

*Global Information
Management*

**FIXM –
Flight
Information
Exchange
Model**

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Federal Aviation
Administration



**AIR TRANSPORTATION
INFORMATION EXCHANGE
CONFERENCE**

Global Information Management

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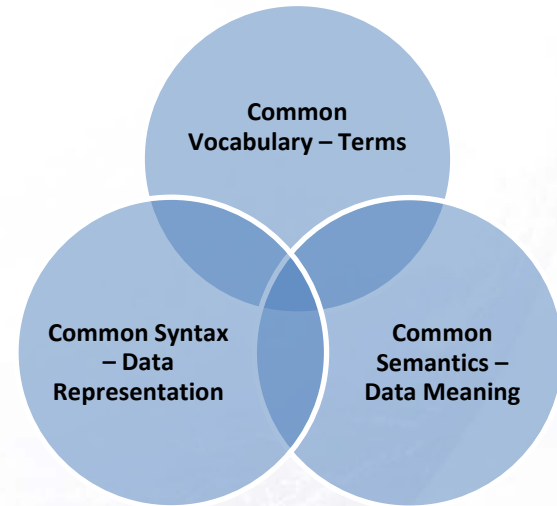
FIXM – What's it about?

□ What is FIXM?

- An exchange model capturing Flight and Flow information that is globally standardized
- The FF-ICE concept and the applicable ICAO provisions drive the common and international development of FIXM

□ Why use FIXM standard?

- Promote **interoperability** - common data shared by many through a single exchange standard.
- XML-based, machine-to-machine understandable.
- Provide a unified, complete, accurate, up-to-date, and easily-accessible picture of any and all flights.



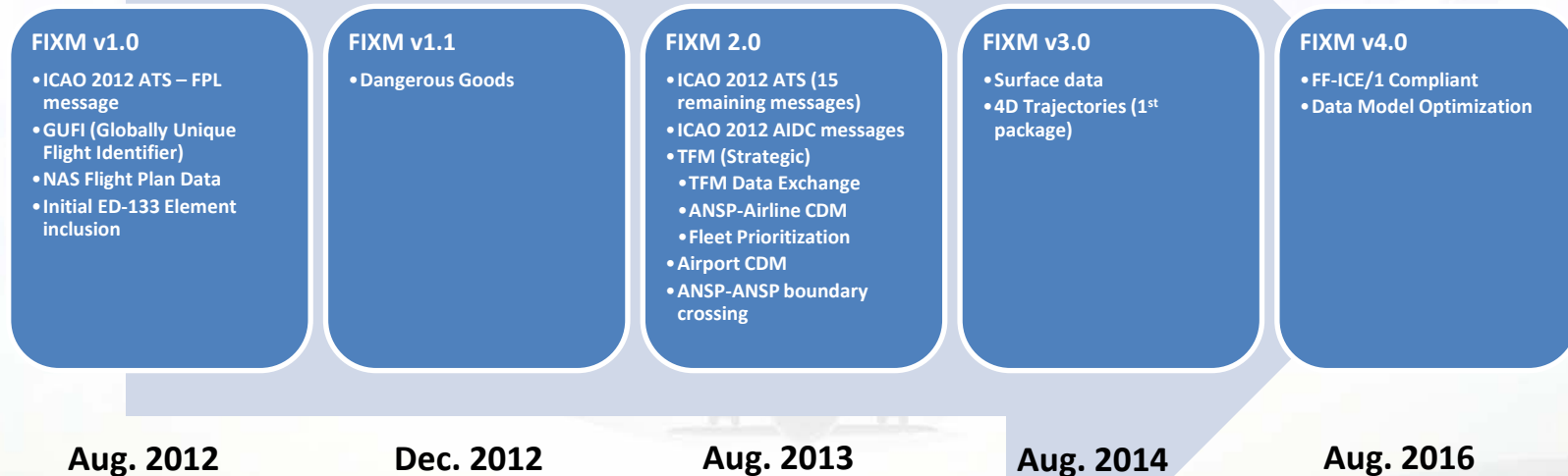
Common Vocabulary - Terms

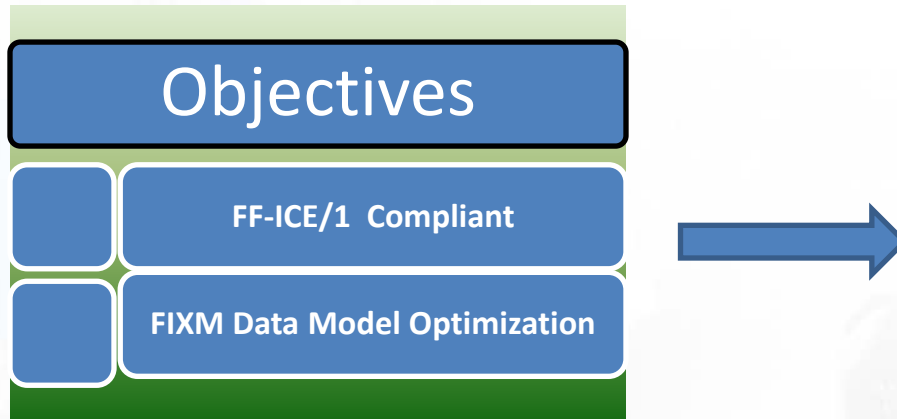
Common Semantics - Data Meaning

Common Syntax - Data Representation

FIXM Development

Joint Development FIXM CCB – US FIXM
Development Team





* *The requirement for FIXM was identified by the International Civil Aviation Organization (ICAO) Air Traffic Management Requirements and Performance Panel (ATMRPP) and endorsed at the 12th Air Navigation Conference as part of the Aviation System Block Upgrades (ASBU) and as described in Flight and Flow Information for a Collaborative Environment (FF-ICE).*

Proposed Changes:

- New/revised 4D-Trajectory Data Elements
- FIXM-based messaging support
- Technological solution for documenting and enforcing message rules
- AIDC message content described in ICAO 4444
- Inclusion of Airport Slot Information proposed by ATMRPP 28th working group meeting
- The change proposals that have been collected in FIXM issues database
- Recommendations for updates to the FIXM data elements from SESAR
- Logical Model improvements
- More ...

FIXM Version 4.0 Status

- New 4DT data elements have been **identified**
- **Messaging service requirements were proposed** to ICAO ATMRPP 29th working group meeting in July 2015, Singapore, by ICAO provisions team
- Expect to receive final FF-ICE/1 requirements (4DT and messaging services) by **October 2015**
- FIXM-4DT data analysis is in progress
- Engineering study and prototyping for message constructs has been planned
- Existing change proposals are under review
- Impact study of proposed changes is in progress
- Change requests are being developed



FIXM Documentation

Inputs from the operational community

- ICAO documents (FF-ICE/1 provisions...)
- Operational Data Description (ODD)
- Operational Scenario Narrative

Release documentations

- Data Dictionary
- Logical Model (UML) diagrams and files
- XML Schema
- Schema Documentation
- Modeler's Manual
- Supporting Guidance

FIXM Users

- Traffic Flow Management (TFMData) (FAA)
- SWIM Flight Data Publication Services (SFDPS) (FAA)
- Mini-Global Demonstrations (FAA)
- Operational Data Services (ODS) (Airservices Australia)
- Interoperability Cross Atlantic Trials (ICATS) (SESAR)
- Jumpstart (EUROCONTROL)
- Airport CDM Extension (EUROCONTROL)
- OGC – OWS – 10 (FAA, EUROCONTROL, OGC)



FIXM Participants



