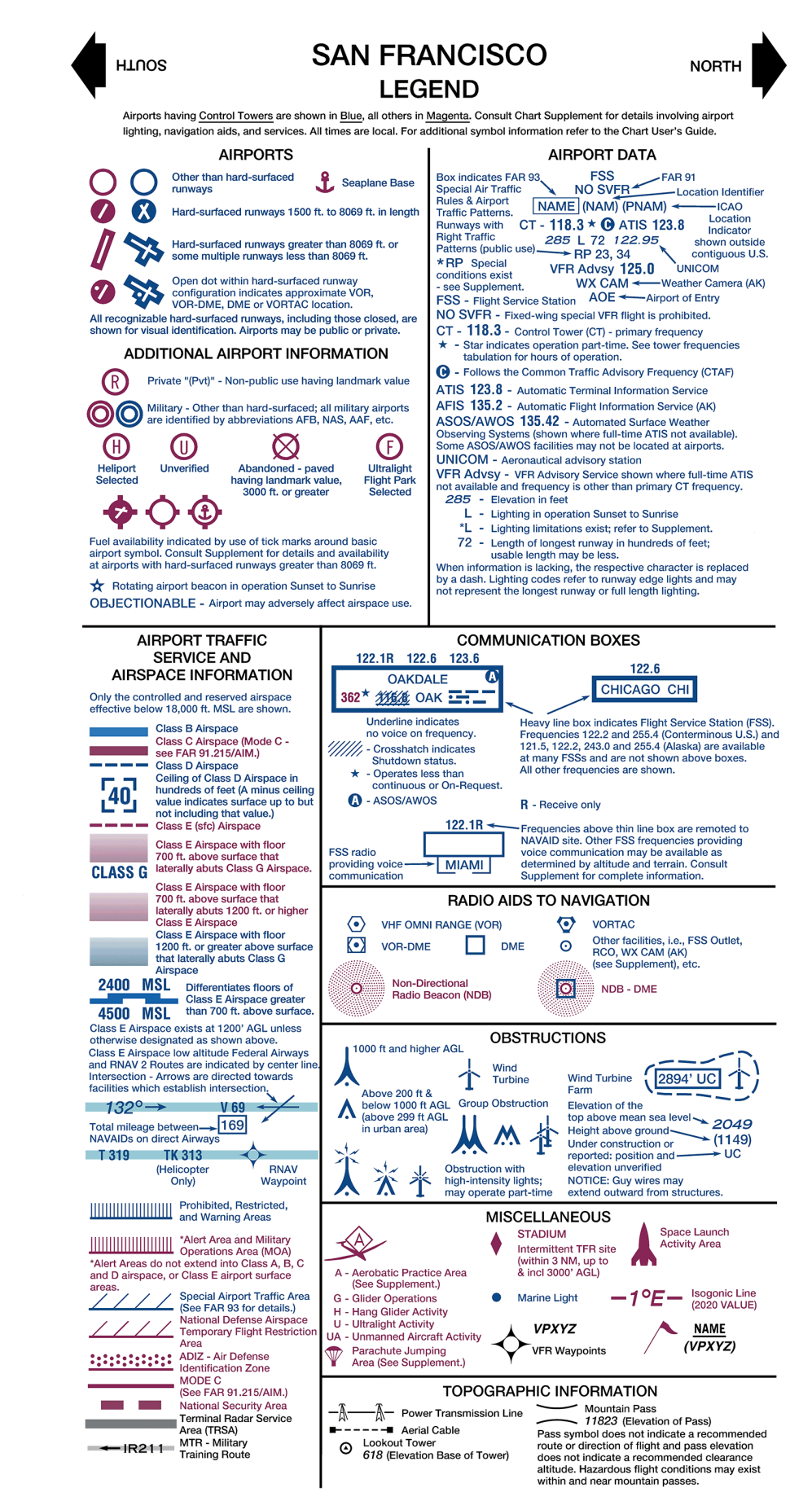
SAN FRANCISCO
LEGEND

SOUTH ◀ ▶ NORTH



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. to 8069 ft. in length

Hard-surfaced runways greater than 8069 ft. or some multiple runways less than 8069 ft.

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 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 greater than 8069 ft.

★ 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.

