

FY09 NextGen Portfolio



Federal Aviation
Administration

Flight and State Data Management – Flight Object

Date: December 2008

Overview

- **Project Capability**
- **Project Smart Sheet**
 - Project Description
 - Problem/Performance Gap/Mission Shortfall Description
 - Project Objectives/Description of Solution
 - Support to Goals
 - Flight Plan
 - NextGen Implementation Plan
 - Interdependencies
 - Capabilities/OIs, EA Decision Points
 - Projects/Demonstrations/Programs
- **Project Schedule – include deliverables and links to EA & Goals**
- **Project Risk Identification and Mitigation Strategy**
- **Project Details**
- **Supporting Activities – Policy, International efforts, Working Groups, etc.**
- **Key Personnel**

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Project Capability

- **The Flight Object (FO) is intended as the future medium for capturing and sharing the most up-to-date information on any flight. The flight object is the single common reference for all system information about a flight.**
- **An information sharing mechanism, such as the Flight Object, needs to be developed in order to enable information sharing among various users and stakeholders in the NAS this allows for better coordination, situational awareness, and collaborative decision-making.**

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Project Smart Sheet

<ul style="list-style-type: none"> Project Description <p>The Flight Object (FO) is intended as the future medium for capturing and sharing the most up-to-date information on any flight.</p>	
<ul style="list-style-type: none"> Problem/Performance Gaps <p>Sharing common information elements improves the accuracy and availability of flight information updates, the consistency of flight planning in different Air Traffic Management (ATM) system domains and the transition of flights between these domains.</p>	<ul style="list-style-type: none"> Solution <p>An information sharing mechanism, such as the Flight Object, needs to be developed in order to enable information sharing among various users and stakeholders in the NAS allowing for better coordination, situational awareness, and collaborative decision-making</p>
<ul style="list-style-type: none"> Support to Goals <ul style="list-style-type: none"> -Flight Plan: Greater Capacity -NextGen Implementation Plan: Trajectory Based Operations 	<ul style="list-style-type: none"> Interdependencies <ul style="list-style-type: none"> -Capabilities/OIs, EA Decision Points: En Route Automation NextGen Mid-Term Work package final investment (#111) -Projects/Demonstrations/Programs: SWIM, Flight Information (ERAM, TFDM, CATM WP)

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Project Schedule (FY 09)

<u>FY09 Milestone Name</u>	<u>Baseline Start</u>	<u>Baseline End</u>	<u>Sched Start</u>	<u>Sched End</u>
M1 - ICAO Flight Plan 2012 System Impact Inventory			03/31/09	09/30/09
M2 - Concept of Use for Flight Object			06/30/09	09/30/09
M3 - Preliminary Requirements for Flight Object				03/30/10
M4 - IFDO Lab Proof-of-Concept Demo	01/05/2009	4/30/2009	01/05/2009	4/30/2009
M5 - Initial IFDO Concept of Operations	01/05/2009	8/31/2009	01/05/2009	8/31/2009



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Project Schedule (FY 10)

<u>FY10 Milestone Name</u>	<u>Baseline Start</u>	<u>Baseline End</u>	<u>Sched Start</u>	<u>Sched End</u>
M1 - Architecture Artifacts				09/30/10
M2 - SMS for Flight Object				09/30/10
M3 - Develop System Alternatives and Allocation				09/30/10
M4 - Expanded IFDO Demo	11/04/2009	07/15/2010	11/04/2009	07/15/2010
M5 - Integrated IFDO - Oceanic TBO Demo	07/16/2010	07/29/2011	07/16/2010	07/29/2011

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Project Details

- **Pre-Implementation Activities**

- Develop Concept of Use
- Develop Initial and Final Systems and Interface requirements
- Develop Architecture Artifacts
- Analyses to support development of business case
- Engineering Analyses
- Feasibility Demonstration (s)
- International Coordination

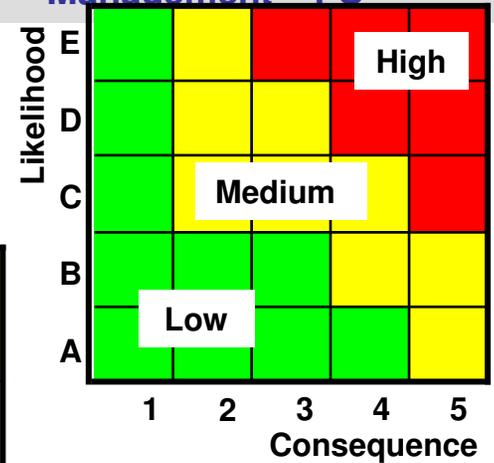
- **Related Projects/Programs**

- Mid Term Automation Requirements: ERAM, CATM, TBFM and TFDM
- SWIM and Airborne SWIM

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Project Risks



Risk Level (T,S,C)	Description	Impacts	Mitigation Strategy
S- B2	ICAO Flight Plan 2012 System Impact Inventory	ICAO 2012 Implementation requirements	
S- B2	Concept of Use Document	Mid Term Automation Requirements	
S- B2	IFDO Integration	Delay demonstration	
S- B2	Flight Object Engineering	Mid Term Automation Requirements	
S- B2	Flight Object Analyses	Mid Term Automation Requirements	

T, S, C: Technical, Schedule, or Cost

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Resources

- **FAA Personnel**
 - System Engineers from ATO service units
 - Economist
- **Other Government Personnel**
 - None
- **Contract Personnel**
- **Challenges**
 - Schedule

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Acquisition Status/Requirements

- **Existing Contracts**
 - MITRE, Embry Riddle University OTA, AUATAC
- **New Contract Requirements**
 - New SETA contract
- **Other Agreements etc.**

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FY '09 NextGen Implementation Plan Commitments

(PLA Milestones)

- **FY '09 Major Milestones to be reported in the NextGen Implementation Plan**
 - ICAO Flight Plan 2012 System Impact Inventory
 - Concept of Use for Flight Object
 - Findings from IFDO Lab proof-of-concept demo
- **FY '09 NASEA Decisions supported**
 - Approve En Route Automation NextGen Mid-Term Work package final investment (#111)
 - Approve Tower Flight Data Manager 3 Final Investment Decision (#198)
- **FY '09 Deliverables/Products**
 - ICAO Flight Plan 2012 System Impact Inventory
 - Concept of Use for Flight Object

NextGen... Integrating Ideas, Systems and Solutions

