VFR AERONAUTICAL CHART SYMBOLS

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AIRPORTS RADIO AIDS TO NAVIGATION AIRSPACE INFORMATION NAVIGATIONAL AND PROCEDURAL INFORMATION CULTURE HYDROGRAPHY RELIEF	27 28 30 31
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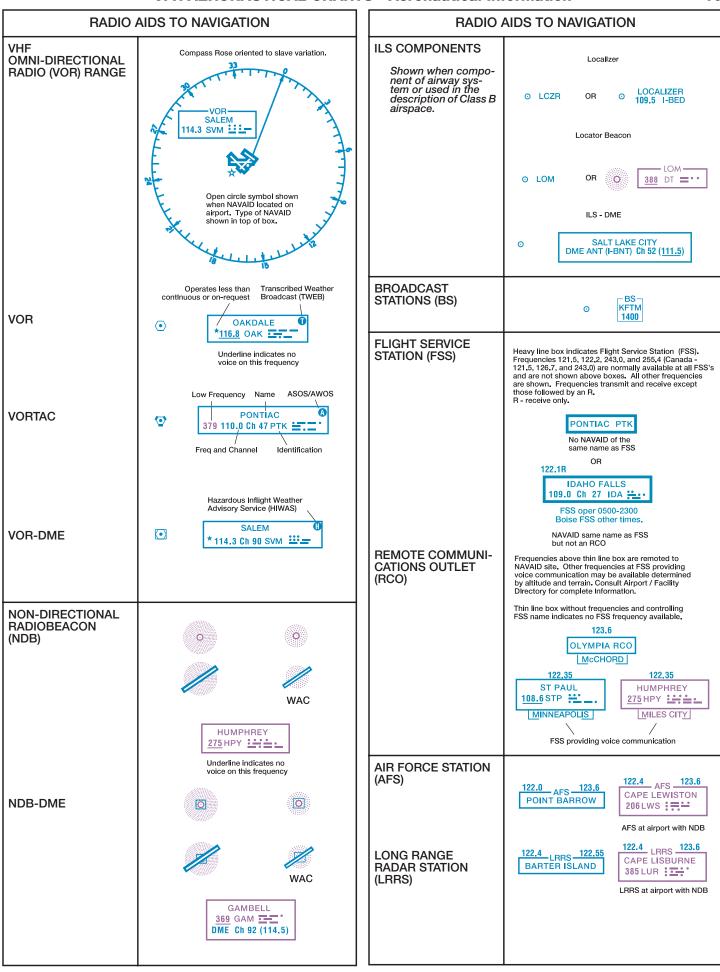
GENERAL INFORMATION

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	\$	\$
Airports having control towers (CT) are shown in blue, all others are shown in magenta.	Ö	\$
All recognizable run- ways, including some which may be closed, are shown for visual identification purposes.	*	*
Refueling and repair facilities for normal traffic.	₩	₩ *
Runway patterns will be depicted at airports with at least one hard surface runway 1500' or greater in length.		₩ WAC
SEAPLANE-CIVIL	4	•
	•	W AC
LANDPLANE	•	•
CIVIL-MILITARY	©	•
		WAC
LANDPLANE-	0	0
MILITARY		0
Refueling and repair facilities not indicated.	***	
		WAC
LANDPLANE- EMERGENCY No facilities	PUBLIC USE - Limited a no service available	attendance or
or	RESTRICTED OR PRIVA	
Complete information is not available.		
Add appropriate notes as required: "closed, approximate position, existence unconfirmed.	UNVERIFIED - A landing but warranting more that precaution due to: (1) lack of current inform field conditions, and (2) available information peculiar operating line.	an ordinary mation on // or indicates
	ABANDONED - Depicter value or to prevent confunding adjacent usable landing (Normally at least 3000'	usion with an area.
		WAC

AIRPORTS			
SEAPLANE- EMERGENCY No facilities or com- plete information is not available	ţ	♣ WAC	
HELIPORT (Selected)	\oplus	(H) WAC	
ULTRALIGHT FLIGHT PARK (Selected)	F	Not shown on WAC	
AIRPORT DATA GROUPING	FSS NO SVFR (NAME) (NAM) CT - 118.3 * (9) ASOS/AWOS 135 897 L 110 122.5 RP 23,34 VFR Advsy 125	.42 ATIS 123.0 897 L 110 U 95 — UNICOM Airport of Entry	
NO SVFR - Air FSS - Fligit NO SVFR - Air FSS - Fligit NO SVFR - Air ope - India Airp (NAM) - Loca CT - 118.3 - Con ** - Star tabu ** - India (Not ATIS 123.8 - Aute (Sho Som loca Sep 7 - Elev L - Ligh Airp Airp 110 - Leng usat UNICOM - Aern RP 23,34 - RN (Not RP 23,34 - RN (N	cates F.A.R., 93 Special Air ort Traffic Patterns ort Survelllance Radar (Not tation Identifier (Not shown of trol Tower (CT) - primary freindicates operation part-tire lation for hours of operation cates Common Traffic Advishown on WAC) or operation cates Common Traffic Advishown on WAC) or operation cates Common the Common terminal Information or when full-time ATIS is ne ASOS/AWOS facilities made at airport, (Not shown of a common traffic Advision in feet ting in operation Sunset to tring limitations exist; refer the ord/Facility Directory, and of longest runway in hur ide length may be less. Conautical advisory station (ways with Right Traffic Patt shown on WAC) of Airport/Facility Directory). Advisory Service shown we lable and frequency is other aliable, the respective chies refer to runway lights	sial visual flight rules on above airport name) F.A.R. 91 Traffic Rules and shown on WAC) on WAC) equency me, See tower frequencies 1 sory Frequencies (CTAF) n Service observing Systems ot available.) ay not be on WAC) Sunrise o ndreds of feet; "'U" only on WAC) terms (public use) where ATIS is not r than primary CT frequency.	



