

VFR AERONAUTICAL CHART SYMBOLS

AERONAUTICAL INFORMATION

AIRPORTS	10
RADIO AIDS TO NAVIGATION	11
AIRSPACE INFORMATION	12
NAVIGATIONAL AND PROCEDURAL INFORMATION	16
CHART LIMITS	18

TOPOGRAPHIC INFORMATION

CULTURE

RAILROADS	19
ROADS	19
POPULATED PLACES OUTLINED	20
BOUNDARIES	20
MISCELLANEOUS CULTURAL FEATURES	21

HYDROGRAPHY

SHORELINES	22
LAKES	22
RESERVOIRS	22
STREAMS	23
MISCELLANEOUS HYDROGRAPHIC FEATURES	23

RELIEF

CONTOURS	26
ELEVATIONS	27
UNRELIABLE RELIEF	27
SHADED RELIEF	27
AREA RELIEF FEATURES	27
MISCELLANEOUS RELIEF FEATURES	27

HELICOPTER ROUTE CHARTS

AIRPORTS	28
RADIO AIDS TO NAVIGATION	28
AIRSPACE INFORMATION	29
NAVIGATIONAL AND PROCEDURAL INFORMATION	31
CULTURE	32
HYDROGRAPHY	32
RELIEF	32

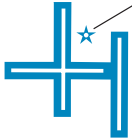
VFR FLYWAY PLANNING CHARTS

AIRPORTS	33
RADIO AIDS TO NAVIGATION	33
AIRSPACE INFORMATION	33
NAVIGATIONAL AND PROCEDURAL INFORMATION	35
CULTURE	36
HYDROGRAPHY	36
RELIEF	36

GENERAL INFORMATION

Symbols shown are for World Aeronautical Charts (WAC), Sectional aeronautical charts and Terminal Area Charts (TAC). When a symbol is different on any VFR chart series, it will be annotated thus:
WAC or Not shown on WAC.

AIRPORTS	
LANDPLANE: CIVIL <i>Airports having control towers (CT) are shown in blue, all others are shown in magenta.</i> <i>All recognizable runways, including some which may be closed, are shown for visual identification purposes.</i> <i>Refueling and repair facilities for normal traffic.</i> <i>Runway patterns will be depicted at airports with at least one hard surface runway 1500' or greater in length.</i>	        WAC
	  WAC
	      WAC
	      WAC
SEAPLANE: CIVIL	  WAC
LANDPLANE: CIVIL-MILITARY	      WAC
LANDPLANE: MILITARY <i>Refueling and repair facilities not indicated.</i>	      WAC

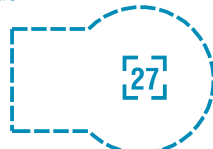
AIRPORTS	
LANDPLANE: EMERGENCY <i>No facilities</i> <i>or</i> <i>Complete information is not available.</i> <i>Add appropriate notes as required: "closed, approximate position, existence unconfirmed."</i>	 PUBLIC USE - Limited attendance or no service available   RESTRICTED OR PRIVATE - Use only in emergency, or by specific authorization   UNVERIFIED - A landing area available but warranting more than ordinary precaution due to: (1) lack of current information on field conditions, and / or (2) available information indicates peculiar operating limitations.   ABANDONED - Depicted for landmark value or to prevent confusion with an adjacent usable landing area. (Normally at least 3000' paved)  WAC
SEAPLANE: EMERGENCY <i>No facilities or complete information is not available</i>	  WAC
HELIPORT (Selected)	  WAC
ULTRALIGHT FLIGHT PARK (Selected)	 Not shown on WAC
AIRPORT DATA GROUPING	  Rotating Beacon in operation Sunset to Sunrise FSS NO SVFR (NAME) (NAM) CT - 118.3 * C ASOS/ AWOS 135.42 897 L 110 122.95 UNICOM RP 23,34 VFR Advsy 125.0 FSS NO SVFR (NAME) (NAM) CT - 118.3 * ATIS 123.8 897 L 110 U Airport of Entry WAC
FSS - Flight Service Station on field NO SVFR - Airports where fixed wing special visual flight rules operations are prohibited (shown above airport name) F.A.R. 91  - Indicates F.A.R. 93 Special Air Traffic Rules and Airport Traffic Patterns R - Airport Surveillance Radar (Not shown on WAC) (NAM) - Location Identifier CT - 118.3 - Control Tower (CT) - primary frequency * - Star indicates operation part-time. See tower frequencies tabulation for hours of operation C - Indicates Common Traffic Advisory Frequencies (CTAF) (Not shown on WAC) ATIS 123.8 - Automatic Terminal Information Service ASOS/ AWOS 135.42 - Automated Surface Weather Observing Systems (Shown when full-time ATIS is not available.) Some ASOS/AWOS facilities may not be located at airport. (Not shown on WAC) 897 - Elevation in feet L - Lighting in operation Sunset to Sunrise *L - Lighting limitations exist; refer to Airport/Facility Directory. 110 - Length of longest runway in hundreds of feet; usable length may be less. UNICOM - Aeronautical advisory station ("U" only on WAC) RP 23,34 - Runways with Right Traffic Patterns (public use) (Not shown on WAC) RP* - (See Airport/Facility Directory) VFR Advsy 125.0 - VFR Advisory Service shown where ATIS is not available and frequency is other than primary CT frequency. When lighting is not available, the respective character is replaced by a dash. All lighting codes refer to runway lights. Lighted runway may not be the longest or lighted full length.	

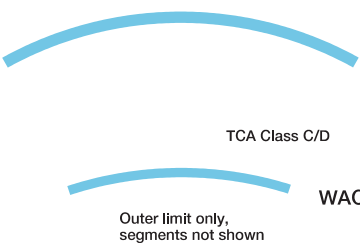
RADIO AIDS TO NAVIGATION	
VHF OMNI-DIRECTIONAL RADIO (VOR) RANGE	Compass Rose oriented to slave variation. VOR SALEM 114.3 SVM Open circle symbol shown when NAVAID located on airport. Type of NAVAID shown in top of box.
VOR	Operates less than continuous or on-request Transcribed Weather Broadcast (TWEB) OAKDALE 116.8 OAK Underline indicates no voice on this frequency
VORTAC	Low Frequency Name ASOS/AWOS Morse Code PONTIAC 379 110.0 Ch 47 PTK Frequency Channel Identifier
VOR-DME	Hazardous Inflight Weather Advisory Service (HIWAS) SALEM 114.3 Ch 90 SVM
NON-DIRECTIONAL RADIOBEACON (NDB)	WAC HUMPHREY 275 HPY Underline indicates no voice on this frequency
NDB-DME	WAC GAMBELL 369 GAM DME Ch 92 (114.5)

