



AIXM CCB PROCESS

AIXM 5.2 BRIEFING, 27 OCT 2021

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AGENDA

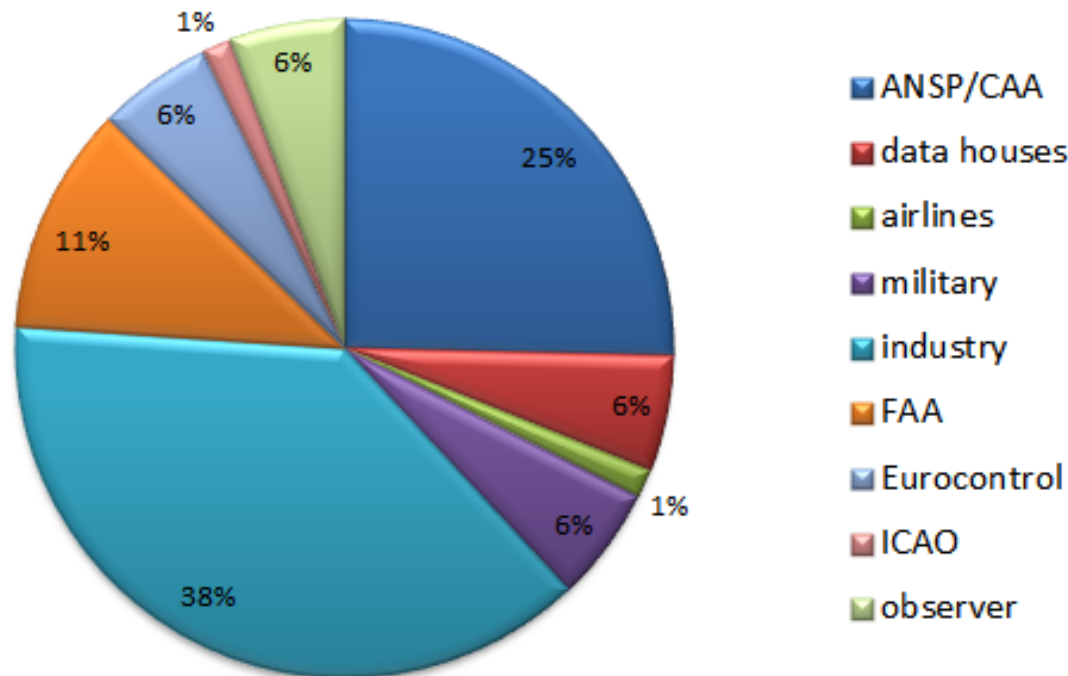
- CCB Overview
- CCB Process
- Examples

AIXM CCB

- AIXM Change Control Board
 - Established based on the ICAO AIS-AIMSG recommendations
 - Determines the evolution of AIXM
 - In close contact with the ICAO IMP
 - CCB process to be aligned with eventual IMP decisions
 - Reports progress on an annual basis
 - Membership implies acceptance of the Charter
 - <http://www.aixm.aero/page/governance>