Runways with Right Traffic Patterns (public use)

*RP Special conditions exist - see Supplement.

FSS ← FAR 91
NO SVFR ← Location Identifier
NAME (NAM) (PNAM) ← ICAO Location Indicator shown outside contiguous U.S.
CT - 118.3 ★ Ⓒ ATIS 123.8
285 L 72 122.95 ← UNICOM
RP 23, 34
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 and RNAV 2 Routes are indicated by center line.

Intersection - Arrows are directed towards facilities which establish intersection.

132° V 69

Total mileage between NAVAIDs on direct Airways 169

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

Prohibited, Restricted, and Warning 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.)

National Defense Airspace Temporary Flight Restriction Area

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

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.) and 121.5, 122.2, 243.0 and 255.4 (Alaska) 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

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

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

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

VPXYZ VFR Waypoints

Space Launch Activity Area

—1°E— Isogonic Line (2020 VALUE)

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.

SAN FRANCISCO SECTIONAL

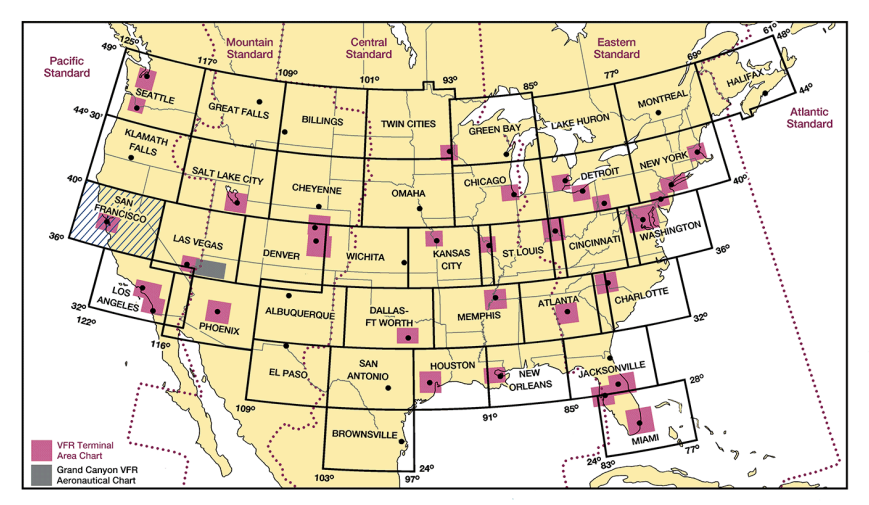
SECTIONAL AERONAUTICAL CHART SCALE 1:500,000

SOUTH ◀ ▶ NORTH

Federal Aviation Administration™

EFFECTIVE 0901Z **23 FEB 2023**
TO 0901Z **20 APR 2023**

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.

FAA Product ID: SSF
NSN 7641014100159
NGA REF. NO. SECXXFRISCO
EFF. DATE 23054

PLOTTING DIRECT ROUTE ON NORTH/SOUTH SIDE

There are approximately two minutes of latitude overlap between the north and south sides of each sectional chart. To plot a course line from one side to the other, the user must first locate two pair of corresponding latitude tick marks, one pair on each side of the chart and follow the steps below.

STEP 1 - Draw a horizontal line (MATCH LINE) between each pair of corresponding latitude tick marks on each side of the chart just to the left or right of where your plot line crosses. (Figure 1)

STEP 2 - Decide which side of the chart has the departure or destination point closer to the edge of the chart. On that side, line up a blank piece of paper along the MATCH LINE (the paper should be completely on the chart, not extending beyond its edge).

STEP 3 - Slide the paper sideways left or right so that a side edge of the paper aligns with the departure or destination point (POINT A). Make a MARK A on an edge of the paper where it meets that point.

STEP 4 - Without moving the paper, on the same edge as MARK A, extend a short line on the chart from the corner of the paper where it meets the MATCH LINE out to the edge of the chart. Make that LINE B.

STEP 5 - Turn the chart over and transfer the end of LINE B to the other side, and extend it straight to the MATCH LINE. (Figure 2)

STEP 6 - Take the sheet of paper with MARK A on it and align the (top or bottom) edge of the paper with the MATCH LINE and side edge with LINE B with the bulk of the sheet extending off of the chart. Plot a line from MARK A to the departure or destination point (POINT B).

