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Administration**

Aviation Environmental Design Tool (AEDT)

Version 3e

Supplemental Manual
AEDT Standard Input File (ASIF)

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1 Introduction

The AEDT Standard Input File (ASIF) provides a standard file format to allow for the import of data into AEDT. The ASIF format allows users to create a new study by importing a complete study including airports, scenarios, cases, operations, tracks, and other study definitions. Users can also use the partial ASIF import to import data into an existing AEDT study.

This Manual provides a description of the ASIF format for the **ASIF schema version 1.2.19**. It also provides an overview of ASIF usage and annotated sample studies. The Manual is intended for analysts and programmers who wish to create ASIF.

It is recommended to use the ASIF schema documentation, [AsifMerge.html](#), in conjunction with the Manual. It provides diagrams that illustrate the structure and contents of each XML element as well as rules and properties of each element, see Section 1.2.

1.1 Overview of the ASIF Format

ASIF is based on the XML file format. XML is a text-based file format that is readable by both humans and computers. Data values are tagged with elements and organized in a hierarchical manner such that the elements can contain other elements or data. XML elements can also have attributes which provide metadata that affect how the ASIF importer processes the data in the XML file. This document assumes users have basic familiarity with the XML file format. For additional information about XML, see <http://xmlfiles.com/xml/>.

An ASIF can be created and edited in a standard XML editor. The *XML Notepad* and *Notepad++* are XML editors that can be downloaded for free online.

1.2 ASIF Schema Documentation

1.2.1 ASIF Schema Files

The ASIF schema (.xsd) files are located under *C:\Program Files\FAA\AEDT3e\Examples* directory.

- ASIF.xsd
- ASIF_Airport.xsd
- ASIF_Common.xsd
- ASIF_Fleet.xsd
- ASIF_Receptors.xsd

1.2.2 AsifMerge.html

The ASIF schema documentation, [AsifMerge.html](#), is located under the *C:\Program Files\FAA\AEDT3e\Examples\ASIF Schema Reference* directory. This is a HTML file which contains schema diagrams that illustrate the structure and contents of each XML element. The links in the HTML file facilitates understanding the schema hierarchy and the rules and properties of each element.

The following table describes the notations used in the ASIF schema diagram.

Notation for Schema Diagram

Notation	Icon	Description
Choice indicator		Only one of the elements contained in the selected group can be present
Sequence indicator		Child elements must appear in the specified sequence
Element		Represented by a rectangle with solid or dotted border Solid rectangle – required element Dotted rectangle – optional element
Element with (+) sign		Indicates that the element has child element(s) and/or attribute(s)
Element with min and max bound		Specifies the min/max number of times an element can occur in the parent element

1.3 Importing External Studies

AEDT also supports import of INM and EDMS studies by converting these legacy tools into ASIF format and importing into AEDT. See the AEDT User Manual and the AEDT Supplemental Manual: Quick Start Tutorial for more information on importing legacy studies.

2 ASIF Import Types

There are two types of ASIF import files: a full-study import and a partial-study import. The following sections describe each type of import file.

2.1 Full Study Import

AEDT supports the creation of new studies via ASIF. For a full-study import, the **content** attribute of the **AsifXML** element must be set to “study”.

Please see Section 3 for two sample studies.

2.2 Partial ASIF Import

Partial ASIF is used to import specific pieces of data into an existing AEDT study. A partial ASIF is organized similarly to a full ASIF, except that it contains a single type of data – the **content** attribute of the **AsifXML** element must specify the data type. The data types that can be imported via partial ASIF are listed below:

- airportLayoutSet
- annualization
- case
- fleet
- receptorSets
- scenario
- boundary
- trackOpSet
- runup
- userGroundSupportEquipmentSet
- stationarySourceSet
- operationalProfileSet

The format for a partial ASIF is outlined below. The header is the same as a full ASIF, except that the **content** attribute is not “study”. Instead, the **content** attribute should specify the data element that appears in the file.

```
<AsifXml xmlns:AsifXml="http://www.faa.gov/ASIF"
           xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" version="1.2.19"
           content="ENTER_CONTENT_TYPE_HERE">

    <!-- The content block follows here: -->

    <*content type here*>
    ...
    </*end content type*>

</AsifXml>
```

Note that some of these elements rely on information provided in other data blocks. If this information is not provided by the base study when loading the partial ASIF, an error will be generated. For example, attempting to load a partial ASIF containing scenario data that references an airport that does not exist in the base study will cause an error.

2.3 Sample ASIFs

Sample ASIFs, including full study files and partial ASIFs, are located in *C:\Program Files\FAA\AEDT3e\Examples* directory.

Full study ASIF

- asif_emissions_study.xml
- asif_sensor_path_study.xml
- asif_small.xml

Partial ASIF

- PartialASIF_airportLayoutSet.xml
- PartialASIF_annualization.xml
- PartialASIF_boundary.xml
- PartialASIF_operationalProfileSet.xml
- PartialASIF_receptorSets.xml
- PartialASIF_runup.xml
- PartialASIF_scenario.xml
- PartialASIF_stationarySourceSet.xml
- PartialASIF_userGroundSupportEquipmentSet.xml
- UserDefinedANPProfiles-ProcedureSteps.xml
- UserDefinedANPProfiles-ProfilePoints.xml
- UserDefinedBADA4Profiles.xml
- UserDefinedSpectralClass.xml

3 ASIF Examples

This section provides simple steps to assist in the creation of ASIFs for possible studies. See Section 3.1 on developing an ASIF for a simple study and Section 3.2 for an emissions dispersion study.

3.1 Create a Simple Study

Follow the steps below to create an ASIF for a simple study:

1. Create an empty study file.
2. Populate the airport layout section.
3. Define receptor set.
4. Define scenario and case hierarchy.
5. Populate the case with tracks and air operations.
6. Create annualization.

The following sections provide examples of each of the above steps. This example should be used as an aid for understanding the ASIF format, and not as a data reference.

1. Create empty study file

At a minimum, an ASIF consists of the standard XML declaration, a study section, and study metadata.



Study name must be at least five characters long and must not contain periods (.) or spaces.

```
<AsifXml version="1.2.19" content="study"
xmlns:AsifXml="http://www.faa.gov/ASIF"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">

<study xmlns:asif="http://www.faa.gov/ASIF">
  <!-- User-defined study name -->
  <name>ASIF_example</name>

  <!-- Study type - Emissions, Dispersion, Noise and Emissions, or Noise and
Dispersion -->
  <studyType>Noise and Emissions</studyType>

  <!-- Indicate the units used in the study -->
  <emissionsUnits>Kilograms</emissionsUnits>

  <!-- User-defined study description -->
  <description>A sample study</description>

  <!-- Add airport layouts here -->
  <!-- Add receptors here -->
  <!-- Add scenarios here -->

</study>
</AsifXml>
```

2. Populate airport layouts section

AEDT requires all airports in the study area to be declared. The airport runway definitions are specified using the **runwaySet** element. If runways are not specified in ASIF, then the runway data from the Airport database will be used during the ASIF import.

In the example below, KMDW airport is defined using user-specified runways.

```
<airportLayoutSet>
  <airportLayout>
    <!-- User can specify an airport with user-defined runway -->
    <airportCode type="ICAO">KMDW</airportCode>

    <!-- Airports can have one or more runways defined -->
    <runwaySet>
      <runway>
        <!-- Runway length (in feet) -->
        <length>5932</length>

        <!-- Runway width (in feet) -->
        <width>150</width>

        <!-- One or more runway ends -->
        <runwayEnd>
          <!-- user-defined name for runway end -->
          <name>04R</name>

          <!-- latitude and longitude of runway end -->
          <latitude>41.779496</latitude>
          <longitude>-87.75876</longitude>

          <!-- elevation in feet -->
          <elevation>0.0</elevation>

          <!-- threshold crossing height (in feet) -->
          <threshCrossHeight>50.0</threshCrossHeight>

          <!-- glide slope for an approach to this runway end -->
          <glideSlope>3.0</glideSlope>

          <!-- displaced threshold for departure-->
          <depDispThresh>0.0</depDispThresh>

          <!-- displaced threshold for approach -->
          <appDispThresh>0.0</appDispThresh>

          <!-- Percent change in airport average headwind -->
          <percentWind>0.0</percentWind>
        </runwayEnd>
        <runwayEnd>
          <name>22L</name>
          <latitude>41.791167</latitude>
          <longitude>-87.743554</longitude>
          <elevation>0.0</elevation>
          <threshCrossHeight>50.0</threshCrossHeight>
          <glideSlope>3.0</glideSlope>
    </runwaySet>
  </airportLayout>
</airportLayoutSet>
```

```
<depDispThresh>0.0</depDispThresh>
<appDispThresh>0.0</appDispThresh>
<percentWind>0.0</percentWind>
</runwayEnd>
</runway>
</runwaySet>
</airportLayout>
</airportLayoutSet>
```

3. Create receptor set

If the study includes noise or dispersion analysis, then one or more receptor sets are required. Receptor sets define locations (grid or point) where noise/dispersion measurements are taken. The example below defines a grid type receptor set.

```
<receptorSet>
  <!-- user-defined name -->
  <name>gridfile_100x100</name>
  <grid>
    <!-- Latitude and longitude of southwest corner of grid -->
    <latitude>41.97872</latitude>
    <longitude>-87.90439</longitude>

    <!-- Width and height of grid (in nautical miles) -->
    <width>100.0</width>
    <height>100.0</height>

    <!-- Number of points across height and width of grid -->
    <numWidth>100</numWidth>
    <numHeight>100</numHeight>
  </grid>
</receptorSet>
```

4. Create scenario and case hierarchy

Scenarios contain a set of cases (i.e. operation group) that are used to group aircraft tracks and operations.

The following example demonstrates a simple scenario and case structure. A case can contain one or more child cases.

```
<scenario>
  <!-- user-defined scenario name and description -->
  <name>Baseline_Scenario</name>

  <!-- user-defined start time for scenario -->
  <startTime>2009-11-10T15:02:00</startTime>

  <!-- Duration of scenario (in hours) -->
  <duration>24</duration>

  <!-- Taxi model for scenario -->
  <taxiModel>UserSpecified</taxiModel>

  <!-- Aircraft performance model -->
  <acftPerfModel>SAE1845</acftPerfModel>
```

```
<!-- Enable/disable bank angle calculations for aircraft performance
modeling -->
<bankAngle>true</bankAngle>

<!-- Sulfur related settings -->
<sulfurConversionRate>0.05</sulfurConversionRate>
<fuelSulfurContent>6.8E-4</fuelSulfurContent>

<!-- A description of the scenario -->
<description>Simple scenario</description>

<!-- List of airports to use for the scenario -->
<scenarioAirportLayoutSet>
  <scenarioAirportLayout>
    <airportLayoutName>KMDW</airportLayoutName>
  </scenarioAirportLayout>
</scenarioAirportLayoutSet>

<caseSet>
  <!-- One or more case elements -->
  <case>
    <!-- sequential case number unique in this scenario -->
    <caseId>0</caseId>

    <!-- user-defined case name -->
    <name>CaseA</name>

    <!-- Noise emissions source -->
    <source>Aircraft</source>

    <!-- Case start time and duration -->
    <startTime>2009-11-10T15:02:00</startTime>
    <duration>24</duration>

    <!-- Add trackOpSet elements here -->
  </case>
</caseSet>
</scenario>
```

5. Populate cases with tracks and air operations

The **trackOpSet** element defines a single track and any number of aircraft operations to be flown on that track. A track can be composed of one or more subtracks with dispersion values. An un-dispersed track has one subtrack with dispersion weight of 1. A dispersed track consists of multiple subtracks. The sum of the dispersion weights for all subtracks within a given track must equal 1. Operations defined for the track will be dispersed based on the dispersion weight amongst any subtracks that make up the track.

```
<trackOpSet>
  <!-- Single track element -->
  <track>
    <!-- user-defined track name -->
    <name>04R_Dep</name>
```

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```
<!-- Track operation type: A = Arrival, D = Departure, O = Overflight
-->
<optype>D</optype>

<!-- Airport and runway for this track -->
<airport type="ICAO">KMDW</airport>
<runway>04R</runway>

<!-- tracks can be composed of multiple dispersed subtracks -->
<subtrack>

    <!-- the user-defined ID for the subtrack -->
    <id>0</id>

    <!-- The sum of the dispersionWeights for all subtracks within a
given track must equal 1 -->
    <dispersionWeight>1.0</dispersionWeight>

    <!-- Set of trackNode or trackVector elements, all must be the same
for each subtrack -->
    <trackNodes>
        <trackNode>
            <latitude>40.65640</latitude>
            <longitude>-73.71322</longitude>
        </trackNode>
        <trackNode>
            <latitude>40.65640</latitude>
            <longitude>-53.71322</longitude>
        </trackNode>
    </trackNodes>

    </subtrack>
</track>

<operations>
    <!--operation element represents one or more flights on a track-->
    <operation>
        <!-- user-defined operation id -->
        <id>T9.1</id>

        <!-- AEDT aircraftType for this operation -->
        <aircraftType>
            <airframeModel>Raytheon Beech 1900-C</airframeModel>
            <engineCode>PT67B</engineCode>
            <engineModCode>NONE </engineModCode>
        </aircraftType>

        <!-- number of times to fly this operation -->
        <numOperations>1.0</numOperations>

        <!-- user-defined flight number, optional -->
        <flightNumber>CKE545</flightNumber>

        <!-- user-defined operation type, optional -->
        <userType>MU3001</userType>
    </operation>
</operations>
```

```
<!-- user-defined parameter data, optional -->
<userParam>J</userParam>

<!-- arrival or departure airport and runway -->
<departureAirport type="ICAO">KMDW</departureAirport>
<departureRunway>04R</departureRunway>
<arrivalAirport type="FAA">LIT</arrivalAirport>

<!-- offTime for departures or onTime for arrivals -->
<offTime>2009-11-10T15:02:00</offTime>

<!-- aircraft profile for this operation -->
<saeProfile>STANDARD</saeProfile>
</operation>
</operations>
</trackOpSet>
```

6. Create annualization

Annualization is the process of performing a weighted summation¹ over the noise and emission results from some or all of the cases within a scenario in order to create results that represent noise and emissions exposures over a time period of interest. Each scenario element may contain an annualization element describing the weighted annualization tree.

