

Runways with Right Traffic Patterns (public use) — CT - 118.3 ★ Ⓒ ATIS 123.8 — 285 L 72 122.95 — RP 23, 34 — UNICOM

*RP Special conditions exist - see Supplement. — VFR Advsy 125.0 — WX CAM — Weather Camera (AK) — AOE — Airport of Entry

FSS - Flight Service Station

NO SVFR - Fixed-wing special VFR flight is prohibited.

CT - 118.3 - Control Tower (CT) - primary frequency

★ - Star indicates operation part-time. See tower frequencies tabulation for hours of operation.

Ⓒ - Follows the Common Traffic Advisory Frequency (CTAF)

ATIS 123.8 - Automatic Terminal Information Service

AFIS 135.2 - Automatic Flight Information Service (AK)

ASOS/AWOS 135.42 - Automated Surface Weather Observing Systems (shown where full-time ATIS not available). Some ASOS/AWOS facilities may not be located at airports.

UNICOM - Aeronautical advisory station

VFR Advsy - VFR Advisory Service shown where full-time ATIS not available and frequency is other than primary CT frequency.

285 - Elevation in feet

L - Lighting in operation Sunset to Sunrise

*L - Lighting limitations exist; refer to Supplement.

72 - Length of longest runway in hundreds of feet; usable length may be less.

When information is lacking, the respective character is replaced by a dash. Lighting codes refer to runway edge lights and may not represent the longest runway or full length lighting.

## AIRPORT TRAFFIC SERVICE AND AIRSPACE INFORMATION

Only the controlled and reserved airspace effective below 18,000 ft. MSL are shown.

Class B Airspace

Class C Airspace (Mode C - see FAR 91.215/AIM.)

Class D Airspace

[40] Ceiling of Class D Airspace in hundreds of feet (A minus ceiling value indicates surface up to but not including that value.)

Class E (sfc) Airspace

Class E Airspace with floor 700 ft. above surface that laterally abuts Class G Airspace.

CLASS G

Class E Airspace with floor 700 ft. above surface that laterally abuts 1200 ft. or higher Class E Airspace

Class E Airspace with floor 1200 ft. or greater above surface that laterally abuts Class G Airspace

2400 MSL / 4500 MSL — Differentiates floors of Class E Airspace greater than 700 ft. above surface.

Class E Airspace exists at 1200' AGL unless otherwise designated as shown above.

Class E Airspace low altitude Federal Airways are indicated by center line.

Intersection - Arrows are directed towards facilities which establish intersection.

132° — V 69 — 169

Total mileage between NAVAIDs on direct Airways

Class E Airspace low altitude RNAV 2 Routes are indicated by center line.

T 319 — TK 313 (Helicopter Only) — RNAV Waypoint

Prohibited, Restricted, and Warning Areas; Canadian Advisory, Danger, and Restricted Areas

*Alert Area and Military Operations Area (MOA)

*Alert Areas do not extend into Class A, B, C and D airspace, or Class E airport surface areas.

Special Airport Traffic Area (See FAR 93 for details.)

ADIZ - Air Defense Identification Zone

MODE C (See FAR 91.215/AIM.)

National Security Area

Terminal Radar Service Area (TRSA)

IR211 — MTR - Military Training Route

IFR Departure Route

IFR Arrival Route

IFR Arrival/Departure Route

## COMMUNICATION BOXES

122.1R 122.6 123.6 — OAKDALE — 362★ 116.8 OAK — 122.6 — CHICAGO CHI

Underline indicates no voice on frequency.

- Crosshatch indicates Shutdown status.

★ - Operates less than continuous or On-Request.

Ⓐ - ASOS/AWOS

Heavy line box indicates Flight Service Station (FSS). Frequencies 122.2 and 255.4 (Conterminous U.S.), 121.5, 122.2, 243.0 and 255.4 (Alaska), and 121.5, 126.7, and 243.0 (Canada) are available at many FSSs and are not shown above boxes. All other frequencies are shown.

R - Receive only

122.1R — MIAMI

FSS radio providing voice communication

Frequencies above thin line box are remoted to NAVAID site. Other FSS frequencies providing voice communication may be available as determined by altitude and terrain. Consult Supplement for complete information.

## RADIO AIDS TO NAVIGATION

VHF OMNI RANGE (VOR) — VORTAC

VOR-DME — DME — Other facilities, i.e., FSS Outlet, RCO, WX CAM (AK) (see Supplement), etc.

