

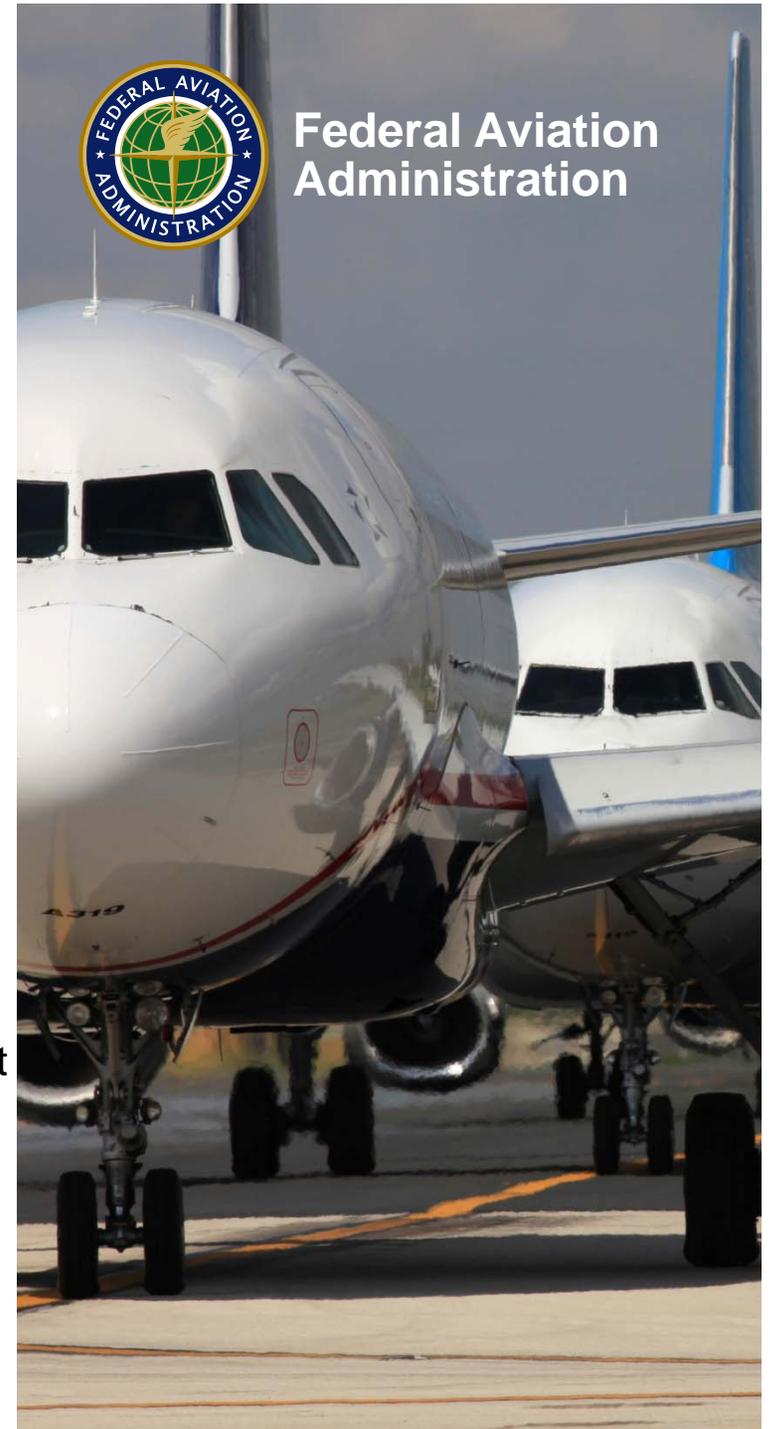
Performance-Based Navigation (PBN)

FAA Order 7100.41, PBN Implementation Process (Alpha) Document Overview

Presented to: Aeronautical Charting Forum (ACF)

By: Newton Gentry, AJV-14 NAVTAC Support

Date: April 27, 2016



Agenda

- **FAA Order 7100.41, PBN Implementation Process Overview**
- **Five Phase Process Overview**
- **FAA Order 7100.41 (Alpha) Document Release Overview**
- **Questions**



FAA Order 7100.41, PBN Implementation Process Overview

- FAA Order 7100.41 approved for use throughout the NAS on April, 3, 2014
 - Now five-phase process, formerly 18-step process (similar to checklist)
- Provides a standardized development and implementation process for PBN procedures and/or routes
 - RNAV/RNP Standard Instrument Departure (SID)
 - RNAV/RNP Standard Terminal Arrival (STAR)
 - RNAV AR Standard Instrument Approach Procedure (SIAP)
 - RNAV routes including Q, T, Y, Z and TK helicopter routes
 - Other non-specific PBN procedures may also be considered



