

Change ID: 5.1-09

Nose-in guidance at aircraft stands

Summary

In order to indicate the availability of nose-in guidance systems at Aircraft Stands, it is proposed to add a new attribute in the AircraftStand class.

Background

The feature AircraftStand (former GateStand, see change 5.1-03) models the apron locations used for parking the aircraft in order to embark/disembark passengers or cargo.

Rationale for the change

The current model does not describe the visual docking guidance system that may exist at aircraft stands, which help the pilot to align/position the aircraft correctly.

The devices used as visual docking guidance include (see [Wikipedia](#)):

- simple centreline guidance;
- centreline guidance with stop indication;
- advanced guidance systems that have greater accuracy and may also provide anti-collision indications.

In order to model the aircraft stand guidance system, it is proposed to add a new attribute visualDockingGuidance. As it is not possible to provide an exhaustive list of all such types of systems, the associated data type will remain an open codelist.

Change proposal details

Add a new attribute in the AircraftStand (former GateStand) class:

- name = visualDockingSystem
- definition = " *A device used at the aircraft stands in order to help the pilot align and position the aircraft.*"
- data type = CodeVisualDockingGuidanceType

Add a new data type in the model with the name CodeVisualDockingGuidanceType

- definition = " *A coded list of values that indicate types of systems used at aircraft stands in order to help the pilot align and position the aircraft.*"
- open codelist with the following pre-defined values
 - AGNIS = " *Azimuth Guidance for Nose-In Stand, providing centreline guidance only by using two coloured lights mounted side by side.*"
 - PAPA = " *Parallax Aircraft Parking Aid consisting of a large grey/black box that uses the effect of perspective in order to indicate the relative position of the aircraft along the centreline.*"
 - AGNIS_PAPA = " *Combined AGNIS and PAPA device*"
 - AGNIS_STOP = " *AGNIS system complemented with a simple stop light, on the side of the AGNIS display*"
 - A_VDGS = " *(Generic) Advanced Visual Docking Guidance System that feature electronic displays which perform the functions of an AGNIS/PAPA installation, although with much greater accuracy. They may also provide collision avoidance from static objects.*"
 - SAFE_GATE = " *A type of A-VDGS that uses an aircraft symbol on a display indicating the relative position along the centreline.*"
 - APIS = " *Aircraft Positioning and Information System that shows azimuth information using a series of parallel and black bars which kink at their midpoint.*"

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- SAFE_DOC = " *Safedock allows aircraft to park up to an accuracy of 10 cm using lasers to attain the aircraft's position.*"