Non-Directional Radio Beacon (NDB) — NDB - DME

## OBSTRUCTIONS

1000 ft and higher AGL

Above 200 ft & below 1000 ft AGL (above 299 ft AGL in urban area)

Wind Turbine — Group Obstruction — Wind Turbine Farm — 2894' UC

Elevation of the top above mean sea level — 2049

Height above ground — (1149)

Under construction or reported: position and elevation unverified — UC

Obstruction with high-intensity lights; may operate part-time

NOTICE: Guy wires may extend outward from structures.

## MISCELLANEOUS

A - Aerobatic Practice Area (See Supplement.)

G - Glider Operations

H - Hang Glider Activity

U - Ultralight Activity

UA - Unmanned Aircraft Activity

Parachute Jumping Area (See Supplement.)

STADIUM — Intermittent TFR site (within 3 NM, up to & incl 3000' AGL)

Marine Light

Space Launch Activity Area (See Supplement.)

—1°E— Isogonic Line (2020 VALUE)

VPXYZ — VFR Waypoints — NAME (VPXYZ)

## TOPOGRAPHIC INFORMATION

Power Transmission Line

Aerial Cable

Lookout Tower — 618 (Elevation Base of Tower)

Mountain Pass — 11823 (Elevation of Pass)

Pass symbol does not indicate a recommended route or direction of flight and pass elevation does not indicate a recommended clearance altitude. Hazardous flight conditions may exist within and near mountain passes.

# MINNEAPOLIS-ST. PAUL TAC

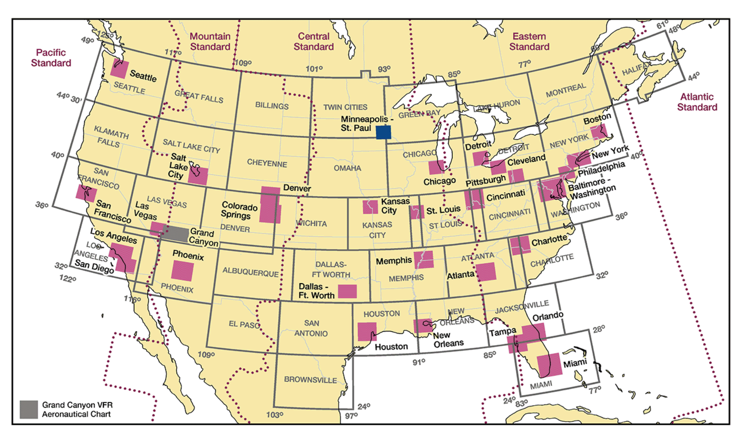
VFR TERMINAL AREA CHART SCALE 1:250,000

Federal Aviation Administration

EFFECTIVE 0901Z **25 FEB 2021**
TO 0901Z **22 APR 2021**

Consult NOTAMs for latest information

Consult/Subscribe to FAA Safety Alerts and Charting Notices at:
http://www.faa.gov/air_traffic/flight_info/aeronav/safety_alerts/

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Warning: Refer to current foreign charts and flight information publications for information within foreign airspace.


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REPORTING CHART ERRORS

You are requested to inform us of chart errors and/or additions that come to your attention while using this chart. See frequently asked questions (FAQs) on our website at http://faa.gov/go/ais prior to contacting us via toll free number at 1-800-638-8972 or visit https://www.faa.gov/air_traffic/flight_info/aeronav/aero_data or mail to: FAA, Aeronautical Information Services,1305 East-West Highway, SSMC 4, Suite 4400, Silver Spring, MD 20910-3281.

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GROUND ELEVATIONS IN FEET — 1280 — 1000 — Sea Level — CONTOUR INTERVAL 250'

Lambert Conformal Conic Projection Standard Parallels 33° and 45°
Horizontal Datum: North American Datum of 1983 (World Geodetic System 1984)

Entire area of this chart is within the Central Standard Time Zone + 6 (+ 5 DT) = UTC

CONVERSION OF ELEVATIONS

| FEET (Thousands) | 0 | 2 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 22 | 24 | 26 | 28 | 30 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

| METERS (Thousands) | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|---|---|

## MINNEAPOLIS CLASS B AIRSPACE

See back of this chart for procedural information within the Minneapolis Class B Airspace