FAA Order 7100.41, PBN Implementation Process Overview (continued)

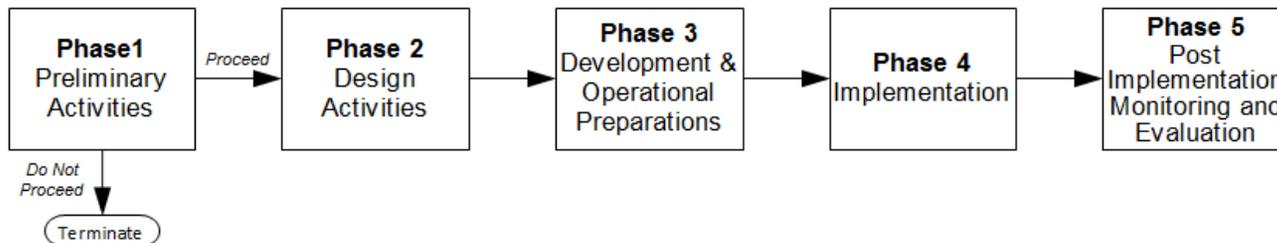
- National initiatives with defined alternative processes are not subject to this order such as Metroplex
- Meets the requirements of the Safety Management System (SMS) and deemed compliant by the Office of Safety (SRM DM signed 9/24/13)
- Implements a work group business case analysis process for proposed PBN procedures and/or routes
- New and/or amended procedures are processed in accordance with applicable environmental and public outreach policies and directives



Five Phase Process Overview

- **FAA Order 7100.41 breaks down into five separate phases**
 - Preliminary Activities
 - Design Activities
 - Development and Operational Preparations
 - Implementation
 - Post Implementation Monitoring and Evaluation

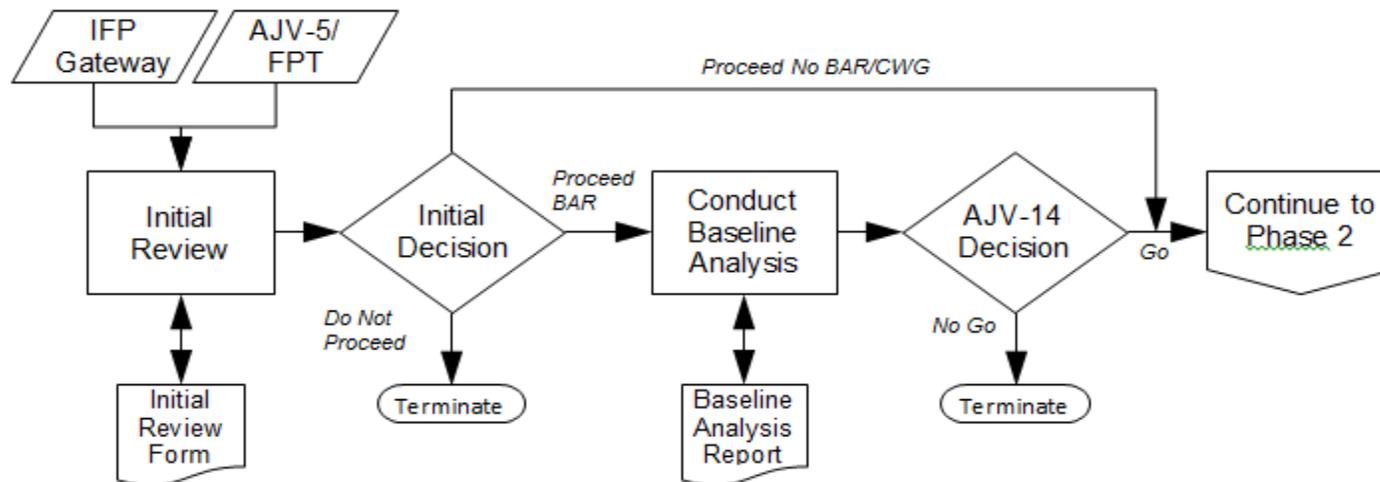
Process Overview



Phase 1

- Phase one begins when a proponent submits a PBN request
- Phase one ends when AJV-14 approves a proponent request

