

IDENTIFICATION AND DEVELOPMENT OF AAO/IIM PROJECTS

AFI Region	PROJECT DESCRIPTION (DP)	Project reference:	
<i>Programme</i>	AFI FF-ICE IMPLEMENTATION PROJECT	Start	End
<p><i>AAO/IIM</i></p> <p>ICAO Programme Facilitator: ROs/AIM-ATM-CNS</p>		2024	2034
Objective	Provide the necessary support to States and Air Traffic Management (ATM) stakeholders to ensure adequate preparation within the AFI Region for a safe, effective and harmonized transition to FF-ICE.		
Scope	<p>The scope of the project is to address the various technical and operational topics for the transition to FF-ICE services with deliverables centered around the 4 key areas namely:</p> <ul style="list-style-type: none"> a) Systems and infrastructure requirements b) Harmonised regulatory amendments required by the AFI States c) Training requirements for all stakeholders d) Review and amendment of processes and procedures 		
Metrics	<ul style="list-style-type: none"> - The availability, accuracy and integrity of data exchanged between ATM stakeholders - The percentage of successful interoperability tests between FF-ICE and existing ATM systems - The percentage of stakeholders who have completed FF-ICE training programs - Percentage of system interface compliance with layers of information security (Cyber security) - Percentage FF-ICE services implementation of AFI States 		
Goals	<ul style="list-style-type: none"> - 100% of States has implemented FF-ICE not later than 2034 		
Strategy	<ul style="list-style-type: none"> • Project Composition: A project team will be established by APIRG • Coordination of the project: The coordination of the project will be carried out by the Project Team Coordinator State. • Implementation of the Project activities: Each member of the project team will be assigned specific task to be achieved as per the project work plan. The Project Team shall work with minimum of formality. • Supporting experts: Project team members will be supported by State National Coordinator for planning and implementation (NCPI) and State technical Focal Point (TFP) in ATM/CNS/AIM. 		

	<ul style="list-style-type: none"> • Meetings: The Project Team shall convene meetings considering the schedule of project team activities. It shall make use of available electronic communication means including teleconferencing to prepare and progress its work in between meetings and keep its members up to date on issues of concern, as well as to discuss specific issues. <p>Reporting on the project implementation: Annual progress reports submitted to APCC will enable the IIM and AAO Sub-Groups and ICAO Secretariat to assess the progress of the project and plan the next stage of the activities</p>				
<p>Rationale</p>	<p>The Flight and Flow-Information for a Collaborative Environment (FF-ICE) is the future flight planning system which is developed by Air Traffic Management Requirement Performance Panel (ATMRPP) to address the limitations within the current flight planning environment and provide a collaborative decision making environment, where a 4-D flight trajectory is shared and optimized during all phases of a flight enabling ICAO’s Global Air Traffic Management Operational Concept.</p> <p>ATMRPP has developed guidelines materials for FF-ICE implementation and the global sunset of FPL2012 as adopted by Air Navigation Commission is 2034. The implementation of FF-ICE services is ongoing within many ICAO regions but many ATM stakeholders are not aware about this concept.</p> <p>Current AFI project which creates a critical foundation for FF-ICE Implementation include implementation of ATS Interfacility Datalink Communications (AIDC) and Aeronautical Message Handling System (AMHS). Other project required to be established by AFI Region includes System Wide Information Management (SWIM) project, in order to facilitate the implementation of FF-ICE services in alignment with SWIM Information Service requirements.</p> <p>FF-ICE will become the only mechanism for flight planning after 2034, it is essential for the AFI region to set up a framework to identify operational and technical requirements to ensure full and harmonised implementation and that no ATM stakeholder is left behind.</p>				
<p>Related projects</p>	<ul style="list-style-type: none"> - COMI-B0/7 - ATS Message Handling System (AMHS) - SWIM-B2/1 - Information service provision - SWIM-B2/2 - Information service consumption - SWIM-B2/3 - SWIM registry - AMET-B2/2 - Meteorological forecast and warning information - DAIM-B1/2 - Provision of digital Aeronautical Information Publication (AIP) data sets - DAIM-B1/3 - Provision of digital terrain data sets - DAIM-B1/4 - Provision of digital obstacle data sets - DAIM-B1/5 - Provision of digital aerodrome mapping data sets - DAIM-B1/6 - Provision of digital instrument flight procedure data sets - DAIM-B1/7 - NOTAM improvements - DAIM-B2/1 - Dissemination of aeronautical information in a SWIM Environment - DAIM-B2/2 - Daily Airspace Management information to support flight and flow - DAIM-B2/5 - NOTAM replacement 				
<p>Project deliverables</p>	<p>Relationship with the performance-based regional plan (PFF)</p>	<p>Responsible party</p>	<p>*Status of Implementation</p>	<p>Delivery date</p>	<p>Comments</p>