### EXAMPLES OF CLASS B ALTITUDES

70 --- Ceiling in hundreds of feet MSL
30 --- Floor in hundreds of feet MSL

ATTENTION

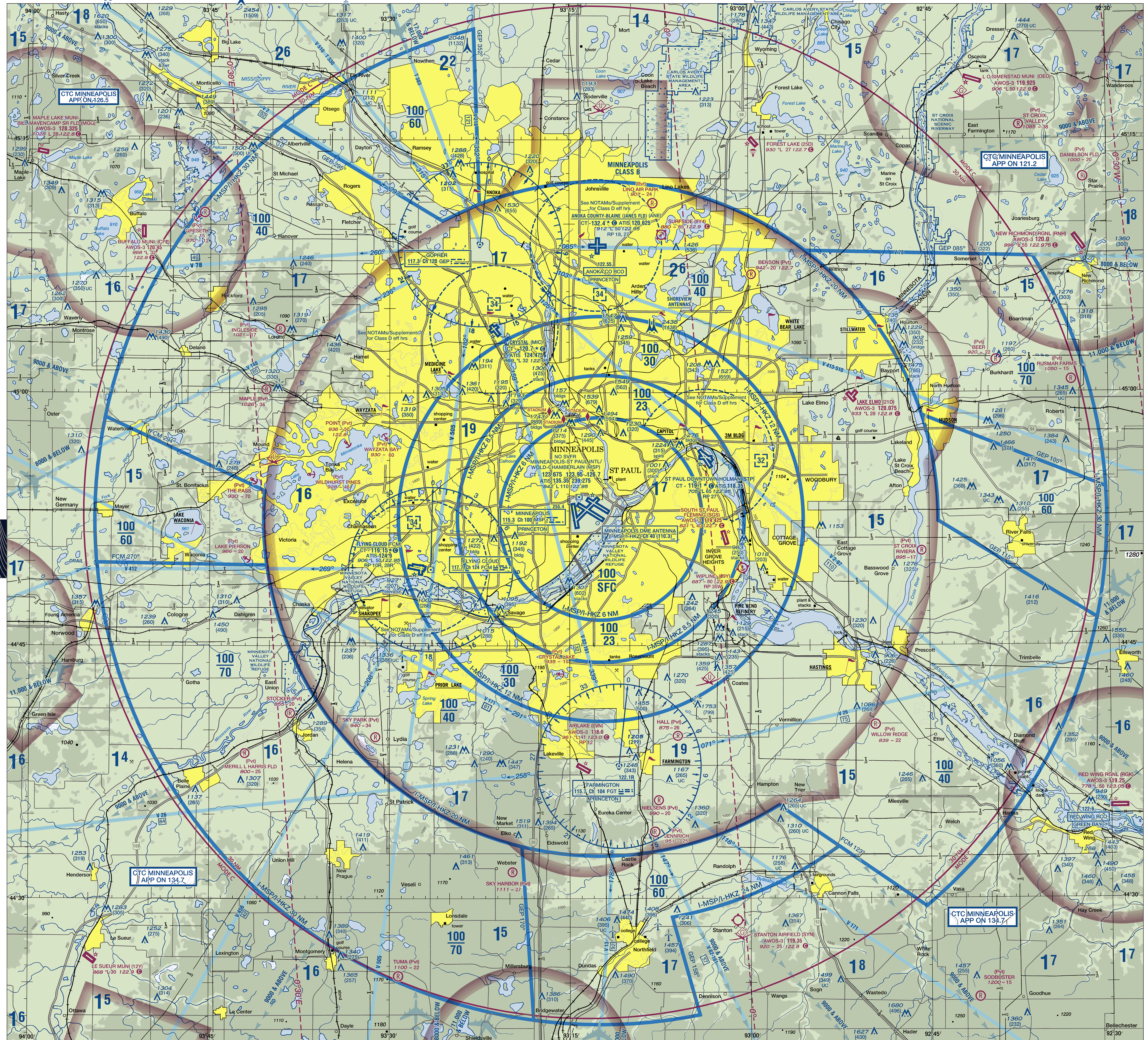
THIS CHART CONTAINS MAXIMUM ELEVATION FIGURES (MEF).
The Maximum Elevation Figures shown in quadrangles bounded by ticked lines of latitude and longitude are represented in THOUSANDS and HUNDREDS of feet above mean sea level. The MEF is based on information available concerning the highest known feature in each quadrangle, including terrain and obstructions (trees, towers, antennas, etc.).

Example: 12,500 feet ...... 12⁵

CAUTION: Severe turbulence may occur over rugged terrain. See AIM.