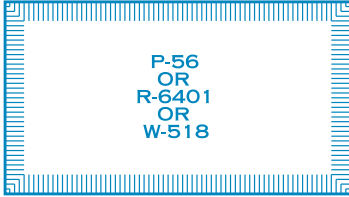
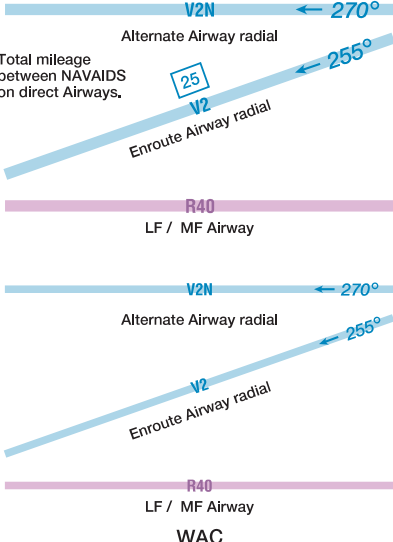
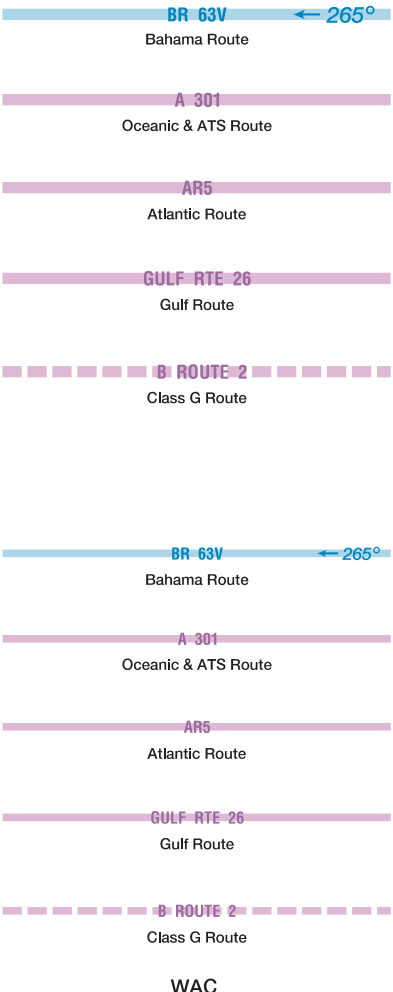
RADIO AIDS TO NAVIGATION	
ILS COMPONENTS	Shown when component of airway system or used in the description of Class B airspace. Localizer LCZR or LOCALIZER 109.5 I-BED Locator Beacon LOM or LOM 388 DT ILS - DME SALT LAKE CITY DME ANT (I-BNT) Ch 52 (111.5)
BROADCAST STATIONS (BS)	On request by the proper authority or when a VFR Checkpoint. KFTM BS KFTM 1400
FLIGHT SERVICE STATION (FSS)	Heavy line box indicates Flight Service Station (FSS). Frequencies 121.5, 122.2, 243.0 and 255.4 (Canada - 121.5, 126.7 and 243.0) are normally available at all FSS's and are not shown above boxes. All other frequencies are shown. For Local Airport Advisory use FSS frequency 123.6. R - Receive only PONTIAC PTK No NAVAID of the same name as FSS or 122.1R IDAHO FALLS 109.0 Ch 27 IDA FSS oper 0500-2300 Boise FSS other times. NAVAID same name as FSS but not an RCO Frequencies above thin line box are remot to NAVAID site. Other frequencies at FSS providing voice communication may be available determined by altitude and terrain. Consult Airport / Facility Directory for complete information. Thin line box without frequencies and controlling FSS name indicates no FSS frequency available. 123.6 OLYMPIA RCO McCHORD 122.35 ST PAUL 108.6 STP MINNEAPOLIS 122.35 HUMPHREY 275 HPY MILES CITY FSS providing voice communication
REMOTE COMMUNICATIONS OUTLET (RCO)	

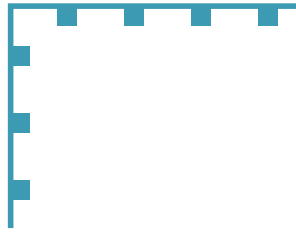
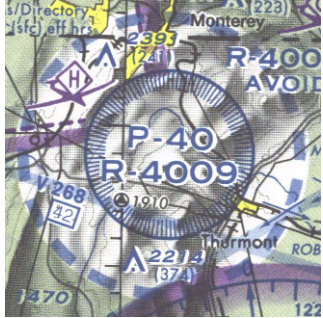
RADIO AIDS TO NAVIGATION	
AIR FORCE STATION (AFS)	122.0 AFS 123.6 POINT BARROW 122.4 AFS 123.6 CAPE LEWISTON 206 LWS AFS at airport with NDB
LONG RANGE RADAR STATION (LRRS)	122.4 LRRS 122.55 BARTER ISLAND 122.4 LRRS 123.6 CAPE LISBURNE 385 LUR LRRS at airport with NDB
OFF AIRPORT AWOS/ASOS	 SANDBERG ASOS 120.625

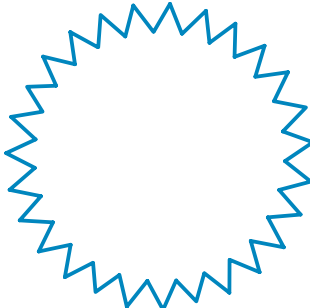
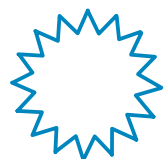
AIRSPACE INFORMATION	
CLASS B AIRSPACE	LAS VEGAS CLASS B Appropriate notes as required may be shown. Only the airspace effective below 18,000 feet MSL are shown. (Mode C see FAR 91.215 /AIM) All mileages are nautical (NM). All radials are magnetic.  LAS 20 NM NAVAID identifier and distance from facility (TAC Only).  LAS 002° NAVAID identifier and radial from facility (TAC Only).  Outer limit only, segments not shown WAC FOR FLIGHTS AT AND BELOW 8000' MSL SEE KANSAS CITY VFR TERMINAL AREA CHART WAC only 80 40 - Ceiling of Class B in hundreds of feet MSL - Floor of Class B in hundreds of feet MSL CTC LAS VEGAS APP ON 121.1 OR 257.8 TAC only

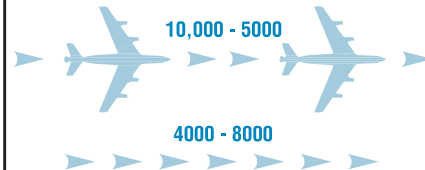
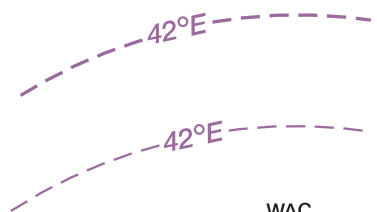
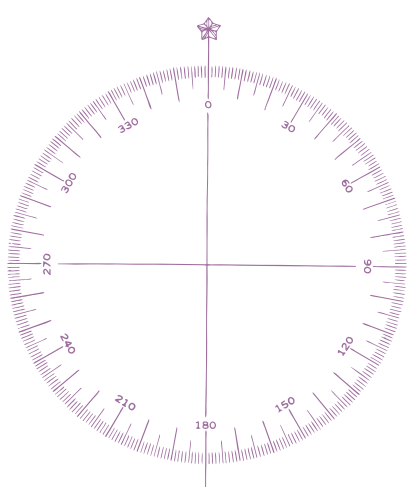
AIRSPACE INFORMATION	
CLASS C AIRSPACE	BURBANK CLASS C Appropriate notes as required may be shown. (Mode C see FAR 91.215 /AIM)  See NOTAMs/Directory for Class C eff hrs BOISE CLASS C See NOTAMs/Directory for Class C eff hrs WAC Outer limit only, segments not shown FOR FLIGHTS AT OR BELOW 6600' MSL SEE PHOENIX VFR SECTIONAL CHART WAC only 48 30 - Ceiling of Class C in hundreds of feet MSL - Floor of Class C in hundreds of feet MSL CTC BURBANK APP WITHIN 20 NM ON 124.6 395.9 Not shown on WAC
CLASS D AIRSPACE	See NOTAMs/Directory for Class D eff hrs  [27] See NOTAMs/Directory for Class D/E (sfc) eff hrs  [-27] (A minus in front of the figure is used to indicate "from surface to but not including...") ALTITUDE IN HUNDREDS OF FEET MSL Not shown on WAC

