

# AIXM version 5.1

May 12-14, 2009

## AIXM/WXXM Conference | 2009

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- Why 5.1
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# AIXM 5.0

- Published on 10<sup>th</sup> of March 2008
  - UML (MDL, XMI, WebView, Wiki, etc.)
  - XML Schema (XSD)
  - Temporality Concept
  - Other: UML to XSD, examples, etc.
- Testing and validation
  - Mapping from AIXM 4.5
  - eTOD requirements for Obstacle databases
  - EUROCONTROL xNOTAM Trial
  - FAA Digital NOTAM Submission Project
  - FAA Procedures and Charting application
  - Implementations by industry
  - Etc.

*Bugs, errors, missing items,  
improvement suggestions, etc.*

**AIXM 5.1**



# AIXM 5.1

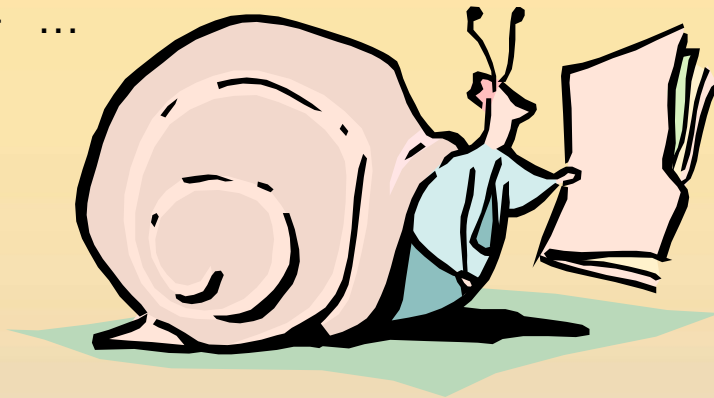
- Incorporate corrections/enhancements identified during testing & early implementation phase
- To be published by August 2009
- Proposed for ICAO standardisation
- Additional items
  - Mapping with AIXM 4.5
  - Business Rules
  - Sample data set
  - More detailed documentation -> Wiki



# Development status

- Initial plan

- All changes published by March
- Release Candidate in May
- ...