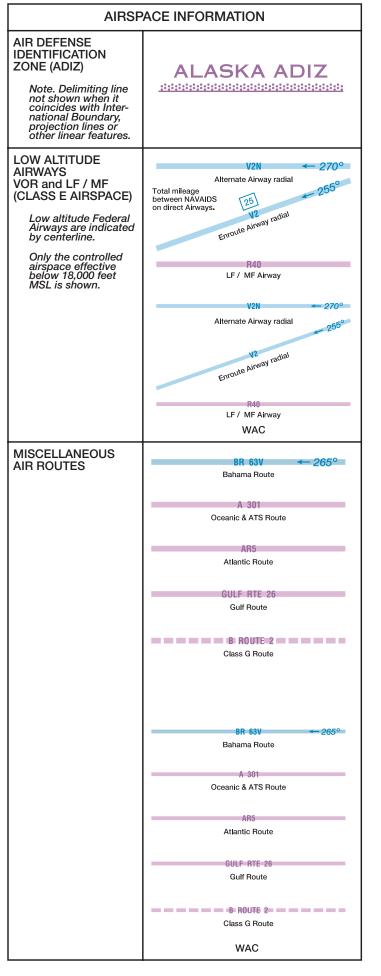
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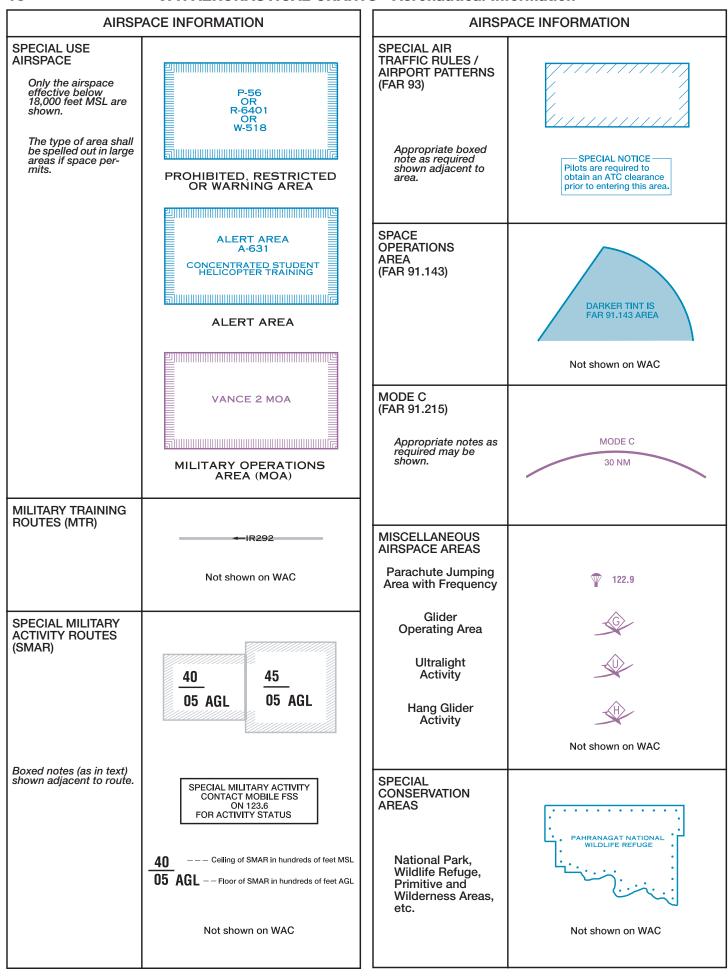
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[25]

AIRSPACE INFORMATION AIRSPACE INFORMATION **CLASS B AIRSPACE CLASS D AIRSPACE** See NOTAMs/Directory LAS VEGAS CLASS B for Class D eff hrs NAVAID identifier and Appropriate notes as distance from facility (TAC Only). required may be AS 20 NM shown. Only the airspace effective below 18,000 feet MSL are NAVAID identifier and radial from facility (TAC Only). See NOTAMs/Directory for Class D/E (sfc) eff hrs (Mode C see FAR 91.215 /AIM) All mileages are nautical (NM). WAC All radials are magnetic. Outer limit only, segments not shown (A minus in front of the figure is used to indicate "from surface to but not including...") ALTITUDE IN HUNDREDS OF FEET MSL FOR FLIGHTS AT AND BELOW Not shown on WAC 8000' MSL SEE KANSAS CITY **CLASS E AIRSPACE** VFR TERMINAL AREA CHART The limits of Class E airspace shall be shown by narrow vignettes or by the (WAC only) dashed magenta symbol. Individual units of designated - Ceiling of Class B in hundreds of feet MSL See NOTAMs/Directory 40 - Floor of Class B in hundreds of feet MSL airispace are not nec-essarily shown; instead, the aggre-gate lateral and verti-cal limits shall be for Class D/E (sfc) eff hrs CTC LAS VEGAS APP defined by the follow-ON 121.1 OR 257.8 Airspace beginning at the surface desig-See NOTAMs/Directory for Class E (sfc) eff hrs (TAC only) nated around airports ... See NOTAMs/Directory CLASS C AIRSPACE **BURBANK CLASS C** Airspace beginning at 700 feet AGL ... for 700' Class E eff hrs Appropriate notes as required may be Airspace beginning at 1200 feet AGL or greater that abuts uncontrolled air-See NOTAMs/Directory for Class C eff hrs (Mode C see FAR 91.215 /AIM) space (Class G) ... Differentiates floors of airspace greater than 700 feet above BOISE CLASS C 8000 AGL the surface... See NOTAMs/Directory When the ceiling is less than 18,000 feet for Class C eff hrs CEILING WAC MSL, the value, pre-fixed by the word "ceiling," shall be shown along the lim-14,000 MSL Outer limit only, segments not shown Not shown on WAC FOR FLIGHTS AT OR BELOW **OFFSHORE** ATLANTIC LOW 6600' MSL SEE PHOENIX 9500 MSL LOW ATLANTIC LAREA CONTROL AREA ALLANIN AREA VFR SECTIONAL CHART CONTROL AREAS (WAC only) CONTROL AREA 1148L 48 - Ceiling of Class C in hundreds of feet MSL 30 - Floor of Class C in hundreds of feet MSL Class G Airspace ATLANTIC LOW CONTROL AREA ATLANTIC LOW CONTROL AREA CONTROL AREA 1148L CTC BURBANK APP WITHIN 20 NM ON 124.6 395.9 WAC Not shown on WAC