AIRSPACE INFORMATION	AIRSPACE INFORMATION	AIRSPACE INFORMATION	AIRSPACE INFORMATION
CLASS E AIRSPACE The limits of Class E airspace shall be shown by narrow vignettes or by the dashed magenta symbol. Individual units of designated airspace are not necessarily shown; instead, the aggregate lateral and vertical limits shall be defined by the following: Airspace beginning at the surface (sfc) designated around airports ... Airspace beginning at 700 feet AGL ... Airspace beginning at 1200 feet AGL or greater that abuts uncontrolled airspace (Class G) ... Differentiates floors of airspace greater than 700 feet above the surface... When the ceiling is less than 18,000 feet MSL, the value, prefixed by the word "ceiling," shall be shown along the limits.	 See NOTAMs/Directory for Class D/E (sfc) eff hrs  See NOTAMs/Directory for Class E (sfc) eff hrs  See NOTAMs/Directory for 700' Class E eff hrs  See NOTAMs/Directory for 1200' Class E eff hrs  8000 AGL CEILING 14,000 MSL Not shown on WAC	CANADIAN AIRSPACE Individual units of designated Canadian airspace are not necessarily shown; instead, the aggregate lateral and vertical limits shall be portrayed as closely as possible to the comparable U.S. airspace. Appropriate notes as required may be shown.	 TCA Class C/D TCA Class C/D Outer limit only, segments not shown WAC 125 - Ceiling of TCA Class C/D in hundreds of feet MSL 25 - Floor of TCA Class C/D in hundreds of feet MSL  Class D CZ Class C or D Control Zone ALTITUDE IN HUNDREDS OF FEET MSL  Class E Control Zone Not shown on WAC AIRSPACE CLASSIFICATION (SEE CANADA FLIGHT SUPPLEMENT) AND OPERATIONAL REQUIREMENTS (SEE DOD AREA PLANNING AP/1) MAY DIFFER BETWEEN CANADA AND UNITED STATES NOTE: REFER TO CURRENT CANADIAN CHARTS AND FLIGHT INFORMATION PUBLICATIONS FOR INFORMATION WITHIN CANADIAN AIRSPACE
OFFSHORE CONTROL AREAS	 ATLANTIC LOW CONTROL AREA Class G Airspace 9500 MSL ATLANTIC LOW CONTROL AREA  8000 MSL CONTROL AREA 1148L ATLANTIC LOW CONTROL AREA ATLANTIC LOW CONTROL AREA ATLANTIC LOW CONTROL AREA CONTROL AREA 1148L WAC	AIRSPACE OUTSIDE OF U.S. Other than Canada Appropriate notes as required may be shown. FLIGHT INFORMATION REGIONS (FIR) and /or (CTA) OCEANIC CONTROL AREAS (OCA)	NOTE: REFER TO CURRENT DOD (NGA) FLIGHT INFORMATION PUBLICATIONS FOR INFORMATION OUTSIDE OF U.S. AIRSPACE No FIR exists this side - No ticks MONCTON FIR CZQM WINNIPEG FIR CZWG EDMONTON FIR CZEG OAKLAND OCEANIC CONTROL AREA

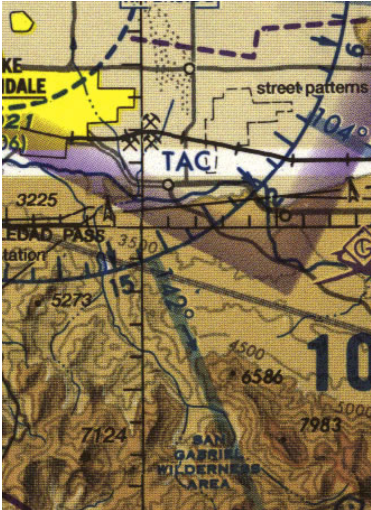
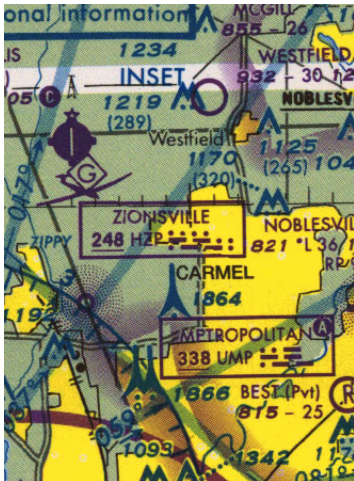
AIRSPACE INFORMATION	AIRSPACE INFORMATION	AIRSPACE INFORMATION	AIRSPACE INFORMATION
AIR DEFENSE IDENTIFICATION ZONE (ADIZ) <i>Note. Delimiting line not shown when it coincides with International Boundary, projection lines or other linear features.</i>	ALASKA ADIZ 	SPECIAL USE AIRSPACE <i>Only the airspace effective below 18,000 feet MSL are shown.</i> <i>The type of area shall be spelled out in large areas if space permits.</i>	 P-56 OR R-6401 OR W-518
LOW ALTITUDE AIRWAYS VOR and LF / MF (CLASS E AIRSPACE) <i>Low altitude Federal Airways are indicated by centerline.</i> <i>Only the controlled airspace effective below 18,000 feet MSL is shown.</i>	 WAC		PROHIBITED, RESTRICTED OR WARNING AREA  ALERT AREA A-631 CONCENTRATED STUDENT HELICOPTER TRAINING ALERT AREA  VANCE 2 MOA MILITARY OPERATIONS AREA (MOA)
MISCELLANEOUS AIR ROUTES	 WAC	MILITARY TRAINING ROUTES (MTR)  Not shown on WAC	SPECIAL MILITARY ACTIVITY ROUTES (SMAR)  Boxed notes (as in text) shown adjacent to route. SPECIAL MILITARY ACTIVITY CONTACT MOBILE FSS ON 123.6 FOR ACTIVITY STATUS 40 — — — Ceiling of SMAR in hundreds of feet MSL 05 AGL — — — Floor of SMAR in hundreds of feet AGL Not shown on WAC

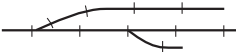
AIRSPACE INFORMATION	AIRSPACE INFORMATION	AIRSPACE INFORMATION	AIRSPACE INFORMATION
SPECIAL AIR TRAFFIC RULES / AIRPORT PATTERNS (FAR 93) <i>Appropriate boxed note as required shown adjacent to area.</i>	 SPECIAL NOTICE Pilots are required to obtain an ATC clearance prior to entering this area.	SPECIAL AIRSPACE AREAS SPECIAL FEDERAL AVIATION REGULATIONS (SFAR) AREAS <i>Appropriate notes as required may be shown.</i>	 SPECIAL FEDERAL AVIATION REGULATIONS (SFAR) 14 CFR Part 93, Subpart U and SFAR 50.2 - GRAND CANYON NATIONAL PARK SPECIAL FLIGHT RULES AREA. Special regulations apply to all aircraft operations below 18,000 feet MSL.
SPACE OPERATIONS AREA (FAR 91.143)	 DARKER TINT IS FAR 91.143 AREA Not shown on WAC	SFAR AREA RELATING TO NATIONAL SECURITY Example: Washington DC	 WASHINGTON DC METROPOLITAN AREA SPECIAL FLIGHT RULES AREA IN EFFECT (See SFAR 94 description in chart border).
MODE C (FAR 91.215) <i>Appropriate notes as required may be shown.</i>	MODE C 30 NM 	TEMPORARY FLIGHT RESTRICTION (TFR) RELATING TO NATIONAL SECURITY Example: P-40/R-4009	 CAUTION P-40 AND R-4009 EXPANDED BY TEMPORARY FLIGHT RESTRICTION. CONTACT AFSS FOR LATEST STATUS AND NOTAMS
MISCELLANEOUS AIRSPACE AREAS Parachute Jumping Area with Frequency Glider Operating Area Ultralight Activity Hang Glider Activity	 Not shown on WAC	<i>Appropriate notes as required may be shown.</i>	Not shown on WAC
SPECIAL CONSERVATION AREAS National Park, Wildlife Refuge, Primitive and Wilderness Areas, etc.	 PAHRANAGAT NATIONAL WILDLIFE REFUGE Not shown on WAC	<i>Appropriate notes as required may be shown.</i>	Not shown on WAC

