AIXM 5.1 – final corrections

This file contains the description of the final corrections applied to the AIXM 5.1 model, in January 2010. These corrections fall in three main categories:

1. Corrections of the UML model structure (mostly based on feed-back received through the AIXM Forum about bugs in the AIXM 5.1 Release Candidates);
2. Corrections to definitions of UML class/attribute/role name (mostly based on a package of harmonised aeronautical information definitions developed by the "AIHWG", which has involved ICAO, Eurocontrol and the Defence Geospatial Information Working Group);
3. Corrections to the XML Schema structure (many based on conclusions of the AIXM-XML Seminars hosted by Eurocontrol and FAA between November 2009 – January 2010)

Corrections to the UML model structure

Corrections affecting Feature and Object Classes in the UML model

1. applied the correction described in the updated Change Description 5.1-14 (concerning VerticalStructureLighting, see the following message on the AIXM Forum: https://www.aixm.aero/agor_live/agor/BrowseMessages.do?browseAction=browseSearchedMessage&messageId=13863#13863)
2. re-included in the model the SpecialDate class, the associations between OrganisationAuthority and SpecialDate, the association between PropertiesWithSchedule (former Timetable) and OrganisationAuthority, which were deleted by error when implementing the change 5.1-35. See the following message on the AIXM Forum: https://www.eurocontrol.int/agor_live/agor/BrowseMessages.do?forumId=4&browseAction=browseSearchedMessage&timeout=0&aid=13812&messageId=12834#13812;
3. deleted the class <<object>> MagneticVariation from package Surveillance. This class had no attribute and no association to any other AIXM Feature or Object. It was the result of an aborted change proposal;
4. corrected the data type of attribute 'gradientLowHigh' in the class 'ObstacleAssessmentAreaPropertyGroup' to use an AIXM data type (valSlopeType) instead of directly using xsd:decimal
5. deleted the class AerialRefuellingUsage, as stated in the ChangeProposal 5.1-41
6. removed from the model the ConditionElementChoice class, as described in the following AIXM Forum message: https://www.eurocontrol.int/agor_live/agor/BrowseMessages.do?forumId=4&browseAction=browseSearchedMessage&timeout=0&aid=13866&messageId=13703#13866
7. corrected the spelling of the WorkAreaActivity class name (it was WorkareaActivity), see the following message on the AIXM Forum: https://www.eurocontrol.int/agor_live/agor/BrowseMessages.do?forumId=4&browseAction=browseSearchedMessage&timeout=0&aid=13824&messageId=13823#13824
8. in class TelephoneContact, corrected the spelling of the attribute "facsimile" (it was wrongly spelled "facsimilie");
9. corrected the name of the class "DepartureArrivalCondition" (added missing "r" in "Departure");

10. in the class AircraftCharacteristic corrected the spelling of the antiCollisionAndSeparationEquipment attribute (the second "l" was missing from "Collision");
11. in the class AerialRefuellingAnchor, corrected the spelling of the speedlLimit attribute (removed the extra "l");
12. corrected the names of the attributes of SpecialNavigationSystem and SpecialNavigationStation which used AIXM 4.5 naming style
    - codeType -> type
    - codeId -> designator
    - codeEmmission -> emission
    - codeTypeService -> type
13. corrected the spelling of the attribute emission in the class RadioCommunicationChannel (it had a double "m");
14. corrected the spelling of the attribute contingencyRoute in the class StandardInstrumentDeparture (the second "n" was missing)
15. changed type of attribute WorkArea.plannedOperational to DateType instead of "date"

Corrections affecting associations between Classes in the UML model
1. added cardinality 0..1 to association InstrumentApproachProcedure declares 0..1 FinalProfile
2. in the class Unit, corrected the self-association with the Unit class to no longer be a composition, because it is an association between two features;
3. in the class OrganisationAuthority, corrected the self-association with the OrganisationAuthority class to no longer be a composition, because it is an association between two features;
4. in the class OrganisationAuthority, deleted associations with OrganisationAuthorityAssociation (which was forgotten in the model when implementing change 5.1-13;
5. in the class PrimarySurveillanceRadar, deleted the duplicate inheritance from RadarEquipment (it already inherits from SurveilanceRadar, which is a specialisation of RadarEquipment);
6. in the class SecondarySurveillanceRadar, deleted the duplicate inheritance from RadarEquipment (it already inherits from SurveilanceRadar, which is a specialisation of RadarEquipment);
7. in the class RunwayCentrelinePoint class, deleted the association with Glidepath, which was "garbage" forrgotten in the model, it is already covered by the more general association with NavaidEquipment (see AIXM Forum message https://www.eurocontrol.int/agor_live/agor/BrowseMessages.do?forumId=4&browseAction=browseSearchedMessage&timeout=0&aid=13563&messageId=13563#13563)
8. on the Airspace diagram, added a "dependency" association between Surface and SignificantPoint, in order to reflect a specific construct that can be used in the XML Schema for such situations (see AIXM Forum message https://www.eurocontrol.int/agor_live/agor/BrowseMessages.do?forumId=4&browseAction=browseSearchedMessage&aid=13394&messageId=13386#13394);
9. added associations with the class Note for the Curve, Surface and Point classes (as this association is expected to exist for any <<object>> and <<feature>> class in the model);
10. removed the role name "areaAltitude" from the association between SafeAltitudeArea and AirportHeliport and changed the multiplicity of the association into 0..* on the AirportHeliport side. See the following AIXM Forum message: https://www.eurocontrol.int/agor_live/agor/BrowseMessages.do?forumId=4&browseAction=browseSearchedMessage&timeout=0&aid=13813&messageId=12723#13813

11. On the association "passesThrough" from RoutePortion to SignificantPoint, correct corrected the multiplicity for the intermediatePoint to be 0..1 instead of 0..*. See the following message on the AIXM Forum: https://www.eurocontrol.int/agor_live/agor/BrowseMessages.do?forumId=4&browseAction=browseSearchedMessage&aid=13745&messageId=13703#13745

12. changed the associations listed below into "compositions", because they were from a Feature towards an Object (this has no impact on the schema, it is just for editorial coherence inside the UML model)
    - from Procedure to ProcedureTransition
    - from InstrumentApproachProcedure to LandingTakeOffAreaCollection
    - from ApproachCondition to LandingTakeOffAreaCollection
    - from ProcedureTransition to LandingTakeOffAreaCollection
    - from StandardInstrumentArrival to LandingTakeOffAreaCollection
    - from StandardInstrumentDeparture to LandingTakeOffAreaCollection
    - from MissedApproachLeg to ApproachCondition
    - from AirTrafficManagementService to RoutePortion
    - from AirTrafficControlService to RoutePortion
    - from SearchRescueService to RoutePortion
    - from ContactInformation to PostalAddress
    - from ContactInformation to OnlineContact
    - from ContactInformation to TelephoneContact

13. changed the composition between ProcedureDME and SegmentLeg into a simple unidirectional association because it involves two Features;

14. the multiplicity is now specified as both ends of all associations between <<features>>. This has no impact on the schema, but it has to be taken into account for database design.