```
<annualization>
  <!-- user-defined annualization name -->
  <name>Baseline_Annualization</name>

  <!-- Define one or more groups of cases and groups -->
  <annualizationGroup>

    <!-- Define rollup weight for this group -->
    <weight>1.0</weight>
    <!-- Associate scenario case with this annualization group -->
    <annualizationCase>
      <!-- Specify case name -->
      <name>CaseA</name>
      <!-- Define rollup weight for this case -->
      <weight>1.0</weight>
    </annualizationCase>

  </annualizationGroup>
</annualization>
```

7. Full ASIF

The full study ASIF is as follows:

¹ The word ‘summation’ is used figuratively and the actual process of correctly summing or adding together noise or emissions results depends upon the metric being used. For example: energy metric results would not be directly added together for a result since they are logarithmic values, but would rather be log-added.

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```
<AsifXml version="1.2.19" content="study"
xmlns:AsifXml="http://www.faa.gov/ASIF"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">

<study xmlns:asif="http://www.faa.gov/ASIF">

    <!-- User-defined study name -->
    <name>ASIF_example</name>

    <!-- Study type - Emissions, Dispersion, Noise and Emissions, or Noise and
Dispersion -->
    <studyType>Noise and Emissions</studyType>

    <!-- Indicate the units used in the study -->
    <emissionsUnits>Kilograms</emissionsUnits>

    <!-- User-defined study description -->
    <description>A sample study</description>

    <airportLayoutSet>
        <airportLayout>
            <!-- User can specify an airport with user-defined runway -->
            <airportCode type="ICAO">KMDW</airportCode>

            <!-- Airports can have one or more runways defined -->
            <runwaySet>
                <runway>
                    <!-- Runway length (in feet) -->
                    <length>5932</length>

                    <!-- Runway width (in feet) -->
                    <width>150</width>

                    <!-- One or more runway ends -->
                    <runwayEnd>
                        <!-- user-defined name for runway end -->
                        <name>04R</name>

                        <!-- latitude and longitude of runway end -->
                        <latitude>41.779496</latitude>
                        <longitude>-87.75876</longitude>

                        <!-- elevation in feet -->
                        <elevation>0.0</elevation>

                        <!-- threshold crossing height (in feet) -->
                        <threshCrossHeight>50.0</threshCrossHeight>

                        <!-- glide slope for an approach to this runway end -->
                        <glideSlope>3.0</glideSlope>

                        <!-- displaced threshold for departure-->
                        <depDispThresh>0.0</depDispThresh>

                        <!-- displaced threshold for approach -->
                        <appDispThresh>0.0</appDispThresh>
                
```

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```
<!-- Percent change in airport average headwind -->
<percentWind>0.0</percentWind>
</runwayEnd>
</runwayEnd>
<name>22L</name>
<latitude>41.791167</latitude>
<longitude>-87.743554</longitude>
<elevation>0.0</elevation>
<threshCrossHeight>50.0</threshCrossHeight>
<glideSlope>3.0</glideSlope>
<depDispThresh>0.0</depDispThresh>
<appDispThresh>0.0</appDispThresh>
<percentWind>0.0</percentWind>
</runwayEnd>
</runway>
</runwaySet>
</airportLayout>
</airportLayoutSet>

<receptorSet>
<!-- user-defined name -->
<name>gridfile_100x100</name>
<grid>
<!-- Latitude and longitude of southwest corner of grid -->
<latitude>41.97872</latitude>
<longitude>-87.90439</longitude>

<!-- Width and height of grid (in nautical miles) -->
<width>100.0</width>
<height>100.0</height>

<!-- Number of points across height and width of grid -->
<numWidth>100</numWidth>
<numHeight>100</numHeight>
</grid>
</receptorSet>

<scenario>
<!-- user-defined scenario name and description -->
<name>Baseline_Scenario</name>

<!-- user-defined start time for scenario -->
<startTime>2009-11-10T15:02:00</startTime>

<!-- Duration of scenario (in hours) -->
<duration>24</duration>

<!-- Taxi model for scenario -->
<taxiModel>UserSpecified</taxiModel>

<!-- Aircraft performance model -->
<acftPerfModel>SAE1845</acftPerfModel>

<!-- Enable/disable bank angle calculations for aircraft performance
modeling -->
```

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```
<bankAngle>true</bankAngle>

<!-- Sulfur related settings -->
<sulfurConversionRate>0.05</sulfurConversionRate>
<fuelSulfurContent>6.8E-4</fuelSulfurContent>

<!-- A description of the scenario -->
<description>A sample scenario</description>

<!-- List of airports to use for the scenario -->
<scenarioAirportLayoutSet>
  <scenarioAirportLayout>
    <airportLayoutName>KMDW</airportLayoutName>
  </scenarioAirportLayout>
</scenarioAirportLayoutSet>

<caseSet>
  <!-- One or more case elements -->
  <case>
    <!-- sequential case number unique in this scenario -->
    <caseId>0</caseId>

    <!-- user-defined case name -->
    <name>CaseA</name>

    <!-- Noise emissions source -->
    <source>Aircraft</source>

    <!-- Case start time and duration -->
    <startTime>2009-11-10T15:02:00</startTime>
    <duration>24</duration>

    <trackOpSet>
      <!-- Single track element -->
      <track>
        <!-- user-defined track name -->
        <name>04R_Dep</name>
        <!-- Track operation type: A = Arrival, D = Departure, O = Overflight
-->
        <optype>D</optype>

        <!-- Airport and runway for this track -->
        <airport type="ICAO">KMDW</airport>
        <runway>04R</runway>

        <!-- tracks can be composed of multiple dispersed subtracks -->
        <subtrack>

          <!-- the user-defined ID for the subtrack -->
          <id>0</id>

          <!-- The sum of the dispersionWeights for all subtracks within a
given track must equal 1 -->
          <dispersionWeight>1.0</dispersionWeight>
        
```

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```
<!-- Set of trackNode or trackVector elements, all must be the same
for each subtrack -->
<trackNodes>
    <trackNode>
        <latitude>40.65640</latitude>
        <longitude>-73.71322</longitude>
    </trackNode>
    <trackNode>
        <latitude>40.65640</latitude>
        <longitude>-53.71322</longitude>
    </trackNode>
</trackNodes>

</subtrack>
</track>

<operations>
    <!--operation element represents one or more flights on a track-->
    <operation>
        <!-- user-defined operation id -->
        <id>T9.1</id>

        <!-- AEDT aircraftType for this operation -->
        <aircraftType>
            <airframeModel>Raytheon Beech 1900-C</airframeModel>
            <engineCode>PT67B</engineCode>
            <engineModCode>NONE </engineModCode>
        </aircraftType>

        <!-- number of times to fly this operation -->
        <numOperations>1.0</numOperations>

        <!-- user-defined flight number, optional -->
        <flightNumber>CKE545</flightNumber>

        <!-- user-defined operation type, optional -->
        <userType>MU3001</userType>

        <!-- user-defined parameter data, optional -->
        <userParam>J</userParam>

        <!-- arrival or departure airport and runway -->
        <departureAirport type="ICAO">KMDW</departureAirport>
        <departureRunway>04R</departureRunway>
        <arrivalAirport type="FAA">LIT</arrivalAirport>

        <!-- offTime for departures or onTime for arrivals -->
        <offTime>2009-11-10T15:02:00</offTime>

        <!-- aircraft profile for this operation -->
        <saeProfile>STANDARD</saeProfile>
    </operation>
</operations>
</trackOpSet>

</case>
```

```
</caseSet>

<annualization>
    <!-- user-defined annualization name -->
    <name>Baseline_Annualization</name>

    <!-- Define one or more groups of cases and groups -->
    <annualizationGroup>

        <!-- Define rollup weight for this group -->
        <weight>1.0</weight>
        <!-- Associate scenario case with this annualization group -->
        <annualizationCase>
            <!-- Specify case name -->
            <name>CaseA</name>
            <!-- Define rollup weight for this case -->
            <weight>1.0</weight>
        </annualizationCase>

    </annualizationGroup>
</annualization>

</scenario>
</study>
</AsifXml>
```

3.2 Create an Emissions Dispersion Study

An emissions dispersion study contains the same core elements as a simple study (Section 3.1). In addition, a typical dispersion study includes additional airport features (gates, taxiways, taxipaths), operational profiles, airport configuration, and stationary sources.

1. Create an empty study file.
2. Populate the airport layout section.
 - a. Basic airport information (airport code and location)
 - b. Stationary sources
 - c. Airport gates/terminals
 - d. Taxiways
 - e. Runways
 - f. Taxipaths
 - g. Tracks
 - h. Airport configurations
3. Create receptor set.
4. Create scenario and case hierarchy.
 - a. Airport scenario properties
 - b. Non-aircraft operations case
 - c. Aircraft operations case

The following sections provide examples of the steps. This ASIF example should be used as an aid for understanding the ASIF format, and not as a data reference. This example is based on the STUDY_PVD study included with AEDT installation; but it has been much simplified for illustrative purposes. Please

note that both the aircraft operations and the non-aircraft operations in this study are defined using operational profiles. When running profile-based aircraft operations, the “Apply Delay & Sequencing Model on Taxi” modeling option must be selected, and operating configuration and taxi network must exist in the airport layout.

1. Create empty study file

At a minimum, an ASIF consists of the standard XML declaration, a study section, and study metadata.



Study name must be at least five characters long and must not contain periods (.) or spaces.

```
<?xml version="1.0" encoding="utf-8"?>
<AsifXml xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" version="1.2.19" content="study">
  <study>
    <name>PVD2004_small</name>
    <studyType>Dispersion</studyType>
    <emissionsUnits>Kilograms</emissionsUnits>
    <description>A sample emissions study</description>

    <!-- Add airport layouts here -->
    <!-- Add receptors here -->
    <!-- Add scenarios here -->

  </study>
</AsifXml>
```

2. Populate airport layouts section

AEDT requires all airports in the study area to be declared. In addition to runways and tracks, the airport layout section can contain buildings, stationary sources of emissions (such as generators, training fires, or boilers), gates, terminals, taxiways, taxipaths, airport configurations, and operational profiles.

a) Define airport layout

Define the basic airport layout properties including layout name, airport code, and location.

```
<airportLayoutSet>
  <airportLayout>
    <name>Baseline_PVD2004_layout</name>
    <airportCode type="ICAO">KPVD</airportCode>
    <startDate>2004-01-01</startDate>
    <elevation>55</elevation>      <!-- in feet -->
    <taxiInTime>7</taxiInTime>    <!-- in minutes -->
    <taxiOutTime>19</taxiOutTime> <!-- in minutes -->
    <latitude>41.723999</latitude>
    <longitude>-71.428221</longitude>
```

b) Define stationary sources

Define each stationary source with an individual location definition, as well as other properties that describe the nature or amount of emissions. Each stationary source may have different elements associated with it. The example below defines an emergency generator.

```
<stationarySourceSet>
  <stationarySource>
```

```

<name>600kw Emergency Gen-Baseline-KPVD-2004</name>
<pointStationarySource>
  <pointCoord>
    <latitude>41.743248909695488</latitude>
    <longitude>-71.412168090784959</longitude>
  </pointCoord>
  <baseElevation>16.764</baseElevation>      <!-- in meters -->
  <releaseHeight>12.192</releaseHeight>      <!-- in meters -->
  <gasVelocity>15</gasVelocity>            <!-- in meters/sec -->
  <stackDiameter>0.100584</stackDiameter> <!-- in meters -->
  <temperature>400</temperature>          <!-- in Fahrenheit -->
</pointStationarySource>
<categoryGenerator>
  <typeCode>2</typeCode>
  <powerRatingHorsepower>1340</powerRatingHorsepower>
  <CO_EF>3.03</CO_EF>
  <TOC_EF>1.14</TOC_EF>
  <NOx_EF>14</NOx_EF>
  <SOx_EF>0.93</SOx_EF>
  <PM10_EF>0.998</PM10_EF>
  <pollutionControlFactorTOC>0</pollutionControlFactorTOC>
  <pollutionControlFactorCO>0</pollutionControlFactorCO>
  <pollutionControlFactorNOx>0</pollutionControlFactorNOx>
  <pollutionControlFactorSOx>0</pollutionControlFactorSOx>
  <pollutionControlFactorPM10>0</pollutionControlFactorPM10>
  <pm25ToPm10Ratio>1</pm25ToPm10Ratio>
</categoryGenerator>
</stationarySource>
</stationarySourceSet>

```

c) Define airport gates/terminals

Airport gates can be defined as a point or a polygon. In AEDT, a polygon gate is referred as a terminal. For dispersion modeling, gates are modeled in AERMOD as either volume or area sources. A single-point gate (a pair of X/Y coordinates) is modeled as a volume source; while a polygon gate is modeled as an area source.

This example declares a terminal (polygon with eight points) which is defined by a set of latitude and longitude coordinates.

```

<gateSet>
  <gate>
    <name>AC</name>
    <elevation>16.76</elevation>      <!-- in meters -->
    <releaseHeight>1.499616</releaseHeight> <!-- in meters -->
    <sigmaY>0.1</sigmaY>
    <sigmaZ>0.1</sigmaZ>
    <polygonCoords>
      <vertex>
        <latitude>41.745139410943032</latitude>
        <longitude>-71.410155909148983</longitude>
      </vertex>
      <vertex>
        <latitude>41.74454094786433</latitude>
        <longitude>-71.4088479272253</longitude>
      </vertex>
    </polygonCoords>
  </gate>
</gateSet>

```

```
<vertex>
  <latitude>41.739914698711225</latitude>
  <longitude>-71.412700204036113</longitude>
</vertex>
<vertex>
  <latitude>41.740535077085347</latitude>
  <longitude>-71.414048427664284</longitude>
</vertex>
<vertex>
  <latitude>41.742143089180551</latitude>
  <longitude>-71.4130440975597</longitude>
</vertex>
<vertex>
  <latitude>41.741863092089559</latitude>
  <longitude>-71.412435917483549</longitude>
</vertex>
<vertex>
  <latitude>41.743155491944563</latitude>
  <longitude>-71.411380309779929</longitude>
</vertex>
<vertex>
  <latitude>41.74350128931475</latitude>
  <longitude>-71.411515795803126</longitude>
</vertex>
</polygonCoords>
</gate>
</gateSet>
```

d) Define taxiways

Taxiways are line segments that link gates, runways, and other taxiways. They are composed of sequences of latitude and longitude coordinates, and specify the speed of aircraft that use them at each node.

Only the first two taxiways out of 24 are shown here for brevity. The entire taxiways are included in the example file.

