

AMENDMENT MM51/MM54 OF WMO-NO. 306 VOLUME I.3 BY THE FAST TRACK PROCEDURE.

9 March 2018

Corrections to the validation rules in iwxxm.sch and iwxxm-collect.sch and introduction of offline validation

Amend the XML validation rules in

<http://schemas.wmo.int/iwxxm/2.1./rule/iwxxm.sch> and
<http://schemas.wmo.int/iwxxm/2.1/rule/iwxxm-collect.sch>

to those in

<http://schemas.wmo.int/iwxxm/2.1.1RC1/rule/iwxxm.sch> and
<http://schemas.wmo.int/iwxxm/2.1.1RC1/rule/iwxxm-collect.sch>.

Note that there are two changes to the validation rules:

TAF validation. Rule TAF.TAF18 is amended to check that if CAVOK is reported the cloud amount is not reported.

SIGMET/AIRMET validation. The validation rules are amended to permit use of the equivalent of the Traditional Alphanumeric Code height specifications of ABV a flight level and BLW a flight level.

Note also that the amendment introduces a tool that is not part of the definition of IWXXM.

Offline validation. This amendment introduces an additional schematron *iwxxm-collect-codelists.sch* to allow validation of IWXXM documents without an active connection to the internet.

Note further that following approval of IWXXM 2.1.1 the release candidate schemas will be transferred to final release schemas, so that <http://schemas.wmo.int/iwxxm/2.1.1RC1> will be renamed as <http://schemas.wmo.int/iwxxm/2.1.1> and also copied to replace <http://schemas.wmo.int/iwxxm/2.1> as the reference release of IWXXM 2.1.

Updated guidance and examples

Amend the examples in <http://schemas.wmo.int/iwxxm/2.1/examples> to those versions in <http://schemas.wmo.int/iwxxm/2.1.1RC1/examples>.

Note: the changes amend the guidance to assist in the aggregation of IWXXM documents into a single COLLECT document.

Amend the examples listed in the tables below to show how the COLLECT container may be used.

File in iwxxm 2.1	is replaced by iwxxm 2.1.1 file
metar-NIL.xml	metar-NIL-collect.xml
metar-translation-failed.xml	metar-translation-failed.xml
sigmet-translation-failed.xml	sigmet-translation-failed-collect.xml
taf-NIL.xml	taf-NIL-collect.xml

Add an explanation of how to handle documents that cannot be translated from traditional alphanumeric codes to IWXXM in file TAC-to-XML-Guidance.txt.

Update all examples to show the location of the schemas for this sub-release (<http://schemas.wmo.int/iwxxm/2.1.1RC1> for the pre-approval versions and <http://schemas.wmo.int/iwxxm/2.1.1> for the versions following approval).

In addition, amend the examples in the following table.

Example	Amendment
airmet-A6-1a-TS.xml	Correct the observation type to AIRMETEvolvingConditionCollectionAnalysis.
metar-A3-1.txt	Correct the handling of result time.
sigmet-A6-1a-TS.xml	Correct the observation type to SIGMETEvolvingConditionCollectionAnalysis.
sigmet-A6-1b-CNL.xml	Correct the observation type to SIGMETEvolvingConditionCollectionAnalysis.
sigmet-A6-2-TC.xml	Correct the observation types to SIGMETEvolvingConditionCollectionAnalysis and SIGMETPositionCollectionAnalysis.
sigmet-multi-location.xml	Correct the observation types to SIGMETEvolvingConditionCollectionAnalysis and SIGMETPositionCollectionAnalysis, the references to <om:procedure>, and the observed properties to SIEMETEvolvingConditionCollectionAnalysis and SIGMETPositionCollectionAnalysis.. Remove all references to <om:observedProperty xlink:href="http://codes.wmo.int/49-2/SigWxPhenomena/VA"/>.
sigmet-VA-EGGX.xml	Correct the observation types to SIGMETEvolvingConditionCollectionAnalysis and SIGMETPositionCollectionAnalysis. Change observed property http://codes.wmo.int/49-2/SigWxPhenomena/VA to http://codes.wmo.int/49-2/observable-property/SIGMETEvolvingConditionCollectionAnalysis .
tc-advisory-A2-2.xml	Simplify the reference to the AIXM time slice. Correct http://codes.wmo.int/49-2/observable-property/TCAdvisory to http://codes.wmo.int/49-2/observable-property/TropicalCycloneObservedConditions or http://codes.wmo.int/49-2/observable-property/TropicalCycloneForecastConditions as appropriate to the context.
va-advisory-A2-1.xml	Simplify the specification of aixm:timeslice. Correct references to http://codes.wmo.int/49-2/observable-property/VAA Advisory to http://codes.wmo.int/49-2/observable-property/VolcanicAshConditions .