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Corrections affecting Data Type classes in the UML model
1. in the <<codelist>> CodeApproachLightingType corrected the definition of the value SALS to read "Simple Approach Lighting System." (instead of "Short Approach Lighting System", see AIXM Forum message: https://www.eurocontrol.int/agor_live/agor/BrowseMessages.do?forumId=4&browseAction=browseSearchedMessage&aid=13354&messageId=13280#13354)

2. in the <<datatype>> CodeAuralMorseType, corrected the pattern to allow multiple occurence of dot or dash "([\-\.]*)" (the "*" symbol was missing, see the AIXM Forum message: https://www.eurocontrol.int/agor_live/agor/BrowseMessages.do?forumId=4&browseAction=browseSearchedMessage&timeout=0&aid=13390&messageId=13386#13390);

3. in the <<enumeration>> CodeSurfacePreparationType, corrected the spelling of the "NON GROOVED" coded value by adding the missing "_": "NON_GROOVED" (see the AIXM Forum message: https://www.eurocontrol.int/agor_live/agor/BrowseMessages.do?forumId=4&browseAction=browseSearchedMessage&timeout=0&aid=13801&messageId=12779#13801

4. in the <<enumeration>> CodeVerticalStructureMaterialType, corrected the spelling of the value "ALUMINUM" by adding the missing "I" ("ALUMINIUM"). See the following message on the AIXM Forum: https://www.eurocontrol.int/agor_live/agor/BrowseMessages.do?forumId=4&browseAction=browseSearchedMessage&aid=13820&messageId=12420#13820;
5. change the name of the class NilReasonType into CodeNilReasonType (to be in line with the naming convention for AIXM data type classes);
6. added the nilReason attribute at the data type level as explained in the following AIXM Forum message: https://www.aixm.aero/agor_live/agor/BrowseMessages.do?browseAction=browseSearchedMessage&messageId=13667#13667
7. moved the attribute lang from TextNoteBaseType into TextNoteType, to be at the same level as the nilReason attribute;
8. TextXHTMLType no longer inherits from xsd:string in the UML model, because it is a complex type; it has also been re-named XHTMLType because it is a basic type, similar to AlphaType, Character1Type, etc.
9. changed the data type of NoSequenceType and NoNumberType in UML model. The datatypes now inherit from unsignedInt. Property pattern is removed (not valid for unsigned int);
10. changed all stereotypes <<enumeration>> into <<codelist>> because following Change 5.1-31, all AIXM enumerated lists of values have effectively become open codelists. This was done for compliance with the ISO 19136 Standard and it does not affect the way that enumerated lists of values are defined in the XML Schema. The only consequence is that previous <<codelists>> also need to add OTHER: in front of any extra value.
11. checked that all enumerations have 'OTHER' and that it is the last one in the list;

Diagrams
1. removed all "Codelist" diagrams because they are difficult to maintain and do not provide much help; the Wiki provides the necessary fast-view link between attributes and their lists of values;
2. renamed sub-package *AIXM-DataypeDiagrams* into *AIXM Datatype Diagrams*

Corrections to definitions of UML classes/attributes/roles

The table below indicates which feature/attribute/role <u>definitions</u> were changed in the final AIXM 5.1 Release. Only the definitions that were particularly unclear, too long (thus being descriptions and not real definitions), significantly different from the AIHWG list or totally missing have been modified.

<u>Note</u>: *"AIHWG" stands for the Aeronautical Information Harmonisation Working Group. The group was setup by DGIWG, the Defence Geospatial Information Working Group (www.dgiwg.org) with participation from ICAO and EUROCONTROL in addition to military representatives. The group has worked on the development of a feature data dictionary for aeronautical information."*

Feature/attribute/role	*New definition*	*Old definition*	*Source / comments*
AerialRefuelling	A procedure used by the military to transfer fuel from one aircraft to another during flight.	Defines aerial refuelling procedures. Air refuelling operations are normally conducted on tracks or in anchor areas. There are certain mission requirements and operational considerations which may necessitate en-route refuelling operations or the establishment of special tracks/anchors. Military refuelling operations are performed on specially designated route. These routes have significant points to guide the Receiver aircraft safely into rendezvous with the Tanker. Aerial refuelling tracks are established to accommodate refuelling operations along a prescribed route. An aerial refuelling track consists of an ARIP, ARCP, and an exit point. Navigation check points between the ARCP and exit point are specified, as required, to facilitate navigation along the route. It also includes the tanker orbit pattern at the ARCP, and the altitude block(s) assigned for the track. The refuelling track required dimensions vary according to aircraft type: Turbojet - Normally, a rectangle 60 NM long (48 NM uptrack and 12 NM downtrack from ARCP or anchor point) and 25 NM wide, oriented longitudinally along the ARIP-ARCP or anchor point segment of the track so as to provide 7 NM of airspace on the nonholding side of the refuelling track and 18 NM of airspace on the holding side. This pattern shall normally be designed for left turns. When right turns are used, the orientation of the orbit pattern will shift accordingly.	AIHWG