STEP 7 - Where your plot line crosses the MATCH LINE make a MARK C. Extend a line straight from that mark to the edge of the chart.

STEP 8 - Turn the chart back over and transfer MARK C to that side and extend it to the MATCH LINE. Plot a line from MARK C to the destination. (Figure 3)

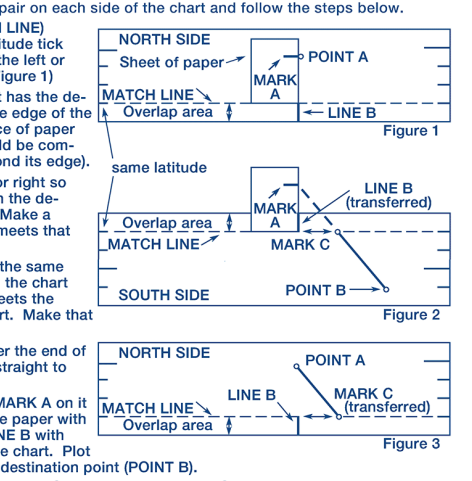
NORTH SIDE
Sheet of paper
POINT A
MARK A
MATCH LINE
Overlap area
LINE B
same latitude
LINE B (transferred)
MARK C
SOUTH SIDE
POINT B
MARK C (transferred)

Figure 1

Figure 2

Figure 3

CONTROL TOWER FREQUENCIES ON SAN FRANCISCO SECTIONAL 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
BEALE AFB	0600 MON-2200 FRI AND/OR BY NOTAM CLSD HOL	119.4 284.75	121.6 257.75	124.55 273.5	
BUCHANAN FLD	0700-2200	119.7 123.9 257.8	121.9	124.7	
CASTLE	0700-2100	118.175 235.775	133.575	124.475	
CHARLES M SCHULZ-SONOMA COUNTY	0700-2000	118.5 363.0	121.9	120.55	
CHICO RGNL	0700-1900	121.0 239.3	121.9	119.675	
FALLON NAS (VAN VOORHIS)	0730-2300 MON-FRI 1000-1800 SAT 1200-1800 SUN CLSD HOL O/T BY NOTAM	119.25 340.2	251.15	370.925	ASR/PAR
FRESNO YOSEMITE INTL	CONTINUOUS	118.2 251.1	121.7 348.6	121.35 273.6	
HAYWARD EXEC	0700-2100	120.2 257.8	121.4	126.7	
LEMOORE NAS (REEVES)	0800-2400 MON-FRI 1000-1800 SAT-SUN	128.3 340.2 (RWY 14L, 32L) 360.2 (RWY 14R, 32R)	121.65 305.2	121.575 327.15	ASR/PAR
LIVERMORE MUNI	0700-2100	118.1 239.25	121.6	119.65	
METRO OAKLAND INTL	CONTINUOUS	118.3 291.65 (RWYS 10L/28R, 10R/28L, 15/33) 127.2 256.9 (RWY 12/30)	121.9 (RWYS 10L/28R, 10R/28L, 15/33) 121.75 (RWY 12/30)	133.775	
MODESTO CITY-COUNTY-HARRY SHAM FLD	0700-2100	125.3 257.8	121.7	127.7	
MOFFETT FEDERAL AIRFIELD	0700-2300	119.55 259.65	121.85 278.95	124.175 283.0	
MONTEREY RGNL	0600-2100	118.4 257.8	120.875 348.6	119.25	
NAPA COUNTY	0700-2000	118.7 257.8	121.7	124.05	
NORMAN Y MINETA SAN JOSE INTL	0600-2400	124.0 257.6	121.7	126.95	
PALO ALTO	0700-2100	118.6	125.0	135.275	
REID-HILLVIEW	0700-2200	119.8 (RWY 13L/31R) 126.1 (RWY 13R/31L)	121.65	125.2	
RENO/TAHOE INTL	CONTINUOUS	118.7 257.8	121.9 348.6	135.8 363.0	
SACRAMENTO EXEC	0600-2100	119.5 278.8	125.0	125.5	
SACRAMENTO INTL	CONTINUOUS	125.7 256.7	121.7 256.7	126.75	
SACRAMENTO MATHER	0500-2330 MON 0300-2330 TUE-FRI 0300-2100 SAT 0500-2100 SUN	120.65 282.25	121.85 307.9	118.325	
SALINAS	0600-1900 OCT-MAR 0500-1900 APR-SEP	119.525 239.3	121.7	124.85	
SAN CARLOS	0700-2100	119.0 326.2	121.6	125.9	
SAN FRANCISCO INTL	CONTINUOUS	120.5 269.1	121.8	113.7 115.8 118.85	
STOCKTON METRO	0700-2100	120.3 239.0	121.9	118.25	
TRAVIS AFB	CONTINUOUS	120.75 254.4	121.8 289.4	135.55 292.125	
TRUCKEE-TAHOE	0700-1900 APR-MAY 0700-2000 JUN-SEP 0700-1800 OCT-MAR	120.575	118.3		