Add entries to codes.wmo.int and the corresponding tables in WMO-No. 306 Volume I.3.

Amend CODE TABLE D-4: FM 205-16 – IWXXM OBSERVATION TYPES as shown

Label	Notation	Code-space	Description
AIRMET Evolving Condition Collection Analysis	AIRMETEvolvingConditionCollectionAnalysis	http://codes.wmo.int/49-2/observation-type/IWXXM/2.1	AIRMETEvolvingConditionAnalysis (a subclass of SamplingObservation from METCE) is intended for use when reporting an observed aggregate set of meteorological conditions concerning the occurrence or expected occurrence of specified en-route weather phenomena which may affect the safety of low-level aircraft operations and which was not already included in the forecast issued for low-level flights in the flight information region concerned or sub-area thereof. The result of this observation type shall refer to a single EvolvingMeteorologicalCondition which represents an AIRMET observation of meteorological conditions. AIRMETEvolvingConditionAnalysis enforces the following additional constraints: "featureOfInterest" shall refer to an entity of type SF_SamplingSurface and the associated "sampledFeature" must be an airspace.
SIGMET evolving condition collection analysis	SIGMETEvolvingConditionCollectionAnalysis	http://codes.wmo.int/49-2/observation-type/IWXXM/2.1	SIGMETEvolvingConditionCollectionAnalysis (a subclass of SamplingObservation from METCE) is intended for use when reporting an observed or forecast aggregate set of meteorological conditions hazardous to flight over a large airspace, including anticipated intensity change plus speed and direction of motion. The result

Label	Notation	Code-space	Description
			<p>of this observation type shall refer to a single EvolvingMeteorologicalCondition SIGMETEvolvingConditionCollection which represents a SIGMET observation or forecast of meteorological conditions. SIGMETEvolvingConditionCollectionAnalysis enforces the following additional constraints: "featureOfInterest" shall refer to an entity of type SF_SamplingSurface and the associated "sampledFeature" must be an airspace.</p>
SIGMET position collection analysis	SIGMETPosition Collection Analysis	http://codes.wmo.int/49-2/observation-type/IWXXM/2.1	SIGMETPosition Collection Analysis (a subclass of SamplingObservation from METCE) is intended for use when reporting the forecast position of meteorological conditions hazardous to flight. The result of this observation type shall refer to one or more MeteorologicalPositions SIGMETPositionCollection which represents the forecast positions of SIGMET phenomena. SIGMETPosition Collection Analysis enforces the following additional constraints: "featureOfInterest" shall refer to an entity of type SF_SamplingSurface and the associated "sampledFeature" must be an airspace.
Tropical Cyclone Forecast Conditions	TropicalCycloneForecastConditions	http://codes.wmo.int/49-2/observation-type/IWXXM/2.1	TropicalCycloneForecastConditions (a subclass of SamplingObservation from METCE) is intended for use when reporting the expected occurrence of tropical cyclone phenomena which may affect the safety of aircraft operations, and of the development of those phenomena in time and space. The result of this observation type shall refer to one or more