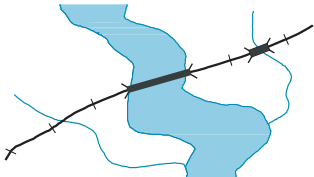
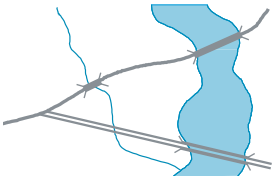
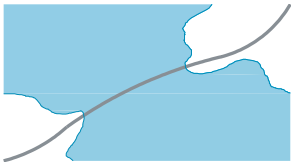
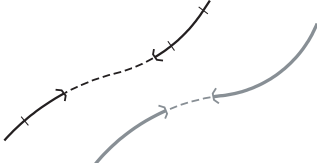
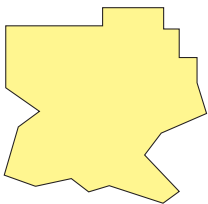
AIRSPACE INFORMATION	
NATIONAL SECURITY AREA <i>Appropriate notes as required may be shown.</i>	 NOTICE FOR REASONS OF NATIONAL SECURITY PILOTS ARE REQUESTED TO AVOID FLIGHT BELOW 1200' MSL IN THIS AREA Not shown on WAC
HIGH ENERGY RADIATION AREAS <i>Appropriate notes as required may be shown.</i>	 HAZARDOUS LASER TRANSMISSIONS SFC to infinity See Airport Facility/Directory  WAC
TERMINAL RADAR SERVICE AREA (TRSA) <i>Appropriate notes as required may be shown.</i>	Palm Springs TRSA  80 40 - Ceiling of TRSA in hundreds of feet MSL - Floor of TRSA in hundreds of feet MSL SEE TWR FREQ TAB Not shown on WAC

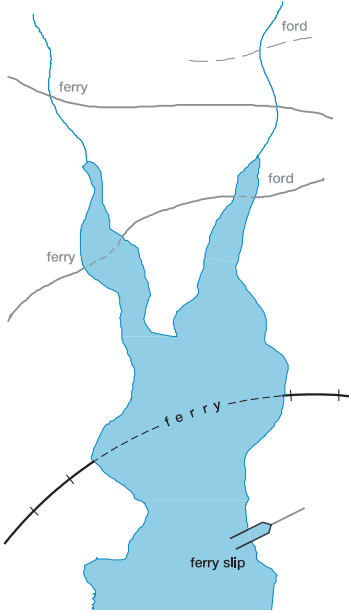
AIRSPACE INFORMATION	
IFR ROUTES <i>Appropriate notes as required may be shown.</i> Arrival Departure	 TAC only
TRANSITION ROUTES <i>Appropriate notes as required may be shown.</i> Uni-directional Bi-directional	VFR TRANSITION ROUTE ATC CLEARANCE REQUIRED SEE SHOWBOAT GRAPHIC ON SIDE PANEL  TAC only
NAVIGATIONAL AND PROCEDURAL INFORMATION	
ISOGONIC LINE & VALUE <i>Isogonic lines and values shall be based on the five year epoch magnetic variation model.</i>	 WAC
LOCAL MAGNETIC NOTES Unreliability Notes	Magnetic disturbance of as much as 78° exists at ground level and 10° or more at 3000 feet above ground level in this vicinity.
COMPASS ROSETTE <i>Shown only in areas void of VOR roses.</i> <i>Compass rosette will be based on the five year epoch magnetic variation model.</i>	

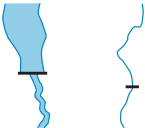
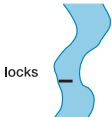
NAVIGATIONAL AND PROCEDURAL INFORMATION		NAVIGATIONAL AND PROCEDURAL INFORMATION	
INTERSECTIONS Named intersections used as reporting points. Arrows are directed toward facilities which establish intersection. ANGOO VHF ROAMS LF / MF WATSY Combined VHF - LF / MF Not shown on WAC AERONAUTICAL LIGHTS Rotating or Oscillating Located at Aerodrome <			

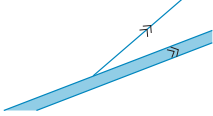
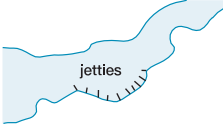
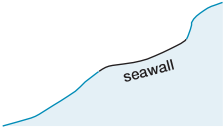
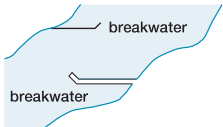
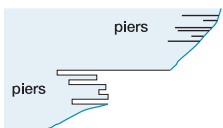
NAVIGATIONAL AND PROCEDURAL INFORMATION		CHART LIMITS			
VFR WAYPOINTS	Stand-Alone VPXYZ Collocated with VFR Checkpoint NAME (VPXYZ) WAC not shown	OUTLINE ON SECTIONAL OF TERMINAL AREA CHART	 LOS ANGELES TERMINAL AREA Pilots are encouraged to use the Los Angeles VFR Terminal Area Chart for flights at or below 10,000' Not shown on WAC		
OBSTRUCTION	1473 (394) bldg Less than 1000' (AGL) 1158 (253) stack 628 UC Under Construction or reported and position / elevation unverified 507 UC 3368 (1529) 1000' & higher (AGL) 2967 (1697) WAC	GROUP OBSTRUCTION	1062 (227) Less than 1000' (AGL) 524 (367) 4977 (1432) 1000' and higher (AGL) 3483 (1634) 2889 (1217) At least two in group over 1000' (AGL) 4892 (1573) WAC	OUTLINE ON SECTIONAL OF INSET CHART	 If inset chart is on a different chart: INDIANAPOLIS INSET See inset chart on the St. Louis Sectional for additional information If inset chart is on the same chart as outline: INDIANAPOLIS INSET See inset chart for additional detail Not shown on WAC
HIGH-INTENSITY OBSTRUCTION LIGHTS	Less than 1000' (AGL)  1000' and higher (AGL)  Group Obstruction      WAC	MAXIMUM ELEVATION FIGURE (MEF)	135		
WARNING AND CAUTION NOTES	Used when specific area is not demarcated. WARNING Extensive fleet and air operations being conducted in offshore areas to approximately 100 miles seaward. CAUTION: Be prepared for loss of horizontal reference at low altitude over lake during hazy conditions and at night.				