```
<taxiwaySet>
  <taxiway>
    <name>A2 to 3</name>
    <dispersionWidth>22.86</dispersionWidth> <!-- in meters -->
    <taxiNodeSet>
      <taxiNode>
        <latitude>41.747442309926434</latitude>
        <longitude>-71.399033659570691</longitude>
        <elevation>16.76</elevation> <!-- in meters -->
        <speed>17</speed> <!-- in mph -->
      </taxiNode>
      <taxiNode>
        <latitude>41.746840990624833</latitude>
        <longitude>-71.397780701750833</longitude>
        <elevation>16.76</elevation>
        <speed>17</speed>
      </taxiNode>
    </taxiNodeSet>
  </taxiway>
</taxiwaySet>
```

```
<taxiway>
  <name>AC inout 1 to 2</name>
  <dispersionWidth>22.86</dispersionWidth>
  <taxiNodeSet>
    <taxiNode>
      <latitude>41.742510604805076</latitude>
      <longitude>-71.411486739128023</longitude>
      <elevation>16.76</elevation>
      <speed>17</speed>
    </taxiNode>
    <taxiNode>
      <latitude>41.742008226242724</latitude>
      <longitude>-71.410307016216962</longitude>
      <elevation>16.76</elevation>
      <speed>17</speed>
    </taxiNode>
  </taxiNodeSet>
</taxiway>

.....
</taxiwaySet>
```

e) Define runways

A runway in AEDT is defined by two runway ends. Runways are used by departing and arriving aircraft, and are linked to gates by taxipaths. The example below defines two runways: 05-23 and 16-34.

```
<runwaySet>
  <runway>
    <length>7069</length> <!-- in feet -->
    <width>150</width> <!-- in feet -->
    <runwayEnd>
      <name>05</name>
      <latitude>41.73040290796537</latitude>
      <longitude>-71.411541169743472</longitude>
      <elevation>54.986876640419943</elevation> <!-- in feet -->
      <glideSlope>3</glideSlope>
    </runwayEnd>
    <runwayEnd>
      <name>23</name>
      <latitude>41.746840990624833</latitude>
      <longitude>-71.397780701750833</longitude>
      <elevation>54.986876640419943</elevation>
      <glideSlope>3</glideSlope>
    </runwayEnd>
  </runway>

  <runway>
    <length>5961</length>
    <width>150</width>
    <runwayEnd>
      <name>16</name>
      <latitude>41.748017908874452</latitude>
      <longitude>-71.4087003031238</longitude>
```

```

<elevation>54.986876640419943</elevation>
<glideSlope>3</glideSlope>
</runwayEnd>
<runwayEnd>
<name>34</name>
<latitude>41.735182619491127</latitude>
<longitude>-71.395155630736014</longitude>
<elevation>54.986876640419943</elevation>
<glideSlope>3</glideSlope>
</runwayEnd>
</runway>
</runwaySet>

```

f) Assemble taxipaths

Taxipaths are a series of taxiways that aircraft takes from a gate to a runway end (outbound) or from a runway end to a gate (inbound). Taxipaths can be composed of multiple taxiway line segments; and separate taxipaths may share taxiways in common as paths across the airport.

Only the first two taxipaths out of eight are shown here for brevity. The entire taxipaths are included in the example file.

```

<taxipathSet>
  <taxipath>
    <gateName>AC</gateName>
    <runwayName>05</runwayName>
    <direction>Outbound</direction>
    <taxiwayName>AC inout 1 to 2</taxiwayName>
    <taxiwayName>T3 to 4</taxiwayName>
    <taxiwayName>T4 to 5</taxiwayName>
    <taxiwayName>T5 to 6</taxiwayName>
    <taxiwayName>E1 to 2</taxiwayName>
    <taxiwayName>S2 to 3</taxiwayName>
    <taxiwayName>S3 to 4</taxiwayName>
  </taxipath>

  <taxipath>
    <gateName>AC</gateName>
    <runwayName>05</runwayName>
    <direction>Inbound</direction>
    <taxiwayName>N5 to 6</taxiwayName>
    <taxiwayName>N4 to 5</taxiwayName>
    <taxiwayName>N3 to 4</taxiwayName>
    <taxiwayName>N2 to 3</taxiwayName>
    <taxiwayName>T1 to 2</taxiwayName>
    <taxiwayName>T2 to 3</taxiwayName>
    <taxiwayName>AC inout 1 to 2</taxiwayName>
  </taxipath>

  .....
</taxipathSet>

```

g) Define tracks

Tracks are paths flown by aircraft, and are defined for an aircraft type (fixed-wing or rotary-wing) and an operation type (arrival, departure, or touch & go). This sample ASIF contains a total of 12 tracks consisting of arrival, departure, and touch & go tracks for each of the four runway ends. Only the first three tracks are shown here for brevity.

```
<trackSet>
  <track>
    <name>05_D_FixedWing</name>
    <optype>D</optype>
    <wingtype>F</wingtype>
    <airport type="ICAO">KPVD</airport>
    <runway>05</runway>
    <subtrack>
      <id>0</id>
      <dispersionWeight>1</dispersionWeight>
      <trackNodes>
        <trackNode>
          <latitude>41.73040290796537</latitude>
          <longitude>-71.411541169743472</longitude>
        </trackNode>
        <trackNode>
          <latitude>41.746840990624833</latitude>
          <longitude>-71.397780701750833</longitude>
        </trackNode>
        <trackNode>
          <latitude>43.137117876102565</latitude>
          <longitude>-70.202867639935235</longitude>
        </trackNode>
      </trackNodes>
    </subtrack>
  </track>

  <track>
    <name>23_D_FixedWing</name>
    <optype>D</optype>
    <wingtype>F</wingtype>
    <airport type="ICAO">KPVD</airport>
    <runway>23</runway>
    <subtrack>
      <id>0</id>
      <dispersionWeight>1</dispersionWeight>
      <trackNodes>
        <trackNode>
          <latitude>41.746840990624833</latitude>
          <longitude>-71.397780701750833</longitude>
        </trackNode>
        <trackNode>
          <latitude>41.73040290796537</latitude>
          <longitude>-71.411541169743472</longitude>
        </trackNode>
        <trackNode>
          <latitude>40.32809642691705</latitude>
          <longitude>-72.555207007763542</longitude>
        </trackNode>
      </trackNodes>
    </subtrack>
  </track>
```

```
</subtrack>
</track>

<track>
  <name>05_A_FixedWing</name>
  <optype>A</optype>
  <wingtype>F</wingtype>
  <airport type="ICAO">KPVD</airport>
  <runway>05</runway>
  <subtrack>
    <id>0</id>
    <dispersionWeight>1</dispersionWeight>
    <trackNodes>
      <trackNode>
        <latitude>40.32809642691705</latitude>
        <longitude>-72.555207007763542</longitude>
      </trackNode>
      <trackNode>
        <latitude>41.73040290796537</latitude>
        <longitude>-71.411541169743472</longitude>
      </trackNode>
    </trackNodes>
  </subtrack>
</track>
```

h) Define airport operating configurations

Airport operating configurations specify the weather conditions and times under which particular runway assignments are made for aircraft based on the aircraft weight category (Small, Large, or Heavy). Operating configurations are only used if the Delay and Sequencing Modeling is selected.

A single configuration is defined in this example, but multiple configurations could be defined in an airport layout. Please note that the following `<airportConfig>` section does not contain any activation parameters (such as wind direction, wind speed, hour of day, ceiling, visibility, and temperature). This means that all the activation parameters are set to no bound.

```
<airportConfigSet>
  <airportConfig>
    <configurationName>Configuration</configurationName>
    <useDistribution>false</useDistribution>
    <airportCapacity>
      <capacityPoint>
        <arrivalsPerHour>27</arrivalsPerHour>
        <departuresPerHour>52</departuresPerHour>
      </capacityPoint>
      <capacityPoint>
        <arrivalsPerHour>52</arrivalsPerHour>
        <departuresPerHour>27</departuresPerHour>
      </capacityPoint>
    </airportCapacity>

    <runwayAssignmentSet>
      <runwayAssignment>
        <aircraftSize>S</aircraftSize>
        <runway>16</runway>
        <arrivalPercentage>0.8</arrivalPercentage>
      </runwayAssignment>
    </runwayAssignmentSet>
  </airportConfig>
</airportConfigSet>
```

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```
<departurePercentage>1.32</departurePercentage>
<tgoPercentage>0</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
<aircraftSize>S</aircraftSize>
<runway>23</runway>
<arrivalPercentage>50.74</arrivalPercentage>
<departurePercentage>52.33</departurePercentage>
<tgoPercentage>50</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
<aircraftSize>S</aircraftSize>
<runway>34</runway>
<arrivalPercentage>13.04</arrivalPercentage>
<departurePercentage>8.06</departurePercentage>
<tgoPercentage>15</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
<aircraftSize>S</aircraftSize>
<runway>05</runway>
<arrivalPercentage>35.42</arrivalPercentage>
<departurePercentage>38.29</departurePercentage>
<tgoPercentage>35</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
<aircraftSize>L</aircraftSize>
<runway>16</runway>
<arrivalPercentage>0.8</arrivalPercentage>
<departurePercentage>1.32</departurePercentage>
<tgoPercentage>0</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
<aircraftSize>L</aircraftSize>
<runway>23</runway>
<arrivalPercentage>50.74</arrivalPercentage>
<departurePercentage>52.33</departurePercentage>
<tgoPercentage>50</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
<aircraftSize>L</aircraftSize>
<runway>34</runway>
<arrivalPercentage>13.04</arrivalPercentage>
<departurePercentage>8.06</departurePercentage>
<tgoPercentage>15</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
<aircraftSize>L</aircraftSize>
<runway>05</runway>
<arrivalPercentage>35.42</arrivalPercentage>
<departurePercentage>38.29</departurePercentage>
<tgoPercentage>35</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
<aircraftSize>H</aircraftSize>
<runway>16</runway>
<arrivalPercentage>0.8</arrivalPercentage>
<departurePercentage>1.32</departurePercentage>
```

```
<tgoPercentage>0</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
  <aircraftSize>H</aircraftSize>
  <runway>23</runway>
  <arrivalPercentage>50.74</arrivalPercentage>
  <departurePercentage>52.33</departurePercentage>
  <tgoPercentage>50</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
  <aircraftSize>H</aircraftSize>
  <runway>34</runway>
  <arrivalPercentage>13.04</arrivalPercentage>
  <departurePercentage>8.06</departurePercentage>
  <tgoPercentage>15</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
  <aircraftSize>H</aircraftSize>
  <runway>05</runway>
  <arrivalPercentage>35.42</arrivalPercentage>
  <departurePercentage>38.29</departurePercentage>
  <tgoPercentage>35</tgoPercentage>
</runwayAssignment>
</runwayAssignmentSet>
</airportConfig>
</airportConfigSet>
```

i) Define operational profiles

Operational profiles allows the user to define variations in activity throughout a day, week, or year. The three types of operational profiles are Quarter-Hourly, Daily, and Monthly. When using operational profiles in a study, at least one profile for each profile type (Quarter Hourly, Daily, and Monthly) must defined.

These profiles provide a weighting factor that determines how often activity occurs during the time period. Aircraft and non-aircraft sources can all be assigned operational profiles. For this example, the same profiles are used for all both aircraft and non-aircraft sources; but in practice different profiles will be defined for aircraft, GSEs, or stationary sources.

Only the first part of the quarterly-hour profile is shown here for brevity. The entire profile is given in the example file.

```
<quarterHourlyProfileSet>
  <quarterHourlyProfile>
    <profileName>Aircraft-Baseline-KPVD</profileName>
    <temporalFactor startHour="0" startMinutes="0">0.1092</temporalFactor>
    <temporalFactor startHour="0" startMinutes="15">0.0712</temporalFactor>
    <temporalFactor startHour="0" startMinutes="30">0.0452</temporalFactor>
    <temporalFactor startHour="0" startMinutes="45">0.0274</temporalFactor>
    <temporalFactor startHour="1" startMinutes="0">0.0226</temporalFactor>
    <temporalFactor startHour="1" startMinutes="15">0.0144</temporalFactor>
    <temporalFactor startHour="1" startMinutes="30">0.0135</temporalFactor>
    <temporalFactor startHour="1" startMinutes="45">0.0087</temporalFactor>
  ....
```

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```
</quarterHourlyProfile>
</quarterHourlyProfileSet>

<dailyProfileSet>
  <dailyProfile>
    <profileName>Aircraft-Baseline-KPVD</profileName>
    <temporalFactorSunday>0.8889</temporalFactorSunday>
    <temporalFactorMonday>0.9354</temporalFactorMonday>
    <temporalFactorTuesday>0.9565</temporalFactorTuesday>
    <temporalFactorWednesday>0.9494</temporalFactorWednesday>
    <temporalFactorThursday>1</temporalFactorThursday>
    <temporalFactorFriday>0.9494</temporalFactorFriday>
    <temporalFactorSaturday>0.8103</temporalFactorSaturday>
  </dailyProfile>
</dailyProfileSet>

<monthlyProfileSet>
  <monthlyProfile>
    <profileName>Aircraft-Baseline-KPVD</profileName>
    <temporalFactorJanuary>0.6097</temporalFactorJanuary>
    <temporalFactorFebruary>0.768</temporalFactorFebruary>
    <temporalFactorMarch>0.7468</temporalFactorMarch>
    <temporalFactorApril>0.6508</temporalFactorApril>
    <temporalFactorMay>0.7803</temporalFactorMay>
    <temporalFactorJune>0.9452</temporalFactorJune>
    <temporalFactorJuly>0.9967</temporalFactorJuly>
    <temporalFactorAugust>1</temporalFactorAugust>
    <temporalFactorSeptember>0.963</temporalFactorSeptember>
    <temporalFactorOctober>0.9657</temporalFactorOctober>
    <temporalFactorNovember>0.8889</temporalFactorNovember>
    <temporalFactorDecember>0.8374</temporalFactorDecember>
  </monthlyProfile>
</monthlyProfileSet>

<activityProfileSet>
  <activityProfile name="ActivityProfile-Baseline-KPVD-0-0-0">
    <quarterHourlyProfile>Aircraft-Baseline-KPVD</quarterHourlyProfile>
    <dailyProfile>Aircraft-Baseline-KPVD</dailyProfile>
    <monthlyProfile>Aircraft-Baseline-KPVD</monthlyProfile>
  </activityProfile>
</activityProfileSet>
```

3. Define receptor set

The receptor set defines a set of points or a grid in which noise or emission concentrations will be modeled. A receptor set is required for dispersion modeling.

