Bugs and Editorial Corrections

Rationale for the change

This change proposal contains a lists of editorial corrections and small bug fixing, which are applied in AIXM 5.1. They include, for example:

- corrections to spelling
- removal of strange characters
- removal of 'garbage' associations, classes, attributes and data types, which were forgotten in the model during the design process
- etc.

Change proposal details

no	issue	affects	resolution
1	AircraftGroundService has the stereotype *enumeration*. It should be *feature*	UML, XSD	Correct the stereotype
2	AircraftCharacteristics, the speed attribute has wrong data type. It should be ValSpeedType not ValWeightType.	UML, XSD	Correct
3	Minima, the militaryVisibility attribute has wrong data type. It should be ValDistanceType not ValDistanceVerticalType.	UML, XSD	Correct
4	PostalAddress has an element called *administativeArea*. This is misspelled. It should be *administrativeArea*.	UML, XSD	Correct spelling
5	CodeRunwaySectionType, 2_THIRD is defined as the 2nd third of the runway and 3_THIRD is defined as the second third of the runway	UML	Swap the definitions
6	CodeAirspaceActivityType has GAZ	UML	GAS
7	AerialRefuelingAnchor - text has some stray characters	UML	correct
8	NavaidEquipmentDistance object in the Runway sub-package, the attribute distance is of datatype ValDurationType	UML	should be a distance datatype, like ValDistanceType
9	value MPA has definition "Meta Pascal" (MPa)	UML, XSD	change to "Mega Pascal"
10	AirspaceClassLayer, change the name of the attribute "class" into "classification" to avoid repeating the "class" tag at two levels	UML	
11	type of TextDesignatorType is Character1Type, which does not allow special symbols such as "." and which are sometimes used for taxiway and stand designators	UML	change to Character3Type
12	In the CodeFlightStatusType, the value HEAD has the definition "All special aircraft status." This is wrong, it should be Head of State	UML	change definition to 'Head of State'
13	Definition of class NavigationArea says "procedure *decent* gradient"	UML	change to "procedure de *scent* gradient"

14	The code EMAT is used in CodeArrestingGearEngageDeviceType for " *Engineered Materials Arresting System*". However, most data providers and specifications use the abbreviation "EMA *S*"	UML	change coded value spelling into "EMAS"
15	The data type CodeAddressType (inherited from AIXM 4.5) is no longer used by any property in the model. The ContactInformation sub-types are used instead.	UML	remove from the model
16	The data type CodeAircraftPropulsionType (inherited from AIXM 4.5) is no longer used by any property in the model. The AircraftCharacteristics class is used instead to indicate route usage limitations	UML	remove from the model
17	The data type CodeArrestingGearEngageDirectionType (inherited from AIXM 4.5) is no longer used by any property in the model. The ArrestingGear has attributes that indicate 'biderectional' and the exact location/shape	UML	remove from the model
18	The data type CodeRVRVisibilityType (left here from a draft AIXM 5.0 version) is no longer used by any property in the model. The class RunwayVisualRange is used instead	UML	remove from the model
19	The data type CodeStatusProcedureType (inherited from AIXM 4.5) is no longer used by any property in the model. The data type CodeProcedureAvailabilityType is used instead	UML	remove from the model
20	The data type CodeUnitStandardType (inherited from AIXM 4.5) is no longer used by any property in the model. The □ is used instead	UML	remove from the model
21	The codelist CodeProcedureCodingStandardType only mentions ARINC 424-15 and 424-18	UML	Add ARINC 424-19 in the list of values
22	The list of values for CodeRunwayProtectionAreaType includes "runway end safety area" but with abbreviation "SAFE". The usual abbreviation is "RESA"	UML, XSD	Replace the coded value "SAFE" into "RESA".
23	The name of the data type "CodeFlightResrictionDesignatorType" is misspelled	UML, XSD	Correct spelling error: "CodeFlightRes *t* rictionDesignatorType"
24	There are a couple dozen of definitions/descriptions with "+ ++++", inherited from AIXM 4.5 (user defined properties)	UML	Delete the text which is no longer relevant.
25	In CodeAirspaceClassType for value "D" the last part of the definition is truncated "VFR flights receive traffic information in..."	UML	Complete the definition: "...VFR flights receive traffic information in *respect of all other flights* "