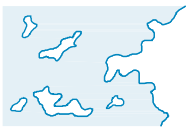
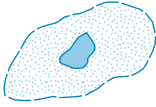
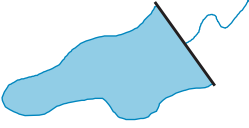
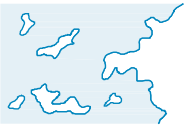
CULTURE	
RAILROAD SIDINGS AND SHORT SPURS	
ROADS	
Dual Lane Category 1	 WAC
Primary Category 2	 WAC
Secondary Category 2	
TRAILS	
Category 3	
ROAD MARKERS	
Interstate Route No.	
U.S. Route No.	
Air Marked Identification Label	
ROAD NAMES	
	 WAC
ROADS UNDER CONSTRUCTION	

CULTURE	
BRIDGES AND VIADUCTS	Railroad 
	Road 
OVERPASSES AND UNDERPASSES	
CAUSEWAYS	
TUNNELS-ROAD AND RAILROAD	
POPULATED PLACES OUTLINED	Large Cities Category 1 
	Cities and Large Towns Category 2 
POPULATED PLACES	Towns and Villages Category 3   WAC

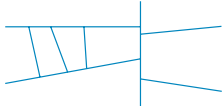
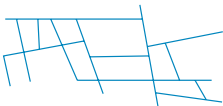
CULTURE	
FERRIES, FERRY SLIPS AND FORDS	
PROMINENT FENCES	
BOUNDARIES	International 
	State and Provincial 
	Convention or Mandate Line RUSSIA  UNITED STATES
	Date Line INTERNATIONAL DATE LINE (Monday) (Sunday)

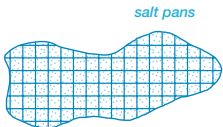
CULTURE	
TIME ZONES	PST +8 (+7DT) = UTC MST +7 (+6DT) = UTC Not shown on WAC
MINES AND QUARRIES	Shaft Mines and Quarries 
POWER TRANSMISSION & TELECOMMUNICATION LINES	  WAC
PIPELINES	pipeline 
Underground	underground pipeline 
DAMS	
DAM CARRYING ROAD	
PASSABLE LOCKS	locks 

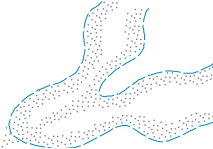
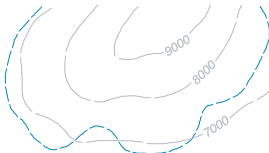
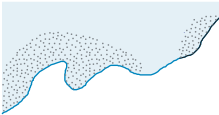
CULTURE	
SMALL LOCKS	
WEIRS AND JETTIES	jetties 
SEAWALLS	seawall 
BREAKWATERS	breakwater 
PIERS, WHARFS, QUAYS, ETC.	piers 
MISCELLANEOUS CULTURAL FEATURES	■ stadium ■ fort ■ cemetery
OUTDOOR THEATER	
WELLS	Other Than Water ○ oil

CULTURE		HYDROGRAPHY	
RACE TRACKS		SHORELINES	
LOOKOUT TOWERS	Air marked identification  P-17 (Site Number) 618 (Elevation Base of Tower)	Definite	
LANDMARK AREAS		Fluctuating	
TANKS	• water • oil • gas	Unsurveyed <i>Indefinite</i>	
COAST GUARD STATION	 CG	Man-made	
AERIAL CABLEWAYS, CONVEYORS, ETC.	aerial cableway aerial cableway  WAC	LAKES	
		Label as required	
		Perennial	<i>When too numerous to show individual lakes, show representative pattern and descriptive note.</i>  numerous small lakes 618
		Non-Perennial <i>(dry, intermittent, etc.)</i> Illustration includes small perennial lake	
		RESERVOIRS	
		Natural Shorelines	
		Man-made Shorelines	 reservoir
		Label when necessary for clarity	
		Too small to show to scale	 reservoir
		Under Construction	 under construction
HYDROGRAPHY			
OPEN WATER			
INLAND WATER			

HYDROGRAPHY		HYDROGRAPHY	
STREAMS	Perennial	WET SAND AREAS <i>Within and adjacent to desert areas</i>	
	Non-Perennial		
	Fanned Out <i>Alluvial fan</i>	AQUEDUCTS	
	Braided		
	Disappearing		
	Seasonally Fluctuating <i>with undefined limits</i>		
	<i>with maximum bank limits, prominent and constant</i>		
	Sand Deposits In and Along Riverbeds		
		Kanats <i>Underground aque- duct with air vents</i>	

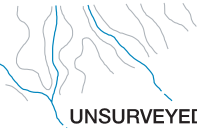
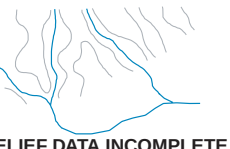
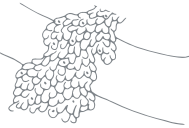
HYDROGRAPHY		HYDROGRAPHY	
FLUMES, PENSTOCKS AND SIMILAR FEATURES		To Scale	
	Elevated		
	Underground		
FALLS	Double-Line	SMALL CANALS AND DRAINAGE / IRRIGATION DITCHES	
	Single-Line		
RAPIDS	Double-Line	Abandoned or Ancient	
	Single-Line		
CANALS		Numerous	

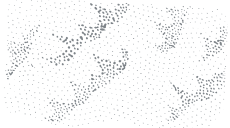
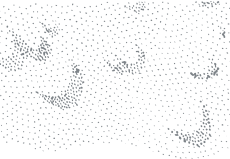
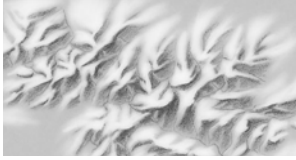
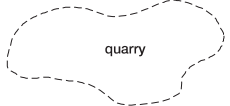
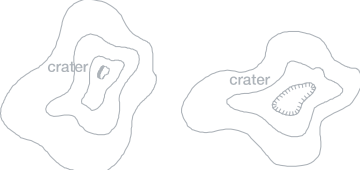
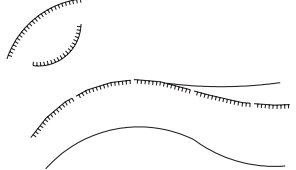
HYDROGRAPHY	
SALT EVAPORATORS AND SALT PANS MAN EXPLOITED	 salt pans
SWAMPS, MARSHES AND BOGS	
HUMMOCKS AND RIDGES	
MANGROVE AND NIPA	 mangrove
PEAT BOGS	 peat bog
TUNDRA	tundra
CRANBERRY BOGS	 cranberry bog
RICE PADDIES	 <i>Extensive areas indicated by label only.</i>

HYDROGRAPHY	
LAND SUBJECT TO INUNDATION	
SPRINGS, WELLS AND WATERHOLES	
GLACIERS	
GLACIAL MORAINES	
ICE CLIFFS	
SNOWFIELDS, ICE FIELDS AND ICE CAPS	
ICE PEAKS	
FORESHORE FLATS	 <i>Tidal flats exposed at low tide.</i>

HYDROGRAPHY	
ROCKS-ISOLATED Bare or Awash	*
WRECKS Exposed	
REEFS-ROCKY OR CORAL	
MISCELLANEOUS UNDERWATER FEATURES NOT OTHERWISE SYMBOLIZED	
FISH PONDS AND HATCHERIES	
ICE	

RELIEF	
CONTOURS	
Basic	
Approximate	
Intermediate	
Auxiliary	
Depression	
Values	