AIRSPACE INFORMATION **CANADIAN** TCA Class C/D **AIRSPACE** Individual units of designated Canadian designated Canadian airspace are not nec-essarily shown; instead, the aggre-gate lateral and verti-cal limits shall be portrayed as closely TCA Class C/D as possible to the comparable U.S. air-WAC Outer limit only, segments not shown space. Appropriate notes as required may be 125 - Ceiling of TCA Class C/D in hundreds of feet MSL shown. 25 - Floor of TCA Class C/D in hundreds of feet MSL Class C or D Class D CZ Control Zone [30] ALTITUDE IN HUNDREDS OF FEET MSL 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 AIRSPACE OUTSIDE OF U.S. Other than Canada NOTE: REFER TO CURRENT DOD (NIMA) CHARTS AND FLIGHT INFORMATION PUBLICATIONS FOR INFORMATION OUTSIDE OF U.S. AIRSPACE Appropriate notes as required may be shown. **FLIGHT INFORMATION REGIONS (FIR)** No FIR exists this side - No ticks and /or (CTA) MONCTON FIR CZQM WINNIPEG FIR CZWG **EDMONTON FIR CZEG OCEANIC CONTROL AREAS** (OCA) OAKLAND OCEANIC **CONTROL AREA**





AIRSPACE INFORMATION

SPECIAL AIRSPACE AREAS

SPECIAL FEDERAL AVIATION REGULATIONS (SFAR) AREAS

Appropriate notes as required may be shown.

SFAR AREA RELATING TO NATIONAL SECURITY

Example: Washington DC



SPECIAL FEDERAL AVIATION REGULATIONS (SFAR)

14 CFR Part 93, Subpart U and SFAR 50.2 -

GRAND CANYON NATIONAL PARK SPECIAL

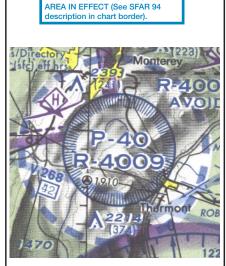
FLIGHT RULES AREA. Special regulations apply to all aircraft operations below 18,000 feet MSL.

Appropriate notes as required may be shown.

TEMPORARY FLIGHT RESTRICTION (TFR) RELATING TO NATIONAL SECURITY

Example: P-40/R-4009

Appropriate notes as required may be shown.



WASHINGTON, DC METROPOLITAN

AREA SPECIAL FLIGHT RULES

CAUTION
P-40 AND R-4009 EXPANDED BY
TEMPORARY FLIGHT RESTRICTION.
CONTACT AFSS FOR LATEST
STATUS AND NOTAMS

Not shown on WAC

AIRSPACE INFORMATION

NATIONAL SECURITY AREA

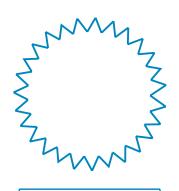
Appropriate notes as required may be shown.

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

Appropriate notes as required may be shown.



HAZARDOUS LASER
TRANSMISSIONS SFC to infinity
See Airport Facility/Directory



WAC

TERMINAL RADAR SERVICE AREA (TRSA)

Appropriate notes as required may be shown.