		Conventional/Turboprop - Normally, a rectangle 34 NM long (27 NM uptrack and 7 NM downtrack from ARCP or anchor point) and 18 NM wide, oriented longitudinally along the ARIP-ARCP or anchor point segment of the track so as to provide 4.5 NM of airspace on the nonholding side of the refuelling track and 13.5 NM of airspace on the holding side. The pattern shall normally be designed for left turns. When right turns are used, the orientation of the orbit pattern will shift accordingly.	
AerialRefuelling +availability [RouteAvailability]	The operational availability of the AerialRefuelling.	NIL	
AerialRefuelling.bidirectionalUse	An indication that the aerial Refuel track supports simultaneous opposite direction aerial Refuel.	This flag indicates whether the aerial refuelling track supports simultaneous opposite direction aerial refueling.	AIHWG
AerialRefuelling.designatorDirection	The general cardinal direction of the Aerial Refuelling procedure, as a category.	Aerial refuelling may include its predominant direction as a part of its designator.	AIHWG
AerialRefuelling.designatorNumber	A number that identifies the Aerial Refuelling route.	The Route_Number will be numeric 3 digits (1 through 999), which is mandatory.	
AerialRefuelling.designatorPrefix	A group of characters that indicate that the designator is for an aerial refuelling route.	A prefix for the designator of the Aerial Refuelling route. This value will always be "AR".	
AerialRefuelling.designatorSuffix	A group of characters that qualifies the Aerial Refuelling route.	The suffix is either one or two alpha and is optional.	
AerialRefuelling.helicopterRoute	An indication that the Aerial Refuelling procedure is designed only for helicopter usage.	This flag indicates if the aerial refuelling is assigned for helicopter usage. Refer to Special Refuelling Requirements document JO 7610.4M, page 10-6-2, page 10-6-8.	AIHWG
AerialRefuelling.name	A free text identifier by which the Aerial Refuelling route is known.	A have a free-text identifier for the Aerial Refuelling procedure. For example: BAUMHOLDER, etc.	
AerialRefuelling.radarBeaconSetting	The setting to be used by the Airborne Navigation Radar beacon during aerial Refuel operations.	APN CODE - Rendezvous beacon code for Airborne Navigation Radar. (either X-band or Ku-Band based on the number associated (69, 134, 135)). First digit allowable values: 1, 2, 3 Second digit allowable values: 0, 1, 2, 3, 4 Third digit allowable values - 0, 1, 2, 3, 4 OR No values entered	AIHWG
AerialRefuelling.receiverChannel	The Tactical Air Navigation System (TACAN) channel assigned to the aircraft receiving fuel during air Refuel operations.	A code indicating the receiver channel of the TACAN system.	AIHWG
AerialRefuelling.reverseDirectionTurn	The applicable direction of the aircraft turn at the end of the track, for procedures that allow bidirectional use.	Once the aircraft reaches the end of aerial refuelling track, it can turn around right or left, which is referred to as the Direction of Course Reversal Turn. Then, it goes back on the same route that it came from. It only applies to bi-directional routes.	AIHWG
AerialRefuelling.specialRefuelling	An indication that the Aerial Refuelling procedure supports special missions/sortie.	This flag indicates if the aerial refuelling supports special mission/sortie. refer to Special Refuelling Requirements JO 7610.4M,	

		section 10-6-1. Special tracks/anchors shall not be published in the DOD FLIP planning document, but may be described in letters of agreement.	
AerialRefuelling.tankerChannel	The Tactical Air Navigation System (TACAN) channel assigned to the aircraft supplying fuel during air Refuel operations.	A code indicating the tanker channel of the TACAN system.	AIHWG
AerialRefuelling.type	The type of the Aerial Refuelling procedure based on its configuration.	Specifies the type of refuelling operation: Track, Anchor, or both.	AIHWG
AerialRefuelling.xbandBeaconSetting	The setting to be used by the Airborne Identification Radar beacon during aerial Refuel operations.	APX CODE - X band Airborne Identification Radar code. First digit allowable values: 2, 3, 4, 5, 6 Second digit allowable values: 1 OR No values entered	AIHWG
AerialRefuellingAnchor	A prescribed pattern, established by air refuelling points, along which air-to-air refuelling of aircraft is performed.	A left-hand race track pattern with legs separated by a minimum of 20 NM and a minimum leg length of 50 NM. The refuelling track required dimensions vary according to aircraft type: Turbojet : Normally, a rectangle 60 NM long (48 NM uptrack and 12 NM downtrack from ARCP or anchor point) and 25 NM wide, oriented longitudinally along the ARIP-ARCP or anchor point segment of the track so as to provide 7 NM of airspace on the nonholding side of the refuelling track and 18 NM of airspace on the holding side. This pattern shall normally be designed for left turns. When right turns are used, the orientation of the orbit pattern will shift accordingly. Conventional/Turboprop : Normally, a rectangle 34 NM long (27 NM uptrack and 7 NM downtrack from ARCP or anchor point) and 18 NM wide, oriented longitudinally along the ARIP-ARCP or anchor point segment of the track so as to provide 4.5 NM of airspace on the nonholding side of the refuelling track and 13.5 NM of airspace on the holding side. The pattern shall normally be designed for left turns. When right turns are used, the orientation of the orbit pattern will shift accordingly.	AIHWG
AerialRefuellingAnchor.outboundCourseType	The type of outbound course from the facility or waypoint on which anchor is based.	NIL	
AerialRefuellingAnchor.refuellingBaseLevel	The lowest altitude or flight level at which refuelling operations can be performed.	Base flight level for aerial refuelling anchors as defined in some foreign AR anchor patterns. For example, for the Gretchen low anchor in Germany the refuelling base level is defined as FL 130. Altitude block levels are FL 110 and FL 150.	AIHWG

AerialRefuellingAnchor.refuellingBaseLevelReference	The vertical reference system for the refuellingBaseLevel distance.	A code indicating the reference for a vertical distance. For example, distance: from GND, from the MSL, and from the WGS-84 ellipsoid.	
AerialRefuellingAnchor.speedLimit	The maximum speed of the aircraft permitted for a particular flight procedure route or segment.	Restricted speed for containment in a smaller pattern	AIHWG
AerialRefuellingPoint	A geographic position or radio navigation fix along an air refuelling anchor pattern or air refuelling track.	Defines individual points that make up the aerial refuelling track. Note: by default, AerialRefuellingPoint has: - reportingATC = 'NO_REPORT' - flyover = 'YES' - radarGuidance = 'NO'	AIHWG
AerialRefuellingPoint.usageType	The function(s) of the air Refuel point in relation to the air Refuel anchor pattern or air Refuel track.	Defines the usage type of an aerial refuelling point.	
AerialRefuellingTrack	A sequence of points that define the trajectory to be flown during an aerial refuelling operation.	Defines tracks (sequence of points) that are used for aerial refuelling operation.	
AeronauticalGroundLight +aerodromeBeacon [AirportHeliport]	The airport/heliport in the area of which the light is situated.	NIL	
AeronauticalGroundLight +location [ElevatedPoint]	The location of the ground light.	NIL	
AeronauticalGroundLight +structureBeacon [VerticalStructure]	The vertical structure (such as airport tower) identified by the ground light.	NIL	
AircraftStand +availability [ApronAreaAvailability]	The operational status of the AircraftStand.	NIL	
AirportHeliport +availability [AirportHeliportAvailability]	Information about the operational status of the airport/heliport.	NIL	
AirportHeliport +contaminant [AirportHeliportContamination]	Overall contamination of an airport.	NIL	
AirportHeliport.altimeterCheckLocation	The availability of a point or area designated at an aerodrome where the checking of an altimeter system can be accomplished.	A textual description of the altimeter check locations.	AIHWG
AirportHeliport.designatorIATA	The identifier that is assigned to a location in accordance with rules (resolution 767) governed by the International Air Transport Association (IATA).	The three letter IATA designator of the aerodrome/heliport.	AIHWG
AirportHeliport.fieldElevation	The vertical distance above Mean Sea Level (MSL) of the highest point of the landing area.	The value of the aerodrome elevation. The vertical distance between the highest point of the landing area of an aerodrome and mean sea level. Note: this might be different from the elevation of the Aerodrome Reference Point.	AIHWG
AirportHeliport.landingDirectionIndicator	The availability of a device that indicates visually the direction currently designated for landing and for take-off.	A textual description of the landing direction indicator (LDI) and its position at the aerodrome/heliport.	AIHWG
AirportHeliport.magneticVariation	The angular difference between True North and Magnetic North measured at a given position and date.	The measured angle between Magnetic North and True North at a given point and at the time reported in dateMagneticVariation. By convention, the measure is expressed as a positive number if Magnetic North is to the east of True North and negative if Magnetic North is to the west of True North. Therefore, magnetic bearing + magnetic variation = true bearing. The following rule	AIHWG