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

FACILITY	FREQUENCIES	SERVICE AVAILABILITY
SAN FRANCISCO CLASS B	120.9 323.2 (NW) 127.0 298.95 (N) 125.35 354.1 (NE-E) 134.5 338.2 (E) 133.95 317.6 (S) 135.1 307.2 (W)	CONTINUOUS
BEALE AFB CLASS C	125.4 259.1	0600 MON-2200 FRI AND/OR BY NOTAM, CLSD HOL O/T CLASS G
FRESNO CLASS C	132.35 323.25 (091°-239°) 119.6 351.95 (240°-090°)	CONTINUOUS
MONTEREY CLASS C	133.0 251.15 (001°-135° MRY) 127.15 307.125 (136°-360° MRY)	0600-2100 O/T CLASS G
OAKLAND METRO CLASS C	127.0 298.95 (N) 125.35 354.1 (E) 133.95 317.6 (S) 135.1 307.2 (W) 120.9 323.2 (NW)	CONTINUOUS
RENO CLASS C	119.2 279.55 (036°-225° FMG) 126.3 353.9 (226°-035° FMG)	CONTINUOUS
SACRAMENTO INTL CLASS C	127.4 317.5 (E-SE) 125.25 257.9 (SW) 125.4 259.1 (W-NE)	CONTINUOUS
SAN JOSE CLASS C	121.3 270.35 (280°-080° SJC) 120.1 290.25 (081°-135° SJC) 135.2 379.1 (136°-279° SJC)	0600-2400 O/T CLASS E
FALLON NAS (VAN VOORHIS)	120.85 360.2 O/T 128.8 285.5 OAKLAND CNTR	0730-2300 MON-FRI 1000-1800 SAT 1200-1800 SUN CLSD HOL O/T BY NOTAM
LEMOORE NAS (REEVES)	124.1 269.025 (N) 118.15 269.025 (S)	0800-2400 MON-FRI 1000-1800 SAT-SUN
TRAVIS AFB	119.9 322.325 (S) 126.6 281.45 (N)	CONTINUOUS

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**

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.

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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SPECIAL USE AIRSPACE ON SAN FRANCISCO SECTIONAL CHART

Unless otherwise noted altitudes are MSL and in feet. Time is local.
"TO" an altitude means "To and including."
FL – Flight Level
NO A/G – No air to ground communications.
Contact Flight Service for information.

† Other times by NOTAM.
NOTAM – Use of this term in Restricted Areas indicates FAA and DoD NOTAM systems. Use of this term in all other Special Use areas indicates the DoD NOTAM system.

