

## Change Proposal

ID:	AIXM-150
target version:	AIXM 5.1.1
version:	1.0
last updated:	21 APR 2015
status:	Implemented



## Add electric aircraft engine type

### Description

Add a new value to the CodeAircraftEngineType codelist for ELECTRIC engine types.

### Rationale for change

See <https://aixmccb.atlassian.net/browse/AIXM-134>

The ELECTRIC is defined in the ICAO DOC 8643 but it does not exist in AIXM 5.1. It is proposed to add this type in the AIXM code list. AIXM should be in line with ICAO DOC.

### Impact assessment

AIXM 5.1 files remain valid against the AIXM 5.1.1 schema. In addition, this change would enable AIXM 5.1 Data Providers to encode the missing value as "OTHER:ELECTRIC" and this value to be automatically converted into proper values (without the "OTHER:" prefix) in AIXM 5.1.1.

AIXM 5.1.1 files that use the new values would be invalid against the AIXM 5.1 schema and will need to be converted, using the data type extension mechanism - prefix with "OTHER:". The conversion is straight-forward.

### Change Proposal details

In the UML model, add to the data type CodeAircraftEngineType the following value:

- ELECTRIC = "Electric engine"

### Mapping AIXM 5.1 to AIXM 5.1.1 (forward)

The following algorithm shall be applied:

- For each AircraftCharacteristic.engine that has the value "OTHER:ELECTRIC":
  - replace the value "OTHER:ELECTRIC" with "ELECTRIC"
- For any other XML elements/attributes - copy identical in the output

This algorithm will be implemented in an XSLT script that will be provided together with the AIXM 5.1.1 Schema.

## Mapping AIXM 5.1.1 to AIXM 5.1 (backward)

The following algorithm shall be applied:

- For each AircraftCharacteristic.engine that has the value “ELECTRIC”:
  - replace the value “ELECTRIC” with “OTHER:ELECTRIC”
- For any other XML elements/attributes - copy identical in the output

This algorithm will be implemented in an XSLT script that will be provided together with the AIXM 5.1.1 Schema.

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