		of thumb applies: ""variation east-magnetic least, variation west-magnetic best"".	
AirportHeliport.name	The primary official name of an aerodrome as designated by an appropriate authority.	The full free text name of the aerodrome/heliport.	AIHWG
AirportHeliport.referenceTemperature	The monthly mean of the daily maximum temperatures for the hottest month of the year at an aerodrome.	The value of the reference temperature at an aerodrome/heliport.	AIHWG
AirportHeliport.secondaryPowerSupply	The availability of emergency power supply for the airport/heliport.	A textual description of the secondary power supply available at the aerodrome/heliport.	AIHWG
AirportHeliport.transitionAltitude	The altitude at or below which the vertical position of an aircraft is controlled by reference to altitudes.	The value of the transition altitude.	AIHWG
AirportHeliport.transitionLevel	The lowest flight level available for use above the transition altitude.	The value of the transition flight level.	AIHWG
AirportHeliport.verticalDatum	A reference surface with respect to which elevations and/or depths are specified.	Attribute to take the \"Vertical Datum\" (viz. the tide gauge to determine MSL - for example, \"AMSTERDAM GAUGE\", \"NEWLYN\" etc.).	AIHWG
AirportHeliport.windDirectionIndicator	The availability of a device that indicates the direction and the intensity of the wind.	A textual description of the wind direction indicator (WDI) and its position at the aerodrome/heliport.	
AirportHeliportAvailability +usage [AirportHeliportUsage]	Rule which regulates the usage of the AirportHeliport.	NIL	
AirportHeliportProtectionArea.lighting	The availability of a lighting system that visually identified the Protection Area in low visibility conditions.	A textual description of the lighting system on the protection area.	
AirportHeliportResponsibilityOrganisation	Characterises the role of the organisation or authority which is responsible for the AirportHeliport	NIL	
AirportHotSpot +area [ElevatedSurface]	The shape of the hot spot.	NIL	
AirportSuppliesService +oilSupply [Oil]	The types of oil that are supplied.	NIL	
Airspace +activation [AirspaceActivation]	The operational status of the Airspace.	NIL	
AirspaceLayer.discreteLevelSeries [StandardLevelColumn]	Restriction of the AirspaceLayer to a number of standard IFR or VFR levels.	NIL	
AirTrafficControlService +aircraftLocator [DirectionFinder]	The Direction Finder assisting the ATC service (such as APP, TWR, etc.).	NIL	
AltimeterSource.availability [AltimeterSourceStatus]	Information about the operational status of the AltimeterSource.	NIL	
AltimeterSourceStatus	Information about the operational status of an Altimeter Source.	NIL	
ApproachLightingSystem	An airport lighting facility which provides visual guidance to landing aircraft by radiating light beams in a directional pattern by which the pilot aligns the aircraft with the final approach path for landing.	A lighting system installed before the threshold of a runway providing a visual reference for aircraft landing on that runway.	AIHWG
Apron +availability [ApronAreaAvailability]	The operational status of the Apron.	NIL	
ApronAreaAvailability +usage [ApronAreaUsage]	Rule which regulates the usage of the ApronArea.	NIL	
ApronElement +availability [ApronAreaAvailability]	The operational status of the ApronElement.	NIL	
ApronElement.type	The type of an apron based upon its location on an	NIL	AIHWG

	aerodrome and its general purpose.		
ConditionCombination +operand [ConditionElementChoice]	A choice between an elementary condition and a preceding combination of conditions.	NIL	
ConditionElementChoice +aircraft [AircraftCharacteristic]	A type of aircraft for which the usage is specified.	NIL	
ConditionElementChoice +flight [FlightCharacteristic]	A type of flight for which the usage is specified.	NIL	
ConditionElementChoice +subCondition [ConditionCombination]	A preceding combination of conditions.	NIL	
ConditionElementChoice +weather [Meteorology]	Weather conditions for which the usage is specified.	NIL	
ContactInformation +address [PostalAddress]	A postal address for the contact.	NIL	
ContactInformation +networkNode [OnlineContact]	A direct link for the contact, over a data communication network.	NIL	
ContactInformation +phoneFax [TelephoneContact]	A phone or fax number for the contact.	NIL	
Curve.horizontalAccuracy	The difference between the recorded horizontal coordinates of a feature and its true position referenced to the same geodetic datum expressed as a circular error at 95 percent probability.	The horizontal distance from the stated geographical position within which there is a defined confidence of the true position falling.	AIHWG
DeicingArea	An area comprising an inner area for the parking of an aircraft to receive de-icing treatment and an outer area for the manoeuvring of two or more mobile de-icing equipment.	An area used for aircraft de-icing.	AIHWG
DeicingArea +availability [ApronAreaAvailability]	The operational status of the DeicingArea.	NIL	
DeicingAreaMarking	A symbol or group of symbols displayed on the surface of a Deicing Area	NIL	
DepartureArrivalCondition	A condition which is established for a departure or an arrival	NIL	
DirectionFinder +informationProvision [InformationService]	An Information Service (such as TWEB, ASOS, AWOS, etc.) associated with the Direction Finder.	NIL	
DME	Ultra High Frequency (UHF) ground equipment that is used in conjunction with airborne equipment to determine distance between the airborne and ground equipment.	UHF distance measuring equipment, operating on the interrogation-answer principle. The time required for the round trip of the signal exchange is measured in the airborne DME unit and translated into distance.	AIHWG
DME.displace	The distance from the DME antenna to the position where the zero range indication occurs in the DME receiver.	The value of the displacement, for example, the distance from the DME antenna to where the zero range indication occurs.	AIHWG
DME.type	The particular spectrum characteristics or accuracy of Ultra High Frequency (UHF) Distance Measuring Equipment (DME), as a category.	A code indicating a particular type of UHF distance measuring equipment. Examples: DME/N, DME/W, DME/P.	AIHWG
ElevatedCurve.elevation	The vertical distance of the curve level measured from Mean Sea Level (MSL).	Elevation (above Mean Sea Level) refers to the top of the feature described by the Elevated Point.	AIHWG (adapted)
ElevatedCurve.geoidUndulation	The distance of the geoid above (positive) or below (negative) the mathematical reference ellipsoid at the location of the curve.	A distance separating the geoid and the ellipsoid at that position. In respect of WGS-84 geodetic datum, the difference between the WGS-84 ellipsoidal height and	AIHWG (adapted)