U.S. P–PROHIBITED, R–RESTRICTED, W–WARNING, A–ALERT, MOA–MILITARY OPERATIONS AREA

NUMBER	ALTITUDE	TIME OF USE	CONTROLLING AGENCY/ CONTACT FACILITY	FREQUENCIES
R-2505	UNLIMITED	CONTINUOUS	JOSHUA CON FAC	120.25 133.65
R-2513	TO FL 240	CONTINUOUS	OAKLAND CNTR	128.7 307.0
R-2531	TO BUT NOT INCL 4000	1000-2050 MON-FRI OCNL SAT-SUN BY NOTAM 24 HRS IN ADVANCE	NORCAL TRACON	123.85 278.3
R-4803	TO BUT NOT INCL FL 180	0715-2330†	OAKLAND CNTR	128.8 285.5 (N, E) 125.75 284.65 (S, W)
R-4804 A	TO BUT NOT INCL FL 180	0715-2330†	OAKLAND CNTR	125.75 284.65
R-4810	TO 17,000	0715-2330†	OAKLAND CNTR	125.75 284.65
R-4812	TO BUT NOT INCL FL 180	0715-2330†	OAKLAND CNTR	125.75 284.65
R-4813 A	TO BUT NOT INCL FL 180	0715-2330†	OAKLAND CNTR	128.8 285.5
R-4816 N	1500 AGL TO BUT NOT INCL FL 180	0715-2330†	OAKLAND CNTR	128.8 285.5
R-4816 S	500 AGL TO BUT NOT INCL FL 180	0715-2330†	OAKLAND CNTR	128.8 285.5 (N, E, W) 125.75 284.65 (S)
W-260	TO FL 600	0630-2100 MON-FRI†	OAKLAND CNTR	134.15 355.6 (N, S, W)
W-283	TO FL 600	0630-2100 MON-FRI†	OAKLAND CNTR	134.15 355.6 (N) 134.55 290.5 (S)
W-285 A	TO FL 450	0630-2100 MON-FRI†	OAKLAND CNTR	134.15 355.6 (N) 134.55 290.5 (S)
W-285 B	TO FL 190	0630-2100 MON-FRI†	NORCAL TRACON	128.57 254.25
W-285 D	TO FL 190	0630-2100 MON-FRI†	OAKLAND CNTR	134.15 355.6 (N) 134.55 290.5 (S)
W-513	TO FL 600	0630-2100 MON-FRI†	OAKLAND CNTR	134.15 355.6
A-682	TO 6000 (N OF TRAVIS AFB EXTND RWY CNTRLINES) TO 3000 (S OF TRAVIS AFB EXTND RWY CNTRLINES)	0800-2100 MON-FRI	NO A/G	

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

MOA NAME	ALTITUDE*	TIME OF USE†	CONTROLLING AGENCY/ CONTACT FACILITY	FREQUENCIES
BISHOP	200 AGL	0600-2200 MON-FRI	JOSHUA CON FAC	
CARSON	500 AGL	0715-2330	OAKLAND CNTR	128.8 285.5
CHINA	3000 AGL	0800-SS	OAKLAND CNTR	132.2 350.3
CHURCHILL HIGH	9000	0715-2245 MON-FRI 0800-1800 SAT	OAKLAND CNTR	
CHURCHILL LOW	500 AGL TO 9000	0715-2245 MON-FRI 0800-1800 SAT	OAKLAND CNTR	
