

Very High Frequency Omnidirectional Range (VOR) Minimum Operational Network (MON) Implementation Program

Status Briefing

Presented to: Aeronautical Charting Forum (ACF)

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Federal Aviation
Administration

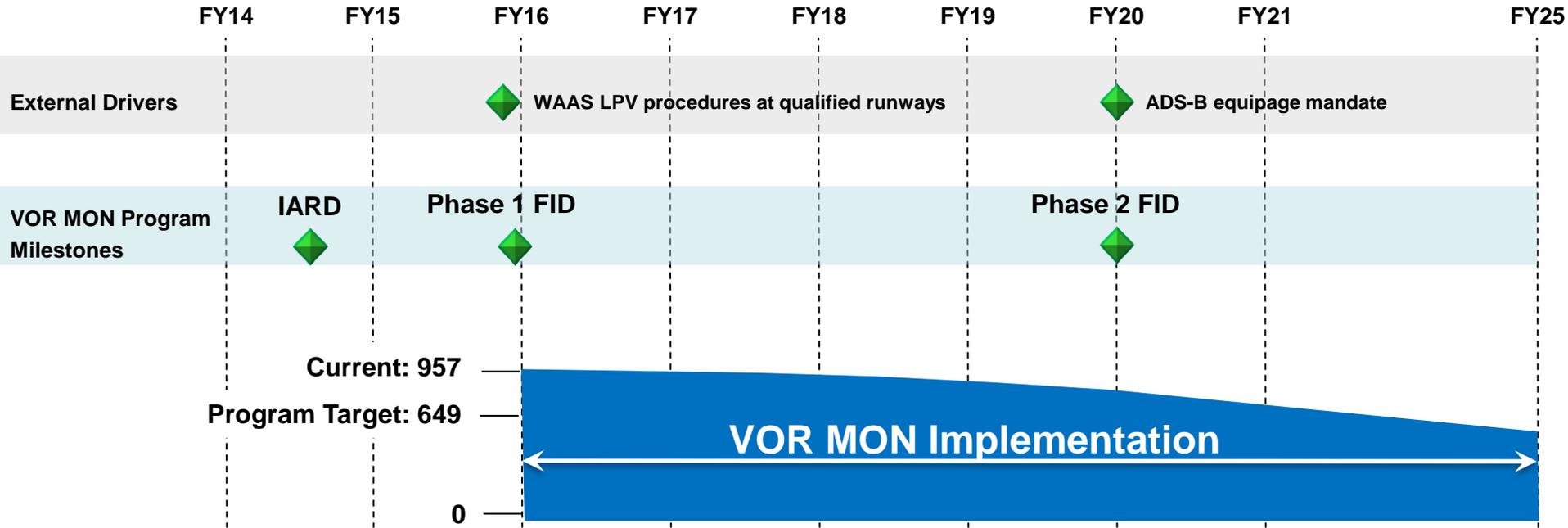


VOR MON Program Goals

- Support the NAS transition from VOR based routes to a more efficient Performance Based Navigation (PBN) structure consistent with Next Gen goals and the NAS Efficient Streamlined Services Initiative (NESS).
- Enable pilots to:
 - Revert from PBN to conventional navigation in the event of a Global Positioning System (GPS) outage;
 - Tune and identify a VOR at a minimum altitude of 5,000 feet above ground level or higher;
 - Navigate to a MON airport within 100 nautical miles to fly an Instrument Landing System (ILS) or VOR instrument approach without Distance Measuring Equipment (DME), Automatic Direction Finder (ADF), surveillance, or GPS where the capability currently exists; and
 - Navigate along VOR Airways especially in mountainous terrain where surveillance services are not available and Minimum En Route Altitudes (MEAs) offer lower altitude selection for options in icing conditions.
- Discontinue approximately 30% (308) VORs by 2025, following guidance in FAA Order 7400.2 and established policies.