		geoidal height represents geoidal undulation.	
ElevatedCurve.verticalAccuracy	The difference between the recorded elevation of a feature and its true elevation referenced to the same vertical datum expressed as a linear error at 95 percent probability.	Accuracy of the declared elevation.	AIHWG
ElevatedCurve.verticalDatum	The set of reference points or a mathematical model of the Earth's surface (a datum) against which vertical position measurements are made as basis for measuring elevations.	Attribute to take the \"Vertical Datum\" (viz. the tide gauge to determine MSL - for example, \"AMSTERDAM GAUGE\", \"NEWLYN\" etc.).	AIHWG
ElevatedPoint.elevation	The vertical distance of the point measured from Mean Sea Level (MSL).	Elevation (above Mean Sea Level) refers to the top of the feature described by the Elevated Point.	AIHWG (adapted)
ElevatedPoint.geoidUndulation	The distance of the geoid above (positive) or below (negative) the mathematical reference ellipsoid at the location of the point.	A distance separating the geoid and the ellipsoid at that position. In respect of WGS-84 geodetic datum, the difference between the WGS-84 ellipsoidal height and geoidal height represents geoidal undulation.	AIHWG (adapted)
ElevatedPoint.verticalAccuracy	The difference between the recorded elevation of a feature and its true elevation referenced to the same vertical datum expressed as a linear error at 95 percent probability.	Accuracy of the declared elevation.	AIHWG
ElevatedPoint.verticalDatum	The set of reference points or a mathematical model of the Earth's surface (a datum) against which vertical position measurements are made as basis for measuring elevations.	Attribute to take the \"Vertical Datum\" (viz. the tide gauge to determine MSL - for example, \"AMSTERDAM GAUGE\", \"NEWLYN\" etc.).	AIHWG
ElevatedSurface.elevation	The vertical distance of the surface level measured from Mean Sea Level (MSL).	Elevation (above Mean Sea Level) refers to the top of the feature described by the Elevated Point.	AIHWG (adapted)
ElevatedSurface.geoidUndulation	The distance of the geoid above (positive) or below (negative) the mathematical reference ellipsoid at the location of the surface.	A distance separating the geoid and the ellipsoid at that position. In respect of WGS-84 geodetic datum, the difference between the WGS-84 ellipsoidal height and geoidal height represents geoidal undulation.	AIHWG (adapted)
ElevatedSurface.verticalAccuracy	The difference between the recorded elevation of a feature and its true elevation referenced to the same vertical datum expressed as a linear error at 95 percent probability.	Accuracy of the declared elevation.	AIHWG
ElevatedSurface.verticalDatum	The set of reference points or a mathematical model of the Earth's surface (a datum) against which vertical position measurements are made as basis for measuring elevations.	Attribute to take the \"Vertical Datum\" (viz. the tide gauge to determine MSL - for example, \"AMSTERDAM GAUGE\", \"NEWLYN\" etc.).	AIHWG
EquipmentUnavailableAdjustmentColumn.equipmentRVR	RVR reading equipment is unavailable.	NIL	
EquipmentUnavailableAdjustmentColumn.guidanceEquipment	The guidance equipment which is inoperative	NIL	
EquipmentUnavailableAdjustmentColumn.landingSystemLights	Indicates if landing System Lights are available	NIL	
EquipmentUnavailableAdjustmentColumn.visibilityAdjustment	Adjusted for a specified visibility value.	NIL	
FASDataBlock.CRCRemainder	Hexadecimal representation of the 32-bit CRC used to check the integrity of the FAS data block.	NIL	
FASDataBlock.lengthOffset	Distance from the stop end of the runway to the Flight Path Alignment Point	NIL	

FinalProfile	The profile view of a final segment defined for an approach procedure.	NIL	
FlightConditionElementChoice +aerialRefuellingCondition [AerialRefuelling]	A condition based on an Aerial Refuelling.	NIL	
FlightConditionElementChoice +airportHeliportCondition [AirportHeliport]	A condition based on an AirportHeliport.	NIL	
FlightConditionElementChoice +airspaceCondition [Airspace]	A condition based on an Airspace.	NIL	
FlightConditionElementChoice +borderCrossingCondition [AirspaceBorderCrossing]	A condition based on the crossing of the common border between two adjacent airspaces.	NIL	
FlightConditionElementChoice +operand [FlightConditionCombination]	A combination of flight conditions.	NIL	
FlightConditionElementChoice +organisationCondition [OrganisationAuthority]	A condition based on an Organisation or Authority.	NIL	
FlightConditionElementChoice +routePortionCondition [RoutePortion]	A condition based on a RoutePortion.	NIL	
FlightConditionElementChoice +significantPointCondition [SignificantPoint]	A condition based on a SignificantPoint.	NIL	
FlightConditionElementChoice +standardInstrumentArrivalCondition [StandardInstrumentArrival]	A condition based on an Standard Instrument Arrival.	NIL	
FlightConditionElementChoice +standardInstrumentDepartureConditio n [StandardInstrumentDeparture]	A condition based on an SID.	NIL	
FlightConditionElementChoice +weather [Meteorology]	A condition based on the weather.	NIL	
FlightRestriction.instruction	Some free text to describe the operational instructions which form the FlightRestriction.	A textual description of the restriction.	
FlightRestrictionRoute +contact [ContactInformation]	The contact information of the relevant authority which can grant the permission for using the routing.	NIL	
FlightRestrictionRoute +routeElement [FlightRoutingElement]	Routing element concerned by a specified flight restriction.	NIL	
FlightRoutingElementChoice +aerialRefuellingElement [AerialRefuelling]	Aerial Refuelling Element which is impacted by a flight restriction.	NIL	
FlightRoutingElementChoice +airportHeliportElement [AirportHeliport]	AirportHeliport which is impacted by a flight restriction.	NIL	
FlightRoutingElementChoice +airspaceElement [Airspace]	Airspace which is impacted by a flight restriction.	NIL	
FlightRoutingElementChoice +directFlightElement [DirectFlightSegment]	Direct Flight Segment which is impacted by a flight restriction.	NIL	

