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<?xml version="1.0" encoding="UTF-8"?>
<!--
=====
>
-----<!--AIXM 5.1.1-->
-----<!--www.aixm.aero-->
-----<!--Released: February 2010-->
-----<----->
-----<!--March 2016-->
<!--
=====
>
<!--
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        =====
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        =====
        Editorial note: this license is an instance of the BSD
        license template as
        provided by the Open Source Initiative:
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        -->
<schema xmlns="http://www.w3.org/2001/XMLSchema"
xmlns:aixm="http://www.aixm.aero/schema/5.1.1"

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xmlns:gml="http://www.opengis.net/gml/3.2"
xmlns:xlink="http://www.w3.org/1999/xlink"
xmlns:gmd="http://www.isotc211.org/2005/gmd"
targetNamespace="http://www.aixm.aero/schema/5.1.1"
elementFormDefault="qualified" attributeFormDefault="unqualified"
version="5.1.1">
  <annotation>
    <appinfo>
      <gml:gmlProfileSchema>http://www.aixm.aero/schema/5-external.schemas.opengis.net/gmlAIXMProfile/1/profile/gml4aixm.1/gml321forAIXM.xsd</gml:gmlProfileSchema>
    </appinfo>
  </annotation>
  <annotation>
    <appinfo source="http://www.aixm.aero/schema/5.1">AIXM_AbstractGML_ObjectTypesFeatures.xsd</appinfo>
  </annotation>
  <!--
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>
  <!--Schema Imports and Includes-->
  <!--
=====
>
  <!--==== IMPORT GML 3.2 =====>
  <import namespace="http://www.opengis.net/gml/3.2"
schemaLocation="#ISO_19136_Schemas" http://schemas.opengis.net/gml/3.2.1/gml.xsd"/>
  <!--==== IMPORT ISO19139 METADATA SCHEMA =====>
  <import namespace="http://www.isotc211.org/2005/gmd"
schemaLocation="#ISO_=" http://schemas.opengis.net/iso/19139_Schemas/20070417/gmd/metadataEntitygmd.xsd"/>
  <!--
=====
>
  <!--Base AIXM Feature/Object Constructs-->
  <!--
=====
>
  <complexType name="AbstractAIXMFeatureBaseType" abstract="true">
    <annotation>
      <documentation>This derives from
gml:DynamicFeatureType, as all AIXM features are expected to have
temporal properties modeled using the Timeslice model. While the GML
specification does not mandate that dynamic features derive from
gml:DynamicFeatureType, many GML-aware applications may only detect a
dynamic feature by this type hierarchy. Note that all temporal
properties of gml:DynamicFeatureType are removed during this
restriction, because they will be added for each AIXM feature
specifically, based on the TimeSlice model</documentation>
    </annotation>

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Comment [PE1]: Approved with AIXM-167 (to be done at the Webex on 15 Apr)

Comment [PE2]: Unnecessary annotations that existed in the AIXM 5.1 schema.

Comment [PE3]: Approved with AIXM-167 (to be done at the Webex on 15 Apr)

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    <complexContent>
      <restriction base="gml:DynamicFeatureType">
        <sequence>
          <sequence>
            <sequence>
              <element ref="gml:description"
minOccurs="0"/>
              <element ref="gml:identifier"
minOccurs="0"/>
              <element ref="gml:name"
minOccurs="0" maxOccurs="unbounded"/>
            </sequence>
          </sequence>
          <sequence>
            <element ref="gml:boundedBy"
minOccurs="0"/>
          </sequence>
        </sequence>
        <attribute ref="gml:id" use="required"/>
      </restriction>
    </complexContent>
  </complexType>
  <complexType name="AbstractAIXMFeatureType" abstract="true">
    <annotation>
      <documentation>Adds the FeatureMetadata, which is
common to all AIXM features</documentation>
    </annotation>
    <complexContent>
      <extension base="aixm:AbstractAIXMFeatureBaseType">
        <sequence>
          <element name="featureMetadata"
type="aixm:FeatureMetadataPropertyType" minOccurs="0"/>
        </sequence>
      </extension>
    </complexContent>
  </complexType>
  <element name="AbstractAIXMFeature"
type="aixm:AbstractAIXMFeatureType" abstract="true"
substitutionGroup="gml:AbstractFeature">
    <annotation>
      <documentation>Substitution head for AIXM
features.</documentation>
    </annotation>
  </element>
  <complexType name="AbstractAIXMObjectType" abstract="true">
    <annotation>
      <documentation>Base type for AIXM complex types that
are NOT features. For example, City, ContactInformation,
AirspaceVolume, etc. It derives from AbstractGMLType so that AIXM
objects are recognised as GML objects, thus ensuring that GML-aware
applications recognise them properly. Retains only the mandatory
gml:id attribute.</documentation>
    </annotation>
  </complexType>