**Target date still August 2009 !**



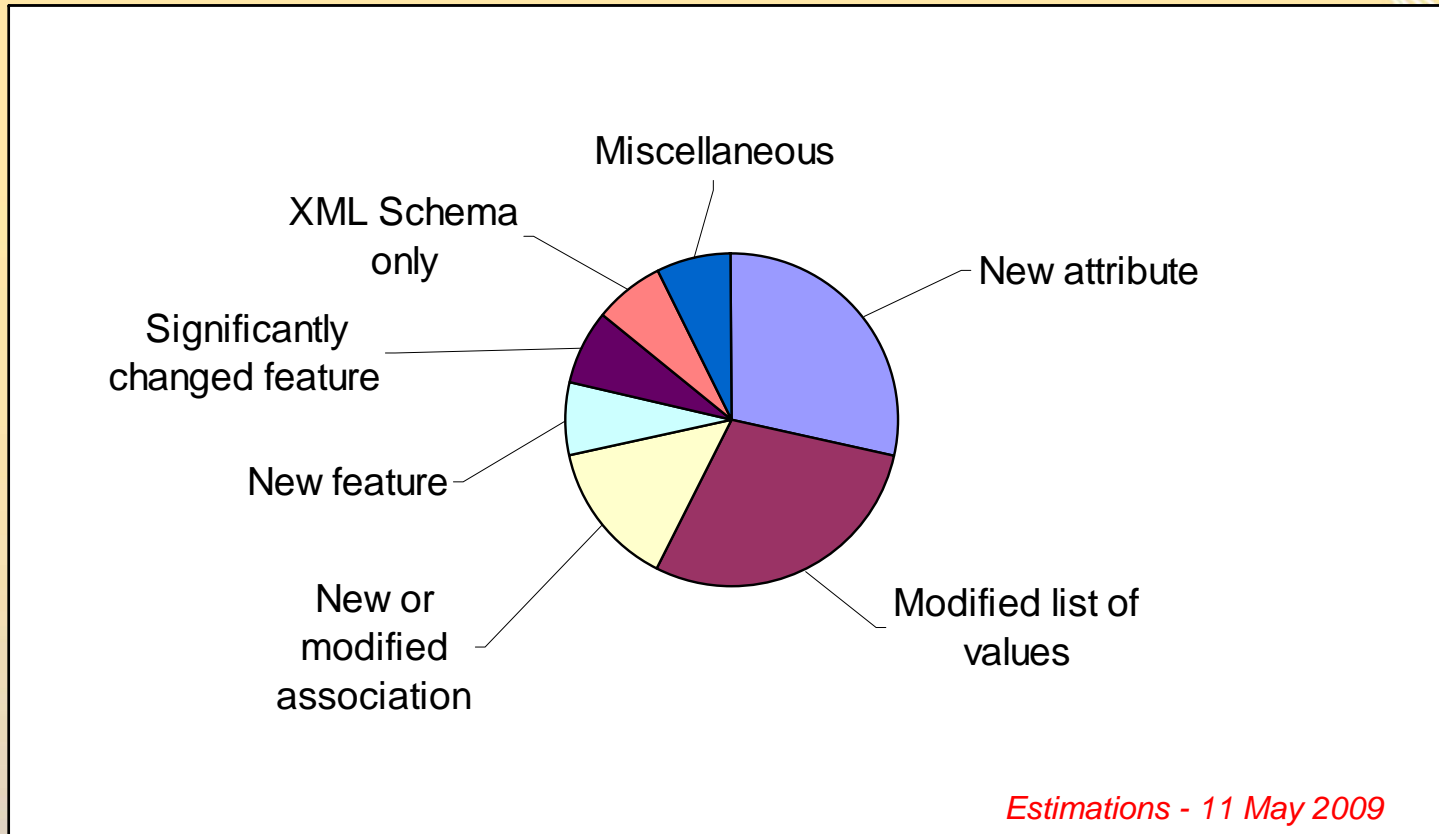
# Development status

- Change proposals (status on 11 May)
  - some 70 expected in total
    - 30% published
    - 60% final editing, to be published this week
    - 10% require additional investigation
  - Closing date – 29 May
- Model update
  - UML – in progress
  - XSD – by mid June
  - AIXM 5.1 RC expected by end June (at the latest)





# Changes



- + Bugs (misspelled, wrong data type, etc.)
- + Definition improvements (based on AIHWG)



# Changes

- Published
  - [5.1-01] New feature AeronauticalGroundLight

**Change ID: 5.1-01**

## ***New feature - AeronauticalGroundLight***

### ***Summary***

Add a new feature to model AeronauticalGroundLights, such as Aerodrome Beacon, Marine Beacon, etc.