VOR MON Program Timeline



The VOR MON Program will be completed in 2 phases:

Phase 1: FY16 – FY20
Phase 2: FY21 – FY25



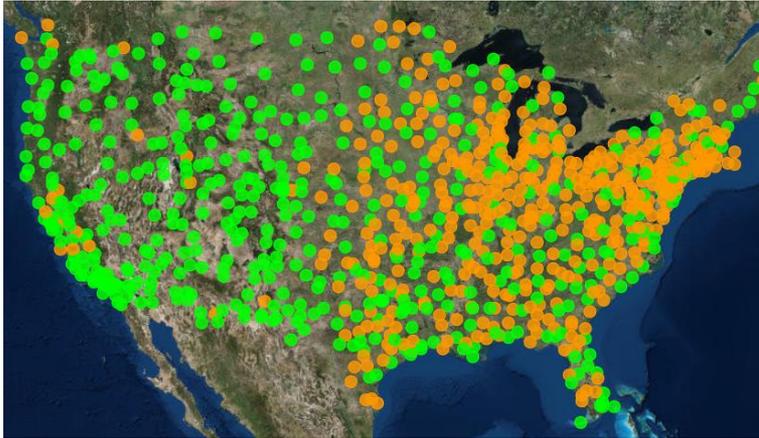
- Publish Final Policy FRN: “Provision of Navigation Services for the Next Generation Air Transportation System (NextGen) Transition to PBN (Plan for Establishing a VOR MON)”
- Remove, Replace, Amend affected Instrument Flight Procedures (IFPs)
- Discontinue Phase 1 VORs (74)*
- Plan for Phase 2 Final Investment Decision (FID)

- Continue IFP work
- Discontinue Phase 2 VORs (234)

* The indicated quantity and activity is planned and may adjust as Phase 1 of the VOR MON program is implemented.

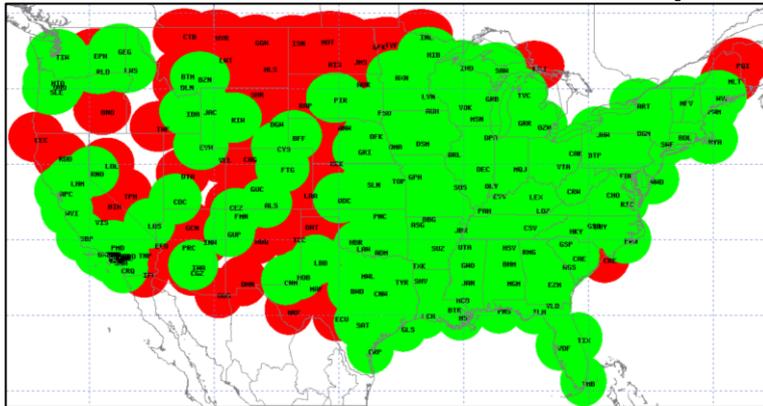


Candidate Discontinued VORs and MON Airports



- Retained VORs (649)
- Target Discontinued VORs (308)

MON Airports



MON airports ensure that an aircraft is within 100 nmi of a location where an ILS or VOR approach may be flown.

<i>VOR MON Discontinuance Target</i>	
Service Area	# Discontinued
Western	15
Central	162
Eastern	131
Total Target	308

Note: The discontinuance goal for the VOR MON Program may adjust based on annual coordination with the Capital Investment Team (CIT) and approved allocated funding.

<i>VOR Configurations</i>			
	Retention Target	Discontinuance Target	Current Total
VOR	18	12	30
VOR/DME	245	155	400
VORTAC	386	141	527
Total	649	308	957

Program Accomplishments

- Completed two (2) National Planning Working Group meetings discussing the discontinuance waterfall, Instrument Flight Procedure (IFP) activities, roles, and responsibilities required for the VOR MON Program's implementation:
 - VOR MON Program Kick-Off and Implementation Planning and IFP Working Group – *December 1-3, 2015.*
 - Implementation Planning and IFP Working Group – *February 2-3, 2016.*
- Discontinued the first VOR in Orangeburg, SC (Edisto) – *February 4, 2016.*



Next Steps

- Continue coordinating with Metroplex, other PBN development projects, and IFP removal teams to develop an aligned process to discontinue FY16 VORs.
- Publish Final Policy Federal Register Notice (FRN) including candidate discontinuance list.
- Continue VOR MON Program FY16 discontinuance.



VOR MON Charting Issues



VOR MON Charting Recommendations

- Charting MON Airports (former “Safe Landing” Airports)
 - Recommendation 15-01-295 – Vince Massimini