<i>Label</i>	<i>Notation</i>	<i>Code-space</i>	<i>Description</i>
			MeteorologicalPositions which represents the forecast positions of Tropical Cyclone phenomena. TropicalCycloneForecastConditions enforces the following additional constraints: "featureOfInterest" shall refer to an entity of type SF_SamplingPoint.
Tropical Cyclone Observed Conditions	TropicalCycloneObservedConditions	http://codes.wmo.int/49-2/observation-type/IWXXM/2.1	TropicalCycloneObservedConditions (a subclass of SamplingObservation from METCE) is intended for use when reporting the occurrence of tropical cyclone phenomena which may affect the safety of aircraft operations, and of the development of those phenomena in time and space. The result of this observation type shall refer to one or more MeteorologicalPositions which represents the forecast positions of SIGMET phenomena. TropicalCycloneObservedConditions enforces the following additional constraints: "featureOfInterest" shall refer to an entity of type SF_SamplingPoint.
Volcanic Ash Conditions	VolcanicAshConditions	http://codes.wmo.int/49-2/observation-type/IWXXM/2.1	VolcanicAshConditions (a subclass of SamplingObservation from METCE) is intended for use when reporting the occurrence and/or expected occurrence of specified en-route volcanic ash phenomena which may affect the safety of aircraft operations, and of the development of those phenomena in time and space. The result of this observation type shall refer to one or more MeteorologicalPositions which represents the forecast positions of Volcanic Ash phenomena. VolcanicAshConditions enforces the following additional

<i>Label</i>	<i>Notation</i>	<i>Code-space</i>	<i>Description</i>
			constraints: "featureOfInterest" shall refer to an entity of type SF_SamplingSurface and the associated "sampledFeature" must be an airspace.

The previous entries SIGMETEvolvingConditionAnalysis and SIGMETPositionAnalysis will be retained on <http://codes.wmo.int> and marked as "retired".

Add the following entry to code table D-6 in WMO-No. 306 Volume I.3.

<i>Label</i>	<i>Notation</i>	<i>URI</i>
Precipitation of rain and snow	RERASN	http://codes.wmo.int/306/4678/RASN

Add the following row to CODE TABLE D-2 PHYSICAL QUANTITY KINDS in the section of the table with title “Meteorological quantities”

<i>Label</i>	<i>Notation</i>	<i>Description</i>	<i>Dimensions</i>
<u>Height of top of cloud</u>	<u>heightOfTopOfCloud</u>	<u>For a given cloud or cloud layer, vertical distance (measured from sea level) of the highest level in the atmosphere at which the air contains a perceptible quantity of cloud particles.</u>	<u>L</u>

Add the following entries to CODE TABLE D-5: IWXXM OBSERVABLE PROPERTIES

<i>Label</i>	<i>Notation</i>	<i>Code-space</i>	<i>Description</i>
<u>AIRMET Evolving Condition Collection Analysis</u>	<u>AIRMETEvolvingConditionCollectionAnalysis</u>	<u>http://codes.wmo.int/49-2/observable-property</u>	<u>The set of physical properties evaluated as a result of an AIRMET, as specified in Technical Regulations, Volume II (WMO-No. 49): Meteorological Services for International Air Navigation.</u>
<u>SIGMET Evolving Condition Collection Analysis</u>	<u>SIGMETEvolvingConditionCollectionAnalysis</u>	<u>http://codes.wmo.int/49-2/observable-property</u>	<u>The set of meteorological conditions to be reported in a SIGMET, as specified in Technical Regulations, Volume II (WMO-No. 49): Meteorological Services for International Air Navigation.</u>
<u>SIGMET Position Collection</u>	<u>SIGMETPositionCollectionAnalysis</u>	<u>http://codes.wmo.int/49-2/observable-property</u>	<u>The set of locations where meteorological conditions exist to be reported in a SIGMET, as specified in</u>

Analysis			Technical Regulations, Volume II (WMO-No. 49): Meteorological Services for International Air Navigation.
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