### ***Background***

There was an AERO\_GND\_LGT feature in AIXM 4.5 and it seems that it have been lost in the translation to AIXM 5.0. Only the [CodeGroundLightingType](#) enumeration does exist in the AIXM 5.0 model, with a list of values that includes ABN, HBN, Marine, etc.

### ***Rationale for the change***

This feature is still needed in the model to support the many types of aeronautical ground lights that exist. This includes Aerodrome Beacons, Tower Beacons, Marine Beacons, Hazard Beacons, etc.

The list of values shall include the results of the AIHWG work.

### ***Change proposal details***

#### ***AeronauticalGroundLight feature***

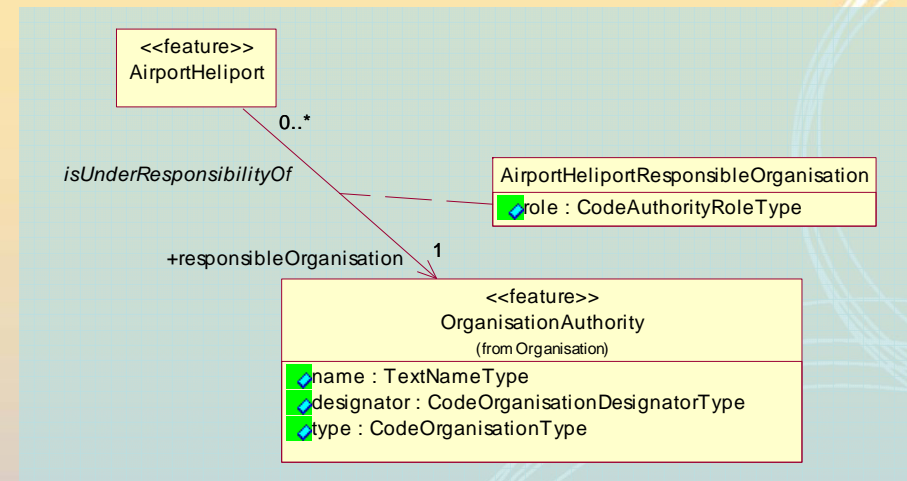
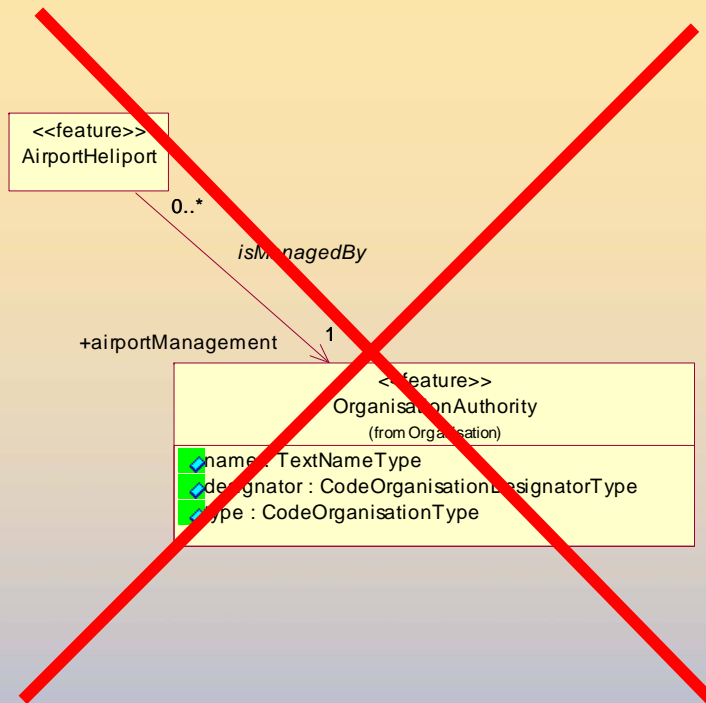
Insert a new class AeronauticalGroundLight with stereotype feature and definition " *A light specifically provided as an aid to air navigation, with the exception of obstacle lights and lights forming part of surface or approach*