NORTH AMERICAN AEROSPACE DEFENSE COMMAND (NORAD) PROCEDURES

All aircraft operating in the U.S. national airspace, if capable, will maintain a listening watch on guard frequencies VHF 121.5 or UHF 243.0. It is incumbent upon all aviators to know and understand their responsibilities if intercepted. Review "AIM" section 5-6-13 for intercept procedures. Additionally, if U.S. military fighter jets intercept an aircraft and flares are dispensed in the area of that aircraft, aviators will pay strict attention, contact air traffic control immediately on the local frequency or on VHF guard 121.5 or UHF 243.0 and follow the interceptor visual ICAO signals. Be advised that non-compliance may result in the use of force.




MILITARY TRAINING ROUTES (MTRs)

All IR and VR MTRs are shown, and may extend from the surface upwards. Only the route centerline, direction of flight along the route, and the route designator are depicted - route widths and altitudes are not shown.

DoD users refer to Area Planning AP/1B Military Training Routes North and South America for current routes.

**CAUTION: This chart is primarily designed for VFR navigational purposes and does not purport to indicate the presence of all power transmission and telecommunication lines, terrain or obstacles which may be encountered below reasonable and safe altitudes.**

Features normally used as checkpoints for controlling VFR traffic are emphasized on this series of charts so they may be readily identified.

Example: POWER PLANT

The name shown is that used by the controlling personnel and is not necessarily the official name of the feature.

Class G Airspace within the United States extends up to 14,500 feet MSL. At and above this altitude all airspace is within Class E Airspace, excluding the airspace less than 1500 feet above the terrain and certain special use airspace areas.

REGULATIONS REGARDING FLIGHTS OVER CHARTED NATIONAL PARK SERVICE AREAS, U.S. FISH AND WILDLIFE SERVICE AREAS, BUREAU OF LAND MANAGEMENT AREAS AND U.S. FOREST SERVICE AREAS

The landing of aircraft is prohibited on lands or waters administered by the National Park Service, U.S. Fish and Wildlife Service, Bureau of Land Management or U.S. Forest Service (hereafter referred to as Agency/Agencies) without authorization from the respective agency. Exceptions include: 1) when forced to land due to an emergency beyond the control of the operator, 2) at officially designated landing sites, or 3) on approved official business of the Federal Government. All aircraft are requested to maintain a minimum altitude of 2,000 feet above the surface of the following: National Parks, Monuments, Seashores, Lakeshores, Recreation Areas, Scenic Riverways, Wildlife Refuges, Big Game Refuges, Game Ranges, Wildlife Ranges, Conservation Areas, Wild and Scenic Rivers, Wilderness Areas and Primitive Areas administered by the Agencies. FAA Advisory Circular (AC) 91-36, "Visual Flight Rules (VFR) Flight Near Noise-Sensitive Areas," defines the surface as: the highest terrain within 2,000 feet laterally of the route of flight, or the upper-most rim of a canyon or valley. Federal regulations also prohibit airdrops by parachute or other means of persons, cargo, or objects from aircraft on lands administered by the four agencies without authorization from the respective agency. Exceptions include: 1) emergencies involving the safety of human life, or 2) threat of serious property loss.

Boundary of Agency Areas

Flight Following Services are available on request and highly recommended in and around Class B, C, and TRSA areas.

CAUTION: Unmanned Aircraft Systems (UAS) may be approved to operate above critical infrastructure including obstacles and linear features such as high-voltage powerlines, pipelines and railroads. Check NOTAMs and see AIM for details.

## CONTROL TOWER FREQUENCIES ON MINNEAPOLIS–ST PAUL TERMINAL AREA CHART

Airports with control towers are indicated on the face of the chart by the letters CT followed by the primary VHF tower frequency(ies). Information for each tower is listed in the table below. Operational hours are local time. The primary VHF and UHF tower and ground control frequencies are listed.

Automatic Terminal Information Service (ATIS) frequencies shown on the face of the chart are arrival VHF/UHF frequencies. All ATIS frequencies are listed in the table below. ATIS operational hours may differ from tower operational hours.

ASR and/or PAR indicate Radar Instrument Approach available.

"MON-FRI" indicates Monday through Friday.