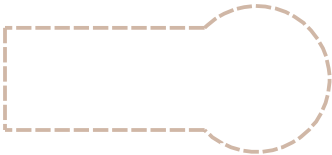
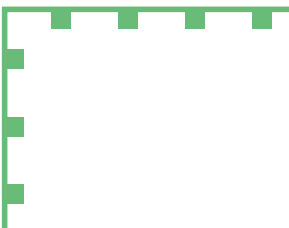
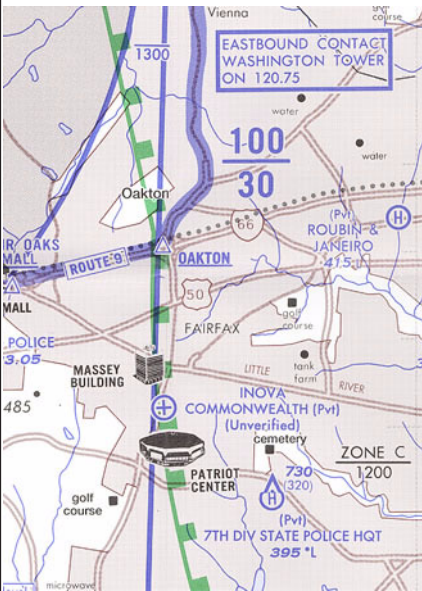
RELIEF	
SPOT ELEVATIONS	
Position Accurate	
Position Accurate, Elevation Approximate	
Approximate location	
Critical	
Highest on Chart	
MOUNTAIN PASS	
HACHURING	
UNSURVEYED AREAS	
UNCONTOURED AREAS	
DISTORTED SURFACE AREAS	
LAVA FLOWS	

RELIEF	
SAND OR GRAVEL AREAS	
SAND RIDGES	
SAND DUNES	
SHADED RELIEF	
ROCK STRATA OUTCROP	
QUARRIES TO SCALE	
STRIP MINES, MINE DUMPS AND TAILINGS	
CRATERS	
ESCARPMENTS, BLUFFS, CLIFFS, DEPRESSIONS, ETC.	
LEVEES AND ESKERS	

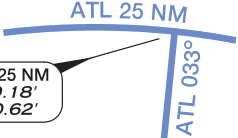
AIRPORTS		RADIO AIDS TO NAVIGATION	
LANDPLANE <i>All recognizable runways, including some which may be closed, are shown for visual identification.</i>	 Public  Private 	VHF OMNI-DIRECTIONAL RADIO (VOR) RANGE 	 VOR  VOR-DME
	Heliports public and private  Hospital Helipads  Trauma Center  Helipads located at major airports 		
SEAPLANE		VORTAC   VOR-DME	 VOR-DME
ULTRALIGHT FLIGHT PARK			
AIRPORT DATA GROUPING <i>Boxed airport name indicates airport for which a Special Traffic Rule has been established.</i>	 Rotating Beacon in operation Sunset to Sunrise FSS NO SVFR (NAME) (NAM) CT -119.1 * (119.8 HELI) ATIS 115.4 ASOS/ AWOS 135.42 03 L 122.95 Airport of Entry	NON-DIRECTIONAL RADIOBEACON (NDB)    NDB-DME	 NDB-DME
FSS - Flight Service Station on field NO SVFR - Airspace where fixed wing special visual flight rules operations are prohibited (shown above airport name) F.A.R. 91. (NAME) - Indicates F.A.R. 93 Special Air Traffic Rules and Airport Traffic (NAM) - Location Identifier CT - 119.1 - Control Tower (CT) - primary frequency * - Star indicates operation part-time. See tower frequencies tabulation for hours of operation. ATIS 115.4 - Automatic Terminal Information Service ASOS / AWOS 135.42 - Automated Surface Weather Observing Systems (Shown when full-time ATIS is not available.) NDBs broadcasting ASOS / AWOS data may not be located at the airport. 03 - Elevation in feet L - Lighting in operation Sunset to Sunrise *L - Lighting limitations exist, refer to Airport/Facility Directory. 122.95 - UNICOM - Aeronautical advisory station (Unverified) - Unverified Heliport When lighting is not available, the respective character is replaced by a dash. All lighting codes refer to runway lights. Lighted runway may not be the longest or lighted full length. Dashes are not shown on heliports or helipads unless additional information follows the elevation (e.g. UNICOM, CTAF).	 Rotating Beacon in operation Sunset to Sunrise FSS NO SVFR (NAME) (NAM) CT -119.1 * (119.8 HELI) ATIS 115.4 ASOS/ AWOS 135.42 03 L 122.95 Airport of Entry		

RADIO AIDS TO NAVIGATION	
NAVAIDS USED TO DEFINE CLASS B AIRSPACE	ILS - DME SALT LAKE CITY DME ANT (I-BNT) Ch 52 (111.5)
BROADCAST STATIONS (BS) On request by the proper authority or when a VFR Check-point.	KFTM BS KFTM 1400
FLIGHT SERVICE STATION (FSS)	Heavy line box indicates Flight Service Station (FSS). Frequencies 121.5, 122.2, 243.0 and 255.4 (Canada - 121.5, 126.7 and 243.0) are normally available at all FSS's and are not shown above boxes. All other frequencies are shown. For Local Airport Advisory use FSS frequency 123.6. R - Receive only DENVER DEN No NAVAID of the same name as FSS or 122.1R123.6 NORTHWAY 116.3 Ch 110 ORT FSS oper 0600-2200 Rancho Murieta FSS other times. NAVAID same name as FSS but not an RCO
REMOTE COMMUNICATIONS OUTLET (RCO)	Frequencies above thin line box are remotod to NAVAID site. Other frequencies at FSS providing voice communication may be available determined by altitude and terrain. Consult Airport/Facility Directory for complete information. Thin line box without frequencies and controlling FSS name indicates no FSS frequencies available. 123.6 OLYMPIA RCO McCHORD 122.35122.35 ST PAUL 108.6 STP MINNEAPOLIS 122.35 GAMBELL 369 GAM MILES CITY FSS providing voice communication

AIRSPACE INFORMATION	
CLASS B AIRSPACE Appropriate notes as required may be shown. (Mode C see FAR 91.215/AIM) All mileages are nautical (NM) All radials are magnetic.	LAS VEGAS CLASS B NAVAID identifier and distance from facility. LAS 20 NM LAS 031° NAVAID identifier and radial from facility. CLASS B SURFACE AREA 70 SFC - Ceiling of Class B in hundreds of feet MSL - Floor of Class B in hundreds of feet MSL CTC LAS VEGAS APP ON 121.1 OR 257.8
CLASS C AIRSPACE Appropriate notes as required may be shown. (Mode C see FAR 91.215/AIM)	BURBANK CLASS C See NOTAMs/Directory for Class C eff hrs CLASS C SURFACE AREA See NOTAMs/Directory for Class C eff hrs 70 30 - Ceiling of Class C in hundreds of feet MSL - Floor of Class C in hundreds of feet MSL CTC BURBANK APP WITHIN 20 NM ON 124.6 395.9
CLASS D AIRSPACE	See NOTAMs/Directory for Class D eff hrs [31] See NOTAMs/Directory for Class D/E (sfc) eff hrs [20] (A minus in front of the figure is used to indicate "from surface to but not including...") ALTITUDES IN HUNDREDS OF FEET MSL