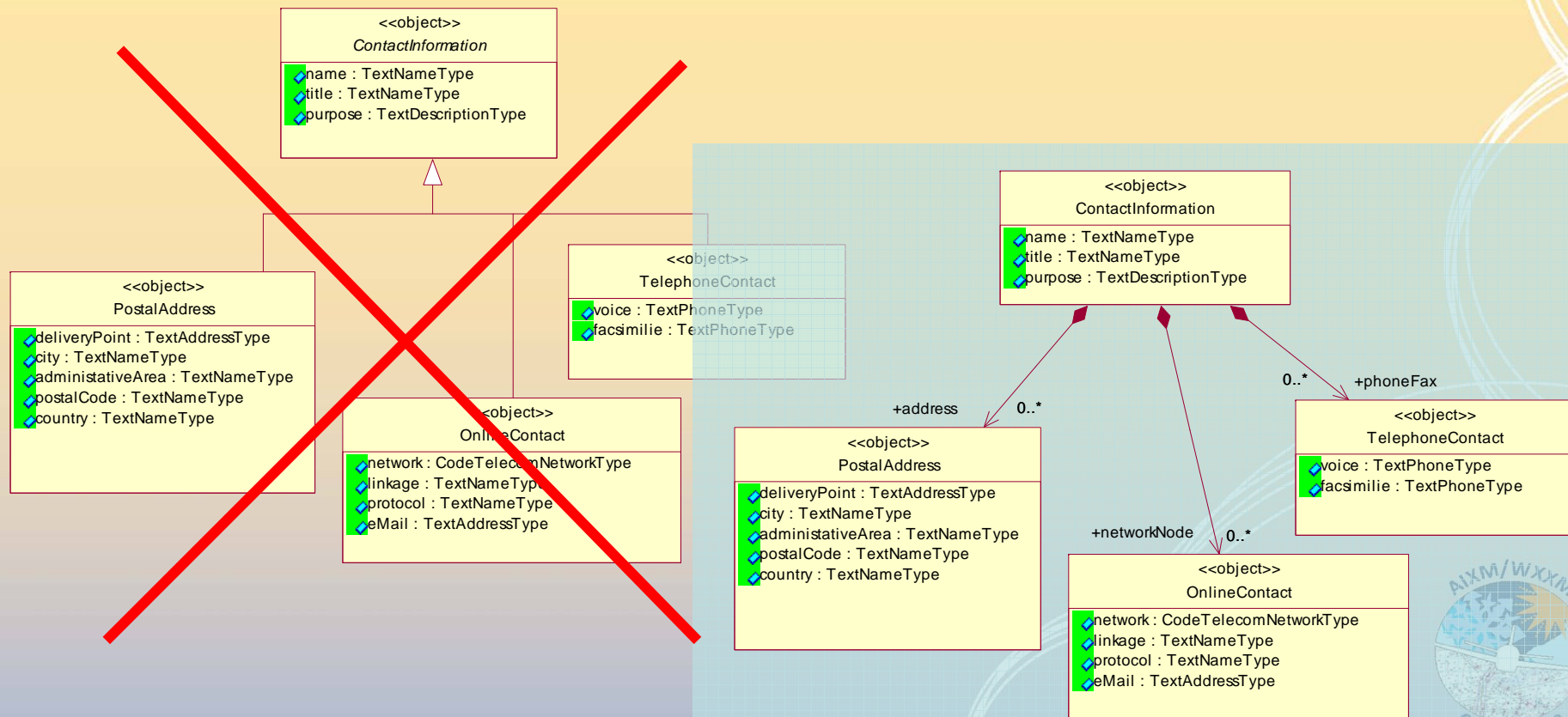
# Changes

- Published
  - [5.1-03] Modify association AirportHeliport management



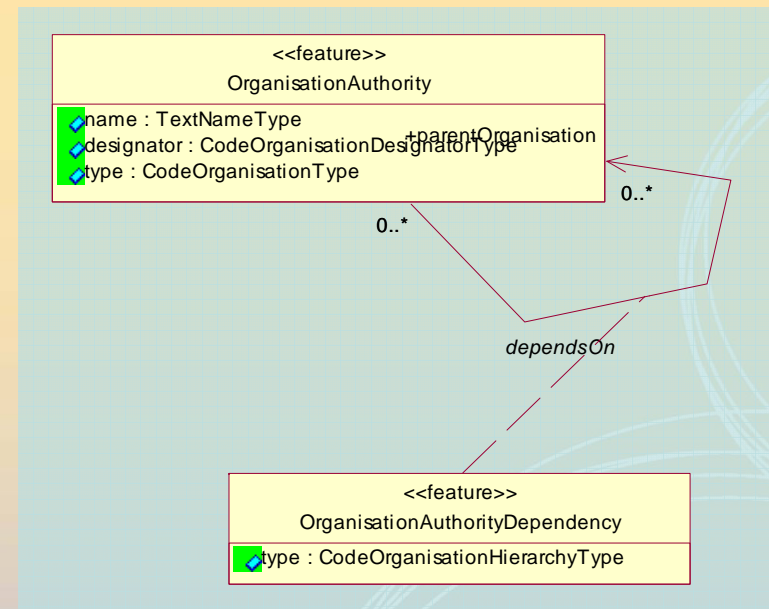
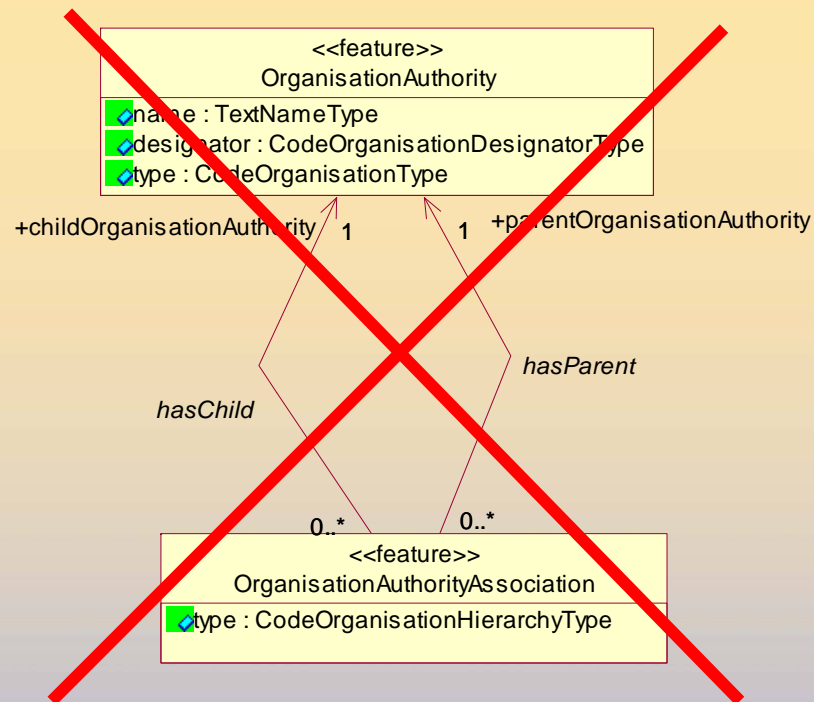
# Changes

- Published
  - [5.1-06] Contact address model review



# Changes

- Published
  - [5.1-13] Organisation association review



# Changes

- To be published
  - “OTHER: *MY\_VALUE*”

## List of values

Name	Data Type	Definition
I	string ?	CAT I
II	string ?	CAT II
III	string ?	Cat III
IIIA	string ?	CAT III A
IIIB	string ?	CAT III B
IIIC	string ?	CAT III C
NO CAT	string ?	No category.
<b>OTHER</b>	string ?	