O/T indicates other times.

| CONTROL TOWER | OPERATES | TOWER | GND CON | ATIS | ASR/PAR |
|---|---|---|---|---|---|
| ANOKA COUNTY–BLAINE (JANES FLD) | 0700-2100 OCT–APR<br>0700-2200 MAY–SEP | 132.4 | 121.85 | 120.625 | |
| CRYSTAL | 0700-2100 OCT–APR<br>0700-2200 MAY–SEP | 120.7 | 121.6 | 124.475 | |
| FLYING CLOUD | 0600-2100<br>1ST SUN NOV—2ND SAT MAR<br>0600-2200<br>2ND SUN MAR—1ST SAT NOV | 119.15 | 121.7 | 124.9 | |
| MINNEAPOLIS–ST PAUL INTL/WOLD-CHAMBERLAIN | CONTINUOUS | 123.675 273.55 (RWY 17/35)<br>123.95 273.55 (RWY 12L/30R)<br>126.7 273.55 (RWYS 12R/30L & 4/22) | 121.8 (N)<br>121.9 (S)<br>127.925 (W)<br>348.6 | 120.8 (DEP)<br>135.35 (ARR)<br>239.275 (ARR) | |
| ST PAUL DOWNTOWN HOLMAN | 0600-2200 MON-FRI<br>0700-2200 SAT-SUN | 119.1 257.8 | 121.675 | 118.35 | |

## CLASS B, CLASS C, TRSA, AND SELECTED APPROACH CONTROL FREQUENCIES

| FACILITY | FREQUENCIES | SERVICE AVAILABILITY |
|---|---|---|
| MINNEAPOLIS CLASS B | 121.2 (NE)<br>126.5 (NW)<br>134.7 (S) | CONTINUOUS |

## MINNEAPOLIS CLASS B AIRSPACE

<u>OPERATING RULES AND PILOT/EQUIPMENT REQUIREMENTS</u>. Regardless of weather conditions, an ATC authorization is required prior to operating within the Class B Airspace. Pilots should not request an authorization to operate within the Class B Airspace unless the requirements of FAR 91.215 and FAR 91.131 are met. Included among those requirements are:

1. Unless otherwise authorized by ATC, an operable two-way radio capable of communicating with ATC on appropriate frequencies for that Class B Airspace.
2. No person may take off or land a civil aircraft at an airport within the Class B Airspace or operate a civil aircraft within the Class B Airspace unless:
   (a) The pilot in command holds at least a Private Pilot certificate, or holds a Recreational Pilot certificate and has met the requirements of FAR 61.101(d); or holds a Sport Pilot certificate and has met the requirements of FAR 61.325, or:
   (b) The aircraft is operated by a student pilot who has met the requirements of FAR 61.94 or FAR 61.95 as applicable.
3. Unless otherwise authorized by ATC, each person operating a large turbine engine-powered aircraft to or from a primary airport shall operate at or above the designated floors while within the lateral limits of the Class B Airspace.
4. An operable VOR or TACAN receiver for IFR operations.
5. A transponder with automatic altitude reporting equipment.

NOTE: ATC may, upon notification, immediately authorize a deviation from the altitude reporting equipment requirement or for a transponder failure; however, other requests for deviations from the transponder equipment requirement must be submitted to the controlling ATC facility at least one hour before the proposed operation.

<u>FLIGHT PROCEDURES</u>

<u>IFR FLIGHTS</u>—Aircraft operating within the Minneapolis Class B Airspace must be operated in accordance with ATC clearances and instructions.

<u>VFR FLIGHTS</u>—

1. Arriving aircraft should contact the appropriate approach control on specified frequencies and in relation to geographic fixes shown on the accompanying chart. Although arriving aircraft may be operating beneath the floor of the Class B Airspace on initial contact, communications should be established with approach control in relation to the points indicated for sequencing and spacing purposes.
2. Aircraft departing the primary airports are requested to advise clearance delivery prior to taxiing of their intended altitude and direction of flight to depart the Class B Airspace. Aircraft departing from other than the primary airports whose route of flight would penetrate the Class B Airspace should give this information to ATC on the appropriate frequencies.
3. Aircraft desiring to transit the Class B Airspace must obtain an ATC clearance to enter the Class B Airspace and will be handled on an ATC workload permitting basis.

<u>ATC PROCEDURES</u>

All aircraft will be controlled and separated while operating within the Class B Airspace, except helicopters need not be separated from other helicopters. Although radar separation will be the primary standard used, approved visual and other nonradar procedures will be applied as required or deemed appropriate. Traffic information on observed but unidentified radar targets will be provided on a workload permitting basis to aircraft operating outside the Class B Airspace.

NOTE: Assignment of radar headings and/or altitudes is based on the provision that a pilot operating in accordance with visual flight rules is expected to advise ATC if compliance with an assigned route, radar heading, or altitude will cause the pilot to violate such rules.