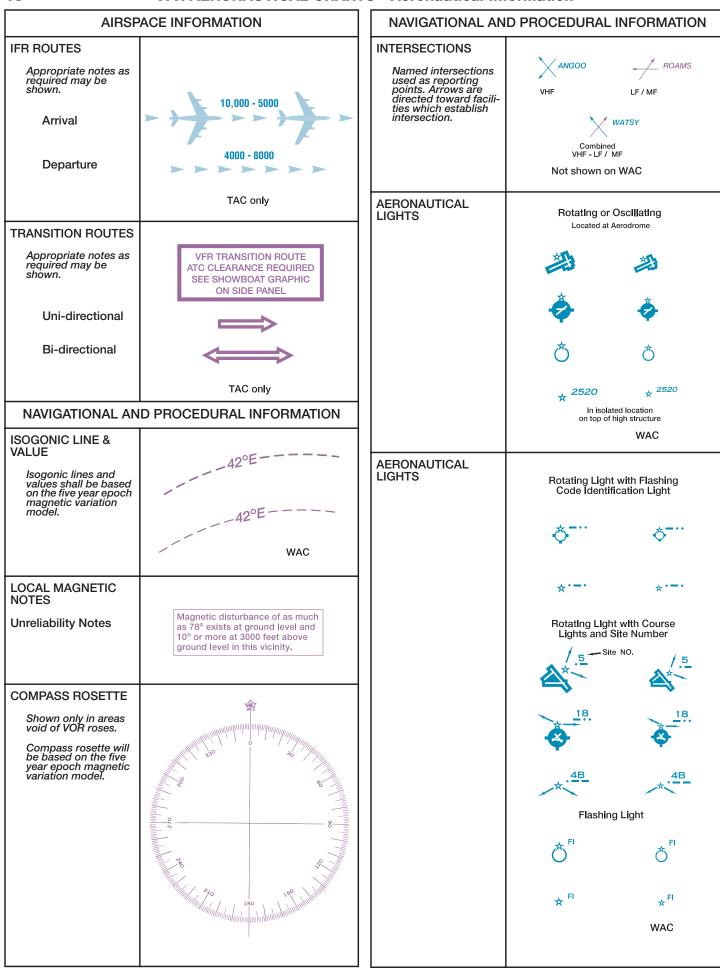
PALM SPRINGS TRSA

Ceiling of TRSA in hundreds of feet MSL

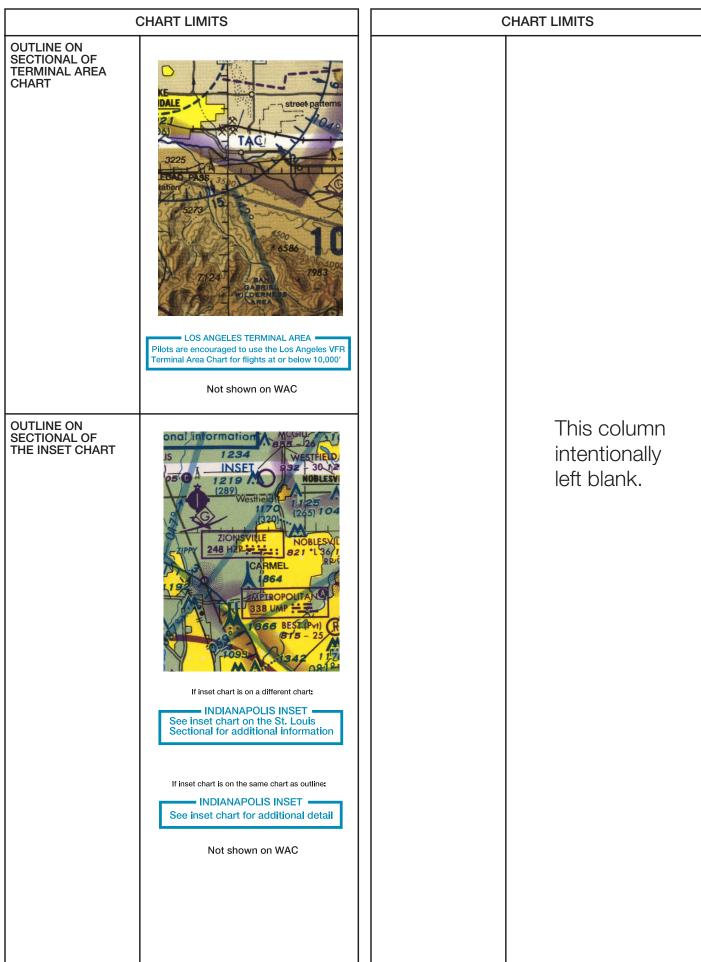
- Floor of TRSA in hundreds of feet MSL

SEE TWR FREQ TAB

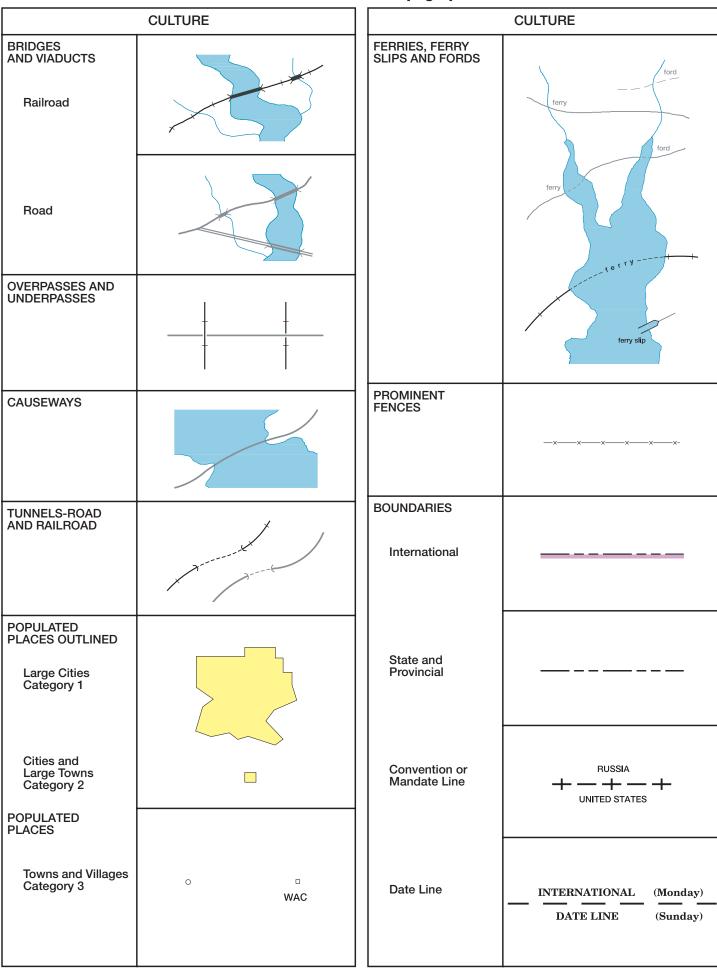
Not shown on WAC



NAVIGATIONAL AN	D PROCEDURAL INFORMATION	NAVIGATIONAL AN	D PROCEDURAL INFORMATION
MARINE LIGHTS With Characteristics of Light	Oc W R SEC Al Land Light Land Light WAC R Red "W White G Green B Blue SEC Sector F Fixed Oc Single Occulting	OBSTRUCTION	↑ 1473 (394) Less than 1000' (AGL) ↑ (253) stack ↑ 628 Under Construction or reported and position / elevation unverified ↑ 3368 (1529) 1000' & higher (AGL) ↑ (1697) WAC
	Oc (2) Group Occulting Oc (2+1) Composite Group Occulting Iso Isophase FI Flashing FI (2) Group Flashing FI (2+1) Composite Group Flashing Q Quick IQ Interrupted Quick Mo (A) Morse Code FFI Fixed and Flashing AI Alternating Gp Group LFI Long Flash Q (3) Group Quick Flashing IQ Interrupted Quick Flashing	GROUP OBSTRUCTION	1062 (227) Less than 1000' (AGL) (367) 4977 (1432) 1000' and higher (AGL) (1634) 2889 (1217) At least two in group over 1000' (AGL) (1573) WAC
	VQ Very Quick Flashing VQ (3) Group Very Quick Flashing IVQ Interrupted Very Quick Flashing IVQ Ultra Quick Flashing IUQ Ultra Quick Flashing IUQ Interrupted Ultra Quick Flashing *Marine Lights are white unless otherwise noted. Alternating lights are red and white unless otherwise noted.	HIGH INTENSITY OBSTRUCTION LIGHTS High intensity lights may operate part- time.	Less than 1000' (AGL)
VISUAL GROUND SIGNS Shore and Landmarkers	Arrow points to location of marker M Actual location of ground sign		Group Obstruction
VFR CHECK POINTS	STATE CAPITOL	MAXIMUM ELEVATION FIGURE (MEF)	13 ⁵
	SIGNAL HILL Not shown on WAC	WARNING, CAUTION NOTES Used when specific area is not demar- cated.	WARNING Extensive fleet and air operations being conducted in offshore areas to approximately 100 miles seaward.
VFR WAYPOINTS		cated.	to approximately 100 miles scanara.
Stand-Alone	√ VPXYZ		
Collocated with VFR Checkpoint	NAME (VPXYZ) Not shown on WAC		CAUTION: Be prepared for loss of horizontal reference at low altitude over lake during hazy conditions and at night.