FlightRoutingElementChoice +pointElement [SignificantPoint]	Significant Point which is impacted by a flight restriction.	NIL	
FlightRoutingElementChoice +routePortionElement [RoutePortion]	Route Portion which is impacted by a flight restriction.	NIL	
FlightRoutingElementChoice +standardInstrumentArrivalElement [StandardInstrumentArrival]	Standard Instrument Arrival which is impacted by a flight restriction.	NIL	
FlightRoutingElementChoice +standardInstrumentDepartureElement [StandardInstrumentDeparture]	SID which is impacted by a flight restriction.	NIL	
GroundLightingAvailability	Information about the operational status of a ground light.	NIL	
GroundLightSystem +availability [GroundLightingAvailability]	The operational status of the GroundLightSystem.	NIL	
GroundLightSystem.emergencyLighting	The availability of a back-up lighting system to be used in case of failure of the main lighting system.	A textual description of the emergency lighting system availability and its characteristics.	
HoldingPattern.instruction	Operational instructions that must be observed when flying the HoldingPattern.	Printable text description of the holding pattern	
HoldingPattern.nonStandardHolding	Indicates whether the HoldingPattern is non-standard, for example because it uses left-hand turns.	When holding with left turns, the reason should be stated	
HoldingPatternDistance	Representation of the span for a holding pattern that is defined using a distance	NIL	
HoldingPatternDuration	Representation of the span for a holding pattern that is defined using a time	NIL	
HoldingUse.instruction	Operational instructions concerning the use of the Holding Pattern in relation with a Procedure.	Textual description of descend requirement on a procedure. Instructions for descending in holding pattern. Example: TEZNE WP ARRIVALS DESCEND TO 14000 IN TEZNE WP HOLDING PATTERN (N,LT,169 INBOUND) PRIOR TO COMMENCING APPROACH	
InstrumentApproachProcedure.courseReversalInstruction	Operational instructions that must be observed for procedure turns and tear drops.	The textual instruction for procedure turns and tear drops.	
ManoeuvringAreaAvailability +usage [ManoeuvringAreaUsage]	Rule which regulates the usage of the ManoeuvringArea.	NIL	
MissedApproachGroup.instruction	Operational instructions that must be observed when flying the Missed Approach.	A textual description of the entire missed approach.	
Navaid	A service providing guidance information or position data for the efficient and safe operation of aircraft supported by one or more radio navigation aids.	One or more Navaid Equipment providing navigation services. The Navaid Equipment share business rules like paired frequencies.	Annex 15, AMDT 35
Navaid +availability [NavaidOperationalStatus]	The operational status of the navaid.	NIL	
Navaid +servedAirport [AirportHeliport]	The AirportHeliport served by the Navaid.	NIL	
NavaidEquipment +availability [NavaidOperationalStatus]	The operational status of the navaid equipment.	NIL	
NavaidEquipment +monitoring [NavaidEquipmentMonitoring]	Navaid equipment monitoring information.	NIL	
NavigationAreaSector +extent [Surface]	The surface extent of the navigation area sector.	NIL	

Obstruction.controlling	Indication whether it is a "controlling obstruction" for the associated ObstacleAssessmentArea.	NIL	
OrganisationAuthority +relatedOrganisationAuthority [OrganisationAuthority]	The related organisation, authority or agency"	NIL	
OrganisationAuthority.military	Information on the type of operations allowed.	NIL	
PilotControlledLighting +controlledLightIntensity [LightActivation]	The characteristics of the lighting system (intensity, number of clicks required to activate/deactivate the system).	NIL	
PilotControlledLighting.activationInstruction	Operational instructions for controlling the lighting systems.	Descriptions of pilot controlled lighting systems for each airport having either FAA-approved systems, standard systems of other countries, or non-standard systems. The desciption explains the type lights, method of control, and operating frequency in clear text.	
Point.horizontalAccuracy	The difference between the recorded horizontal coordinates of a feature and its true position referenced to the same geodetic datum expressed as a circular error at 95 percent probability.	The horizontal distance from the stated geographical position within which there is a defined confidence of the true position falling.	AIHWG
PrecisionApproachRadar	Primary radar equipment used to determine the position of an aircraft during final approach, in terms of lateral and vertical deviations relative to a nominal approach path, and in range relative to touchdown.	Precision Approach Radar (PAR) is designed for use as a landing aid rather than an aid for sequencing and spacing aircraft to provide lateral and vertical guidance to an aircraft pilot for landing up to the missed approach point. PAR equipment may be used as a primary landing aid or it may be used to monitor other types of approaches. It is designed to display range, azimuth, and elevation information. It is similar to an instrument landing system (ILS) but requires control instructions. One type of instrument approach that can make use of PAR is the ground-controlled approach (GCA).	AIHWG
PrimarySurveillanceRadar	Primary Surveillance Radar is a radar system which detects the position of all the objects within its coverage that can reflect its transmitted radio signals.	NIL	
Procedure +availability [ProcedureAvailability]	The operational availability of the Procedure.	NIL	
Procedure.communicationFailureInstruction	Operational instructions which must be observed in case of communication failure.	A textual description of providing direction in case of communication failure.	
Procedure.instruction	Operational instructions (other than communication failure instructions) that must be observed when flying the Procedure.	A textual description of the procedure.	
ProcedureAvailability	Information about the status of the procedure for flight planning/operations.	NIL	
ProcedureTransition.instruction	Operational instructions that must be observed when flying the ProcedureTransition part.	a textual description of the procedure transition	
ProcedureTransitionLeg	Characterises a SegmentLeg which is part of a Procedure Transition	NIL	
RadarComponent.collocationGroup	Set of radar equipments that are collocated. All Radar equipment that has the same value for this property are collocated together.	NIL	
RadarEquipment.magneticVariation	The angular difference between True North and	The measured angle between Magnetic North and True	AIHWG

