

# AIXM-339 Runway marking type additional value

ID:	AIXM-339
target version:	AIXM 5.2
version:	1.0
last updated:	17 AUG 2018
status:	APPROVED



## Description

Add the new code BUOY to the codelist for CodeRunwayMarkingBaseType.

## Rationale for change

See <https://aixmccb.atlassian.net/browse/AIXM-292>

Water runways often use buoys as the only element to mark the runway, and the current version of AIXM (v5.1) does not allow any straightforward way to encode this data in a situation where no additional information is available about each floating element and it is not possible to provide the individual buoy data. This additional value is of the same kind as the RUNWAY\_NUMBERS value, which is also a global indication of the type of marking

## Impact assessment

There is no impact on existing implementations as the current AIXM 5.1(.1) data remains fully valid against AIXM 5.2. No values are removed from this list.

When receiving data from AIXM 5.2 implementations, current AIXM 5.1(.1) systems will have be able to map back the BUOY value into OTHER: BUOY, as described in the mapping rules further in this document.

## Change Proposal details

In the UML model, add the following code to CodeRunwayMarkingBaseType:

- BUOY = "Marking buoys (for waterways and seaplane bases)"

The new value is shown in the UML class diagram at the right.

## Mapping AIXM 5.1.1 to AIXM 5.2 (forward)

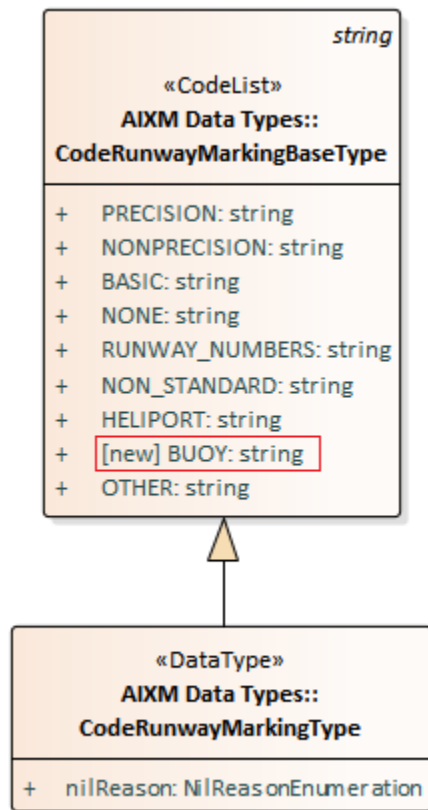
The following algorithm shall be applied:

- For each RunwayDirection.approachMarkingType that has the value "OTHER: BUOY":
  - replace the value with "BUOY"

## Mapping AIXM 5.2 to AIXM 5.1.1 (backward)

The following algorithm shall be applied:

- For each RunwayDirection.approachMarkingType that has the value "BUOY":
  - replace the value with "OTHER: BUOY"



## Mapping example

(Note: for mapping test data see: [https://github.com/aixm/mapping\\_52\\_511/tree/master/AIXM-339](https://github.com/aixm/mapping_52_511/tree/master/AIXM-339))

AIXM 5.2	AIXM 5.1(.1)
<pre>message:AIXMBasicMessage message:hasMember   RunwayDirection     gml:identifier = c8455a6b-9319-4bb7-b797- 08e644340812     timeSlice       RunwayDirectionTimeSlice         gml:validTime           gml:TimePeriod             gml:beginPosition = 2017-07-01T00:00: 00Z             gml:endPosition =             interpretation = BASELINE             sequenceNumber = 2             featureLifetime               gml:TimePeriod                 gml:beginPosition = 2009-01-01T00:00: 00Z                 gml:endPosition =                 designator = 09                 trueBearing = 86.22                 trueBearingAccuracy = 0.01                 approachMarkingType = BUOY                 usedRunway = urn:uuid:9e51668f-bf8a-4f5b- ba6e-270879721980                 ...</pre>	<pre>message:AIXMBasicMessage message:hasMember   RunwayDirection     gml:identifier = c8455a6b-9319-4bb7-b797- 08e644340812     timeSlice       RunwayDirectionTimeSlice         gml:validTime           gml:TimePeriod             gml:beginPosition = 2017-07-01T00:00: 00Z             gml:endPosition =             interpretation = BASELINE             sequenceNumber = 2             featureLifetime               gml:TimePeriod                 gml:beginPosition = 2009-01-01T00:00: 00Z                 gml:endPosition =                 designator = 09                 trueBearing = 86.22                 trueBearingAccuracy = 0.01                 approachMarkingType = OTHER:BUOY                 usedRunway = urn:uuid:9e51668f-bf8a-4f5b- ba6e-270879721980                 ...</pre>