	OF AERONAUTICAL CHAR		
	CULTURE		CULTURE
RAILROADS All gauges Single Track		RAILROAD SIDINGS AND SHORT SPURS	
Double Track		ROADS Dual Lane Category 1	WAC
More Than Two Tracks Electric	3 tracks	Primary Category 2	WAC
RAILROADS IN JUXTAPOSITION		Secondary Category 2	
RAILROAD- NONOPERATING, ABANDONED,		TRAILS Category 3 Provides symbolization for dismantled railroad when combined with label "dismantled railroad."	
DESTROYED, OR UNDER CONSTRUCTION	under construction	ROAD MARKERS Interstate Route No.	80
RAILROAD YARDS Limiting Track To Scale	rallroad yard	U.S. Route No. Air Marked Identification Label	13
Location Only	railroad yard	ROAD NAMES	LINCOLN HIGHWAY LINCOLN HIGHWAY WAC
RAILROAD STATIONS	station station	ROADS UNDER CONSTRUCTION	under construction



	CULTURE		CULTURE
TIME ZONES	HSTT +8 (+7DT) = UTC MST	SMALL LOCKS	
MINES AND QUARRIES Shaft Mines and Quarries	×	WEIRS AND JETTIES	jetties
POWER TRANSMISSION & TELECOMMUNICA- TION LINES	WAC	SEAWALLS	seawall
PIPELINES	plpeline 	BREAKWATERS	breakwater
Underground	underground pipeline	PIERS, WHARFS, QUAYS, ETC.	piers
DAMS		MISCELLANEOUS CULTURAL FEATURES	■ stadium ■ fort ■ cemetery
DAM CARRYING ROAD		OUTDOOR THEATER	©
PASSABLE LOCKS	locks	WELLS Other Than Water	oil O

	CHITIDE		
	CULTURE	<u> </u>	YDROGRAPHY
RACE TRACKS		SHORELINES Definite	orn or
LOOKOUT TOWERS Air marked identification	P-17 (Site number) 618 (Elevation base of tower)	Fluctuating	orten or
LANDMARK AREAS	dark area	Unsurveyed Indefinite	8 7 mg
TANKS	water	Man-made	or or or
	● gas	LAKES	
COAST GUARD STATION	+ CG	Label as required Perennial When too numerous to show individual lakes, show representative pattern and descriptive note.	numerous small lakes 756 618
AERIAL CABLEWAYS, CONVEYORS, ETC.	aerial cableway aerial cableway =	Non-Perennial (dry, intermittent, etc.) Illustration includes small perennial lake	
	WAC	RESERVOIRS Natural Shorelines	
		Man-made	reservoir
OPEN WATER	YDROGRAPHY	Shorelines Label when necessary for clarity	
	0 (22 a 2)	Too small to show to scale	reservoir
INLAND WATER		Under Construc- tion	under construction

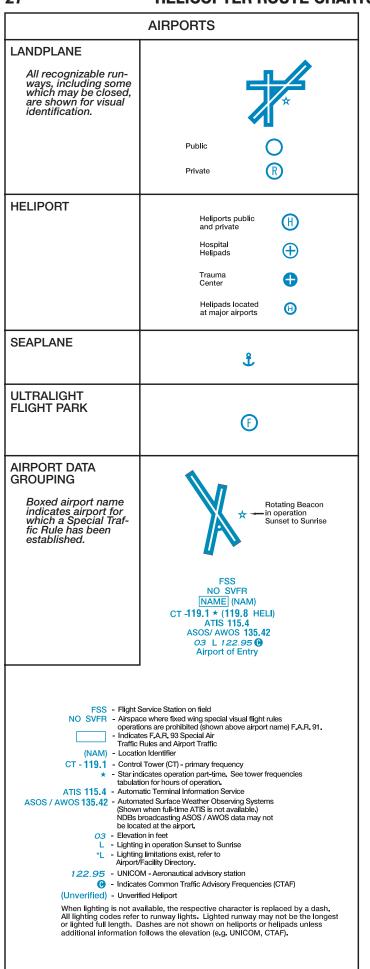
Н	YDROGRAPHY	н	YDROGRAPHY
STREAMS		WET SAND AREAS	
Perennial		Within and adjacent to desert areas	
Non-Perennial		AQUEDUCTS	aqueduct
Fanned Out Alluvial fan	3	Abandoned or Under Construction	abandoned aqueduct
Braided	VSBQ-	Underground	underground aqueduct
Disappearing		Suspended or Elevated	*
Seasonally Fluctuating with undefined limits		Tunnels	
with maximum bank limits, prominent and constant		Kanats Underground aque- duct with air vents	underground aqueduct
Sand Deposits In and Along Riverbeds			

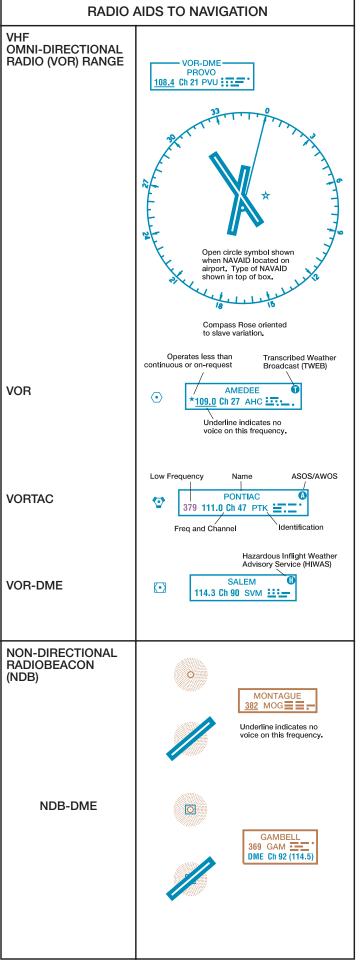
Н	YDROGRAPHY		YDROGRAPHY
FLUMES, PENSTOCKS AND SIMILAR FEATURES	flume	To Scale	
Elevated	#flume	Abandoned or Under Construction	<u>abandoned</u>
Underground	underground flume	To Scale	abandoned
FALLS Double-Line	falls	SMALL CANALS AND DRAINAGE / IRRIGATION DITCHES Perennial	
Single-Line	falls	Non-Perennial	
RAPIDS Double-Line	rapids	Abandoned or Ancient	
Single-Line	rapids	Numerous Representative pattern and/or descriptive note.	
CANALS	ERIE	Numerous	numerous canals and ditches