FALLON NORTH 1, 2	100 AGL	0715-2330	OAKLAND CNTR	
FALLON SOUTH 1, 2, 3	100 AGL	0715-2330	OAKLAND CNTR	
FOOTHILL 1	2000 AGL	INTERMITTENT BY NOTAM	OAKLAND CNTR	123.8 353.8
FOOTHILL 2	2000 AGL	INTERMITTENT BY NOTAM	OAKLAND CNTR	123.8 353.8 (N, W)
HUNTER HIGH	11,000	INTERMITTENT BY NOTAM	OAKLAND CNTR	126.9 343.8
HUNTER LOW A	200 AGL TO BUT NOT INCL 11,000	INTERMITTENT BY NOTAM	OAKLAND CNTR	128.7 307.0
HUNTER LOW D	1500 AGL TO 6000	INTERMITTENT BY NOTAM	OAKLAND CNTR	128.7 307.0
ISABELLA	200 AGL	0600-2200 MON-FRI	JOSHUA CON FAC	133.65
LEMOORE A, D, E	5000	0800-2300 MON-THU 0800-1800 FRI 1000-1800 1 SAT PER MO BY NOTAM 1300-2100 1 SUN PER MO BY NOTAM	LEMOORE NAS (REEVES) ATCT	134.225 290.325
LEMOORE B	13,000	0800-2300 MON-THU 0800-1800 FRI 1000-1800 1 SAT PER MO BY NOTAM 1300-2100 1 SUN PER MO BY NOTAM	LEMOORE NAS (REEVES) ATCT	134.225 290.325
LEMOORE C	16,000	0800-2300 MON-THU 0800-1800 FRI 1000-1800 1 SAT PER MO BY NOTAM 1300-2100 1 SUN PER MO BY NOTAM	LEMOORE NAS (REEVES) ATCT	134.225 290.325
MAXWELL 1, 2, 3	11,000 OR 3000 AGL WHICHEVER IS HIGHER	0500-2000 MON-FRI	OAKLAND CNTR	132.2 350.3
OWENS	200 AGL	0600-2200 MON-FRI	JOSHUA CON FAC	126.55
PORTERVILLE	2000 AGL	INTERMITTENT BY NOTAM	LOS ANGELES CNTR	127.1
RANCH LOW	500 AGL TO 9000	0715-2245 MON-FRI 0800-1800 SAT	OAKLAND CNTR	125.75 284.65
RANCH HIGH	9000 TO 13,000	0715-2245 MON-FRI 0800-1800 SAT	OAKLAND CNTR	
RENO	13,000	0800-1800 MON-FRI	OAKLAND CNTR	128.8 285.5
ROBERTS	500 AGL TO BUT NOT INCL 15,000	INTERMITTENT BY NOTAM	OAKLAND CNTR	128.7 307.0
SALINE	200 AGL	0600-2200 MON-FRI	JOSHUA CON FAC	126.55
WALKER HIGH	13,500	INTERMITTENT BY NOTAM 24 HRS IN ADVANCE	OAKLAND CNTR	127.95 316.1 (W) 125.75 284.65 (E)
WALKER LOW	SFC TO BUT NOT INCL 13,500	INTERMITTENT BY NOTAM 24 HRS IN ADVANCE	OAKLAND CNTR	127.95 316.1 (W) 125.75 284.65 (E)
WHITMORE 1, 3	11,000 OR 3000 AGL WHICHEVER IS HIGHER	0730-1630 MON-FRI	OAKLAND CNTR	132.2 350.3