The XSD for nilReason is extracted below:

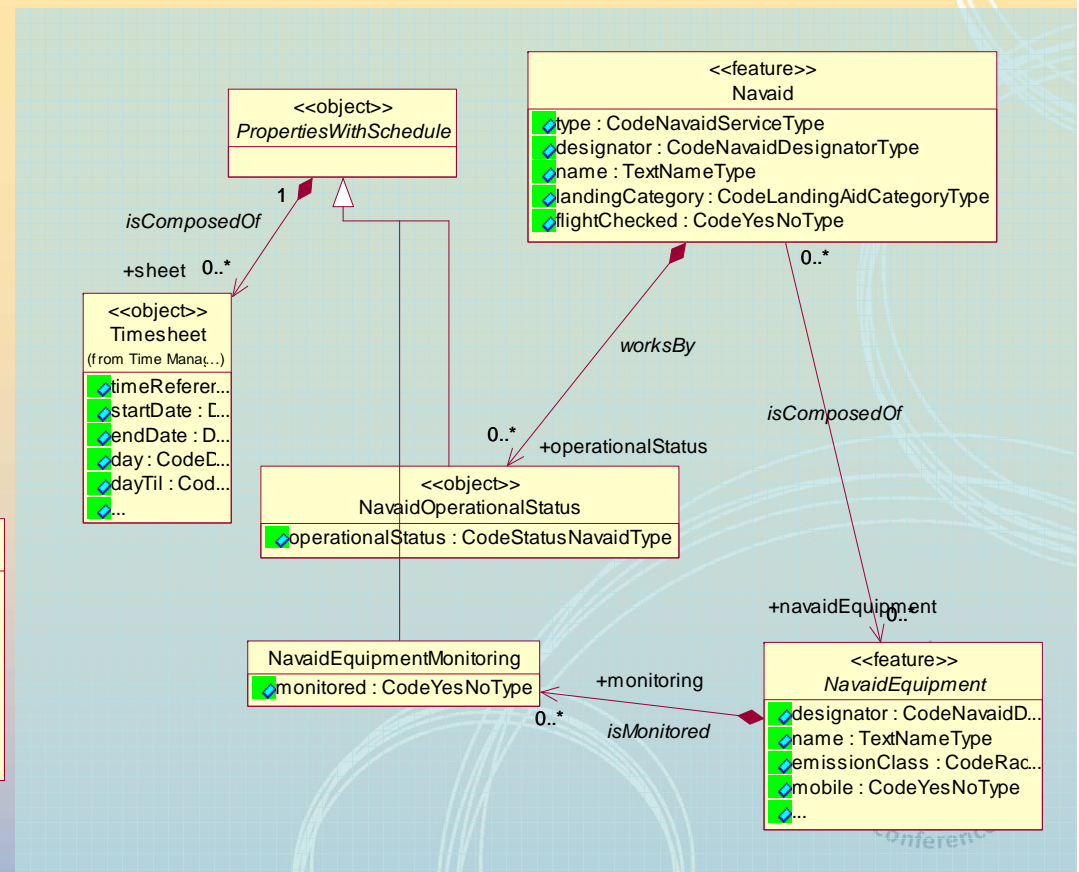
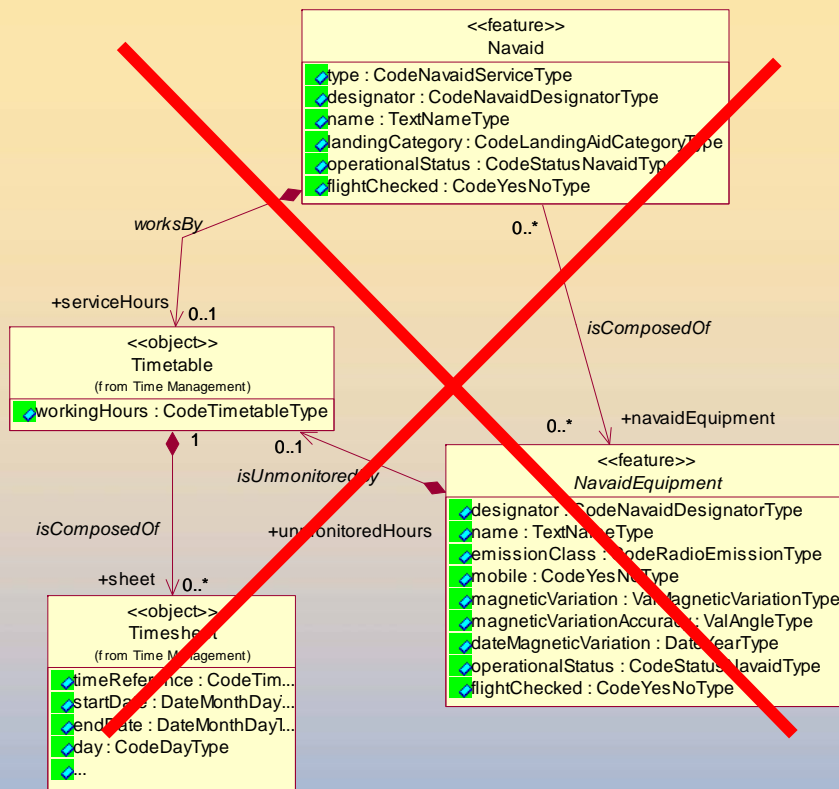
```
<simpleType name="NilReasonEnumeration">
  <union>
    <simpleType>
      <restriction base="string">
        <enumeration value="inapplicable"/>
        <enumeration value="missing"/>
        <enumeration value="template"/>
        <enumeration value="unknown"/>
        <enumeration value="withheld"/>
      </restriction>
    </simpleType>
    <simpleType>
      <restriction base="string">
        <pattern value="other:\w{2,}"/>
      </restriction>
    </simpleType>
  </union>
</simpleType>
```