```
<receptorSet>
  <name>CartesianReceptors-Baseline-KPVD</name>
  <pointReceptor>
    <name>01</name>
    <latitude>41.755692229957511</latitude>
    <longitude>-71.401734634031868</longitude>
    <elevation>54.986876640419943</elevation>      <!-- in feet -->
  </pointReceptor>

  <pointReceptor>
    <name>05</name>
    <latitude>41.757757081502177</latitude>
    <longitude>-71.387029661597552</longitude>
    <elevation>54.986876640419943</elevation>
  </pointReceptor>

  <pointReceptor>
    <name>11</name>
    <latitude>41.729547105591479</latitude>
    <longitude>-71.399671869272</longitude>
    <elevation>54.986876640419943</elevation>
  </pointReceptor>

  <pointReceptor>
    <name>17</name>
    <latitude>41.727308139168834</latitude>
    <longitude>-71.418091960358765</longitude>
    <elevation>54.986876640419943</elevation>
  </pointReceptor>
</receptorSet>
```

4. Define scenario and case hierarchy

A scenario contains a set of cases, which contain groups of aircraft operations, non-aircraft operations, and runup operations.

a) Define scenario properties

Define the basic scenario properties including airport information, weather data, and study time.

```
<scenario>
  <name>2004-Baseline</name>
  <startTime>2004-01-01T00:00:00</startTime>
  <duration>8784</duration> <!-- in hours -->
  <taxiModel>Sequencing</taxiModel>
  <timeInModeBasis>Performance</timeInModeBasis>
  <acftPerfModel>SAE1845</acftPerfModel>
  <bankAngle>false</bankAngle>
  <sulfurConversionRate>0.005</sulfurConversionRate>
  <description> for year 2004</description>
  <scenarioAirportLayoutSet>
    <scenarioAirportLayout>
      <airportLayoutName>Baseline_PVD2004_layout</airportLayoutName>
```

```

<mixingHeight>2226</mixingHeight> <!-- in feet -->
<useHourlyMetData>true</useHourlyMetData>
<averageTemperature>50.4</averageTemperature>      <!-- in Fahrenheit -->
<dailyHighTemperature>69.35</dailyHighTemperature> <!-- in Fahrenheit -->
<dailyLowTemperature>48.65</dailyLowTemperature>   <!-- in Fahrenheit -->
<pressure>29.92</pressure>        <!-- in inches of Hg -->
<pressureMSL>29.92</pressureMSL> <!-- in inches of Hg -->
<humidity>60</humidity>         <!-- in percentage -->
<windSpeed>8</windSpeed>        <!-- in knots -->
<windDirection>0</windDirection> <!-- in degrees -->
<ceiling>99999.99</ceiling> <!-- in feet -->
<visibility>50</visibility> <!-- in miles -->
</scenarioAirportLayout>
</scenarioAirportLayoutSet>

```

b) Define the case for non-aircraft operations

This study contains two cases. The first case contains non-aircraft operations (i.e., stationary source operations). The second case contains aircraft operations and GSEs assigned to those aircraft.

The example below declares the first case (non-aircraft operations). The second case (aircraft operations) is described in the next Step 4c.

```

<caseSet>
  <case>
    <caseId>-1623425151</caseId>
    <name>2004_Baseline_NonAircraft</name>
    <startTime>2004-01-01T00:00:00</startTime>
    <duration>8784</duration>
    <stationarySourceOperationSet>
      <stationarySourceOperation>
        <refName>600kw Emergency Gen-Baseline-KPVD-2004</refName>
        <emissionsUsage>
          <yearlyValue>500</yearlyValue>
          <activityProfile>ActivityProfile-Baseline-KPVD-0-0-0</activityProfile>
        </emissionsUsage>
      </stationarySourceOperation>
    </stationarySourceOperationSet>
  </case>

```

c) Define the case for aircraft operations

This section defines aircraft operations, as well as GSEs assigned to those aircraft. In this example, a single aircraft type is used with a simplified set of assigned GSEs. In practice, a variety of aircraft types and GSEs would appear in a single study.

```

<case>
  <caseId>466140608</caseId>
  <name>2004_Baseline_Operations</name>
  <startTime>2004-01-01T00:00:00</startTime>
  <duration>8784</duration>
  <operation>
    <id>D_1</id>
    <aircraftType>
      <airframeModel>Airbus A319-100 Series</airframeModel>
      <engineCode>3CM028</engineCode>
      <apuName>APU GTCP 36-300 (80HP)</apuName>
    </aircraftType>
  </operation>

```

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```
<groundSupportEquipmentLT00perationSet>
  <groundSupportEquipmentLT00peration>
    <gseID>8</gseID>
    <fuelType>Diesel</fuelType>
    <horsepower>88</horsepower>
    <loadFactor>0.8</loadFactor>
    <departureOpTime>3.9</departureOpTime> <!-- in minutes -->
  </groundSupportEquipmentLT00peration>
  <groundSupportEquipmentLT00peration>
    <gseID>13</gseID>
    <fuelType>Gasoline</fuelType>
    <horsepower>107</horsepower>
    <loadFactor>0.55</loadFactor>
    <departureOpTime>8</departureOpTime>
    <arrivalOpTime>8</arrivalOpTime>
  </groundSupportEquipmentLT00peration>
  <groundSupportEquipmentLT00peration>
    <gseID>14</gseID>
    <fuelType>Gasoline</fuelType>
    <horsepower>107</horsepower>
    <loadFactor>0.5</loadFactor>
    <departureOpTime>11</departureOpTime>
    <arrivalOpTime>12</arrivalOpTime>
  </groundSupportEquipmentLT00peration>
  <groundSupportEquipmentLT00peration>
    <gseID>17</gseID>
    <fuelType>Diesel</fuelType>
    <horsepower>210</horsepower>
    <loadFactor>0.53</loadFactor>
    <departureOpTime>9.7</departureOpTime>
  </groundSupportEquipmentLT00peration>
  <groundSupportEquipmentLT00peration>
    <gseID>29</gseID>
    <fuelType>Diesel</fuelType>
    <horsepower>175</horsepower>
    <loadFactor>0.25</loadFactor>
    <departureOpTime>14</departureOpTime>
  </groundSupportEquipmentLT00peration>
  <groundSupportEquipmentLT00peration>
    <gseID>36</gseID>
    <fuelType>Diesel</fuelType>
    <horsepower>56</horsepower>
    <loadFactor>0.25</loadFactor>
    <arrivalOpTime>2.1</arrivalOpTime>
  </groundSupportEquipmentLT00peration>
  <groundSupportEquipmentLT00peration>
    <gseID>41</gseID>
    <fuelType>Diesel</fuelType>
    <horsepower>235</horsepower>
    <loadFactor>0.2</loadFactor>
    <departureOpTime>8</departureOpTime>
    <arrivalOpTime>7</arrivalOpTime>
  </groundSupportEquipmentLT00peration>
</groundSupportEquipmentLT00perationSet>
</aircraftType>
<numOperations>366</numOperations>
<opType>D</opType>
```

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```
<departureAirport type="ICAO">KPVD</departureAirport>
<departureGate>AC</departureGate>
<departureApuTime>3.5</departureApuTime> <!-- in minutes -->
<taxiOutDuration>10.72</taxiOutDuration> <!-- in minutes -->
<taxiInDuration>6.24</taxiInDuration> <!-- in minutes -->
<activityProfile>ActivityProfile-Baseline-KPVD-0-0-0</activityProfile>
<actypeWeight>146100</actypeWeight> <!-- in pounds -->
<fuelSulfurContent>0.00068</fuelSulfurContent>
</operation>

<operation>
  <id>A_1</id>
  <aircraftType>
    <airframeModel>Airbus A319-100 Series</airframeModel>
    <engineCode>3CM028</engineCode>
    <apuName>APU GTCP 36-300 (80HP)</apuName>
    <groundSupportEquipmentLT00perationSet>
      <groundSupportEquipmentLT00peration>
        <gseID>8</gseID>
        <fuelType>Diesel</fuelType>
        <horsepower>88</horsepower>
        <loadFactor>0.8</loadFactor>
        <departureOpTime>3.9</departureOpTime>
      </groundSupportEquipmentLT00peration>
      <groundSupportEquipmentLT00peration>
        <gseID>13</gseID>
        <fuelType>Gasoline</fuelType>
        <horsepower>107</horsepower>
        <loadFactor>0.55</loadFactor>
        <departureOpTime>8</departureOpTime>
        <arrivalOpTime>8</arrivalOpTime>
      </groundSupportEquipmentLT00peration>
      <groundSupportEquipmentLT00peration>
        <gseID>14</gseID>
        <fuelType>Gasoline</fuelType>
        <horsepower>107</horsepower>
        <loadFactor>0.5</loadFactor>
        <departureOpTime>11</departureOpTime>
        <arrivalOpTime>12</arrivalOpTime>
      </groundSupportEquipmentLT00peration>
      <groundSupportEquipmentLT00peration>
        <gseID>17</gseID>
        <fuelType>Diesel</fuelType>
        <horsepower>210</horsepower>
        <loadFactor>0.53</loadFactor>
        <departureOpTime>9.7</departureOpTime>
      </groundSupportEquipmentLT00peration>
      <groundSupportEquipmentLT00peration>
        <gseID>29</gseID>
        <fuelType>Diesel</fuelType>
        <horsepower>175</horsepower>
        <loadFactor>0.25</loadFactor>
        <departureOpTime>14</departureOpTime>
      </groundSupportEquipmentLT00peration>
      <groundSupportEquipmentLT00peration>
        <gseID>36</gseID>
        <fuelType>Diesel</fuelType>
```