*Altitudes indicate floor of MOA. All MOAs extend to but do not include FL 180 unless otherwise indicated in tabulation or on chart.
†Other times by DoD NOTAM.

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

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.

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.

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

Boundary of NOAA Regulated National Marine Sanctuary Designated Areas (see http://sanctuaries.noaa.gov/flight).

90 / 20 AGL ←IR214

90 — Ceiling of MTR in hundreds of feet MSL
20 AGL — Floor of MTR in hundreds of feet AGL

SPECIAL MILITARY ACTIVITY

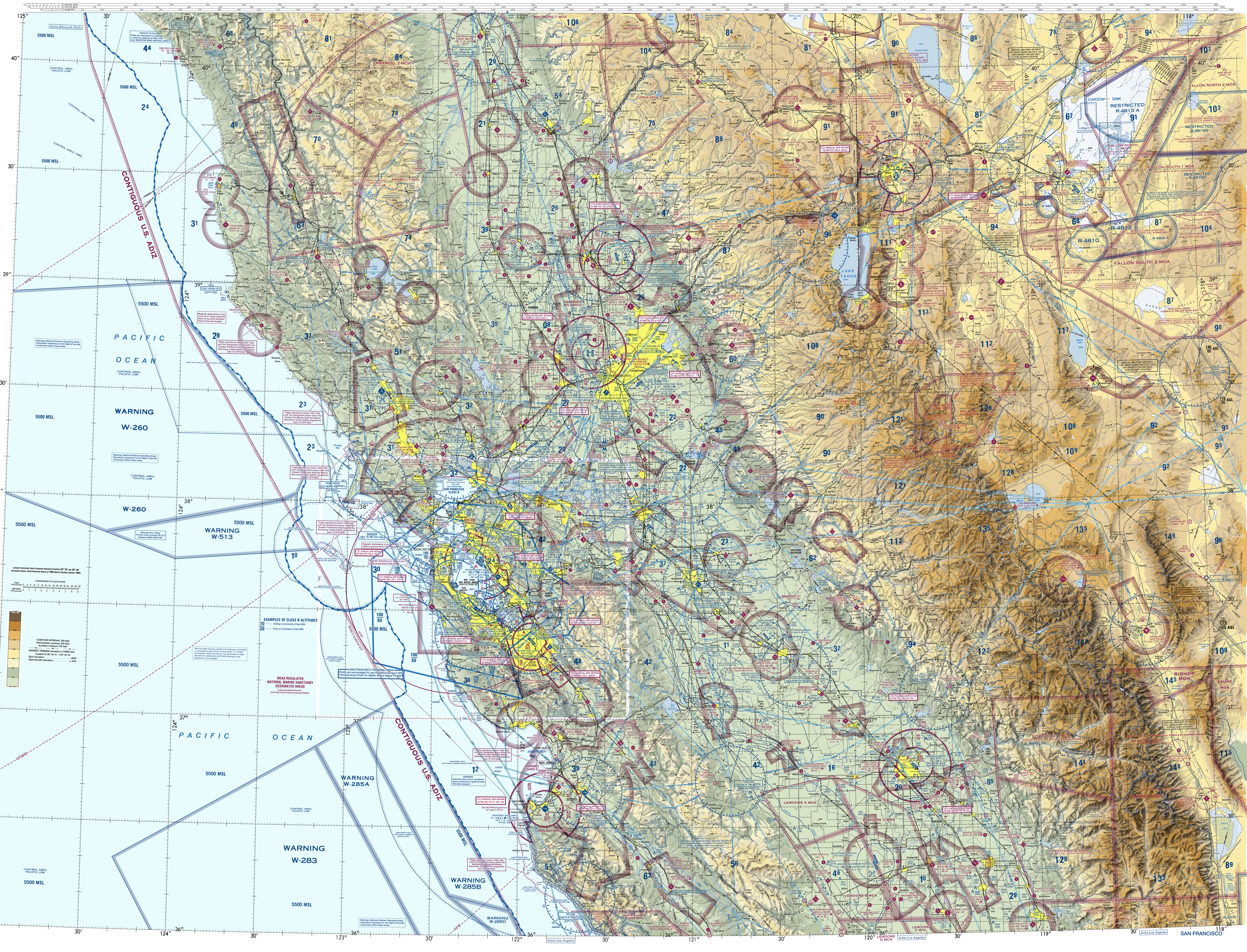
The chart identifies IFR Military Training Routes and Military Operations Area within which the Department of Defense conducts periodic operations involving Unmanned Aircraft Systems. These aircraft may be accompanied by military or other aircraft which provide the pilots of the Unmanned Aircraft Systems visual observation information about other aircraft operations near them. Status of these routes and areas may be obtained by contacting the FAA/DoD facility on designated frequencies along the routes and as depicted on this chart. The lateral limits of these specified routes are shown by the Special Use Airspace symbol. Altitudes for these route segments are also shown.

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.

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.