Allow: “OTHER:IV” (for example)



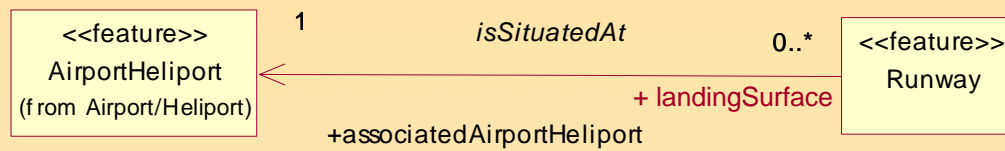
# Changes

- To be published
  - “PropertyWithSchedule” instead of Timetable

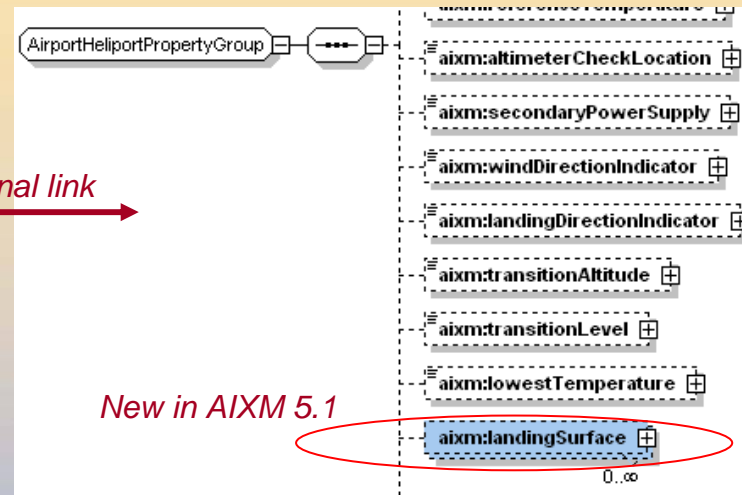


# Changes

- To be published
  - Bidirectional “feature to feature” association in XML Schema