26	The association from TextNoteType to language is illegal, since XSDsimpleType is a datatype and therefore has no "independent existence". It can't be referenced. The stereotype "attribute" is undefined and not used anywhere else in the model. The language value is a 8-char string, while we are using an ISO standard. The multiplicity is 0..*, which means that a single note-text to have many languages or no languages.	UML	Apply the same modelling construct as for units of measurement. Make attribute single occurrence, mandatory. Make sure that the scripts will not generate it twice, because today it is hard coded in the scripts. Maybe limit the list of values to the specific ISO standard.
27	Some associations in the UML model have a multiplicity of exactly "1", indicating that the association is mandatory. However, they all become optional in the XML Schema in order to support the encoding of "delta" TimeSlices (that contain only the changed properties). Also, mandatory associations and attributes for specific applications will be specified in the "business rules" layer, that will stay outside of the UML/XSD models.	UML	Change all associations with multiplicity "1" into optional associations "0..1".
28	The sequenceNumber and correctionNumber are defined in the AIXM_AbstractGML_ObjectTypes.xsd as xsd:string. This is not correct, since the two are expected to be numbers.	XSD	Change the two element declarations to use xsd:decimal instead.
29	AIXM_AbstractGML_ObjectTypesFeatures.xsd has comments stating it is AIXM 5 Release Candidate 2, and the version attribute in the schema element is set to '0.2'	XSD	Update to "5.1".
30	AIXM_BasicMessage.xsd has no version attribute.	XSD	Add a version number, in line with the AIXXM version (5.1).
31	The definition of the "dependency" attribute in the AirspaceVolumeDependency uses the word of "impacts", which is not sufficiently clear (a total dependency, or partial?)	UML	Change the definition into: " *A code indicating how the geometry of the AirspaceVolume depends on the geometry of the contributor Airspace*".
32	The upperLimitAltitude attribute in the SegmentLeg class uses an incorrect data type - ValDistanceType, while the lowerLimitAltitude uses the correct one - ValDistanceVerticalType.	UML, XSD	Change the data type of the upperLimitAltitude into ValDistanceVerticalType.
33	The length and width attributes of a runway are declared/ nominal values, to be used for performance calculations. They can be different from the exact length, as calculated between the two runway ends.	UML	Change the name of the attributes into nominalLength, nominalWidth. Also change the definition of the two attributes: "The declared longitudinal/transversal extent of the runway for operational (performance) calculations."
34	The name of the diagram "01-SignificantPoints" in the Navaids/Points package is misslepped	UML	Correct the spelling of diagram name

35	The role on the association between FilghtConditionElementChoice and OrganizationAuthority is misspelled ("organisat *oi* nCondition")	UML, XSD	Correct the spelling: "organisationCondition"
36	The diagram name "4 - Flight Restrict *in* s Codelists" is misspelled.	UML	Correct the spelling of the diagram name.
37	Descriptions of the packages needs tidied e.g. Some descriptions are missing	UML	Correct or add descriptions.
38	Refueling should have two *l*s in AerialRefuel **l**ing	UML,XSD	Correct.
39	The definition of the value INTERRUPT is wrong - " *Except* interruptions of the sigmal"	UML	Replace the word "Except" with "Expect".
40	Data type CodeTACANComponentType, inherited from AIXM 4.5, is no longer used by any attribute	UML, XSD	Remove from the model.
41	Association between FlightConditionElementChoice and FlightConditionCombination should show aggregation by value (because FlightConditionCombination is an "object"	UML, XSD	select "aggregate" on the FlightConditionElementChoice
42	ArrestingGear has property called bidirectional. It has the word 'utalized'	UML, XSD	correct to 'utilised'
43	The diagram for procedure usage is named just "Usage". This makes it hard to find in the Wiki	UML	Rename the diagram Procedure Usage
44	Some classes with "choice" stereotype are marked 'abstract' while others are not. The model is not consistent, although this has no real implication on its use	UML	Mark all "choice" classes as "abstract".
45	The class ServiceOnAerialRefueling duplicates the direct associations between various Service specialisations (InformationService, etc.) and AerialRefueling. It was forgotten when the Service model of AIXM 5.0 was drafted	UML, XSD	Delete the class ServiceOnAerialRefueling.
46	Stray characters in the documentation (probably copied from Word)	UML, XSD	Replace the stray characters 1. Role A in the ArrestingGear isUsedOn RunwayDirection has strange aopostrophes. 2. FinalLeg's attribute minimumBaroVnavTemperature needs tidied (degrees symbol) 3. AerialRefuelingAnchor documentation needs tidied (bullet points)