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


0 NAUTICAL MILES
0 STATUTE MILES
0 KILOMETERS
Joins Klamath Falls
Joins Los Angeles
CONTIGUOUS U.S. ADIZ
PACIFIC OCEAN
CONTROL AREA PACIFIC LOW
CONTROL AREA 1486L
5500 MSL
WARNING W-260
WARNING W-513
WARNING W-283
WARNING W-285A
WARNING W-285B
WARNING W-285D
Monday thru Friday Control Area excludes W-513 between 0800-2000 PST
Warning: National Defense Operating Areas Operations hazardous to the flight of aircraft conducted within these areas.
NOTICE TO PILOTS Pilots are requested to maintain a minimum altitude of 2000' AGL over SENSITIVE BIRD NESTING AREA
SENSITIVE BIRD NESTING AREA
Magnetic disturbance of as much as 8° exists along the shore at sea level between Point Arena and Gualala
Flight operations below 1000' AGL over the designated areas within the Greater Farallones National Marine Sanctuary violate NOAA regulations (see 15 CFR 922).
Flight operations below 1000' AGL over the designated areas within the Monterey Bay National Marine Sanctuary violate NOAA regulations (see 15 CFR 922).
GREATER FARALLONES NATIONAL MARINE SANCTUARY
MONTEREY BAY NATIONAL MARINE SANCTUARY
Lambert Conformal Conic Projection Standard Parallels 33° 20' and 38° 40'
Horizontal Datum: North American Datum of 1983 (World Geodetic System 1984)
CONVERSION OF ELEVATIONS
FEET (Thousands)
METERS (Thousands)
CONTOUR INTERVAL 500 feet
Intermediate contours 250 feet
Auxiliary contours 100 feet
HIGHEST TERRAIN elevation is 14491 feet located at 36° 35' N - 118° 18' W
Spot elevation 4254
Approximate elevation .... x 3200
14491
12000
9000
7000
5000
3000
2000
1000
Sea Level
FAA air traffic service outside U.S. airspace is provided in accordance with Article 12 and Annex 11 of ICAO Convention. ICAO Convention not applicable to state aircraft but compliance with ICAO standards and practices is encouraged.
EXAMPLES OF CLASS B ALTITUDES
70 --- Ceiling in hundreds of feet MSL
30 --- Floor in hundreds of feet MSL
NOAA REGULATED NATIONAL MARINE SANCTUARY DESIGNATED AREAS
(see http://sanctuaries.noaa.gov/flight)
SAN FRANCISCO TERMINAL AREA Pilots are encouraged to use the San Francisco VFR Terminal Area Chart for flights at and below 10,000'
WARNING Extensive fleet and air operations being conducted to approximately 100 miles seaward.
SAN FRANCISCO CLASS B
OAKLAND CLASS C
SAN JOSE CLASS C
SACRAMENTO INTL CLASS C
BEALE AFB CLASS C
MONTEREY CLASS C
FRESNO CLASS C
RENO CLASS C
CTC NORCAL APP WITHIN 20 NM ON 125.4 259.1
CTC FRESNO APP WITHIN 20 NM ON 119.6 351.95
CTC NORCAL APP WITHIN 20 NM ON 126.3 353.9
NOTICE FOR REASONS OF NATIONAL SECURITY PILOTS ARE REQUESTED TO AVOID FLIGHT AT AND BELOW 1000' AGL IN THIS AREA
CAUTION: AREA OF INTENSE FLIGHT TRAINING AND DESCENDING TURBOJET AIRCRAFT.
CAUTION: Radar limitations SE of Travis AFB. Traffic advsy may not be available to non-transponder equip acft.
CAUTION INTENSIVE GLIDER ACTIVITY UP TO FL 180
SPECIAL MILITARY ACTIVITY CTC RENO RADIO ON 122.2 122.5 OR DESERT CON ON 126.2 FOR ACTIVITY STATUS
SPECIAL MILITARY ACTIVITY CTC OAKLAND CNTR ON 125.75 FOR ACTIVITY STATUS
SPECIAL MILITARY ACTIVITY CTC JOSHUA APP ON 126.55 FOR ACTIVITY STATUS
FOR ADVISORY SERVICE TRANSITING THE MOAS CTC DESERT CON ON 126.2
FOR ADVISORY SERVICE TRANSITING MOAS CONTACT WHITE PEAK 120.725
Magnetic disturbance exists in the area extending 50 miles or more NW & SW of Reno Nevada. Magnetic compass may not be accurate at low altitude.
NOTICE TO PILOTS California Condors (Endangered Species) regularly fly in this area. Pilots are requested to maintain 3000 ft terrain clearance when over this area.
RESTRICTED R-4813 A
RESTRICTED R-4816N
RESTRICTED R-4816S
R-4803
R-4810
R-4812
R-4804 A
MAXWELL 1 MOA
MAXWELL 2 MOA
MAXWELL 3 MOA
WHITMORE 1 MOA
WHITMORE 3 MOA
CHINA MOA
RENO MOA
CARSON MOA
CHURCHILL HIGH MOA
CHURCHILL LOW MOA
RANCH HIGH & LOW MOA
FALLON NORTH 1 MOA
FALLON NORTH 2 MOA
FALLON SOUTH 1 MOA
FALLON SOUTH 2 MOA
FALLON SOUTH 3 MOA
WALKER HIGH MOA
WALKER LOW MOA
BISHOP MOA
SALINE MOA
OWENS MOA
ISABELLA MOA
PORTERVILLE MOA
FOOTHILL 1 MOA
FOOTHILL 2 MOA
LEMOORE A MOA
LEMOORE B MOA
LEMOORE C MOA
LEMOORE D MOA
LEMOORE E MOA
HUNTER LOW A & HIGH MOA
LAKE TAHOE
SAN FRANCISCO