

Instrument Flight Procedures Optimization



The Federal Aviation Administration's (FAA) National Airspace System (NAS) Modernization is underway and will incorporate an approach to identify and retire unnecessary instrument flight procedures, optimizing the instrument flight procedure (IFP) inventory to maintain safety and an acceptable level of service.

How is the Instrument Flight Procedures (IFPs) process evolving?

The FAA is committed to ensuring the NAS navigational infrastructure remains secure, sustainable, and resilient. A key component to maintain safety and an acceptable level of service of the navigational infrastructure is resilient navigation services. Programs and initiatives such as the Very High Frequency Omni-directional Range (VOR) Minimum Operational Network (MON), Instrument Landing System (ILS) Rationalization, the Performance Based Navigation Route Structure (PBN RS), and the IFP Optimization process provide a framework to determine the need, or lack thereof, for legacy navigational infrastructure as part of the FAA's evolution toward a future PBN-centric NAS.

The FAA and aviation stakeholders are working to optimize existing IFPs. These changes will provide significant benefits to users of the NAS. Under the IFP Optimization process, the FAA will eliminate redundant and duplicative IFPs.

The IFP Optimization process will provide industry access to essential safety services and support the FAA's overall mission of maintaining the safety of the NAS. This will result in faster implementation of new procedures, improved integration of new entrants/technologies such as Unmanned Aircraft Systems (UAS), and a significant reduction in the number of Notice to Airmen (NOTAMs) published.

Why is IFP Optimization important?

Historic growth in the NAS IFP inventory requires significant FAA resources to manage safely and limits the FAA's ability to meet the needs of a rapidly evolving NAS. IFP Optimization:

- Reduces significant maintenance costs such as development, flight inspection, periodic reviews, and amendments
 - ~20% of current IFPs have limited NAS benefit when analyzing cost to maintain and use
- Reduces the current inventory that will open bandwidth to implement more efficient procedures and integrate new entrants to modernize the NAS
- Reduces safety concerns caused by the large increase in NOTAMs and complexity to the pilot/controller

IFP Optimization will help the FAA deliver on existing program commitments (e.g., VOR MON, Northeast Corridor), meet the needs of a rapidly evolving NAS (e.g., new entrants), achieve strategic goals (e.g., FAA Strategic Plan, PBN NAS Navigation Strategy), and deliver benefits to FAA stakeholders, air traffic controllers, and NAS users. Additional benefits include:

- Reduced maintenance costs and fewer flight inspections
- Reduced training requirements, decreased complexity, and reduced chart clutter
- Enhanced safety and reduced pilot workload and complexity through reduction of NOTAMs
- Realigned resources to improve integration of new entrants (e.g., UAS) into the NAS due to the reduction in inventory

How does IFP Optimization work?

- Leverages existing efforts and programs, such as PBN NAS Navigation Strategy, National Procedure Assessment (NPA), VOR MON, etc., to identify and remove unnecessary IFPs.
 - Through these efforts, FAA cancelled 1,000 procedures and/or circling lines of minima in FY20
- Develops a recurring process for stakeholders to conduct periodic reviews of IFPs
- Promotes continued external stakeholder engagement and increased customer service
- Orders and processes for recurring inventory reviews continue to improve
- Continuous development and application of automated, data-driven capabilities to identify candidates for removal, and to review and design new IFPs
- Aligns with FAA efforts for NAS modernization

Where can I find more information?

PBN NAS Navigation Strategy

www.faa.gov/nextgen/media/pbn_nas_nav.pdf

FAA Instrument Flight Procedures Information Gateway

www.faa.gov/air_traffic/flight_info/aeronav/procedures/

VOR MON

www.faa.gov/about/office_org/headquarters_offices/ato/service_units/techops/navservices/transition_programs/vormon/

NPA

legistarweb-production.s3.amazonaws.com/uploads/attachment/pdf/487037/National_Procedures_Assessment_Program_October_2019.pdf

PBN RS

www.faa.gov/air_traffic/flight_info/aeronav/acf/media/Presentations/14-02_PBN_Route_Structure_CONOPs_Abhalter.pdf

ILS Rationalization

www.faa.gov/air_traffic/flight_info/aeronav/acf/media/Presentations/19-01_ILS_Rationalization_Briefing_Lawrence.pdf

FAA Strategic Plan FY19-22

www.faa.gov/about/plans_reports/media/FAA_Strategic_Plan_Final_FY2019-2022.pdf

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