```
<horsepower>56</horsepower>
<loadFactor>0.25</loadFactor>
<arrivalOpTime>2.1</arrivalOpTime>
</groundSupportEquipmentLTOOperation>
<groundSupportEquipmentLTOOperation>
  <gseID>41</gseID>
  <fuelType>Diesel</fuelType>
  <horsepower>235</horsepower>
  <loadFactor>0.2</loadFactor>
  <departureOpTime>8</departureOpTime>
  <arrivalOpTime>7</arrivalOpTime>
</groundSupportEquipmentLTOOperation>
</groundSupportEquipmentLTOOperationSet>
</aircraftType>
<numOperations>366</numOperations>
<opType>A</opType>
<arrivalAirport type="ICAO">KPVD</arrivalAirport>
<arrivalGate>AC</arrivalGate>
<arrivalApuTime>3.5</arrivalApuTime>
<taxiOutDuration>10.72</taxiOutDuration>
<taxiInDuration>6.24</taxiInDuration>
<activityProfile>ActivityProfile-Baseline-KPVD-0-0-0</activityProfile>
<actypeWeight>137800</actypeWeight>
  <fuelSulfurContent>0.00068</fuelSulfurContent>
</operation>
</case>
</caseSet>
```

5. Full ASIF

The full ASIF, *asif_emissions_study.xml*, is located in the directory: C:\Program Files\FAA\AEDT3e\Examples

1. Import the full ASIF in AEDT.
2. Create an annualization.
3. Create a metric result.

Please note that both the aircraft operations and the non-aircraft operations in this study are defined using operational profiles. When running profile-based aircraft operations, the “Apply Delay & Sequencing Model on Taxi” modeling option must be selected, and operating configuration and taxi network must exist in the airport layout.

4 User-Defined ANP and BADA 4 Profiles

4.1 Overview

There are three ways of creating and adding user-defined ANP and BADA 4 profiles in an AEDT study:

- By using the profile editor in the AEDT Graphical User Interface (GUI), Equipment tab (see Section 7.2.1 in AEDT User Manual);
- Creating and importing ASIF partial; and
- Direct database injection.

Of these methods, the first two are preferred because they include application-provided constraint and error checking. The following table provides a feature summary of the the three methods.

This Chapter focuses on the ASIF method and the direct database injection method for adding user-defined profiles

- Section 4.2 and Section 4.3 provide information on creating ASIF files that can be imported using ASIF partial import and provide details that would facilitate direct database injection to create user-defined profiles.
- Section 4.4 describes how the AEDT GUI's export functionality can be used to generate ASIF files that can subsequently be edited by the user to create their own or custom ANP and BADA 4 flight profiles.

Three Different Methods of Adding User-Defined Profiles

	Validation & error checking	ANP procedural profile for fixed-wing aircraft	BADA 4 procedural profile for fixed-wing aircraft	ANP fixed-point profile for fixed-wing aircraft	ANP profiles for helicopters	Overflight profiles
Profile Editor in AEDT GUI	✓	✓	✓			
ASIF	✓	✓	✓	✓	✓	✓
Direct DB Injection		✓	✓	✓	✓	✓



It is expected that users who create and use user-defined profiles are knowledgeable about the physics of flight performance modeling and understand the significance and use of individual profile elements. Users are responsible for entering valid values that are within the expected ranges for each type of parameter. For detailed explanations of flight profiles, please refer to the AEDT Technical Manual and the AEDT User Manual.



Using non-default profiles, for review of FAA federal actions or other FAA regulatory purposes, require prior approval by the FAA office of Environment and Energy (AEE). Please refer to the AEDT User Manual, Appendix J for further information on requesting approval for use of non-default profiles

4.2 User-Defined ANP Profiles

4.2.1 Key Requirements for a New ANP Profile

User-defined ANP profiles can be added to an existing ANP aircraft or created in conjunction with a new ANP aircraft definition. A key requirement for a new profile is that the Profile Name cannot be a duplicate of an existing record for that aircraft type. The primary key that uniquely defines a Profile is composed of the Operation Type, Profile Name, and the Stage Length.

In addition, any user-defined ANP profiles should have a PROFILE_ID value in the FLT_ANP_AIRPLANE_PROFILES table that is both unique and greater than 100,000. When creating user-defined ANP profiles via the AEDT GUI or importing via ASIF, the requirement that the Profile ID be greater than 100,000 is automatically handled. When the user is creating user-defined ANP profiles via manual database injection, the user must ensure that this requirement is met.

ANP profile entries are stored in the FLT_ANP_AIRPLANE_PROFILES table in a study database. Each unique profile entry in this table is determined by the combination of the ANP Aircraft Type, the Operation Type, the Profile Name, and the Stage Length. The integer value for Profile ID also uniquely identifies each entry in this table. The table below provides a mapping of the input ASIF elements for ANP profiles to specific database columns.

ANP Profile – Mapping of ASIF Element to Database Table & Columns

Parameter	ASIF Element Name	Column in Table FLT_ANP_AIRPLANE _PROFILES	Reference Columns (where applicable)
ANP Aircraft Type	anpAirplaneId	ACFT_ID	FLT_ANP_AIRPLANES.ACFT_ID
Operation Type	operationType	OP_TYPE	
Profile Name	profileGroupId	PROF_ID1	
Stage Length	profileStageLength	PROF_ID2	
Profile ID	n/a	PROFILE_ID	
Weight	weight	WEIGHT (lb)	

ANP profiles can consist of either procedure steps or fixed-points. Both types of profiles can be defined for any given ANP aircraft type.

4.2.2 ANP Profile – Procedure Steps

Individual steps for procedural ANP profiles are stored in the FLT_ANP_AIRPLANE PROCEDURES table. Each unique profile in this table is determined by the combination of the ANP Aircraft Type, the Operation Type, the Profile Name, and the Stage Length. Each unique row in this table is determined by the combination of the previous four fields plus the Step Number. The table below provides a mapping of the input ASIF elements for ANP procedural steps to specific database columns.

ANP Profile, Procedural Steps – Mapping of ASIF Elements to Database Table & Columns

Parameter	ASIF Element Name	Column in Table FLT_ANP_AIRPLANE_PROCEDURES	Reference Columns (where applicable)
ANP Aircraft Type	anpAirplaneId	ACFT_ID	FLT_ANP_AIRPLANES.ACFT_ID
Operation Type	operationType	OP_TYPE	FLT_ANP_AIRPLANE_PROFILES.OP_TYPE
Profile Name	profileGroupId	PROF_ID1	FLT_ANP_AIRPLANE_PROFILES.PROF_ID1
Stage Length	profileStageLength	PROF_ID2	FLT_ANP_AIRPLANE_PROFILES.PROF_ID2
Step Number	stepNum	STEP_NUM	
Flap ID	flapId (optional)	FLAP_ID (nullable)	FLT_ANP_AIRPLANE_FLAPS.FLAP_ID
Step Type	stepType (optional)	STEP_TYPE (nullable)	
Thrust Type	thrustType (optional)	THR_TYPE (nullable)	
First Parameter	param1	PARAM1	
Second Parameter	param2	PARAM2	
Third Parameter	param3 (optional)	PARAM3 (nullable)	

Sample ASIF for User-Defined ANP Procedural Profile

Following is a sample ASIF block that allows for the partial import of user-defined ANP procedural profiles. Refer to the accompanying ASIF file named *UserDefinedANPProfiles-ProcedureSteps.xml* for the complete sample file.

```
<fleet>
  <anpProfileSet>
    <anpAirplaneId>1900D</anpAirplaneId>
    <profile>
      <operationType>A</operationType>
      <profileGroupId>USER</profileGroupId>
      <profileStageLength>1</profileStageLength>
      <weight>14000</weight>
      <procedureSteps>
        <step>
          <stepNum>1</stepNum>
          <flapId>ZERO-A</flapId>
          <stepType>D</stepType>
          <param1>6000</param1>
          <param2>160</param2>
          <param3>3</param3>
        </step>
        <step>
          <stepNum>2</stepNum>
          <stepType>B</stepType>
          <thrustType>V</thrustType>
          <param1>515.2</param1>
          <param2>84</param2>
          <param3>40</param3>
        </step>
        <!-- more steps -->
      </procedureSteps>
    </profile>
  </anpProfileSet>
</fleet>
```

```

</profile>
<!-- additional profiles -->
</anpProfileSet>
</fleet>

```

4.2.3 ANP Profile – Fixed-Point

The points of fixed-point ANP profiles are stored in the FLT_ANP_AIRPLANE_PROFILE_POINTS table. Each unique profile in this table is determined by the combination of the ANP Aircraft Type, the Operation Type, the Profile Name, and the Stage Length. Each unique row in this table is determined by the combination of the previous four fields plus the Point Number. The table below provides a mapping of the input ASIF elements for ANP fixed-point profiles to specific database columns.

ANP Profile, Fixed-Points – Mapping of ASIF Elements to Database Table & Columns

Parameter	ASIF Element Name	Column in Table FLT_ANP_AIRPLANE_PROFILE_POINTS	Reference Columns (where applicable)
ANP Aircraft Type	anpAirplaneId	ACFT_ID	FLT_ANP_AIRPLANES.ACFT_ID
Operation Type	operationType	OP_TYPE	FLT_ANP_AIRPLANE_PROFILES.OP_TYPE
Profile Name	profileGroupId	PROF_ID1	FLT_ANP_AIRPLANE_PROFILES.PROF_ID1
Stage Length	profileStageLength	PROF_ID2	FLT_ANP_AIRPLANE_PROFILES.PROF_ID2
Point Number	pointNum	PT_NUM	
Distance	distance	DISTANCE (ft)	
Altitude	altitude	ALTITUDE (AFE ft)	
Speed	speed	SPEED (TAS)	
Net Thrust per Engine	thrustSet	THR_SET	
Operation Mode	opMode (optional)	OP_MODE (nullable)	

Sample ASIF for User-Defined ANP Fixed-Point Profile

Following is a sample ASIF block that allows for the partial import of user-defined ANP fixed-point profiles. Refer to the accompanying ASIF file named *UserDefinedANPProfiles-ProfilePoints.xml* for the complete sample file.

```

<fleet>
  <anpProfileSet>
    <anpAirplaneId>1900D</anpAirplaneId>
    <profile>
      <operationType>A</operationType>
      <profileGroupId>USER</profileGroupId>
      <profileStageLength>1</profileStageLength>
      <weight>14000</weight>
      <profilePoints>
        <point>
          <pointNum>1</pointNum>
          <distance>-114487.00</distance>
          <altitude>6000.00</altitude>
          <speed>250.00</speed>
          <thrustSet>520.00</thrustSet>
        
```

```

<opMode>A</opMode>
</point>
<point>
  <pointNum>2</pointNum>
  <distance>-57243.00</distance>
  <altitude>3000.00</altitude>
  <speed>124.00</speed>
  <thrustSet>3560.00</thrustSet>
  <opMode>A</opMode>
</point>

</profilePoints>
</profile>

</anpProfileSet>
</fleet>

```

4.3 User-Defined BADA 4 Profiles (for Existing BADA 4 Aircraft)

4.3.1 Key Requirements for a New BADA 4 Profile

User-defined BADA 4 profiles can be added to an existing BADA 4 aircraft (either system or user-created) or created in conjunction with a new BADA 4 aircraft definition. BADA 4 profile entries are stored in the FltBada4AirplaneProfile table.

A user-defined BADA 4 profile entry has several key identifiers. The first is a unique Profile ID that is a value greater than or equal to 400,000. When creating user-defined BADA 4 profiles via the AEDT GUI, or when importing new profiles via ASIF, the requirement that the Profile ID be greater than or equal to 400,000 is automatically handled. When the user is creating user-defined BADA 4 profiles via manual database injection, the user must ensure that this requirement is met.

The other required identifying components are the reference ANP Aircraft Type and the reference BADA 4 Aircraft Model. These fields are references to an existing ANP Aircraft from the FLT_ANP_AIRPLANES table (ACFT_ID field) and an existing BADA 4 Aircraft from the FLT_BADA4_ACM table (BADA4_ID). In ASIF, the BADA 4 Aircraft reference field is specified with a combination of the BADA 4 Model and the BADA 4 Engine Model from the FLT_BADA4_ACM table that uniquely identify the BADA 4 Aircraft.

The table below provides a mapping of the input ASIF elements for BADA 4 profiles to specific database columns.

BADA 4 Profile – Mapping of ASIF Elements to Database Table & Columns

Parameter	ASIF Element Name	Field Name in Table FltBada4AirplaneProfile	Reference Fields (where applicable)
Profile ID	n/a	ProfileID	
Profile Name	flightProcedure	FlightProcedure	
Reference ANP Aircraft	anpAirplaneId	AnpAirplaneID	FLT_ANP_AIRPLANES.ACFT_ID
Reference BADA4 Aircraft	bada4AirplaneModel	Bada4AirplaneID	FLT_BADA4_ACM.BADA4_ID matched using the MODEL and ENGINE fields from FLT_BADA4_ACM
Reference BADA4 Engine	bada4Engine		

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Operation Type	operationType	OperationType	
Weight Class	weightClass	WeightClass	
Weight	weight	Weight (lb)	

Note that unlike the other elements, the bada4AirplaneModel and bada4Engine elements specified in ASIF are only used to determine a specific record match to a BADA4_ID value from the FLT_BADA4_ACM table and are not explicitly persisted as part of the new profile.

In AEDT, only procedural profiles may be defined for user-defined BADA 4 profiles. Individual steps for BADA 4 profiles are stored in the FltBada4AirplaneProcedure table. The records for each unique profile in this table are solely determined by the Profile ID key which references the parent profile in the FltBada4AirplaneProfile table. Each row in this table has a unique identifier in the form of the auto-incremented database field of ProcedureStepID. However, each unique procedure step for any given profile is determined by the combination of the Profile ID and the Step Number.

The table below provides a mapping of the input ASIF elements for BADA 4 procedure steps to specific database columns.

BADA 4 Profile, Procedural Steps – Mapping of ASIF Elements to Database Table & Columns

Parameter	ASIF Element Name	Field Name in Table FltBada4AirplaneProcedure	Reference Fields (where applicable)
Step ID	n/a	ProcedureStepID	
Profile ID	n/a	ProfileID	FltBada4AirplaneProfile.ProfileID
Step Number	stepNumber	StepNumber	
Reference Configuration ID	configId	ConfigurationID	FLT_BADA4_AFCM_CONFIG.CONFIG_ID
Reference ANP Aircraft for Flaps	anpAirplaneId	AnpAirplaneID	FLT_ANP_AIRPLANE_FLAPS.ACFT_ID
Reference ANP Flap Setting	anpFlapId	AnpFlapID	FLT_ANP_AIRPLANE_FLAPS.FLAP_ID
Step Type	stepType	StepType	
Thrust Type	thrustType	ThrustType	
Altitude	altitude	Altitude (AFE ft)	
Calibrated Airspeed	calibratedAirspeed	CalibratedAirspeed (kt)	
Mach Number	mach	MachNumber	
Thrust	thrust	Thrust (lb)	
Angle	angle	Angle (deg)	
Climb Rate	climbRate	ClimbRate (ft/minute)	
Flight Segment Length	distance	Distance (ft)	
Percent Acceleration	percent	Percent	
Gear Down	gearDown	GearDown	

Sample ASIF for User-Defined BADA 4 Profile

Following is a sample ASIF block that allows for the partial import of user-defined BADA 4 profiles. Refer to the accompanying ASIF file named *UserDefinedBADA4Profiles.xml* for the complete sample file.