	Magnetic North measured at a given position and date.	North at a given point and at the time reported in dateMagneticVariation. By convention, the measure is expressed as a positive number if Magnetic North is to the east of True North and negative if Magnetic North is to the west of True North. Therefore, magnetic bearing + magnetic variation = true bearing. The following rule of thumb applies: ""variation east-magnetic least, variation west-magnetic best"".	
RadioCommunicationChannel	A radio frequency band of sufficient width and associated identification data used for one- or two-way communication from or to a transmitter on the ground or in the air.	One or two (communication) frequencies used to provide a service. For one way broadcast (such as ATIS) the frequencyTransmission attribute only will be used.	
RadioCommunicationChannel +availability [RadioCommunicationOperationalStatus]	The operational status of the RadioCommunicationChannel.	NIL	
RadioCommunicationChannel +location [ElevatedPoint]	The location from where the radio are transmitted.	NIL	
Road	An established surface route on the aerodrome meant for the exclusive use of authorized vehicles and personnel.	Part of aerodrome surfaces used by service vehicles	AIHWG
RouteSegment +availability [RouteAvailability]	The operational availability of the RouteSegment.	NIL	
Runway +areaContaminant [RunwaySectionContamination]	Area contamination of a runway.	NIL	
RunwayDeclaredDistanceValue	The value of a conventional operational distance declared for a runway direction.	NIL	
RunwayDirection +availability [ManoeuvringAreaAvailability]	The operational status of the RunwayDirection.	NIL	
SeaplaneLandingArea +availability [ManoeuvringAreaAvailability]	The operational status of the SeaplaneLandingArea.	NIL	
SearchRescueService	The performance of distress monitoring, communication, coordination and search and rescue functions, initial medical assistance or medical evacuation, through the use of public and private resources, including cooperating aircraft, vessels and other craft and installations.	A kind of service that provides alerting, search and rescue functions.	AIHWG
SectorDesign].terminationAltitude	Termination Altitude	NIL	
Service +availability [ServiceOperationalStatus]	The operational status of the Service.	NIL	
Service +groundCommunication [ContactInformation]	The point of contact on the ground for the service.	NIL	
Service +radioCommunication [RadioCommunicationChannel]	The radio frequency on which the service is provided.	NIL	
SpecialNavigationStation +availability [SpecialNavigationStationStatus]	The operational status of the Special Navigation Station.	NIL	
StandMarking	A symbol or group of symbols displayed on the surface of the Aircraft Stand.	NIL	
Surface.horizontalAccuracy	The difference between the recorded horizontal	The horizontal distance from the stated geographical	AIHWG

	coordinates of a feature and its true position referenced to the same geodetic datum expressed as a circular error at 95 percent probability.	position within which there is a defined confidence of the true position falling.	
SurfaceCharacteristics.classLCN	A value which denotes the peak bearing moment the surface can handle repeatedly without shortening its service life.	The Load Classification Number (LCN) of the surface.	AIHWG (spelling error corrected for bearing)
SurfaceCharacteristics.classPCN	The bearing strength of a pavement for unrestricted operations.	Pavement classification number (PCN) for the surface.	AIHWG
SurfaceCharacteristics.composition	The type of the predominant material of which a surface of the movement area is composed.	A code indicating the composition of an aerodrome/heliport related surface. For example: asphalt, concrete, etc...	AIHWG
SurfaceCharacteristics.condition	The quality of the surface, as a category.	A qualitative code indicating the condition of a surface.	AIHWG (adapted)
SurfaceCharacteristics.evaluationMethodPCN	The method used to rate a runway pavement.	A code indicating the evaluation method for the PCN.	AIHWG
SurfaceCharacteristics.maxTyrePressurePCN	The maximum allowable tire pressure category related to the Pavement Classification Number (PCN), as a category.	A coded indication of the maximum allowable tire pressure category related to the PCN number.	AIHWG
SurfaceCharacteristics.pavementSubgradePCN	A categorized indication of the pavement subgrade strength related to the Pavement Classification Number (PCN).	A coded indication of the sub-grade strength category related to the PCN number.	AIHWG
SurfaceCharacteristics.pavementTypePCN	The pavement behaviour (rigid or flexible) used for the Pavement Classification Number (PCN) determination, as a category.	A coded indication of the pavement behaviour (rigid or flexible) used for the ACN-PCN determination.	AIHWG
SurfaceCharacteristics.preparation	The preparation technique(s) applied to a surface composition.	A coded indication of the preparation technique for the surface area.	AIHWG
SurfaceCharacteristics.tyrePressureSIWL	The maximum aircraft tire pressure that a movement area surface can support.	The value of the Single Isolated Wheel Load (SIWL) tire pressure.	AIHWG
SurfaceCharacteristics.weightAUW	The maximum total value of the weight of an aircraft that a movement area surface may support, regardless of the landing gear configuration of the aircraft.	The value of the All Up Wheel Weight.	AIHWG
SurfaceCharacteristics.weightSIWL	The maximum calculated load on each tire of a landing gear assembly that a movement area surface can support.	The value of the Single isolated Wheel Load (SIWL) weight.	AIHWG
SurfaceContamination +layer [SurfaceContaminationLayer]	A layer of contaminant.	NIL	
SurveillanceGroundStation	Characterizes the ground station where the Radar Scope is utilized.	NIL	
SurveillanceRadar	An abstract class gathering the properties that are common to both Primary and Secondary Surveillance Radar.	NIL	
TaxiHoldingPosition	A designated position intended for traffic control at which taxiing aircraft and vehicles shall stop and hold until further cleared to proceed, when so instructed by the aerodrome control tower.	A position on a taxi guidance line, where aircraft may be asked to hold.	AIHWG
TaxiHoldingPositionMarking	A symbol or group of symbols displayed on the surface of a Taxiway indicating the location of the TaxiHoldingPosition.	NIL	