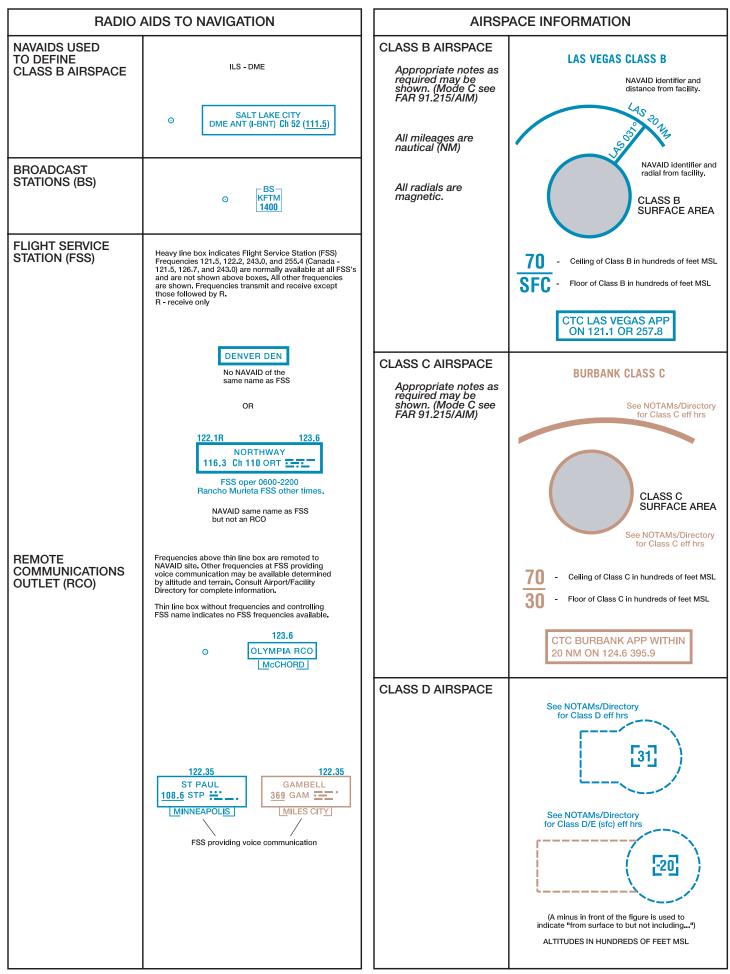
Н	YDROGRAPHY	Н	YDROGRAPHY
SALT EVAPORATORS AND SALT PANS MAN EXPLOITED	salt pans	LAND SUBJECT TO INUNDATION	
SWAMPS, MARSHES AND BOGS	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	SPRINGS, WELLS AND WATERHOLES	•
HUMMOCKS AND RIDGES		GLACIERS	
MANGROVE AND NIPA	magrove to	Glacial Moraines	
PEAT BOGS	peat bog	ICE CLIFFS	AND THE WAR WAS AND THE WAY AN
TUNDRA	tundra	SNOWFIELDS, ICE FIELDS AND ICE CAPS	
CRANBERRY BOGS	cranberry bog	ICE PEAKS	all family
RICE PADDIES Extensive areas indicated by label only.		FORESHORE FLATS Tidal flats exposed at low tide.	

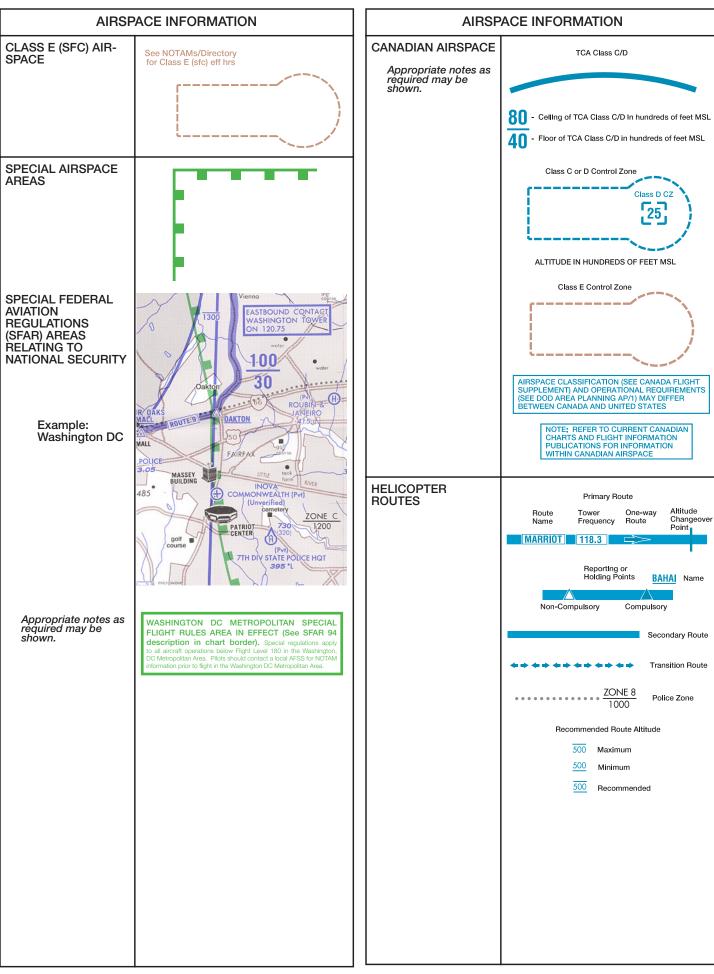
25	VFR AERONAUTICAL CHAR	- Topograpine in	
Н	IYDROGRAPHY		RELIEF
ROCKS-ISOLATED		CONTOURS	
Bare or Awash	*		
		Basic	
WRECKS			
Exposed	<i>≱</i> 1_		
REEFS-ROCKY OR CORAL	. 1744		
	market and should be and the source or all the source of t	Approximate	
MISCELLANEOUS			
UNDERWATER FEATURES NOT			
OTHERWISE SYMBOLIZED	shoals)
		Intermediate	
FISH PONDS AND HATCHERIES			WAC
	fish hatchery		
			1111
ICE		Auxiliary	
			WAC
	shelf ice		
		Depression	2000
		Illustration includes mound within depression	(January)
Permanent			
Polar Ice	App		
	OF POLAR TE MINIMUM LIMITS		
	APAROXIMATE MINIMUM LIMITS AR ICE FOR SEPTEMBER	Values	
	cliff	Values	5000
De ala la c			
Pack Ice			
	pack ice		
	APPROXIMATE MAXIMAM NARCH		
	LAPPROXIMATE MAXIMAN CTA LIMITS OF PACK ICE FOR MARCH		