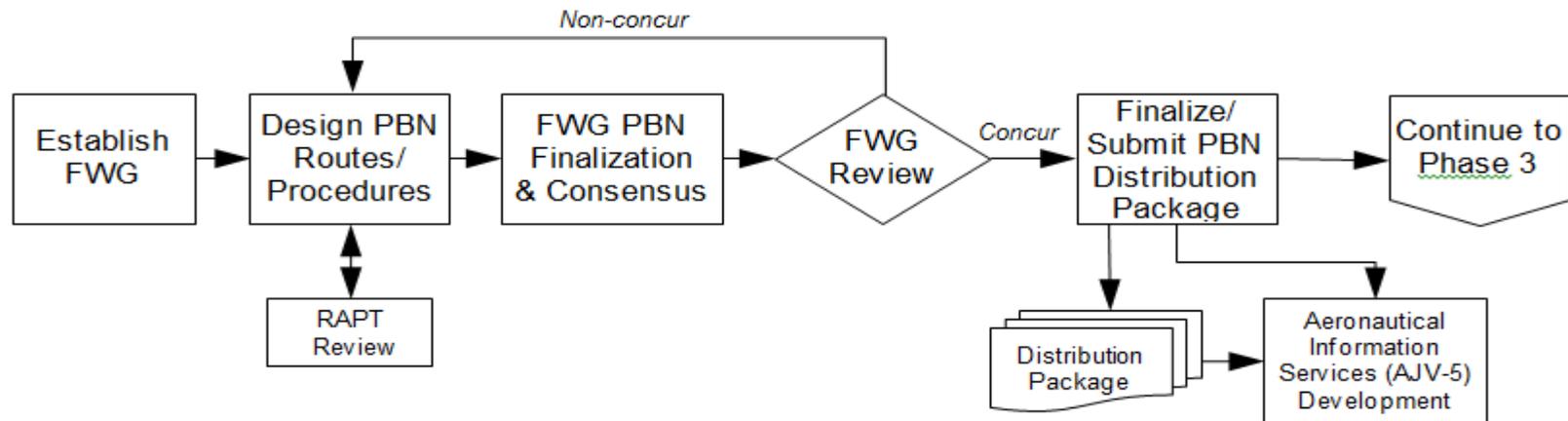
Phase 1: Preliminary Activities



Phase 2

- Phase two begins with Full Work Group project kick-off
- Phase two ends with submission of procedures and/or routes for development

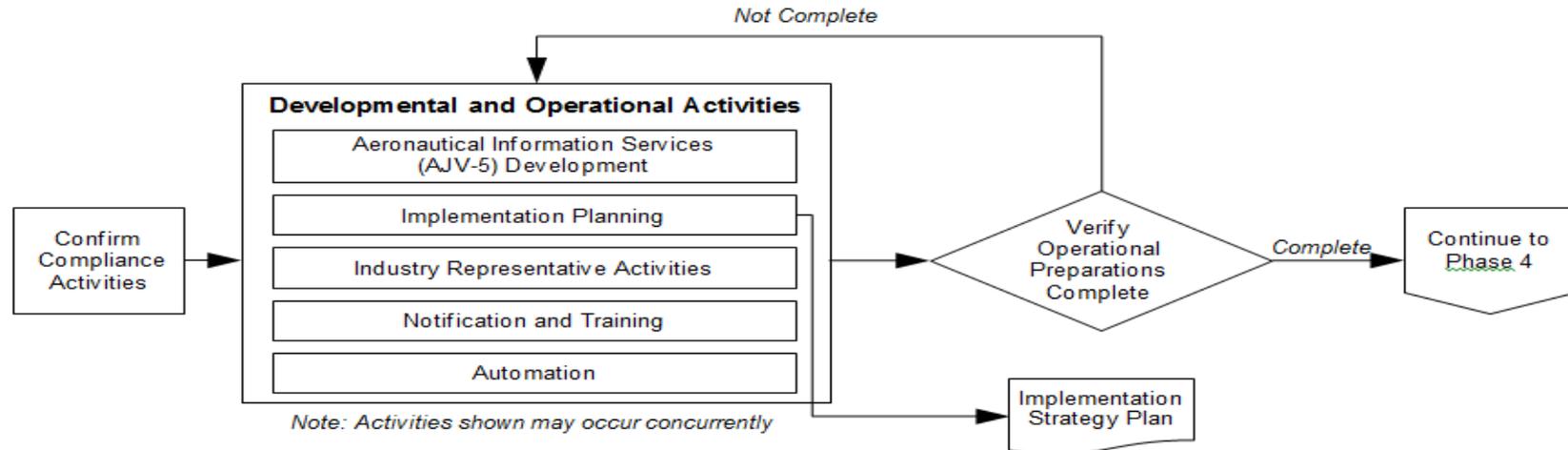
Phase 2: Design Activities



Phase 3

- Phase three includes all pre-operational items necessary to support procedures and/or routes implementation
- Phase three ends when procedures and/or routes are submitted for publication