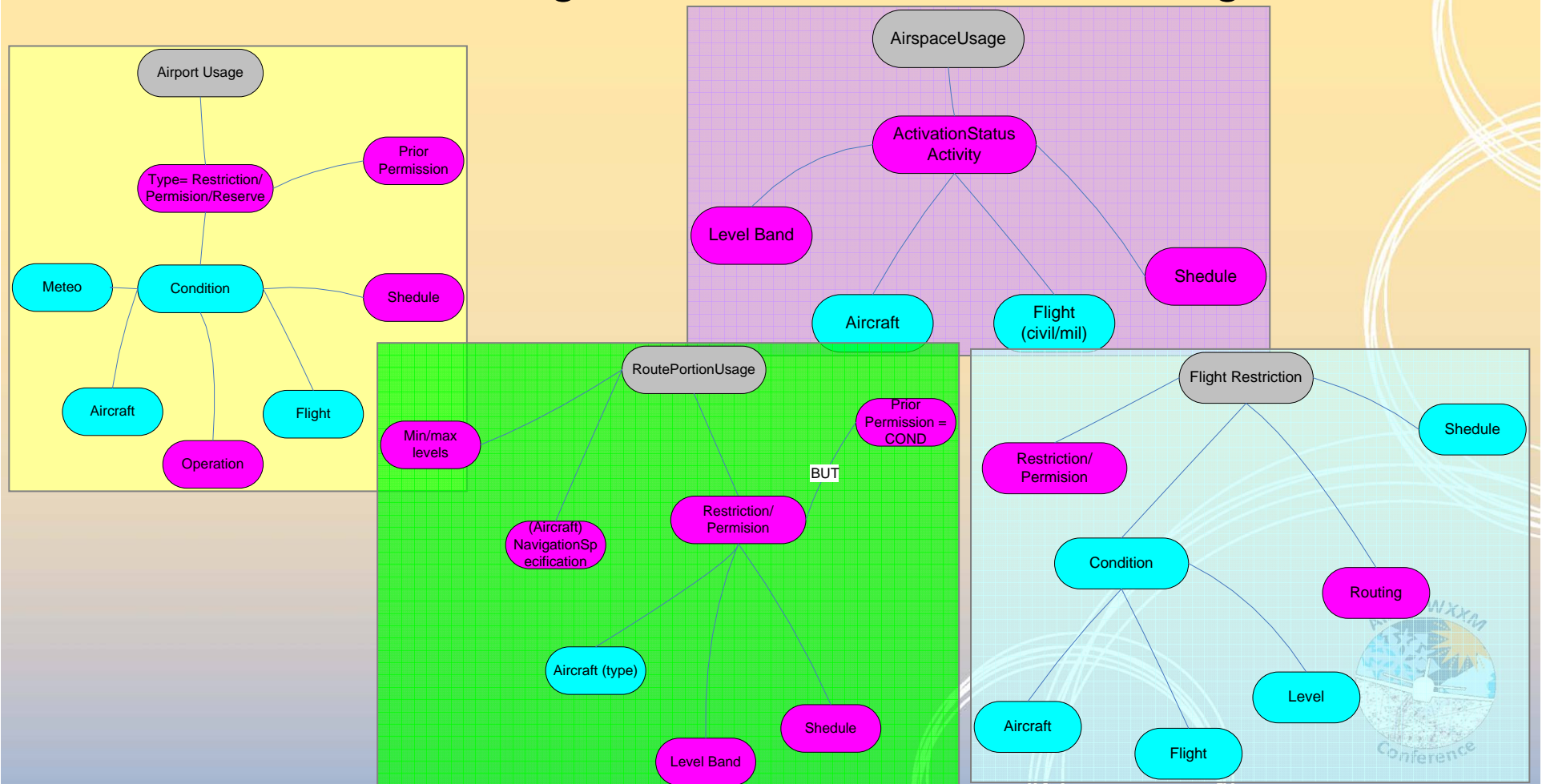
*Bidirectional link*





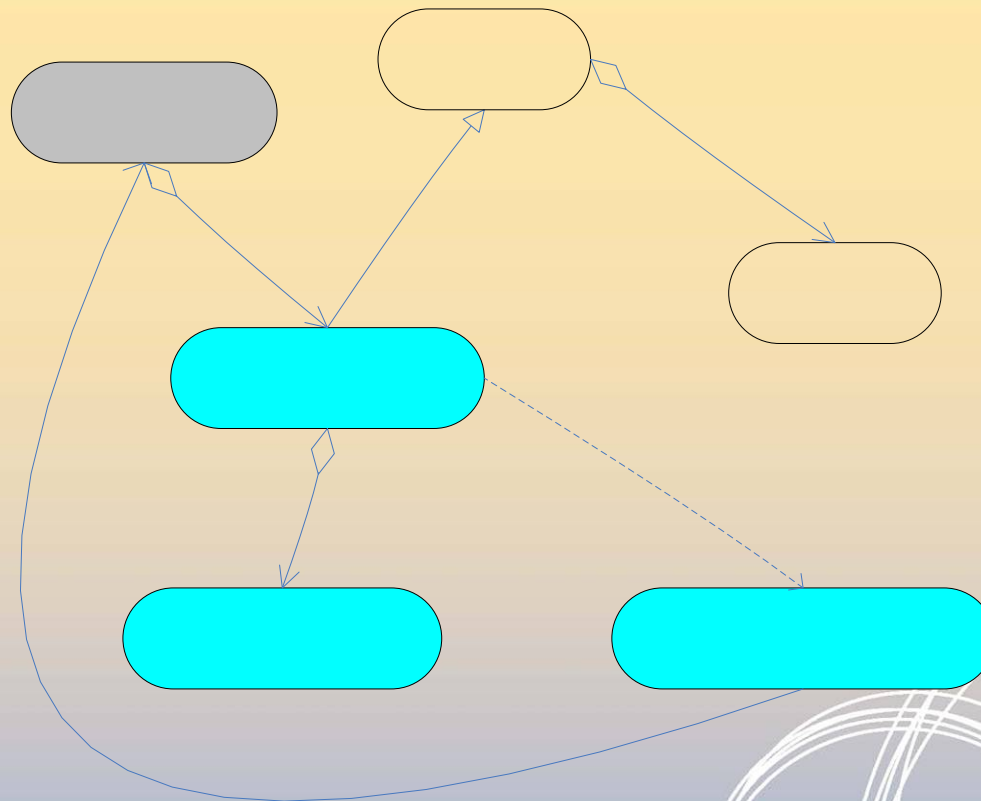
# Changes

- Work in progress
  - Status vs. Usage and harmonisation of “usages”