```
<fleet>
  <bada4ProfileSet>
    <anpAirplaneId>737300</anpAirplaneId>
    <bada4AirplaneModel>737-300</bada4AirplaneModel>
    <bada4Engine>CFM56-3B1 (20K)</bada4Engine>
    <bada4profile>
      <operationType>A</operationType>
      <flightProcedure>UserBADA4_A</flightProcedure>
      <weightClass>1</weightClass>
      <weight>102600</weight>
      <bada4ProcedureSteps>
        <step>
          <stepNumber>1</stepNumber>
          <configId>229</configId>
          <anpAirplaneId>737300</anpAirplaneId>
          <anpFlapId>ZERO</anpFlapId>
          <stepType>D</stepType>
          <altitude>6000</altitude>
          <calibratedAirspeed>250</calibratedAirspeed>
          <mach>0</mach>
          <thrust>0</thrust>
          <angle>3</angle>
          <climbRate>0</climbRate>
          <distance>0</distance>
          <percent>0</percent>
          <gearDown>0</gearDown>
        </step>
        <!-- more steps -->
      </bada4ProcedureSteps>
    </bada4profile>
    <!-- additional profiles -->
  </bada4ProfileSet>
</fleet>
```

4.4 Create User-Defined ANP and BADA 4 Profiles for New or Existing Aircraft by Using the GUI Export Aircraft Feature

AEDT GUI supports adding and editing user-defined ANP and BADA 4 flight profiles of existing fixed-wing aircraft as well as creating new user-defined aircraft. This section explains how to add custom ANP and BADA 4 flight profiles to existing and new aircraft by exporting existing aircraft, modifying the exported ASIF, and reimporting the modified ASIF.

4.4.1 Create a New User-Defined Aircraft with Custom Profiles

Follow the steps below to create a new user-defined aircraft with custom ANP and/or BADA 4 flight profiles:

1. Copy an existing system aircraft to create a new user-defined aircraft

1. In AEDT, go to the *Equipment* tab, *Aircraft*.
2. Select the aircraft to modify and click *Copy*.
3. Enter a suffix and click *Save*.
4. A new user-defined aircraft is created.

2. Export the new aircraft then delete it

1. Select the new aircraft and click *Export Aircraft* button.
2. The aircraft data is exported as a partial ASIF.
3. Click the *Delete* button to delete the new aircraft. This aircraft is no longer needed, because it will be edited in the ASIF and imported back into AEDT.

3. Open and edit the exported ASIF

1. Open the exported ASIF.
2. Under the <anpProfileSet> or the <bada4ProfileSet>, copy and paste one of the existing <profile> or <bada4Profile> sections.
3. Modify the new <profile> and/or <bada4profile> section by editing the profile properties. Ensure that profile names within each section are unique. Refer to the AEDT User Manual Appendix for details on how to define profiles for civil airplanes and helicopters.
4. Add additional profiles as needed.
5. Save the ASIF.

4. Import the ASIF

1. In AEDT, in the *Equipment* tab, click *Import Aircraft* button, select the updated ASIF and click *Open*. The new aircraft is listed in the *Equipment* tab.
2. Select the new aircraft and confirm that custom profiles have been added.

4.4.2 Add Custom Profiles to Existing Aircraft

Follow the steps below to add user-defined ANP and/or BADA 4 flight profiles to existing system or user-defined aircraft:

1. Export an existing aircraft and its profiles

1. In AEDT, go to the *Equipment* tab, *Aircraft*.
2. Select the aircraft to export.
3. Select the new aircraft and click *Export Aircraft* button.
4. The aircraft data is exported as a partial ASIF.

2. Open and edit the exported ASIF

1. Open the exported ASIF.
2. Edit the file to only keep the <anpProfileSet> and/or the <bada4ProfileSet> sections and remove all the other sections.
3. Modify the <profile> or <bada4profile> sections by editing each profile's properties. Ensure that the Profile Name is changed for each profile to be different from any of the profile names that already exist for that aircraft. Refer to the AEDT User Manual Appendix for details on how to define profiles for civil airplanes and helicopters.
4. Add additional profiles as needed.
5. Save the ASIF.

3. Import the ASIF

1. In AEDT, in the *Equipment* tab, click *Import Aircraft* button, select the updated ASIF and click *Open*.
2. Select the relevant aircraft and confirm that custom profiles have been added.

5 ASIF Consideration

5.1 Airport Layout and Runways

When defining an airport under the ***airportLayout*** element, users have the option to specify runway definitions using the ***runwaySet*** element. If runways are not specified in ASIF, then the runway data from the AEDT Airport database will be copied during the ASIF import.

When you add an existing airport to a study in AEDT GUI, AEDT will create a new airport layout for each instance when there has been a runway modification (e.g., extended runways or renamed runways). For example, add the KATL airport in AEDT GUI and confirm that multiple airport layouts are listed, each with different effective - expiration date range.

However, if you import such airport using ASIF without providing runway specifications, then AEDT will copy all the runways (both expired and the latest) from the Airport database into a single airport layout instead of creating multiple layouts. This means that the single airport layout will contain duplicate runway items once such airport is imported into AEDT.

In the example below, KATL is defined without any runway specifications. During ASIF import, AEDT will copy the entire history of KATL runways from the Airport database into the study database.

```
<airportLayout>
  <airportCode type="ICAO">KATL</airportCode>
</airportLayout>
```

The following screenshot shows the single airport layout for the KATL airport in AEDT GUI after importing the above ASIF example. Note that some items are listed twice – runway ends 09L and 27R, runways 09L-27R, and helipad H1.

In such a case, it is recommended to delete the duplicate runway ends and runways from the study. Review the effective date and expiration date of the runway ends/runways in the study database to determine which ones are expired vs. latest. Alternatively, specify runways in the ASIF using the ***runwaySet*** element.

Layout: KATL Effective date: 1/1/1900 Taxi-in time: 0 minutes 0 seconds Expiration date: 6/6/2079 Taxi-out time: 0 minutes 0 seconds			
Ground Elements		Tracks	
Drag a column header and drop it here to group by that column			
Type	ID	Name	
[+]	Runway end	72254	08L
[+]	Runway end	84857	26R
[+]	Runway end	72255	08R
[+]	Runway end	84858	26L
[+]	Runway end	72256	09L
[+]	Runway end	84859	27R
[+]	Runway end	72257	09R
[+]	Runway end	84860	27L
[+]	Runway end	72258	10
[+]	Runway end	84861	28
[+]	Runway end	121432	27R
[+]	Runway end	122606	09L
[+]	Runway	36926	08L - 26R
[+]	Runway	36927	08R - 26L
[+]	Runway	36928	09L - 27R
[+]	Runway	36929	09R - 27L
[+]	Runway	36930	10 - 28
[+]	Runway	36931	H1
[+]	Runway	67816	27R - 09L
[+]	Runway	69090	H1
[+]	Helipad	72259	H1
[+]	Helipad	124455	H1
22 of 22 item(s) shown. 1 item(s) selected.			

5.2 Event Consolidation

AEDT calculates noise for all air operations (e.g. all instances of an aircraft and track) in a given case, which differs from the legacy tool, NIRS. In order to optimize noise modeling performance in AEDT, it is suggested to combine like operations in a case into a representative single air operation for entry into the ASIF.

5.3 Control Codes

The altitude and/or speed of an airplane as it passes over a track node can be controlled to some extent by assigning track controls to that track node. Track controls are an optional feature that are used to specify targets and restrictions on altitude and/or speed on tracks – altitude controls affect airplane altitude; and speed controls affect airplane speed.

Each track control has two components: a value and a code. The value establishes a reference altitude or speed (appropriate to the control type), and the code specifies how that value should be interpreted in flight analysis.

In the ASIF schema, an altitude control is assigned to a ***trackNode*** by providing the control altitude as ***trackNode/altitude***, and the control code as ***trackNode/altitude/control***. Likewise, a speed control is defined by providing ***trackNode/speed***, and the control code as ***trackNode/speed/control***. Note that no control is defined if any of the following are true:

- A value is not provided;
- A code is not provided; or
- The code provided has a value of "0" or "None".

Furthermore, AEDT will ignore the following controls:

- Altitude controls with altitude values below 500 ft. AFE.
- All speed controls, if using the Doc 29/BADA 3 performance model.
- All speed controls, if the operation is an overflight.
- All controls, if the operation is a circuit or touch-and-go.

Also note that if there are any controls defined on an overflight, there must be controls defined (and observed, per the control-ignoring rules above) on the first and last nodes of the track.

AEDT computes performance to the following extents:

- Departure and approach performance is computed between ground roll and the observed control that is trackwise furthest from ground roll.
- Overflight performance is computed from the first track point to the last track point (both of which must have observed controls).

Performance is computed as close as possible to the observed control values, subject to the airplane's performance capabilities, as described in the AEDT Technical Manual. The computed best effort to achieve these targeted values is checked against the restrictions implied by the control codes:

- Control code "1" or "At or Below": the airplane is not allowed above the value
- Control code "2" or "Match": the airplane is not allowed above or below the value
- Control code "3" or "At or Above": the airplane is not allowed below the value

If the best effort fails to comply with the restriction, the flight's performance is discarded by AEDT, logged in the error log, and its impact is excluded from environmental metrics. For more information on track controls, refer to Section 3.9.1 Track Control Flights in the AEDT Technical Manual.

When translating NIRS inputs to ASIF, omitting altitude controls with altitude values below 3000 ft AFE will lead to the most comparable result, as NIRS ignored these controls. When modeling runway to runway operations using sensor path data, define the flight path using the ASIF ***sensorPath*** element rather than the track element. Sensor paths provide more direct control of altitude for an aircraft trajectory.

5.4 Assign Default Ground Support Equipment (GSE) to Aircraft Operations

The **assignDefaultGse** element in the ASIF schema is used to assign default ground support equipment (GSE) to aircraft operation instead of writing out each GSE operation.

In this departure operation example, the **assignDefaultGse** is set to true. This will assign the default GSE for "Airbus A319-100 Series" to the operation. The default GSEs for the Airbus A319-100 Series, departure operation are listed in the table below. The default GSE assignments for airframe is stored in the **FLT_GSE_AC_DEFAULTS** table.

```
<operation>
  <id>D_1</id>
  <aircraftType>
    <airframeModel>Airbus A319-100 Series</airframeModel>
    <engineCode>3CM028</engineCode>
    <apuName>APU GTCP 36-300 (80HP)</apuName>
    <assignDefaultGse>true</assignDefaultGse>
  </aircraftType>
  <numOperations>1</numOperations>
  <opType>D</opType>
  .....
  .....
```

Default GSEs for Airbus A319-100 Series – Departure Operation

GSE Name	Duration (mins)	Horsepower	Load Factor	Manufacture Year
Electric - None - Air Conditioner	23	0	0.75	NA
Diesel - ACE 180 - Air Start	7	425	0.9	NA
"Diesel - Stewart & Stevenson TUG GT-35, Douglas TBL-180 - Aircraft Tractor"	8	88	0.8	NA
Gasoline - Stewart & Stevenson TUG MA 50 - Baggage Tractor	38	107	0.55	NA
Gasoline - Stewart & Stevenson TUG 660 - Belt Loader	24	107	0.5	NA
Diesel - Hi-Way F650 - Cabin Service Truck	10	210	0.53	NA
Diesel - Hi-Way F650 - Catering Truck	8	210	0.53	NA
Diesel - F250 / F350 - Hydrant Truck	12	235	0.7	NA
Diesel - TLD 1410 - Lavatory Truck	0	56	0.25	NA
Diesel - F250 / F350 - Service Truck	8	235	0.2	NA
Electric - Gate Service - Water Service	12	0	0.2	NA

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To specify individual GSEs for the aircraft operation, use the ***groundSupportEquipmentLTOOperationSet***, as follows:

```
<operation>
  <id>D_1</id>
  <aircraftType>
    <airframeModel>Airbus A319-100 Series</airframeModel>
    <engineCode>3CM028</engineCode>
    <apuName>APU GTCP 36-300 (80HP)</apuName>
    <groundSupportEquipmentLTOOperationSet>
      <groundSupportEquipmentLTOOperation>
        <gseID>8</gseID>
        <fuelType>Diesel</fuelType>
        <horsepower>88</horsepower>
        <loadFactor>0.8</loadFactor>
        <departureOpTime>3.9</departureOpTime>
      </groundSupportEquipmentLTOOperation>
      <groundSupportEquipmentLTOOperation>
        <gseID>13</gseID>
        <fuelType>Gasoline</fuelType>
        <horsepower>107</horsepower>
        <loadFactor>0.55</loadFactor>
        <departureOpTime>8</departureOpTime>
        <arrivalOpTime>8</arrivalOpTime>
      </groundSupportEquipmentLTOOperation>
      <groundSupportEquipmentLTOOperation>
        <gseID>14</gseID>
        <fuelType>Gasoline</fuelType>
        <horsepower>107</horsepower>
        <loadFactor>0.5</loadFactor>
        <departureOpTime>11</departureOpTime>
        <arrivalOpTime>12</arrivalOpTime>
      </groundSupportEquipmentLTOOperation>
      <groundSupportEquipmentLTOOperation>
        <gseID>17</gseID>
        <fuelType>Diesel</fuelType>
        <horsepower>210</horsepower>
        <loadFactor>0.53</loadFactor>
        <departureOpTime>9.7</departureOpTime>
      </groundSupportEquipmentLTOOperation>
      <groundSupportEquipmentLTOOperation>
        <gseID>29</gseID>
        <fuelType>Diesel</fuelType>
        <horsepower>175</horsepower>
        <loadFactor>0.25</loadFactor>
        <departureOpTime>14</departureOpTime>
      </groundSupportEquipmentLTOOperation>
      <groundSupportEquipmentLTOOperation>
        <gseID>36</gseID>
        <fuelType>Diesel</fuelType>
        <horsepower>56</horsepower>
        <loadFactor>0.25</loadFactor>
        <arrivalOpTime>2.1</arrivalOpTime>
```

```

</groundSupportEquipmentLT0Operation>
<groundSupportEquipmentLT0Operation>
  <gseID>41</gseID>
  <fuelType>Diesel</fuelType>
  <horsepower>235</horsepower>
  <loadFactor>0.2</loadFactor>
  <departureOpTime>8</departureOpTime>
  <arrivalOpTime>7</arrivalOpTime>
</groundSupportEquipmentLT0Operation>
</groundSupportEquipmentLT0OperationSet>
</aircraftType>
<numOperations>1</numOperations>
<opType>D</opType>
.....
.....

```

5.5 Import User-Defined Spectral Class Data

Sample ASIF for User-Defined Spectral Class Data

Following is a sample ASIF block that allows for the partial import of user-defined spectral class data. Refer to the accompanying ASIF file named *UserDefinedSpectralClass.xml* for the complete sample file, which is located in *C:\Program Files\FAA\AEDT3e\Examples* directory.