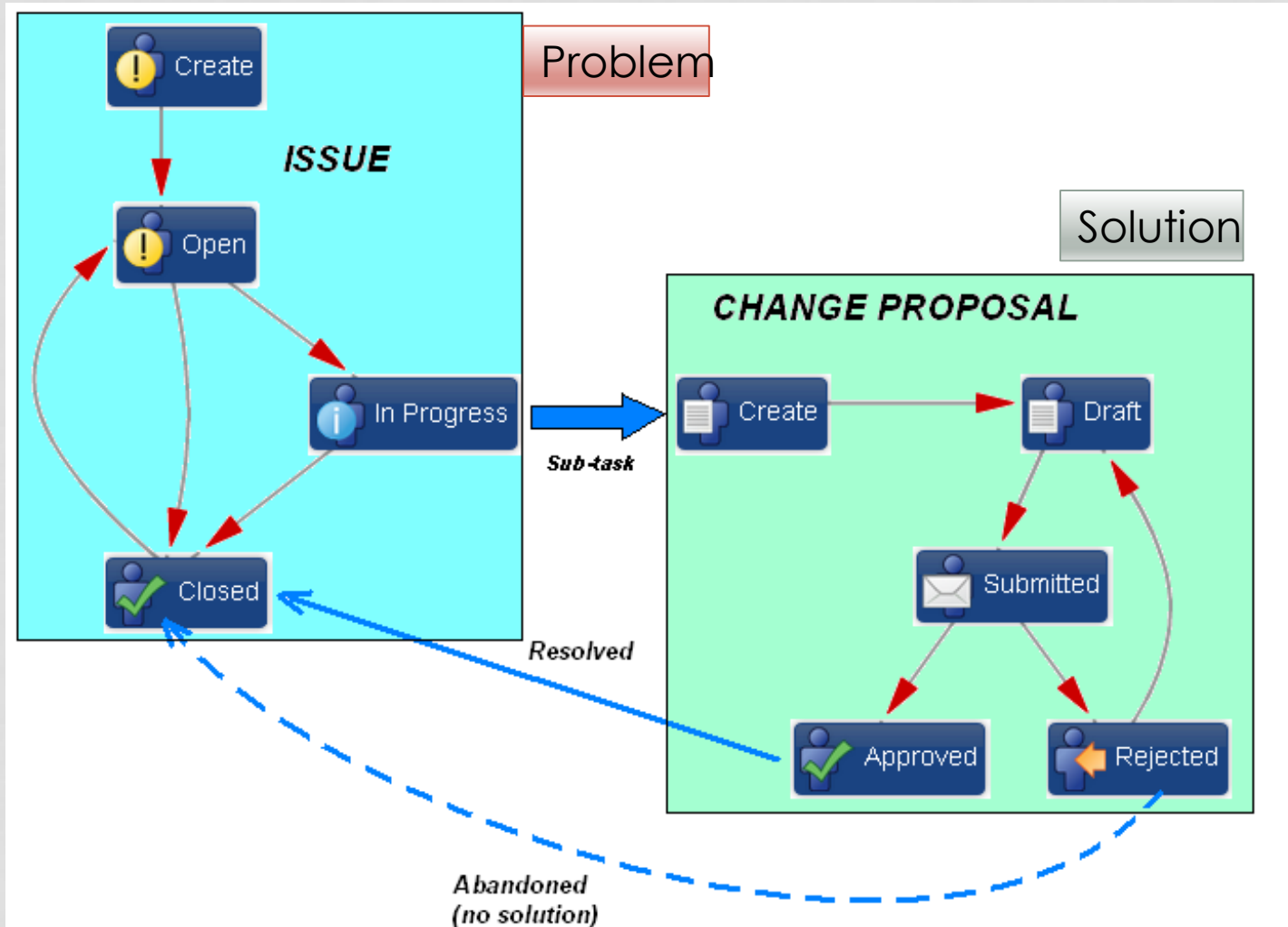
AIXM CCB

- Current distribution of members
 - 55 industry partners and organisations including EuroControl, and Federal Aviation Administration (FAA)



<http://www.aixm.aero/page/governance>

CCB PROCESS



AIXM 5.2 – ISSUE EXAMPLE

Aeronautical Information Exchange Model (AIXM) / AIXM-206

SBAS/GBAS as "navaid" service

 Edit  Comment

Type:

 New Feature

Affects Version/s:

5.1, 5.1.1

Component/s:

Nav aids, Procedure

Labels:

None 

AIXM Component:

UML Model, XML Schema

Status:

ISSUE IN PROGRESS / ...

Resolution:

Unresolved

Fix Version/s:

5.2

SBAS	EGNOS E26A (RWY 26)	1575.42 MHZ (CH45336)	H24	LTP/FTP: N48 14 01.84 E014 12 20.28	Ellipsoidische Höhe/ellipsoidal height 1111FT/338.5M.
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Description

According to the ICAO Annex 15 (15th edition), SBAS/GBAS information (type, identification, frequency, LTP/FTP position and ellipsoidal height, etc.) is required to be published in the AD 2.19 section - radio navigation and landing aids.

In the current model, there is no obvious solution for encoding this information. The SpecialNavigationSystem and SpecialNavigationStation model is maybe good for encoding the information about the satellite itself and the ground stations, but not for the SBAS service.

As SBAS / GBAS information starts to be published in AIP, it would be good to provide as soon as possible an encoding solution for the current model and to identify what could be done in the next version in order to support the encoding of this information.

AIXM 5.2 CP EXAMPLE

Change Proposal

ID:	AIXM-467
target version:	AIXM 5.2
version:	1.0
last updated:	27 SEP 2021
status:	PROPOSED



Change Control Board

Add classes and properties necessary for Satellite Navigation Systems

Description

Additional classes, associations and data types are added in the model representing elements of the Global Navigation Satellite System (GNSS) and their augmentation systems (SBAS/GBAS). Some properties and associations are added or modified in existing AIXM classes, such as RadioFrequencyArea and GuidanceService, in order to support the coding of data related to the new satellite navigation system model.

Rationale for change

See <https://aixmccb.atlassian.net/browse/AIXM-206>, <https://aixmccb.atlassian.net/browse/AIXM-186>, <https://aixmccb.atlassian.net/browse/AIXM-350>

The current model is lacking the capability to represent the information about satellite navigation systems, augmentation systems and their use for air navigation. Although the list of values for the SpecialNavigationSystem.type attribute includes "GNSS", the properties of the SpecialNavigationSystem and its associated classes are far from a complete GNSS aeronautical data model for AIS. The current model is also missing the capability to define service coverage and limitations in relation with a runway direction, which may be necessary for certain GBAS configurations.

Therefore, a dedicated set of classes and properties need to be added in the model in order to support the coding of satellite navigation systems information, as relevant for aviation use. The proposed model is based on the ICAO requirements and guidelines for the use of satellite navigation systems, as contained in the ICAO Annex 10, Vol I, 6th Edition and in the ICAO PANS-OPS document. It also takes into consideration the AIS data provision requirements for such systems. The proposed model can be summarised as follows:

- A new **SatelliteSystem** class as the root of the GNSS model area, modelling both the core satellite systems (GPS, Glonass, Galileo etc.) and the satellite-based augmentation systems (such as WAAS, EGNOS, GAGAN, etc.)
- A new **GBAS** class associated with the SatelliteSystem class, modelling ground augmentation systems and their operational characteristics.
- New **SatelliteService** and **GBASService** classes associated with the SatelliteSystems and GBAS respectively, specifying the operating permission

Content/structure

- Description (short summary)
- Rational for change
- Impact assessment
- Change Proposal details
- AIXM 5.1(.1) -> 5.2 Mapping
- AIXM 5.2 -> 5.1(.1) Mapping