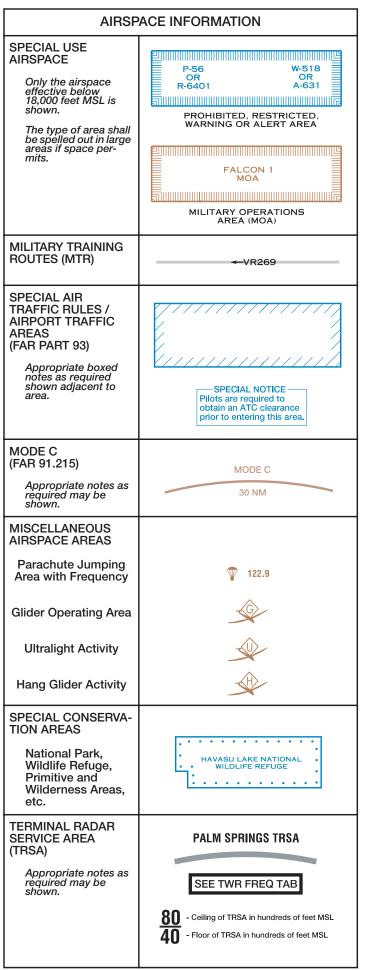
RELIEF		RELIEF	
SPOT ELEVATIONS Position Accurate	2216	SAND OR GRAVEL AREAS	
Position Accurate, Elevation Approximate	2260	SAND RIDGES To Scale	
Approximate location	2119	SAND DUNES To Scale	
Critical Highest on Chart	12770	SHADED RELIEF	
MOUNTAIN PASS	WAC) (12632	ROCK STRATA OUTCROP	rock strata
HACHURING		QUARRIES TO SCALE	quarry
UNSURVEYED AREAS Label appropriately as required	UNSURVEYED	STRIPMINES, MINE DUMPS AND TAILINGS To Scale	strip mine dump
UNCONTOURED AREAS Label appropriately as required	RELIEF DATA INCOMPLETE	CRATERS	crater crater
DISTORTED SURFACE AREAS	lava	ESCARPMENTS, BLUFFS, CLIFFS, DEPRESSIONS, ETC.	A Contraction of the second of
200		LEVEES AND ESKERS	levee

