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NAVAID Expanded Standard Service Volume (SSV) Charting Changes

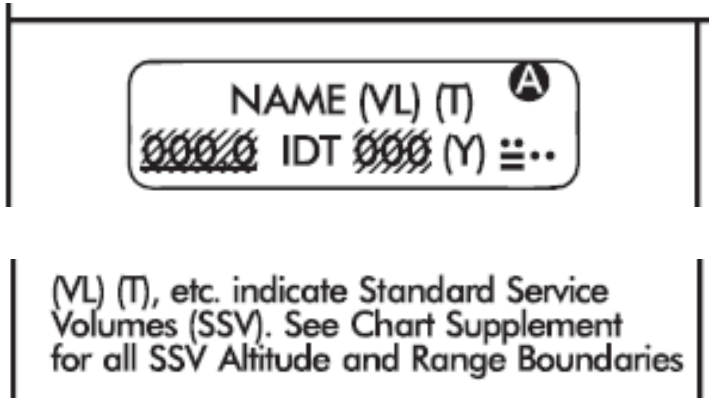
October 26, 2021

ACM 21-02

Federal Aviation Administration

Enroute Chart Legends

Enroute Low Chart Legend:



Enroute High Chart Legend:

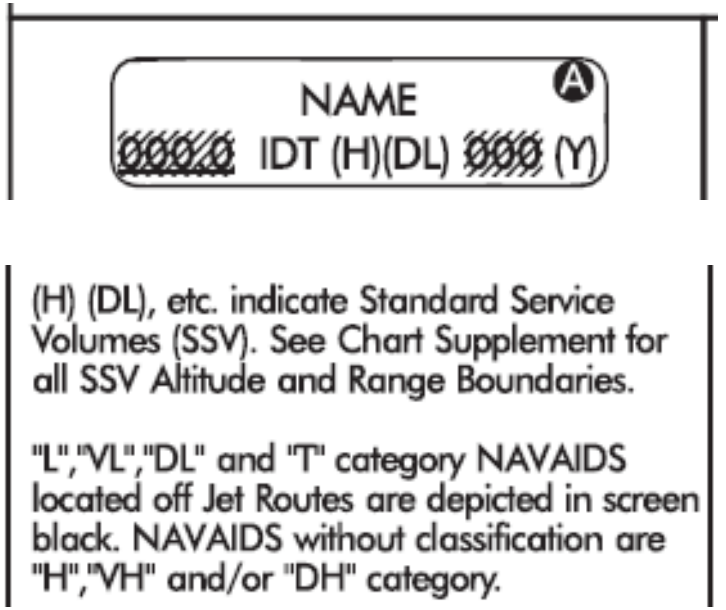


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Chart Supplement:
Airport/Facility Directory Legend

NAVAIDs with Single SSV (VOR, DME, TACAN, NDB, NDB/DME)

NAVAIDs with Two SSVs (VOR/DME, VORTAC)

SSV for each component shown in paired parentheses with the VOR SSV shown first followed by the DME or TACAN SSV.

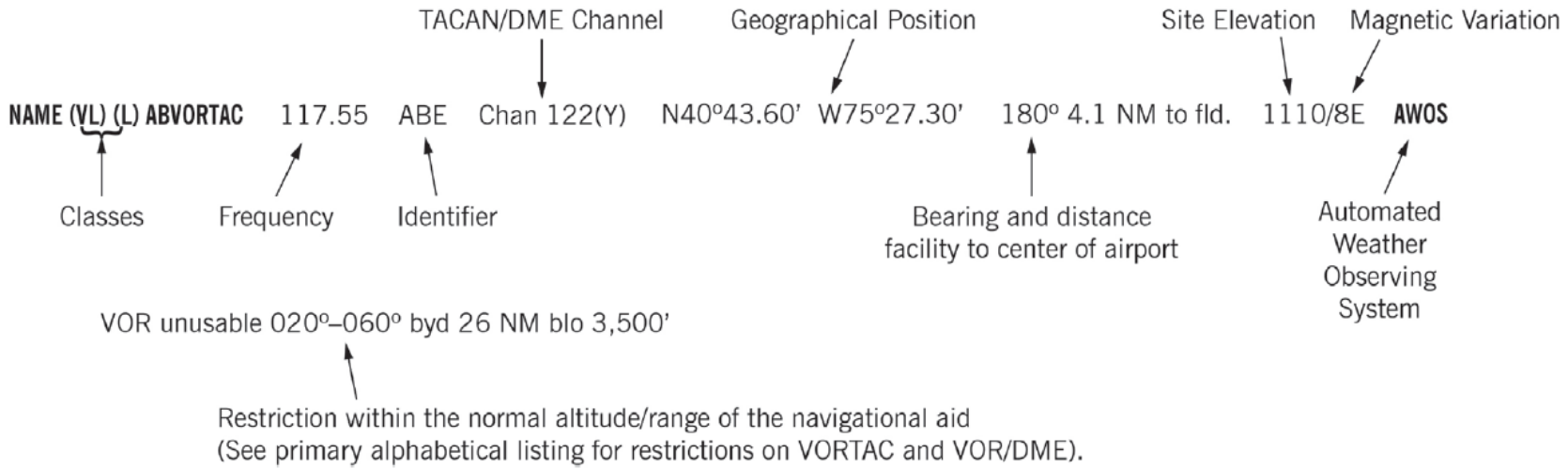

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Chart Supplement:
Airport/Facility Directory Legend