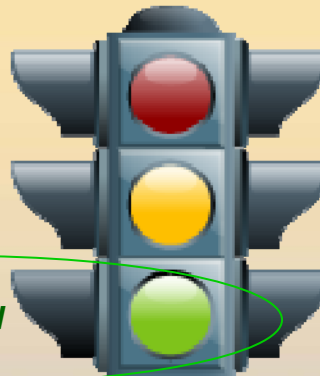
# Changes

- Work in progress
  - Status vs. Usage and harmonisation of “usages”
    - Separate status from usage conditions



# Changes

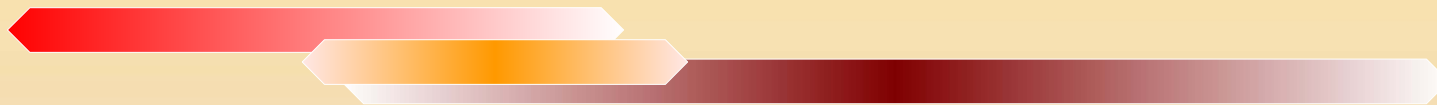
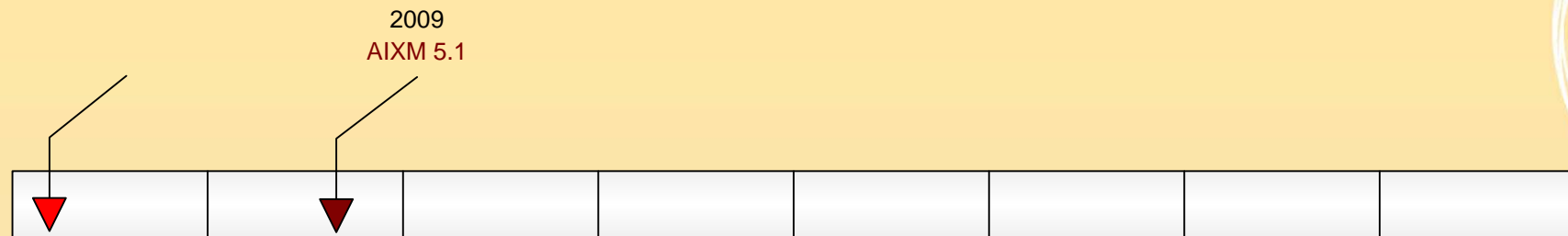
- All on [www.aixm.aero](http://www.aixm.aero) by 29 May
  - Summary, background, rationale, detailed description



*If no comment received*



# Transition from AIXM 5.0 to AIXM 5.1

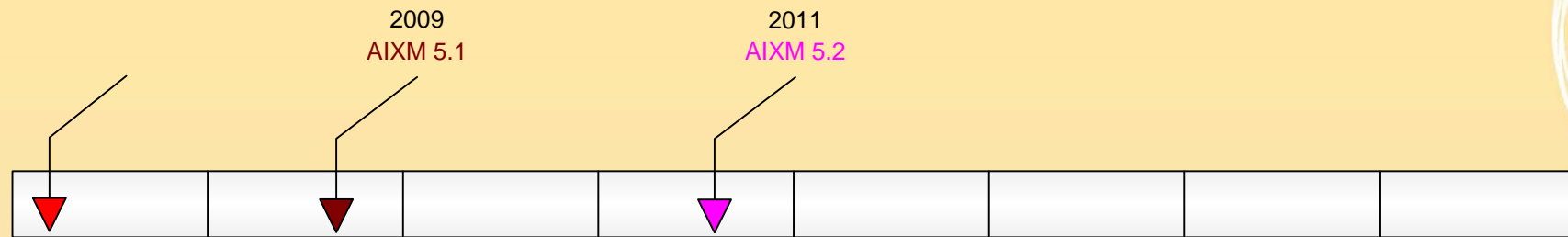


## Possibility: AIXM 5.0.1 ?

- only for those who have already implemented 5.0!
- not for Digital NOTAM
- implement only the AIXM 5.1 changes that are needed!



# Future versions



*Keep in mind when planning, contracting or developing that such models always keep developing! A regular upgrade is expected every two years.*



# Future versions

- Challenges
  - Contractual constraints for buyers
    - Estimate 10% change of the model as ‘maintenance’?
  - Version management for developers
    - XML Deprecation instead of simple removal?
      - Sometime, hard to implement in XML...
      - Used between AIXM 3.3 and AIXM 4.5
      - Not possible between AIXM 4.5 and AIXM 5.0 (GML)
      - Not proposed for AIXM 5.1, because we are still in the early adoption phase
      - *We would like to have your advise through the AIXM Forum!*