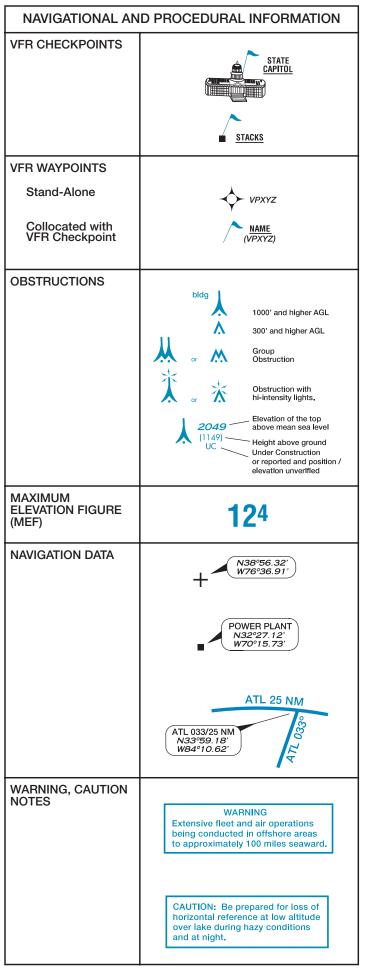




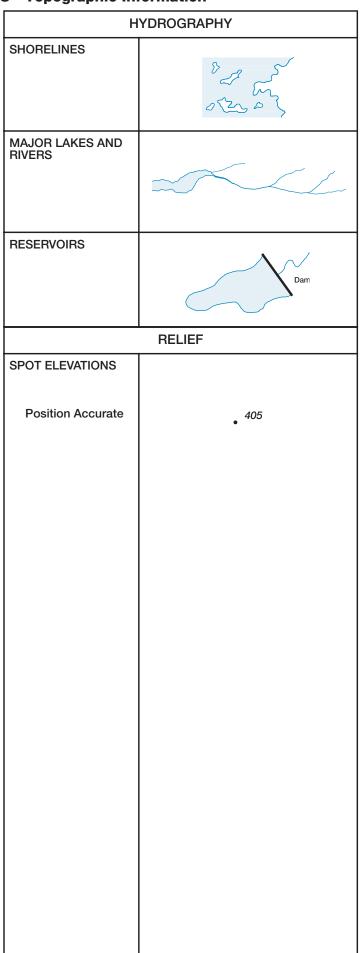




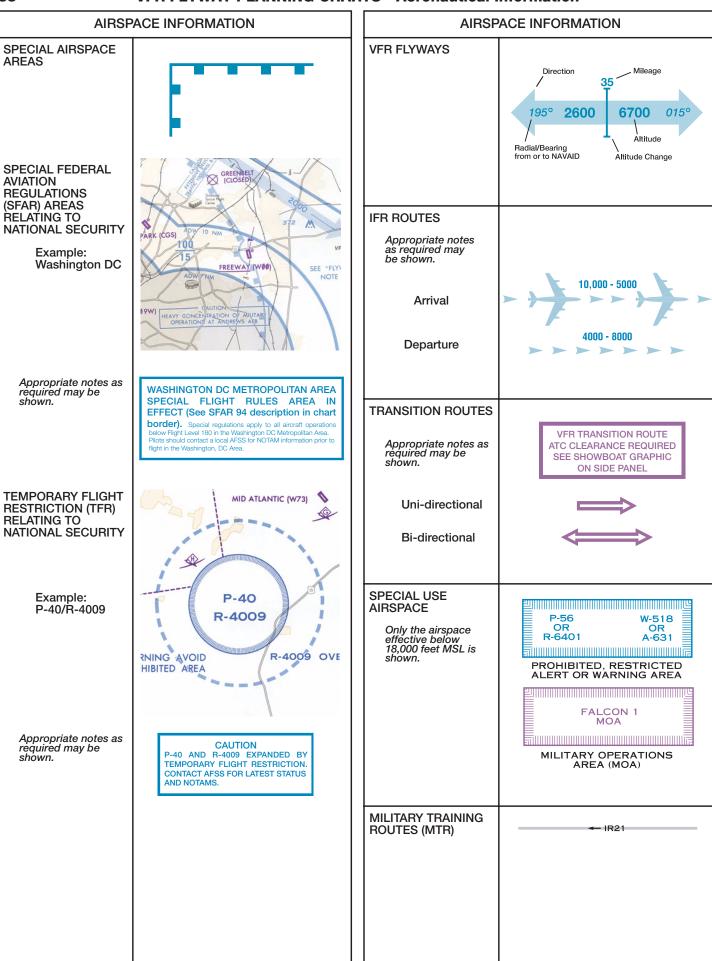


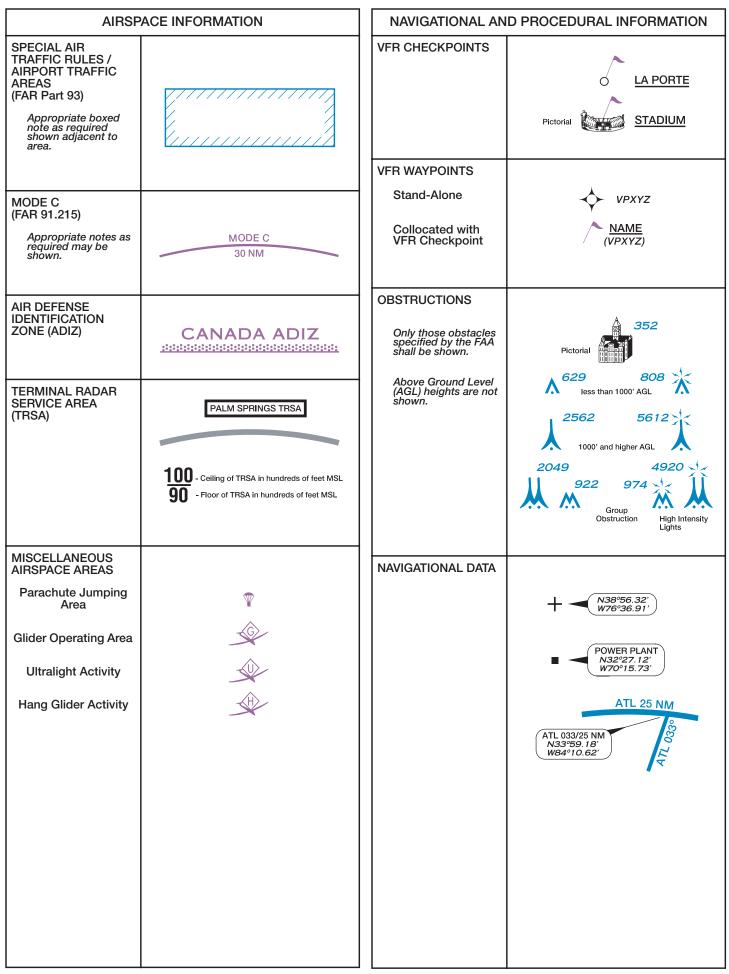


31 HELICOPTER ROUTE CHA				
	CULTURE			
RAILROADS				
Single Track				
Double Track				
ROADS				
	HOLLYWOOD BOULEVARD			
Dual Lane	495			
Primary	95			
Timary				
BRIDGES				
	Railroad			
	Road			
POPULATED PLACES				
Built-up Areas				
BOUNDARIES				
International				
State and Provincial				
POWER TRANSMISSION				
LINES	Ĭ ——×——			
PROMINENT PICTORIALS	,			
PIOTORIALS	TEMPLE			
LANDMARKS	■ Landmark Feature-stadium, factory, school, etc.			
	Mines and			
	♥ Outdoor			



AIRPORTS AIRSPACE INFORMATION **LANDPLANE CLASS B AIRSPACE** LAS VEGAS CLASS B Rotating Beacon No distinction is in operation Sunset to Sunrise Appropriate notes as made between air-ports with services and those without required may be NAVAID identifier and distance from facilty shown. **NO SVFR** 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 RIVERSIDE (RAL) (Mode C see FAR 91.215 /AIM) Paved Runways All mileages are nautical (NM). NAVAID identifier and exist are included in the charted pattern. radial from facility AGUA DOLCE FAR 91 - Fixed wing special VFR opera-tions prohibited. (L7Ø) All radials CLASS B are magnetic. SURFACE AREA Unpaved Runways (Pvt) (R)COMPTON - Ceiling of Class B in hundreds of feet MSL 1 - Floor of Class B in hundreds of feet MSL **CLASS C AIRSPACE RADIO AIDS TO NAVIGATION EL TORO CLASS C** Appropriate notes as VHF required may be shown. **OMNI-DIRECTIONAL RADIO RANGE (VOR)** (Mode C see FAR 91.215/AIM) Identification Frequency **VOR** MAL 109.6 CLASS C SURFACE AREA **VORTAC** GCY 113.4 48 - Ceiling of Class C in hundreds of feet MSL - Floor of Class C in hundreds of feet MSL FHM 114.2 **VOR-DME CLASS D AIRSPACE** Underline indicates no voice on this frequency **NON-DIRECTIONAL RADIOBEACON** (NDB) **WDP 396** Class E (sfc) voice on this frequency NDB-DME LSJ 206 (A minus in front of the figure is used to indicate "from surface to but not including...") ALTITUDE IN HUNDREDS OF FEET MSL **NAVAIDS USED TO DEFINE CLASS B AIR-SPACE** CLASS E (SFC) AIRSPACÈ **SALT LAKE CITY** 0 **DME ANTENNA** (I-BNT) Ch 52 (111.5)





CULTURE		HYDROGRAPHY	
RAILROADS Single and Multiple Tracks		SHORELINES	orn of
ROADS Dual Lane Primary	HARBOR FREEWAY (110)	MAJOR LAKES AND RIVERS	Bridge
POPULATED PLACES Built-up Areas Towns	BREMERTON O LAWRENCEVILLE	RESERVOIRS	Dam
BOUNDARIES	- LAWNENCEVILLE		RELIEF
BOUNDARIES		Spot Elevations	
International		Position Accurate Mountain Peaks	6504
POWER TRANSMISSION LINES	— A——— A—		
PROMINENT PICTORIALS	TEMPLE		
LANDMARKS	■ XEROX BUILDING		