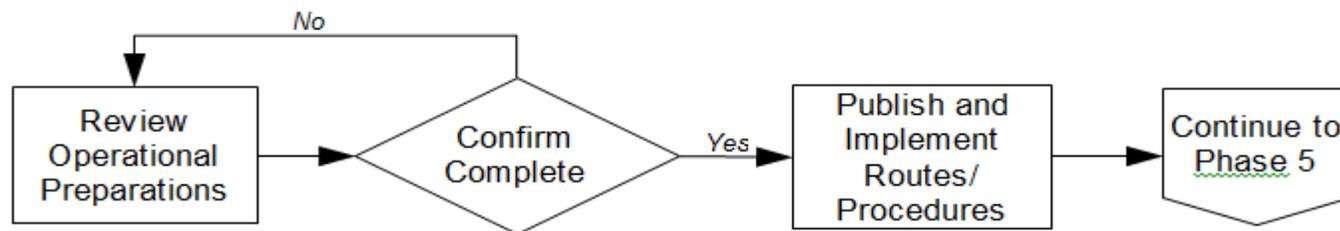
Phase 3: Development and Operational Preparations



Phase 4

- Phase four begins with confirmation by Full Work Group that all Pre-implementation activities have been completed
- Phase four ends when procedures and/or routes are published and implemented

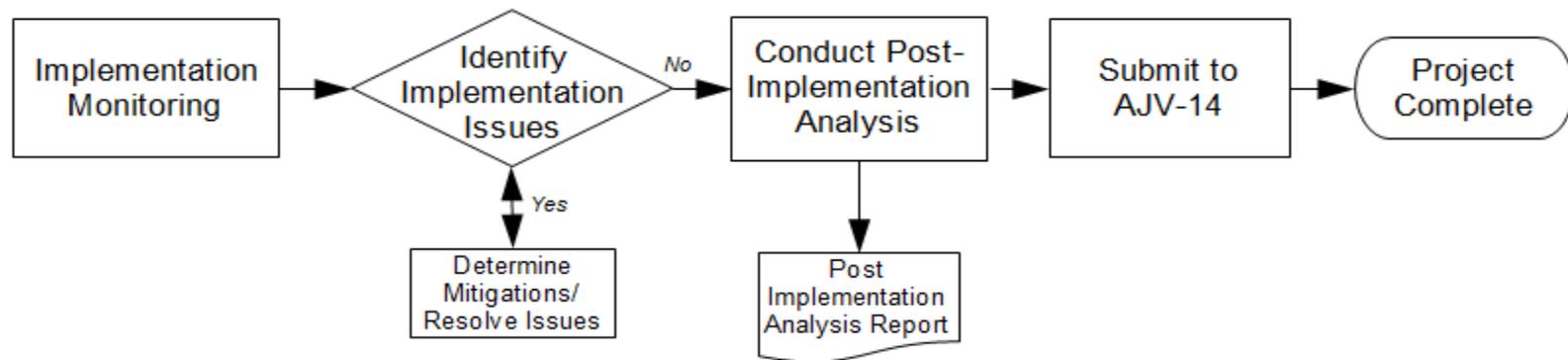
Phase 4: Implementation



Phase 5

- Phase five begins with the use of procedures and/or routes
- Phase five ends with the completion of post implementation analysis and final report submission

Phase 5: Post Implementation Monitoring and Evaluation



FAA Order 7100.41 (Alpha)

Document Release Overview

- Alpha release does not change the basic five phase PBN procedure and/or route project design, development and implementation process
- Alpha release provides clarification on stakeholders roles and responsibilities, interfaces and hand-off between phases
- Four national stakeholder document review meetings were held in CY-2015 to provided an opportunity for stakeholders to clarify their roles and responsibilities
- Meeting participants came from the following groups,
 - AJV-14, OSG, NATCA, AJV-5, PASS, Safety and AFS
- Stakeholder comments have been adjudicated
 - Released throughout the NAS for comments (45-day comment period)
 - All changes to 7100.41A deemed compliant by FAA Safety Office (AJI)
 - Scheduled NAS-wide release slated for April 29, 2016



FAA Order 7100.41 Supporting Documentation and Tools

- Signed “Non-OAPM PBN Initiatives” Memorandum of Understanding between FAA and NATCA
- Signed “Performance Based Navigation (PBN) Implementation” Memorandum of Agreement between AJV-14 and Operations Support Group
- Project Tracking Tool and Lessons Learned databases are in place
- Supporting documentation is in place
 - Initial Review Form
 - Baseline Analysis Review template
 - Post Implementation Analysis Report template



Questions?

For further information:

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