```

<fleet>
  <spectralClass>
    <!--ID -->
    <spectralClassId>20000</spectralClassId>
    <flightTypes>AL</flightTypes>
    <frequencyBand17>25.1</frequencyBand17>
    <frequencyBand18>26.1</frequencyBand18>
....
.....

```

- The **spectralClassId** element specifies the user-defined Spectral Class ID. Valid value is in the range of 20,000 to 30,000 - inclusive.
- The **flightTypes** element is used to indicate flight types: A (arrival), D (departure), L (Level/Afterburner), or U (Unknown). In the example above, the **flightTypes** is set to "AL", indicating Arrival and Level/Afterburner.

To import this file:

- In the Equipment tab, *Aircraft* screen, then click the *Import Aircraft* button.
- Select this file and click *Open*.
- The Equipment list will be refreshed.

To assign the user-defined spectral classes to an aircraft:

- Select an aircraft and click the *Copy* button to create a user-defined aircraft.
- Go to the *ANP Airplane, Noise* screen (for a helicopter, go to the *ANP Helicopter, Noise* screen).
- From the *Spectral class approach* dropdown menu, select the desired user-defined class ID.
- From the *Spectral class departure* dropdown menu, select the desired user-defined class ID.
- Enter a Suffix for the new aircraft and make other changes, then click the *Save* button.

5.6 Importing an Older Version of ASIF File

When importing an older version of ASIF file, AEDT will upgrade the file to the latest ASIF version by applying intermediate version updates in sequence. During this process, AEDT will generate ASIF files for each intermediate version. An intermediate ASIF file will have the ASIF version number added as a suffix to the file name.

For example, the current ASIF schema version is **1.2.19**.

- Importing an ASIF version 1.2.14 file in AEDT 3e will generate intermediate ASIF files for version 1.2.15, 1.2.16, 1.2.17, 1.2.18, and 1.2.19.
- Importing an ASIF version 1.2.18 file in AEDT 3e will generate an intermediate ASIF file for version 1.2.19 file.

These intermediate files are saved in the **AsifImport** directory under the AEDT data folder (e.g., **C:\AEDT3e\AsifImport**). Please note that these files are temporary; they will be deleted before the next ASIF import.

5.7 ASIF Version 1.2.18 Update for Stationary Sources

Stationary sources modeling methodology updates in the AEDT 3e release affect fuel tank, boiler/heater, solvent degreaser, and sand/salt pile sources and operations. This also resulted in a major change to stationary sources schema in ASIF version 1.2.18.



Due to significant changes in stationary sources input data and modeling methodology, users are strongly encouraged to **review the intermediate files**, created by the ASIF update process, that are saved in the AsifImport directory under the AEDT data folder (e.g., C:\AEDT3e\AsifImport) and **review comments** contained within the intermediate ASIF files, logging stationary source upgrade actions.

Importing an older version of ASIF file in AEDT 3e will upgrade the file to the latest ASIF version. The following list summarizes ASIF schema changes that are applied during this upgrade process:

- Stationary sources where input data and modeling methodology was not changed will be migrated from earlier ASIF version to version 1.2.18 as-is.
- Stationary sources where a superset of existing input data is required in AEDT 3e as a result of the change in modeling methodology, AEDT will fill in new input parameters with default values (based on AP-42) when upgrading an older ASIF file to ASIF version 1.2.18. These actions will be noted as comments in the 1.2.18 intermediate ASIF file. For example:

```
<!--ASIF update added PM10_EI field with a value of 0.239652854-->
<!--ASIF update removed the ashTermPm10 element-->
```
- Stationary sources where different input data is required in AEDT 3e as a result of an incompatible change in the modeling methodology and/or the input parameters, AEDT will remove such stationary sources when upgrading an older ASIF file to ASIF version 1.2.18. These actions will be noted as comments in the 1.2.18 intermediate ASIF file. For example:

```
<!--ASIF update removed the categoryBoilerHeater block with typeCode 14-->
<!--ASIF update removed the categoryFuelTank block with typeCode 10-->
```

Deprecated Boiler/Heater and Fuel Tank Sources and Operations

While the ASIF upgrade process will remove deprecated stationary sources from an older ASIF file, it will not automatically locate and remove any operations referencing or using those sources. As a result, ASIF import may fail with bad data integrity error (see Figure 5-1) if it contains any orphaned operations that reference stationary source that have been removed during the upgrade. Figure 5-2 displays sample error messages that get logged to aedt.log file when importing such ASIF file with orphaned operations.

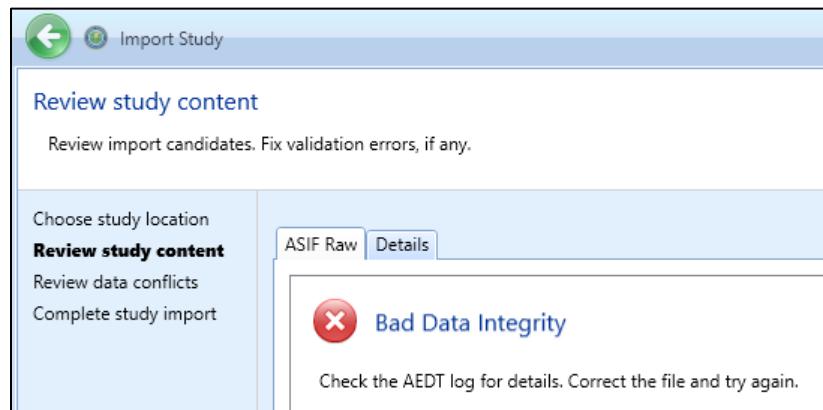


Figure 5-1 AEDT Import Study Dialog, Bad Data Integrity Error Message