Taxiway +availability [ManoeuvringAreaAvailability]	The operational status of the Taxiway.	NIL	
TaxiwayElement +availability [ManoeuvringAreaAvailability]	The operational status of the TaxiwayElement.	NIL	
TerminalArrivalArea	The lowest altitude that will provide a minimum clearance of 300 metres (1000 feet) above all objects located in an arc of a circle defined by a 46 kilometre (25 nautical mile) radius centred on the initial approach fix (IAF), or where there is no IAF then centred on the intermediate approach fix (IF), delimited by straight lines joining the extremity of the arc to the IAF/IF.	Terminal arrival area/altitude (TAA). [ICAO] The lowest altitude that will provide a minimum clearance of 300 m (1 000 ft) above all objects located in an arc of a circle defined by a 46 km (25 NM) radius centred on the initial approach fix (IAF), or where there is no IAF on the intermediate approach fix (IF), delimited by straight lines joining the extremity of the arc to the IF. The combined TAAs associated with an approach procedure shall account for an area of 360 degrees around the IF. Terminal Arrival Areas may be provided for RNAV approaches to facilitate descent and entry to the procedure. TAAs are associated with an RNAV procedure based upon the "T" or "Y" Arrangement. The Basic T approach segment configuration is the standard configuration for transition from the en route to the terminal environment. The standard arrangement consists of three TAAs: straight-in, right and left base.	AIHWG
TouchDownLiftOff +availability [ManoeuvringAreaAvailability]	The operational status of the TouchDownLiftOff area.	NIL	
TouchDownLiftOff.helicopterClass	The class of a helicopter based on its performance during a critical power unit failure after take-off.	A code indicating the performance class of helicopters that the Touch Down and Lift-Off Area is intended to serve.	AIHWG
TouchDownLiftOff.slope	The slope (rate of upward inclination of the surface from the horizontal) of the surface of a feature.	The value of the maximum profile slope of the touchdown and lift-off area. This value is always expressed as a percent.	AIHWG
Unit +availability [UnitAvailability]	The operational status of the Unit.	NIL	
Unit +contact [ContactInformation]	Contact details for the unit (phone, postal address, e-mail, etc.)	NIL	
Unit +relatedUnit [Unit]	The related unit.	NIL	
UsageCondition +contact [ContactInformation]	The contact information for a person or group.	NIL	
UsageCondition +selection [ConditionCombination]	The selection of flights, environmental conditions and times for which the usage is specified.	NIL	
VerticalStructurePart.verticalExtent	The extent of the vertical structure part.	NIL	
VerticalStructurePart.verticalExtentAccuracy	Accuracy of the value of the declared vertical extent.	NIL	
WorkArea +activation [WorkareaActivity]	Time period during which the building site is active or not.	NIL	
CircleSector.upperLimit	The uppermost altitude or level that is included in the sector.	When the codeDescrDistVer is 'B', this it the upper altitude limit of the TAA.	
CircleSector.upperLimitReference	The reference surface used for the value of the upper	A code indicating the reference for a vertical distance.	

	limit. For example, Mean Sea Level, Ground, standard pressure, etc.	Two series of values exist: 1) real distance: from GND, from the MSL, from the WGS-84 ellipsoid 2) pressure distance: QFE, QNH, STD.	
CircleSector.lowerLimit	The lowermost altitude or level that is included in the sector.	Minimum sector altitude. It is the highest of the minimum altitudes in controlling obstacles plus the altitude adjustments (operational factors)	
CircleSector.lowerLimitReference	The reference surface used for the value of the lower limit. For example, Mean Sea Level, Ground, standard pressure, etc.	A code indicating the reference for a vertical distance. Two series of values exist: 1) real distance: from GND, from the MSL, from the WGS-84 ellipsoid 2) pressure distance: QFE, QNH, STD.	

AlphanumericType	A type representing a combination of alphabetic and numeric characters.	NIL	
AlphaType	A type representing a combination of alphabetic characters.	NIL	
Character1Type	A string of Simple Latin upper case letters and/or digits and/or a few special characters (space, plus sign, minus sign, solidus -'/').	NIL	
Character2Type	A string of Unicode characters.	NIL	
Character3Type	A string of Simple Latin upper case letters and/or digits and/or more special characters (space| exclamation mark| double quote| number sign| dollar sign| percent| ampersand| quote| left paren| right paren| asterisk| plus sign| comma| minus sign| period| solidus| colon| semicolon| less than operator| equals operator| greater than operator| question mark| commercial at| left bracket| reverse solidus| right bracket| circumflex| underscore| vertical bar| left brace| right brace).	NIL	
CodeApronElementBaseType	A code indicating the type of Apron.	NIL	
CodeArrestingGearEngageDeviceBaseType	A code indicating the type of device (for example: a hook) that is used to engage an aircraft upon landing in order to immediately stop it.	NIL	
CodeProtectAreaSectionBaseType	A code indicating the location of the Protect Area lighting.	NIL	
CodeRoadBaseType	A code indicating the type of a road.	NIL	
CodeRunwayElementBaseType	A code indicating the type of Runway or Taxiway element.	NIL	

CodeRVSMBaseType	A code indicating that reduced vertical separation minima is applied in the column or not.	NIL	
CodeServiceGroundControlBaseType	A code indicating the type of ground traffic control service.	NIL	
CodeStatusConstructionBaseType	A code indicating the status of the construction of a Vertical Structure.	NIL	
CodeTransponderBaseType	A code indicating a transponder mode.	NIL	
CodeWorkAreaBaseType	A code indicating the type of work performed in the work area.	NIL	
TextPhoneBaseType	A phone or facsimile number	NIL	
ValAlarmLimitBaseType	A distance value expressed in meter that is used for the Horizontal or Vertical Alarm Limit of a FAS Data Block.	NIL	
ValChannelNumberBaseType	The value of a GNSS channel.	NIL	

All <<choice>> classes that were missing a definition now have a basic definition "*A link class that allows selecting between….*"

Corrections to the XML Schema structure

1. For class attributes, the nilReason is now defined at data type level, thus avoiding the creation of numerous local "anonymous" types, as explained in the following AIXM Forum message:
   https://www.aixm.aero/agor_live/agor/BrowseMessages.do?browseAction=browseSearchedMessage&messageId=13667#13667
2. Object types, which are complex properties of AIXM features (such as ContactInformationType), are now declared as specialisation of an AbstractAIXMObjectType which also declares the nilReason attribute. This eliminates the need to declare the nilReason attribute for each "object" data type individually. The AbstractAIXMObjectType is derived from the AbstractGMLType, which ensures a proper hierarchy in the AIXM Schema, for all AIXM complex types. This eliminates the risk that GML parser do not recognise AIXM geometry elements that were previously "hidden" inside an AIXM non-GML object.
3. In the AIXM_AbstractGML_ObjectTypes.xsd schema file, the attributes gml:identifier, gml:description, gml:name and gml:boundedBy are now directly inherited from the gml:DynamicFeatureType, instead of being re-declared locally in the AbstractAIXMFeatureBaseType. This local declaration was done at the time when AIXM was using GML 3.1.1, in preparation for compatibility with the coming AIXM 3.2 This makes the order of these attributes consistent with the GML 3.2 native order and also avoids the problems highlighted in the following AIXM Forum message:
   https://www.aixm.aero/agor_live/agor/BrowseMessages.do?browseAction=browseSearchedMessage&messageId=12766
4. In the AIXM_AbstractGML_ObjectTypes.xsd schema file, the elements sequenceNumber and correctionNumber are now defined as restrictions of unsignedInt, which is in line with their name and also solves the problem highlighted in this AIXM Forum message:
   https://www.eurocontrol.int/agor_live/agor/BrowseMessages.do?forumId=4&browseAction=browseSearchedMessage&aid=12767&messageId=12767#12767