RADIO CLASS DESIGNATIONS

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

SSV Class	Altitudes	Distance (NM)
(T) Terminal	1000´ to 12,000´	25
(L) Low Altitude	1000´ to 18,000´	40
(H) High Altitude	1000´ to 14,500´	40
	14,500´ to 18,000´	100
	18,000´ to 45,000´	130
	45,000´ to 60,000´	100
(VL) VOR Low	1000´ to 5,000´	40
	5,000´ to 18,000´	70
(VH) VOR High	1000´ to 5,000´	40
	5,000´ to 14,500´	70
	14,500´ to 18,000´	100
	18,000´ to 45,000´	130
	45,000´ to 60,000´	100
(DL) DME Low & (DH) DME High*	1000´ to 12,900´	40 increasing to 130
(DL) DME Low	12,900´ to 18,000´	130
(DH) DME High	12,900´ to 45,000´	130
	45,000´ to 60,000´	100

*Between 1000´ to 12,900´, DME service volume follows a parabolic curve used by flight management computers.

NOTES: Additionally, High Altitude facilities provide Low Altitude and Terminal service volume and Low Altitude facilities provide Terminal service volume. Altitudes are with respect to the station's site elevation. Coverage is not available in a cone of airspace directly above the facility. In some cases local conditions (terrain, buildings, trees, etc.) may require that the service volume be restricted. The public shall be informed of any such restriction by a remark in the NAVAID entry in this publication or by a Notice to Airmen (NOTAM).

Chart Users' Guide:
October 7 Edition - What's New Section

IFR ENROUTE CHARTS

Two new VHF Omnidirectional Radio Range (VOR) standard service volumes (SSV) have been implemented in order to achieve VOR service within 70 nautical miles above 5,000 feet above ground level (AGL). The new NAVAID codes are VOR Low (VL) and VOR High (VH). Along with that effort, two new distance measuring equipment (DME) SSVs of DME Low (DL) and DME High (DH) have been implemented to support DME-DME RNAV service. Legacy SSVs of Terminal (T), Low (L), and High (H) will continue to be maintained.

In the past, NAVAIDs at one location typically all had the same SSV. For example, a VORTAC typically had a High (H) SSV for the VOR, the TACAN azimuth, and the TACAN DME, or a Low (L) or Terminal (T) SSV for all three. A VOR/DME typically had a High (H), Low (L), or Terminal (T) for both the VOR and the DME. A common SSV may no longer be the case at all locations. A VOR/DME, for example, could have an SSV of VL for the VOR and DH for the DME, or other combinations. See Charting Notice ENR_21-01_CN_SSV_Codes for more information.

Sample VOR/DME NAVAID box with two SSVs:

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Chart Users' Guide:
IFR Enroute Terms Section

NAVAID STANDARD SERVICE VOLUME (SSV) CLASSIFICATIONS

SSV Class	Altitudes	Distance (NM)
(T) Terminal	1000' to 12,000'	25
(L) Low Altitude	1000' to 18,000'	40
(H) High Altitude	1000' to 14,500' 14,500' to 18,000' 18,000' to 45,000' 45,000' to 60,000'	40 100 130 100
(VL) VOR Low	1000' to 5,000' 5,000' to 18,000'	40 70
(VH) VOR High	1000' to 5,000' 5,000' to 14,500' 14,500' to 18,000' 18,000' to 45,000' 45,000' to 60,000'	40 70 100 130 100
(DL) DME Low & (DH) DME High*	1000' to 12,900'	40 increasing to 130
(DL) DME Low	12,900' to 18,000'	130
(DH) DME High	12,900' to 45,000' 45,000' to 60,000'	130 100

* Between 1000' to 12,900', DME service volume follows a parabolic curve used by flight managment computers.

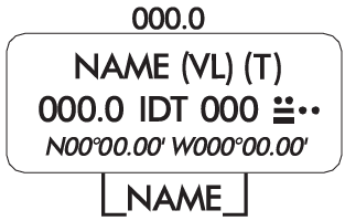
Notes: Additionally, High Altitude facilities provide Low Altitude and Terminal service volume and Low Altitude facilities provide Terminal service volume. Altitudes are with respect to the station's site elevation. Coverage is not available in a cone of airspace directly above the facility. In some cases local conditions (terrain, buildings, trees, etc.) may require that the service volume be restricted. The public shall be informed of any such restriction by a remark in the NAVAID entry or by a Notice to Airmen (NOTAM).

Chart Users' Guide:
IFR Enroute Symbology Section

NAVIGATION AND COMMUNICATION BOXES - COMMON ELEMENTS

LOW ENROUTE CHARTS

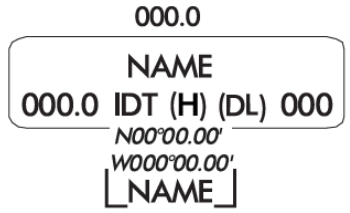
RCO Frequencies
NAVAID Name, SSV(s)
FREQ, Ident, CH, Morse Code
Latitude, Longitude
Controlling FSS Name



HIGH ENROUTE CHARTS

RCO Frequencies
NAVAID Name
Frequency, Ident, SSV(s), Channel
Latitude, Longitude

Controlling FSS Name



Navigation and Communication Boxes - Common Elements

NAVAID STANDARD SERVICE VOLUME (SSV) CLASSIFICATIONS

(VL), (T), etc. indicate SSV. See "NAVAID STANDARD SERVICE VOLUME (SSV) CLASSIFICATIONS" on page 62 or the Chart Supplement for SSV Altitude and Range Boundaries.

(VL) (T)

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