



U.S. Department  
of Transportation

**Federal Aviation  
Administration**

Aviation Safety  
Flight Technologies and Procedures

800 Independence Ave., S.W.  
Washington, D.C. 20591

## **MEMORANDUM OF AGREEMENT**

BETWEEN

Flight Standards Service, Office of Safety Standards  
Flight Technologies and Procedures Division

and

Air Traffic Organization, Mission Support Services,  
Aeronautical Information Services (AIS) Directorate

### **1. Purpose:**

This memorandum of agreement defines the process for the development and publication of Flight Technologies and Procedures Division (AFS-400) directives relating to Instrument Flight Procedure (IFP) development and documentation and the Aeronautical Information Services (AIS) release of standard operating procedures and automation tools required for implementation.

### **2. Background:**

To align IFP criteria development and implementation capability, AFS-400 and AIS discussed and agreed there is a need to formalize a process in a Memorandum of Agreement (MOA). AFS-400 and AIS agree to follow this standardized process/lifecycle for the coordinated release of directive guidance and automation tools. This MOA will replace the current Memorandum of Agreement between AFS-400 and AIS dated September 1, 2015.

### **3. Scope and Objective (Agreement):**

This MOA is established to improve the efficiency of automation tool development, testing, and deployment in alignment with publication of new criteria. This process will facilitate more predictable timeframes for automation development and faster criteria implementation by categorizing and prioritizing proposed changes.

### **4. IFP Criteria and Automation Release Process/Lifecycle:**

- a. For the purpose of this MOA, a “criteria change” is any addition, deletion, or revision to a directive relating to IFP development or documentation that AFS-400 is identified as the office of primary responsibility.
- b. Sources for criteria changes include:
  - 1. Accident/Incident findings.
  - 2. National Transportation Safety Board (NTSB) recommendations.
  - 3. FAA Safety Management System (SMS).
  - 4. International or Domestic Strategic Plans [e.g., Global Air Navigation Plan. PBN NAS NAV Strategy].
  - 5. Line of Business (LOB) or Service Business plans.
  - 6. Advisory Rulemaking Committees [e.g., Performance Based Navigation Aviation Rulemaking Committee].
  - 7. Service Provider or Stakeholder feedback [e.g., from forums/meetings, directive coordination comments, formal feedback, user inquiries, post-implementation analysis, or any other issues.
- c. Criteria change proposals.

**Stage 1:** AFS-400 and AIS analyze proposed change.

- 1. AFS-400 captures proposed change in a tracking mechanism to enable further analysis. The documentation may include a preliminary implementation priority based on expected urgency/need.
- 2. AFS-400 reviews the proposed change and drafts new or revised criteria when needed to facilitate automation and NAS impact.
- 3. AIS reviews criteria proposals to ensure the change is understood and any ambiguity that could impede their analysis/implementation is clarified.
  - (a) Inventory Impact Analysis. AIS evaluates the scope and impact of a proposed change based on their ability to amend the inventory of existing and planned procedures, available resources, other workload, and documents results.
  - (b) Automation Impact Analysis. AIS identifies the IFP automation systems [e.g. TARGETS, IFP SIAP, etc.) that would be impacted and documents either 1) the estimated level of effort required to implement and test the changes or 2) an estimated timeframe when the change can be implemented based on current priorities.

4. AFS reviews criteria proposals to determine if the change:
  - (a) Impacts a sufficient number of IFPs or operations to achieve the desired results.
  - (b) Is permitted by Federal Aviation Regulation (FAR).
  - (c) Is consistent with airworthiness approvals/aircraft and navigation system capabilities.
  - (d) Is consistent with flight ops guidance/requirements.
  - (e) Is expected to increase operational or system efficiency.

**Stage 2:** AFS-400 accepts or rejects proposed change.

1. AFS-400 accepts or rejects the proposed change based on the results of the inventory and automation impact analysis when the proposal is justified based on the expected benefits compared to the cost.
2. If accepted, AFS-400 sets implementation priority as either Safety Critical, Urgent, or Routine.
  - (a) Prioritize a change as Safety Critical when it is urgently needed to prevent an accident or incident or is needed to mitigate a known or potential safety hazard.
  - (b) Prioritize a change as Urgent when it is needed to resolve a known or potential issue creating operator or ATC system errors or is assigned a high priority for implementation by the Agency.
  - (c) Prioritize all other changes as Routine.
3. If rejected AFS-400 (with AIS input) responds to proponent with rationale.

**Stage 3:** AFS-400 and AIS implement change.

1. AIS sets automation updates based on the priority of identified directive changes and the estimated level of effort:
2. For changes identified as Safety Critical, AIS prioritizes automation updates for release as soon as possible. AIS is responsible for adjusting the IFP design and documentation tools production schedule to allow bandwidth for the updates. Safety critical changes are likely to take priority over existing Strategic or Business plan goals and schedules [e.g. Capital Investment Plan (CIP)].

3. For changes identified as Urgent, AIS prioritizes automation updates for release as soon as practical. AIS is responsible for adjusting the IFP design and documentation tools production schedule to allow bandwidth for the updates by deferring any planned medium or low-priority changes.
4. For changes identified as Routine, AIS prioritizes automation updates for release according to an established IFP design and documentation tools production schedule focused on specific criteria modules.
  - a. AFS-400 drafts new or revised criteria with content and effective dates based on the priority of identified directive changes or the IFP design and documentation tools production schedule.
    1. For changes identified as Safety Critical or Urgent, AFS-400 will publish the directive/policy as soon as practical with an effective date immediately upon publication.
    2. For Routine changes, directive content should focus on the criteria set by the IFP design and documentation tools production schedule but may include unrelated administrative changes. AFS-400 will publish the directive(s) on a six-month cycle and prior to the release of the applicable criteria module.
      - (a) According to priority, the AIS development team updates and tests the criteria automation to reflect the new criteria once the drafted criteria has reached a state of maturity where additional changes are expected to be minor or administrative in nature.
      - (b) Updated criteria automation is included in the next IFP design and documentation tool finalized build.
      - (c) Time is allotted to AIS following the release of the automation to allow for the implementation of new policy and training by specialists on any differences and new features in the software. The required amount of time would be a function of the complexity of the changes to the software and set by AIS management.

**Stage 4:** Post-implementation Analysis (as needed). AFS-400, with AIS and MITRE support, conducts NAS-wide analysis to identify the actual impact of the criteria change, categorize the severity of the criteria deviation, identify specific procedures with high-priority deviations for amendment, and determine the need for additional directive change.

## **5. Responsibilities:**

**a. AFS-400 must:**

- Develop and maintain this memorandum of agreement.
- Develop and maintain a tracking mechanism for proposed changes.
- Conduct and document “Case for Change” analysis.
- Develop, coordinate, and maintain applicable directives.
- Conduct post-implementation analysis.
- Provide a response to the requestor for any rejected change to include justification/rationale.

**b. AIS must:**

- Establish the IFP design and documentation automation schedule.
- Conduct and document NAS Inventory and Automation Impact analysis.
- Complete the necessary changes to AIS systems and policies to implement the agreed changes(s) based upon the established priority.

**c. AFS-400 and AIS must:** Establish and attend routine occurring meetings to review proposed criteria changes and system automation schedules.

- 6. Effective Date and Review:** This agreement is effective upon signature of both parties and will be reviewed on a biennial basis by both parties to determine the need for modification or termination.

**APPROVED:**

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