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</annotation>
<complexContent>
  <restriction base="gml:AbstractGMLType">
    <sequence>
      <sequence/>
    </sequence>
    <attribute ref="gml:id" use="required"/>
  </restriction>
</complexContent>
</complexType>
<element name="AbstractAIXMObject"
type="aixm:AbstractAIXMObjectType" abstract="true"
substitutionGroup="gml:AbstractGML">
  <annotation>
    <documentation>Substitution head for AIXM
objects.</documentation>
  </annotation>
</element>
<complexType name="AbstractAIXMPropertyType" abstract="true">
  <annotation>
    <documentation>It provides a basis for deriving AIXM
feature/object properties. It defines the nilReason attribute and
currently, it is only used for properties that are derived from
association with an AIM object.</documentation>
  </annotation>
  <attribute name="nilReason"
type="gml:NilReasonEnumeration"/>
</complexType>
<!--
=====
>
  <!--AIXM TimeSlice-->
  <!--
=====
>
  <complexType name="AbstractAIXMTimeSliceBaseType"
abstract="true">
    <annotation>
      <documentation>Base type of AIXM Timeslices. Removes
option attributes that are not used in AIXM.</documentation>
    </annotation>
    <complexContent>
      <restriction base="gml:AbstractTimeSliceType">
        <sequence>
          <sequence/>
          <sequence>
            <annotation>
              <documentation>The effectivity
of the TimeSlice.</documentation>
            </annotation>
            <element ref="gml:validTime"/>
          </sequence>

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                </sequence>
                <attribute ref="gml:id" use="required"/>
            </restriction>
        </complexContent>
    </complexType>
    <complexType name="AbstractAIXMTimeSliceType" abstract="true">
        <annotation>
            <documentation>Adds in the AIXM specific properties,
such as 'interpretation'.</documentation>
        </annotation>
        <complexContent>
            <extension base="aixm:AbstractAIXMTimeSliceBaseType">
                <sequence>
                    <element ref="aixm:interpretation"/>
                    <element ref="aixm:sequenceNumber"
minOccurs="0"/>
                    <element ref="aixm:correctionNumber"
minOccurs="0"/>
                    <element name="timeSliceMetadata"
type="aixm:FeatureTimeSliceMetadataPropertyType" minOccurs="0"/>
                    <element ref="aixm:featureLifetime"
minOccurs="0"/>
                </sequence>
            </extension>
        </complexContent>
    </complexType>
    <!--
=====
>
    <!--Feature collections-->
    <!--
=====
>
    <complexType name="AbstractAIXMMessageBaseType" abstract="true">
        <complexContent>
            <extension base="aixm:AbstractAIXMFeatureBaseType">
                <sequence>
                    <element ref="aixm:sequenceNumber"
minOccurs="0"/>
                    <element name="messageMetadata"
type="aixm:MessageMetadataPropertyType" minOccurs="0"/>
                </sequence>
            </extension>
        </complexContent>
    </complexType>
    <complexType name="AbstractAIXMMessageType" abstract="true">
        <complexContent>
            <extension base="aixm:AbstractAIXMMessageBaseType">
                <attributeGroup
ref="gml:AggregationAttributeGroup"/>
            </extension>
        </complexContent>

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    </complexType>
    <!--
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>
    <!--Feature/Object Extensions-->
    <!--
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>
    <element name="AbstractExtension"
type="aixm:AbstractExtensionType" abstract="true"/>
    <complexType name="AbstractExtensionType" abstract="true">
        <complexContent>
            <extension base="aixm:AbstractAIXMObjectType"/>
        </complexContent>
    </complexType>
    <!--
=====
>
    <!--Feature and TimeSlice Properties-->
    <!--
=====
>
    <element name="interpretation">
        <annotation>
            <documentation>Property indicating how the timeslice
is to be interpreted. See the AIXM Temporality model for
details.</documentation>
        </annotation>
        <simpleType>
            <restriction base="string">
                <enumeration value="BASELINE"/>
                <enumeration value="SNAPSHOT"/>
                <enumeration value="TEMPDELTA"/>
                <enumeration value="PERMDELTA"/>
            </restriction>
        </simpleType>
    </element>
    <element name="sequenceNumber">
        <annotation>
            <documentation>Used for the identification of the Time
Slice concerned. See the AIXM Temporality model for
details.</documentation>
        </annotation>
        <simpleType>
            <restriction base="unsignedInt"/>
        </simpleType>
    </element>
    <element name="correctionNumber">
        <annotation>
            <documentation>Used for indicating the order of the
corrections of a Time Slice. See the AIXM Temporality model for
details.</documentation>

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        </annotation>
        <simpleType>
            <restriction base="unsignedInt"/>
        </simpleType>
    </element>
    <element name="featureLifetime"
type="gml:TimePrimitivePropertyType">
        <annotation>
            <documentation>The start and end of life of the
feature. See the AIXM Temporality model for details.</documentation>
        </annotation>
    </element>
    <!--
=====
>
    <!--Base AIXM Metadata Property Types-->
    <!--
=====
>
    <complexType name="FeatureMetadataPropertyType">
        <complexContent>
            <extension base="gml:AbstractMetadataPropertyType">
                <sequence minOccurs="0">
                    <element ref="gmd:MD_Metadata"/>
                </sequence>
            </extension>
        </complexContent>
    </complexType>
    <complexType name="FeatureTimeSliceMetadataPropertyType">
        <complexContent>
            <extension base="gml:AbstractMetadataPropertyType">
                <sequence minOccurs="0">
                    <element ref="gmd:MD_Metadata"/>
                </sequence>
            </extension>
        </complexContent>
    </complexType>
    <complexType name="MessageMetadataPropertyType">
        <complexContent>
            <extension base="gml:AbstractMetadataPropertyType">
                <sequence minOccurs="0">
                    <element ref="gmd:MD_Metadata"/>
                </sequence>
            </extension>
        </complexContent>
    </complexType>
</schema>

```