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Deliverable 1: conduct the FF-ICE webinar to demystifying					Deliverables 1 & 2 can be merged: <i>Conduct: conduct an awareness workshop on the FF-ICE implementation</i> *This can either be physical or virtual
Deliverable 2: <i>conduct the FF-ICE awareness workshop</i>					Organize an initial webinar and subsequent follow up workshops with industry representatives and the project team members to launch the activities of the project and provide status updates.
Deliverable 3: Establishment of FF-ICE Project Team		APIRG / RO (WACAF/ESAF)			Coordinate with identified States and Organizations for the nomination of subject matter experts possessing the required qualifications and experience to established the project team.
Deliverable 4: Define the functional requirements for implementation of FF-ICE within AFI Region		Project Coordinator & Team			Identify, assess and define FF-ICE functional implementation requirements for the AFI Region through the development of documents.
4.1 Identify and review applicable ICAO documentation relating to FF-ICE		Project Team			
4.2 Assess and define functional requirements for FF-ICE implementation including priorities.		Project Team			Coordinate information with relevant APIRG project teams.
4.3 Develop report on FF-ICE requirements		Project Team			
4.4 Submit report for APIRG endorsement		Project Coordinator			
Deliverable 5: Conduct comprehensive GAP analysis to assess the readiness of AFI States to implement provisions		Project Coordinator & Team			Conduct comprehensive GAP analysis to assess the readiness of AFI States to implement provisions of FF-ICE. Considerations for the GAP analysis will include harmonised regulatory amendments required by the state, review and amendments to operational processes and procedures, identification of ATM/CNS systems

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of FF-ICE					requirements and training requirements for all involved stakeholders.
5.1 Identify AFI related APIRG projects impacted with FF-ICE Implementation		Project Team			
5.2 Perform an FF-ICE GAP analysis based on FF-ICE requirements report (outcome of section 4 above)		Project Team			
5.3 Develop Action Plan to address the deficiencies identified through the GAP analysis		Project Team			
5.4 Submit GAP analysis report for APIRG endorsement.		Project Coordinator			
Deliverable 6: Develop AFI FF-ICE transition Roadmap		Project Coordinator & Team			Develop an AFI FF-ICE transition Roadmap based on FF-ICE Requirements report and GAP Analysis report. Considerations for the Roadmap shall include list of FF-ICE mandatory and optional service requirements, systems, training. Endorsements of the Roadmap infers agreement with the ICAO strategies for contracting States to development and implement a National strategy in line with the Global Air Navigation Plan (Doc 9750) Aviation System Block Upgrade (ASBU) modules, that will require the transition from Flight Plan 2012 to FF-ICE environment.
6.1 Based on APIRG endorsement of FF-ICE Requirements report and GAP Analysis report develop AFI FF-ICE performance-based transition roadmap		Project Team			

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6.2 Submit AFI FF-ICE performance-based transition roadmap for APIRG endorsement.		Project Coordinator			
Deliverable 7: Develop CONOPS for AFI FF-ICE Implementation		Project Coordinator & Team			Develop a CONOPS for AFI FF-ICE Implementation. The Concept of Operations (CONOPS) document will describe the envisioned FF-ICE system concept and how the concept would be operated in an intended environment.
7.1 Develop CONOPS for AFI FF-ICE Implementation		Project Team			
7.2 Submit AFI FF-ICE CONOPS for APIRG endorsement.		Project Coordinator			
Deliverable 8: Proposed updates to AFI Regional Air Navigation Plan and Regional Supplementary Procedures		Project Coordinator & Team			Identify and propose changes to the AFI Regional Air Navigation Plan and Regional Supplementary Procedures aligned with FF-ICE Roadmap and CONOPS.
8.1 Develop draft updates to AFI Regional Air Navigation Plan and Regional Supplementary Procedures based on FF-ICE requirements.		Project Team			
8.2 Submit proposed updates for APIRG endorsement.		Project Coordinator			
Deliverable 9: Define Training requirements		Project Coordinator & Team			Define training areas and requirements per area (Pilots/Airline OPS, ATC, Aerodrome operators, AIM, etc)
9.1 Define and develop training requirements per functional area based on FF-ICE requirements.		Project Team			
9.2 Submit proposed updates for APIRG endorsement.		Project Coordinator			
Deliverable 10: Conduct FF-ICE Testing and validation		Project Team			Based on the FF-ICE Roadmap and CONOPS, conduct period assessments of the system evolution to identify and implement corrective actions.

<p>Resources required</p>	<ul style="list-style-type: none"> - Selection of experts to conduct the project activities. - Commitment by States to support the coordinators and experts and to implement the recommendations of the performance reports. - Commitment of AFI States to communicate feedback to the project team as required.
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- *Grey *Task not started*
- Green *Activity underway as scheduled*
- Yellow *Activity started with some delay but expected to be completed on time*
- Red *It has not been possible to implement this activity as scheduled; mitigating measures are required*