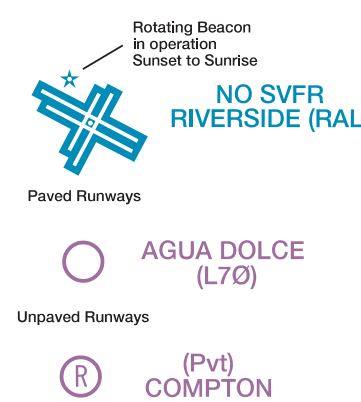
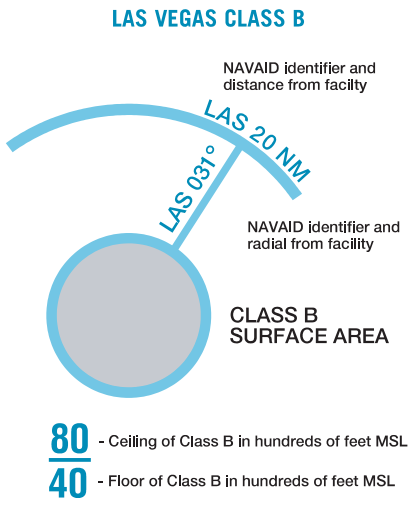
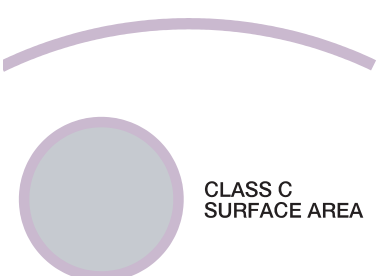
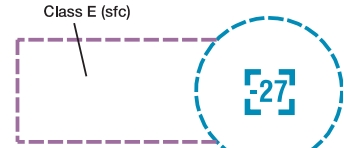
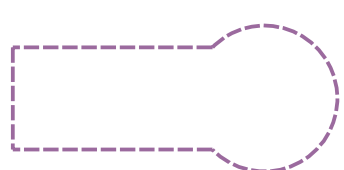
AIRSPACE INFORMATION	
CLASS E SURFACE (SFC) AIRSPACE	See NOTAMs/Directory for Class E (sfc) eff hrs 
SPECIAL AIRSPACE AREAS	
SPECIAL FEDERAL AVIATION REGULATIONS (SFAR) AREAS RELATING TO NATIONAL SECURITY Example: Washington DC <i>Appropriate notes as required may be shown.</i>	 WASHINGTON DC METROPOLITAN SPECIAL FLIGHT RULES AREA IN EFFECT (See SFAR 94 description in chart border). Special regulations apply to all aircraft operations below Flight Level 180 in the Washington DC Metropolitan Area. Pilots should contact a local AFSS for NOTAM information prior to flight in the Washington DC Metropolitan Area.
AIR DEFENSE IDENTIFICATION ZONE (ADIZ)	WASHINGTON DC METROPOLITAN AREA AIR DEFENSE IDENTIFICATION ZONE (DC ADIZ) (See description in chart border)  <i>Note. Delimiting line not shown when it coincides with International Boundary, projection lines or other linear features.</i>

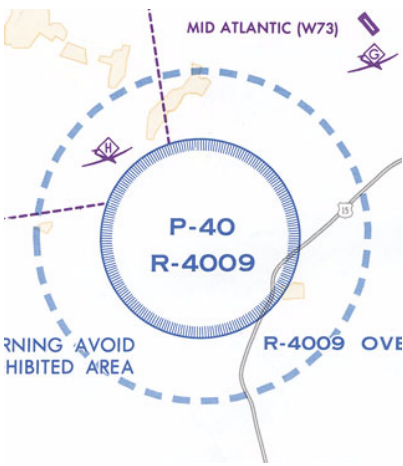
AIRSPACE INFORMATION	
CANADIAN AIRSPACE	TCA Class C/D 80 40 - Ceiling of TCA Class C/D in hundreds of feet MSL - Floor of TCA Class C/D in hundreds of feet MSL Class C or D Control Zone Class D CZ 25 ALTITUDE IN HUNDREDS OF FEET MSL Class E Control Zone AIRSPACE CLASSIFICATION (SEE CANADA FLIGHT SUPPLEMENT) AND OPERATIONAL REQUIREMENTS (SEE DOD AREA PLANNING AP/1) MAY DIFFER BETWEEN CANADA AND UNITED STATES NOTE: REFER TO CURRENT CANADIAN CHARTS AND FLIGHT INFORMATION PUBLICATIONS FOR INFORMATION WITHIN CANADIAN AIRSPACE
HELICOPTER ROUTES	Primary Route Route Name Tower Frequency One-way Route Altitude Changeover Point MARRIOTT 118.3 Reporting or Holding Points BAHAI Name Non-Compulsory Compulsory Secondary Route Transition Route ZONE 8 1000 Police Zone Recommended Route Altitude 500 Maximum 500 Minimum 500 Recommended

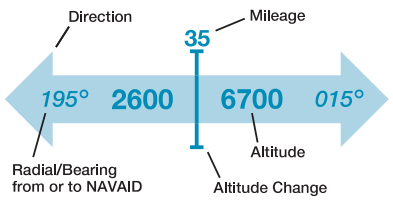
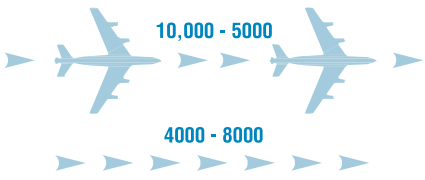
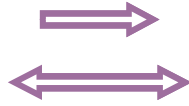
AIRSPACE INFORMATION		NAVIGATIONAL AND PROCEDURAL INFORMATION	
SPECIAL USE AIRSPACE <i>Only the airspace effective below 18,000 feet MSL is shown.</i> <i>The type of area shall be spelled out in large areas if space permits.</i>	 PROHIBITED, RESTRICTED, WARNING OR ALERT AREA  MILITARY OPERATIONS AREA (MOA)	VFR CHECKPOINTS	 STATE CAPITOL Pictorial  STACKS  122.2 FRANCIS PEAK RCO CEDAR CITY  (Pvt) LEWIS 420
MILITARY TRAINING ROUTES (MTR)		VFR WAYPOINTS	 VPXYZ Stand-Alone Collocated with VFR Checkpoint  NAME (VPXYZ)
SPECIAL AIR TRAFFIC RULES / AIRPORT TRAFFIC AREAS (FAR PART 93) <i>Appropriate boxed notes as required shown adjacent to area.</i>	 SPECIAL NOTICE Pilots are required to obtain an ATC clearance prior to entering this area.	OBSTRUCTIONS	 bldg 1000' and higher AGL  300' and higher AGL Group Obstruction  or  Obstruction with high-intensity lights.  or  2049 (1149) UC Elevation of the top above mean sea level Height above ground Under Construction or reported and position / elevation unverified
MODE C (FAR 91.215) <i>Appropriate notes as required may be shown.</i>		MAXIMUM ELEVATION FIGURE (MEF) <i>(see page 2 for explanation).</i>	124
MISCELLANEOUS AIRSPACE AREAS Parachute Jumping Area with Frequency Glider Operating Area Ultralight Activity Hang Glider Activity	 122.9   	NAVIGATION DATA	 N38°56.32' W76°36.91'  POWER PLANT N32°27.12' W70°15.73'  ATL 25 NM ATL 033/25 NM N33°59.18' W84°10.62' ATL 033°
TERMINAL RADAR SERVICE AREA (TRSA) <i>Appropriate notes as required may be shown.</i>	PALM SPRINGS TRSA  SEE TWR FREQ TAB 80 40 - Ceiling of TRSA in hundreds of feet MSL - Floor of TRSA in hundreds of feet MSL		

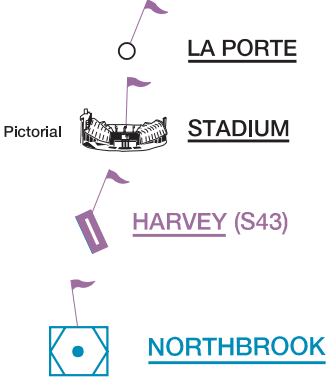
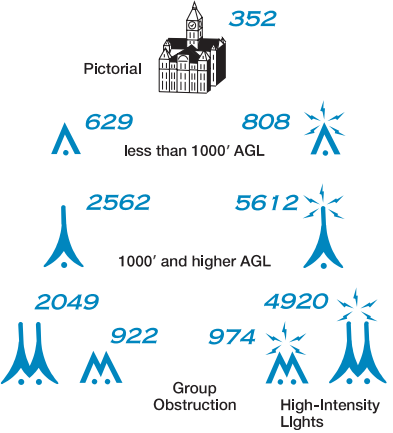
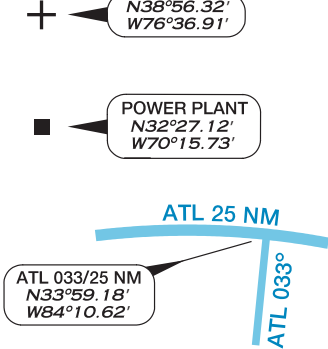
NAVIGATIONAL AND PROCEDURAL INFORMATION	
WARNING AND CAUTION NOTES	WARNING Extensive fleet and air operations being conducted in offshore areas to approximately 100 miles seaward. CAUTION: Be prepared for loss of horizontal reference at low altitude over lake during hazy conditions and at night.
LOCAL MAGNETIC NOTES	Magnetic disturbance of as much as 78° exists at ground level and 10° or more at 3000 feet above ground level in this vicinity.
CULTURE	
RAILROADS	Single Track Double Track
ROADS	HOLLYWOOD BOULEVARD 495 95 25
BRIDGES	Railroad Road
POPULATED PLACES	Built-up Areas
BOUNDARIES	International State and Provincial

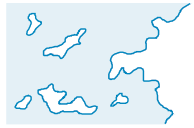
CULTURE	
POWER TRANSMISSION LINES	
PROMINENT PICTORIALS	TEMPLE
LANDMARKS	Landmark Feature-stadium, factory, school, etc. Mines and QuarriesRace Track Outdoor TheaterTank-water, oil or gas
HYDROGRAPHY	
SHORELINES	
MAJOR LAKES AND RIVERS	
RESERVOIRS	Dam
RELIEF	
SPOT ELEVATIONS	Position Accurate 405

AIRPORTS		AIRSPACE INFORMATION	
LANDPLANE	<i>No distinction is made between airports with services and those without services. Runways may be exaggerated to clearly portray the pattern. Hard-surfaced runways which are closed but still exist are included in the charted pattern.</i> <i>FAR 91 - Fixed wing special VFR operations prohibited.</i> 	CLASS B AIRSPACE	LAS VEGAS CLASS B 
RADIO AIDS TO NAVIGATION		CLASS C AIRSPACE	
VHF OMNI-DIRECTIONAL RADIO RANGE (VOR)	 Identifier Frequency MAL 109.6	<i>Appropriate notes as required may be shown.</i> <i>(Mode C see FAR 91.215 /AIM)</i>	EL TORO CLASS C  CLASS C SURFACE AREA 48 - Ceiling of Class C in hundreds of feet MSL 30 - Floor of Class C in hundreds of feet MSL
VOR			
VORTAC	 GCY 113.4		
VOR-DME	 FHM 114.2 Underline indicates no voice on this frequency		
NON-DIRECTIONAL RADIOBEACON (NDB)	 WDP 396 Underline indicates no voice on this frequency	CLASS D AIRSPACE	 40  Class E (sfc) 27 (A minus in front of the figure is used to indicate "from surface to but not including...") ALTITUDE IN HUNDREDS OF FEET MSL
NDB-DME	 LSJ 206		
NAVAIDS USED TO DEFINE CLASS B AIRSPACE	 SALT LAKE CITY DME ANTENNA (I-BNT) Ch 52 (111.5)	CLASS E SURFACE (SFC) AIRSPACE	

AIRSPACE INFORMATION	
SPECIAL AIRSPACE AREAS	
SPECIAL FEDERAL AVIATION REGULATIONS (SFAR) AREAS RELATING TO NATIONAL SECURITY Example: Washington DC <i>Appropriate notes as required may be shown.</i>	 WASHINGTON DC METROPOLITAN AREA SPECIAL FLIGHT RULES AREA IN EFFECT (See SFAR 94 description in chart border). Special regulations apply to all aircraft operations below Flight Level 180 in the Washington DC Metropolitan Area. Pilots should contact a local AFSS for NOTAM information prior to flight in the Washington DC Metropolitan Area.
TEMPORARY FLIGHT RESTRICTION (TFR) RELATING TO NATIONAL SECURITY Example: P-40/R-4009 <i>Appropriate notes as required may be shown.</i>	 CAUTION P-40 AND R-4009 EXPANDED BY TEMPORARY FLIGHT RESTRICTION. CONTACT AFSS FOR LATEST STATUS AND NOTAMS.

AIRSPACE INFORMATION	
SUGGESTED VFR FLYWAY AND ALTITUDE	
IFR ROUTES <i>Appropriate notes as required may be shown.</i> Arrival Departure	
TRANSITION ROUTES <i>Appropriate notes as required may be shown.</i> Uni-directional Bi-directional	VFR TRANSITION ROUTE ATC CLEARANCE REQUIRED SEE SHOWBOAT GRAPHIC ON SIDE PANEL 
SPECIAL USE AIRSPACE <i>Only the airspace effective below 18,000 feet MSL is shown.</i>	P-56 OR R-6401 W-518 OR A-631 PROHIBITED, RESTRICTED ALERT OR WARNING AREA FALCON 1 MOA MILITARY OPERATIONS AREA (MOA)
MILITARY TRAINING ROUTES (MTR)	

AIRSPACE INFORMATION	NAVIGATIONAL AND PROCEDURAL INFORMATION
SPECIAL AIR TRAFFIC RULES / AIRPORT TRAFFIC AREAS (FAR Part 93) <i>Appropriate boxed note as required shown adjacent to area.</i>	VFR CHECKPOINTS 
MODE C (FAR 91.215) <i>Appropriate notes as required may be shown.</i>	VFR WAYPOINTS Stand-Alone  VPXYZ Collocated with VFR Checkpoint  NAME (VPXYZ)
AIR DEFENSE IDENTIFICATION ZONE (ADIZ)	OBSTRUCTIONS <i>Only those obstacles specified by the FAA shall be shown.</i> <i>Above Ground Level (AGL) heights are not shown.</i> 
TERMINAL RADAR SERVICE AREA (TRSA)	NAVIGATIONAL DATA 
MISCELLANEOUS AIRSPACE AREAS Parachute Jumping Area Glider Operating Area Ultralight Activity Hang Glider Activity	

CULTURE		RELIEF	
RAILROADS		Spot Elevations	
Single and Multiple Tracks		Position Accurate Mountain Peaks	
ROADS			
Dual Lane			
Primary			
POPULATED PLACES			
Built-up Areas			
Towns			
BOUNDARIES			
International			
POWER TRANSMISSION LINES			
			
PROMINENT PICTORIALS			
			
LANDMARKS			
			
HYDROGRAPHY			
SHORELINES			
			
MAJOR LAKES AND RIVERS			
			
RESERVOIRS			
			