```
ASIF Data Error: # Errors:16 - Message: An invalid stationary source reference name was specified.  
ERROR #1: (Parent Name)=Baseline - (Stationary source reference name)=Boiler14-Baseline -  
ERROR #2: (Parent Name)=Baseline - (Stationary source reference name)=Boiler28-Baseline -  
ERROR #3: (Parent Name)=Baseline - (Stationary source reference name)=Boiler29-Baseline -  
ERROR #4: (Parent Name)=Baseline - (Stationary source reference name)=Boiler30-Baseline -  
ERROR #5: (Parent Name)=Baseline - (Stationary source reference name)=Boiler31-Baseline -  
ERROR #6: (Parent Name)=Baseline - (Stationary source reference name)=Boiler32-Baseline -  
ERROR #7: (Parent Name)=Baseline - (Stationary source reference name)=Boiler33-Baseline -  
ERROR #8: (Parent Name)=Baseline - (Stationary source reference name)=Boiler34-Baseline -  
ERROR #9: (Parent Name)=Baseline - (Stationary source reference name)=Boiler37-Baseline -  
ERROR #10: (Parent Name)=Baseline - (Stationary source reference name)=Boiler38-Baseline -  
ERROR #11: (Parent Name)=Baseline - (Stationary source reference name)=Boiler39-Baseline -  
ERROR #12: (Parent Name)=Baseline - (Stationary source reference name)=FuelTank10-Baseline -  
ERROR #13: (Parent Name)=Baseline - (Stationary source reference name)=FuelTank6-Baseline -  
ERROR #14: (Parent Name)=Baseline - (Stationary source reference name)=FuelTank7-Baseline -  
ERROR #15: (Parent Name)=Baseline - (Stationary source reference name)=FuelTank8-Baseline -  
ERROR #16: (Parent Name)=Baseline - (Stationary source reference name)=FuelTank9-Baseline -
```

Figure 5-2 Invalid Stationary Source Reference Errors in AEDT Log File

Follow the steps below to manually edit the intermediate ASIF file and to import it into AEDT 3e:

1. View the ASIF data error messages in the aedt.log file and note invalid stationary source reference names.
2. Locate the intermediate ASIF version 1.2.18 file saved in the C:\AEDT3e\AsifImport folder.
3. In the ASIF file, search for the stationary source reference names then manually remove matching operations from the ASIF file.
4. Import the manually edited ASIF file into AEDT 3e.
5. Re-create new operations to replace those sources by using the AEDT 3e GUI.

6 ASIF Schema Documentation

Click on the following links to view descriptions for ASIF elements, groups, complex types and simple types.

Schema AsifMerge.xsd

schema location: [AsifMerge.xsd](#)
attributeFormDefault: unqualified
elementFormDefault: qualified

Elements	Groups	Complex types	Simple types
activityProfile	airportActivityGroup	aircraft	aircraftPerformanceModelType
activityProfileSet	annualizationGroupCase	aircraftEngine	aircraftSizeType
airportCapacity	coord2DGroup	aircraftEngineMod	airframeModel
airportConfig	lationCoordGroup	aircraftType	airportCodeType
airportConfigSet	nodeIdGroup	airframe	anpAiplaneld
airportLayoutSet	oneOrThreeCoords2DGroupSet	airport	anpCoeffType
airportWeather	pm10TermGroup	airportCode	anpFlapld
airportWeatherStation	receptorGroup	airportLayoutType	anpHeloDirectId
annualization	thcElGroup	anpAirplane	anpHeloDirectivityId
annualizationCase	tnmcElGroup	anpFlaps	anpHeloGroundType
annualizationGroup	tocElGroup	anpFlapsSet	anpHeld
areaStationarySource	utmCoordGroup	anpHelicopter	anpHeloNoiseld
AsifXml	vocElGroup	anpHeloDirectivity	anpHeloSideType
backbone		anpHeloDirectivitySet	anpNoiseId
backboneNode		anpHeloNoiseGroup	anpNpdNoiseType
backboneNodes		anpHeloNPDCurve	anpNpdOpMode
boilerHeaterTypeCode		anpHeloNPDCurves	anpOwnerType
boundary		anpHeloProcedureStep	anpSizeCode
building		anpHeloProfile	apuName
buildingSet		anpHeloProfileSet	bada4AirplaneModel
capacityPoint		anpNoiseGroup	bada4Engine
case		anpNPDCurve	bada4Suffix
caseSet		anpNPDCurves	badaAiplaneld
categoryAircraftEngine		anpProcedureStep	badaPhaseType
categoryBoilerHeater		anpProcedureSteps	badaWakeType
categoryDeicingArea		anpProfile	directionType
categoryFuelTank		anpProfilePoint	doubleExclusive0Inclusive10
categoryGenerator		anpProfilePoints	doubleExclusive10
categoryIncinerator		anpProfileSet	doubleExclusive100
categoryOther		anpThrustGeneral	doubleExclusive1000
categoryRecordCode		anpThrustJet	doubleExclusive10000
categorySandSaltPile		anpThrustProp	doubleExclusive2000
categorySolventDegreaser		anpThrustSet	doubleExclusiveRange100
categorySurfaceCoatingPainting		anpSfcCoefficients	doubleInclusive1
categoryTrainingFire		auxiliaryPowerUnit	doubleInclusive100
centroid		bada4ProcedureStep	bada4ProcedureStep
climate		bada4ProcedureSteps	bada4ProcedureSteps
dailyProfile		bada4Profile	doubleInclusive2000
dailyProfileSet		bada4ProfileSet	doubleInclusive24
dispersionWeight		badaAirplane	doubleInclusive4000
emissionsUsage		badaAltitudeDistribution	doubleInclusive500
engineModeEmissionFactors		badaAltitudeDistributionSet	doubleInclusiveRange0to600
gate		badaConfig	doubleInclusiveRange1to30
gateSet		badaConfigSet	doubleMin0
grid		badaFuel	emissionsSourceType
groundSupportEquipmentGateAssignment		badaProfile	emissionsUnitsType
groundSupportEquipmentGateAssignmentSet		badaProfileSet	empty_string
groundSupportEquipmentLTOOperation		badaThrust	engineCode
groundSupportEquipmentLTOOperationSet		coord2DType	engineModCode
groundSupportEquipmentPopulationOperation		coord3DElevationType	engineModel
groundSupportEquipmentPopulationOperationSet		dispersionWeight1Type	engineType
monthlyProfile		dispersionWeight3Type	floatExclusive0Inclusive10
monthlyProfileSet		dispersionWeight5Type	floatExclusive10
operation		dispersionWeight7Type	floatExclusive100
operationalProfileSet		dispersionWeight9Type	floatExclusive1000
operations		emissionFactorSet	floatExclusive10000
options		energyShare	floatExclusive2000
parkingFacility		engineModeEmissions	floatExclusiveRange100
parkingFacilityOperation		fleet	floatInclusive1
parkingFacilityOperationSet		latitudeDecimalType	floatInclusive100
parkingFacilitySet		longitudeDecimalType	floatInclusive1000
pointReceptor		polygon2DType	floatInclusive10000
pointStationarySource		polygon3DElevationType	floatInclusive2000
polarGrid		profiles	floatInclusive24
polarReceptor		runup	floatInclusive4000
quarterHourlyProfile		runwayEnd	floatInclusiveRange1to30
quarterHourlyProfileSet		scenarioAirportLayoutType	floatInclusiveRange32to600
receptorSet		spectralClass	fuelType
recordCode			groundVehicleType
roadway			int0to23
roadwayOperation			int0to360
roadwayOperationSet			int0to5
roadwaySet			int0to87
runway			int1to13
runwayAssignment			int1to15
runwayAssignmentSet			int1to2
runwaySet			int1to25
scenario			int1to4
scenarioAirportLayoutSet			int1to5
sensorNode			int1to8
sensorPath			int1to93
stationarySource			int5to15
stationarySourceOperation			int5to65
stationarySourceOperationSet			int6to13
stationarySourceSet			int89to148
study			latitudeDMSType
subtract			longitudeDMSType
taxiNode			nodeControlType

[taxiNodeSet](#)
[taxiPath](#)
[taxiPathSet](#)
[taxiTime](#)
[taxiway](#)
[taxiwaySet](#)
[track](#)
[trackNode](#)
[trackNodes](#)
[trackOpSet](#)
[trackRef](#)
[trackSet](#)
[trackVector](#)
[trackVectors](#)
[userDefinedAirportSet](#)
[userGroundSupportEquipment](#)
[userGroundSupportEquipmentSet](#)
[vehicleEmissionFactors](#)
[volumeStationarySource](#)
[weatherData](#)
[windRose](#)
[windRoseData](#)
[windRoseStation](#)

[opType](#)
[originSourceType](#)
[profileType](#)
[quarterHourMinutes](#)
[spectralClassId](#)
[spectralFlightType](#)
[string1](#)
[string10](#)
[string100](#)
[string11](#)
[string12](#)
[string14](#)
[string15](#)
[string16](#)
[string2](#)
[string20](#)
[string200](#)
[string25](#)
[string255](#)
[string3](#)
[string30](#)
[string32](#)
[string4](#)
[string40](#)
[string42](#)
[string5](#)
[string50](#)
[string6](#)
[string64](#)
[string66](#)
[string7](#)
[string8](#)
[string9](#)
[studyType](#)
[taxiModelType](#)
[timeInModeBasisType](#)
[trackType](#)
[trainingFireFuelType](#)
[vectorTrackType](#)
[weatherDataYear](#)
[wingType](#)
[yesNoType](#)

element activityProfile

properties	content complex												
children	quarterHourlyProfile dailyProfile monthlyProfile												
used by	element activityProfileSet												
attributes	<table border="1"> <thead> <tr> <th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr> </thead> <tbody> <tr> <td>name</td><td>string100</td><td>required</td><td></td><td></td><td></td></tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	name	string100	required			
Name	Type	Use	Default	Fixed	Annotation								
name	string100	required											
annotation	documentation Supports legacy EDMS studies relating to content combinations of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES.												

attribute activityProfile/@name

type	string100									
properties	use required									
facets	<table border="1"> <thead> <tr> <th>Kind</th><th>Value</th><th>Annotation</th></tr> </thead> <tbody> <tr> <td>minLength</td><td>0</td><td></td></tr> <tr> <td>maxLength</td><td>100</td><td></td></tr> </tbody> </table>	Kind	Value	Annotation	minLength	0		maxLength	100	
Kind	Value	Annotation								
minLength	0									
maxLength	100									

element activityProfile/quarterHourlyProfile

type	string100						
properties	content simple						
used by	element quarterHourlyProfileSet						
facets	<table border="1"> <thead> <tr> <th>Kind</th><th>Value</th><th>Annotation</th></tr> </thead> <tbody> <tr> <td>minLength</td><td>0</td><td></td></tr> </tbody> </table>	Kind	Value	Annotation	minLength	0	
Kind	Value	Annotation					
minLength	0						

	maxLength 100
annotation	documentation Defines scaling factors for operations during a particular quarter-hour.

element activityProfile/dailyProfile

diagram	<p>Defines scaling factors for operations on a particular day.</p>
type	string100
properties	content simple
used by	element dailyProfileSet
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Defines scaling factors for operations on a particular day.

element activityProfile/monthlyProfile

diagram	<p>Defines scaling factors for operations during a particular month.</p>
type	string100
properties	content simple
used by	element monthlyProfileSet
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Defines scaling factors for operations during a particular month.

element activityProfileSet

diagram	<p>Supports the definition and use of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES variation of operations.</p> <p>Supports legacy EDMS studies relating to content combinations of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES.</p>
properties	content complex
children	activityProfile
used by	element operationalProfileSet complexType airportLayoutType
attributes	Name Type Use Default Fixed Annotation dummy xs:int optional
annotation	documentation Supports the definition and use of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES variation of operations.

attribute activityProfileSet/@dummy

type	xs:int
properties	use optional

element airportCapacity

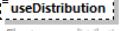
diagram	<p>Supports legacy EDMS studies relating to content contained in the RUNWAY_CONFIGURATIONS table. This element supports the definition of airport capacities based on various points within an airport.</p> <p>Supports legacy EDMS studies relating to content contained in the RUNWAY_CONFIGURATIONS table. This element supports the definition of airport capacities based on various points within an airport.</p>
properties	content complex
children	capacityPoint
used by	element airportConfig complexTypes airportLayoutType scenarioAirportLayoutType
attributes	Name Type Use Default Fixed Annotation

	<p>dummy xs:int optional</p>
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to content contained in the RUNWAY_CONFIGURATIONS table. This element supports the definition of airport capacities based on various points within an airport.</p>
attribute <code>airportCapacity/@dummy</code>	
type	<code>xs:int</code>
properties	use optional
element <code>airportConfig</code>	
diagram	<pre> classDiagram class airportConfig { configurationName useDistribution weight startWindAngle endWindAngle minWindSpeed maxWindSpeed startHour endHour minCeiling maxCeiling minVisibility maxVisibility minTemperature maxTemperature airportCapacity runwayAssignmentSet } airportConfig "1" --> "1" runwayAssignmentSet : </pre> <p>The diagram shows the <code>airportConfig</code> element as a class with the following attributes:</p> <ul style="list-style-type: none"> <code>configurationName</code>: Runway configuration name. <code>useDistribution</code>: Flag to use a distribution for the configuration. <code>weight</code>: Runway configuration weight factor. <code>startWindAngle</code>: Start wind angle. Valid values: 0.00 to 359.00. UNITS: decimal degrees. <code>endWindAngle</code>: End wind angle. Valid values: 0.00 to 359.00. UNITS: decimal degrees. <code>minWindSpeed</code>: Minimum wind speed. Valid values: 0.00 to 100.00. UNITS: knots. <code>maxWindSpeed</code>: Maximum wind speed. Valid values: 0.00 to 100.00. UNITS: knots. <code>startHour</code>: Start hour. Valid values: 0.00 to 23.00. <code>endHour</code>: End hour. Valid values: 0.00 to 23.00. <code>minCeiling</code>: Minimum ceiling AFE. Valid values: 0.00 to 100000.00. UNITS: feet. <code>maxCeiling</code>: Maximum ceiling AFE. Valid values: 0.00 to 100000.00. UNITS: feet. <code>minVisibility</code>: Minimum visibility. Valid values: 0.00 to 100.00. UNITS: statute miles. <code>maxVisibility</code>: Maximum visibility. Valid values: 0.00 to 100.00. UNITS: statute miles. <code>minTemperature</code>: Minimum temperature. Valid values: -100.00 to 150.00. (°F) <code>maxTemperature</code>: Maximum temperature. Valid values: -100.00 to 150.00. (°F) <code>airportCapacity</code>: Airport runway capacity points. <code>runwayAssignmentSet</code>: The runway assignments. <p>Associations:</p> <ul style="list-style-type: none"> <code>airportConfig</code> has one-to-one association with <code>runwayAssignmentSet</code>.
properties	content complex
children	<code>configurationName</code> <code>useDistribution</code> <code>weight</code> <code>startWindAngle</code> <code>endWindAngle</code> <code>minWindSpeed</code> <code>maxWindSpeed</code> <code>startHour</code> <code>endHour</code> <code>minCeiling</code> <code>maxCeiling</code> <code>minVisibility</code> <code>maxVisibility</code> <code>minTemperature</code> <code>maxTemperature</code> <code>airportCapacity</code> <code>runwayAssignmentSet</code>
used by	element <code>airportConfigSet</code>
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to content contained in the RUNWAY_CONFIGURATIONS table. This element supports the definition of airports and their runway configurations for a given scenario layout. Airports operate under different configurations (the pattern of aircraft arrivals and departures on specific runways) over the course of a year depending on the weather, capacity, and noise abatement issues.</p>

element <code>airportConfig/configurationName</code>	
diagram	<pre> classDiagram class configurationName { Runway configuration name. } </pre>
type	<code>string100</code>

properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Runway configuration name.

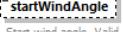
element **airportConfig/useDistribution**

diagram	 Flag to use a distribution for the configuration.
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Flag to use a distribution for the configuration.

element **airportConfig/weight**

diagram	 Runway configuration weight factor.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Runway configuration weight factor.

element **airportConfig/startWindAngle**

diagram	 Start wind angle. Valid values: 0.00 to 359.00. UNITS: decimal degrees
type	int0to360
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxExclusive 360
annotation	documentation Start wind angle. Valid values: 0.00 to 359.00. UNITS: decimal degrees

element **airportConfig/endWindAngle**

diagram	 End wind angle. Valid values: 0.00 to 359.00. UNITS: decimal degrees
type	int0to360
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxExclusive 360
annotation	documentation End wind angle. Valid values: 0.00 to 359.00. UNITS: decimal degrees

element **airportConfig/minWindSpeed**

diagram	 Minimum wind speed. Valid values: 0.00 to 100.00. UNITS: knots
type	doubleExclusive100
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation Minimum wind speed. Valid values: 0.00 to 100.00. UNITS: knots

element **airportConfig/maxWindSpeed**

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diagram	 <p>Maximum wind speed. Valid values: 0.00 to 100.00. UNITS: knots</p>
type	doubleExclusive100
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation Maximum wind speed. Valid values: 0.00 to 100.00. UNITS: knots

element airportConfig/startHour

diagram	 <p>Start hour. Valid values: 0.00 to 23.00.</p>
type	doubleInclusive24
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 24
annotation	documentation Start hour. Valid values: 0.00 to 23.00.

element airportConfig/endHour

diagram	 <p>End hour. Valid values: 0.00 to 23.00.</p>
type	doubleInclusive24
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 24
annotation	documentation End hour. Valid values: 0.00 to 23.00.

element airportConfig/minCeiling

diagram	 <p>Minimum ceiling AFE. Valid values: 0.00 to 100000.00. UNITS: feet</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Minimum ceiling AFE. Valid values: 0.00 to 100000.00. UNITS: feet

element airportConfig/maxCeiling

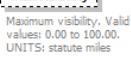
diagram	 <p>Maximum ceiling AFE. Valid values: 0.00 to 100000.00. UNITS: feet</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Maximum ceiling AFE. Valid values: 0.00 to 100000.00. UNITS: feet

element airportConfig/minVisibility

diagram	 <p>Minimum visibility. Valid values: 0.00 to 100.00. UNITS: statute miles</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple

annotation	documentation Minimum visibility. Valid values: 0.00 to 100.00. UNITS: statute miles
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element airportConfig/maxVisibility

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Maximum visibility. Valid values: 0.00 to 100.00. UNITS: statute miles

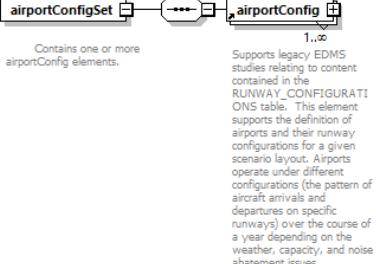
element airportConfig/minTemperature

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Minimum temperature. Valid values: -100.00 to 150.00. (*F)

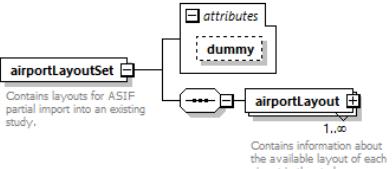
element airportConfig/maxTemperature

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Maximum temperature. Valid values: -100.00 to 150.00. (*F)

element airportConfigSet

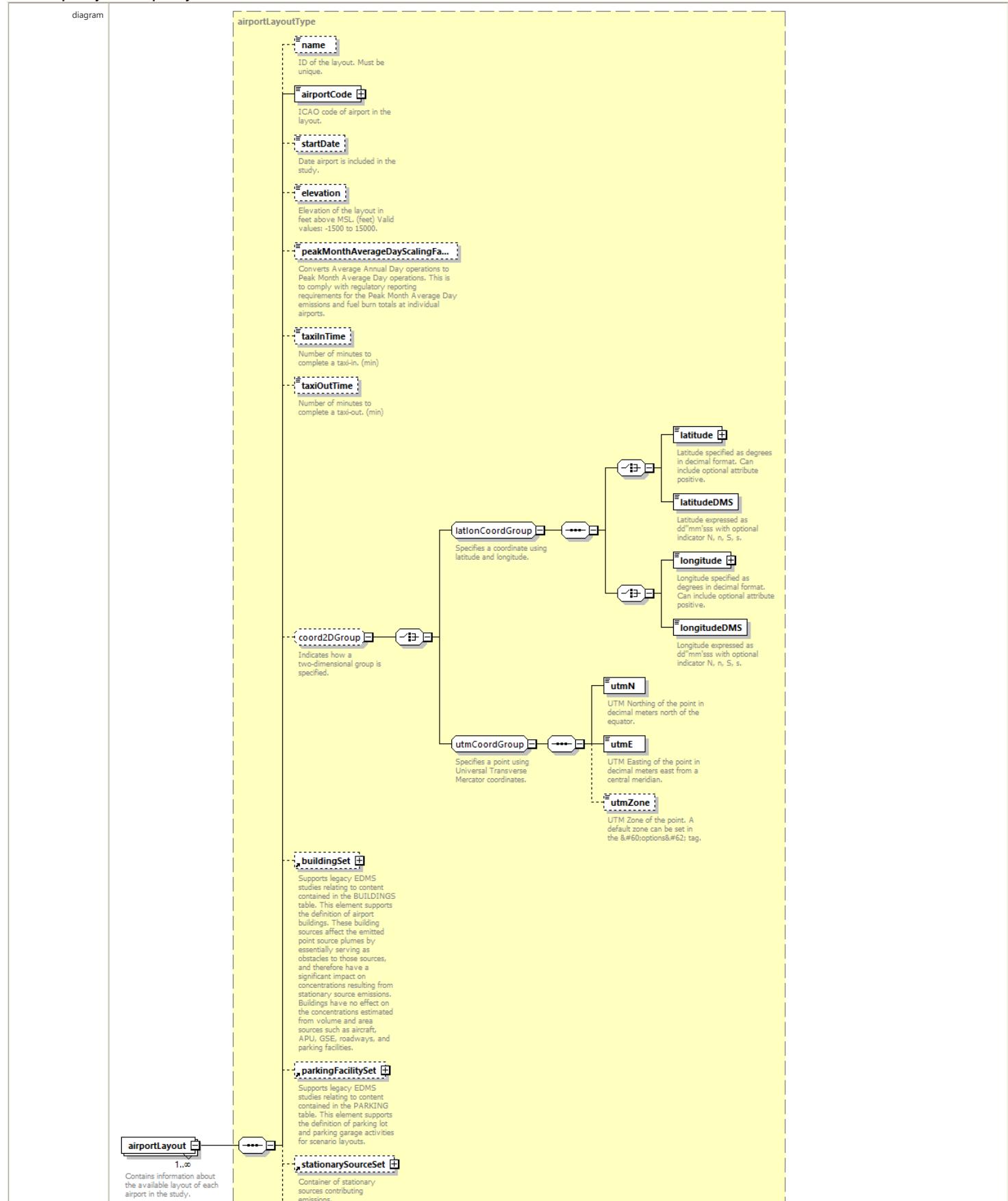
diagram	
properties	content complex
children	airportConfig
used by	complexTypes airportLayoutType scenarioAirportLayoutType
annotation	documentation Contains one or more airportConfig elements.

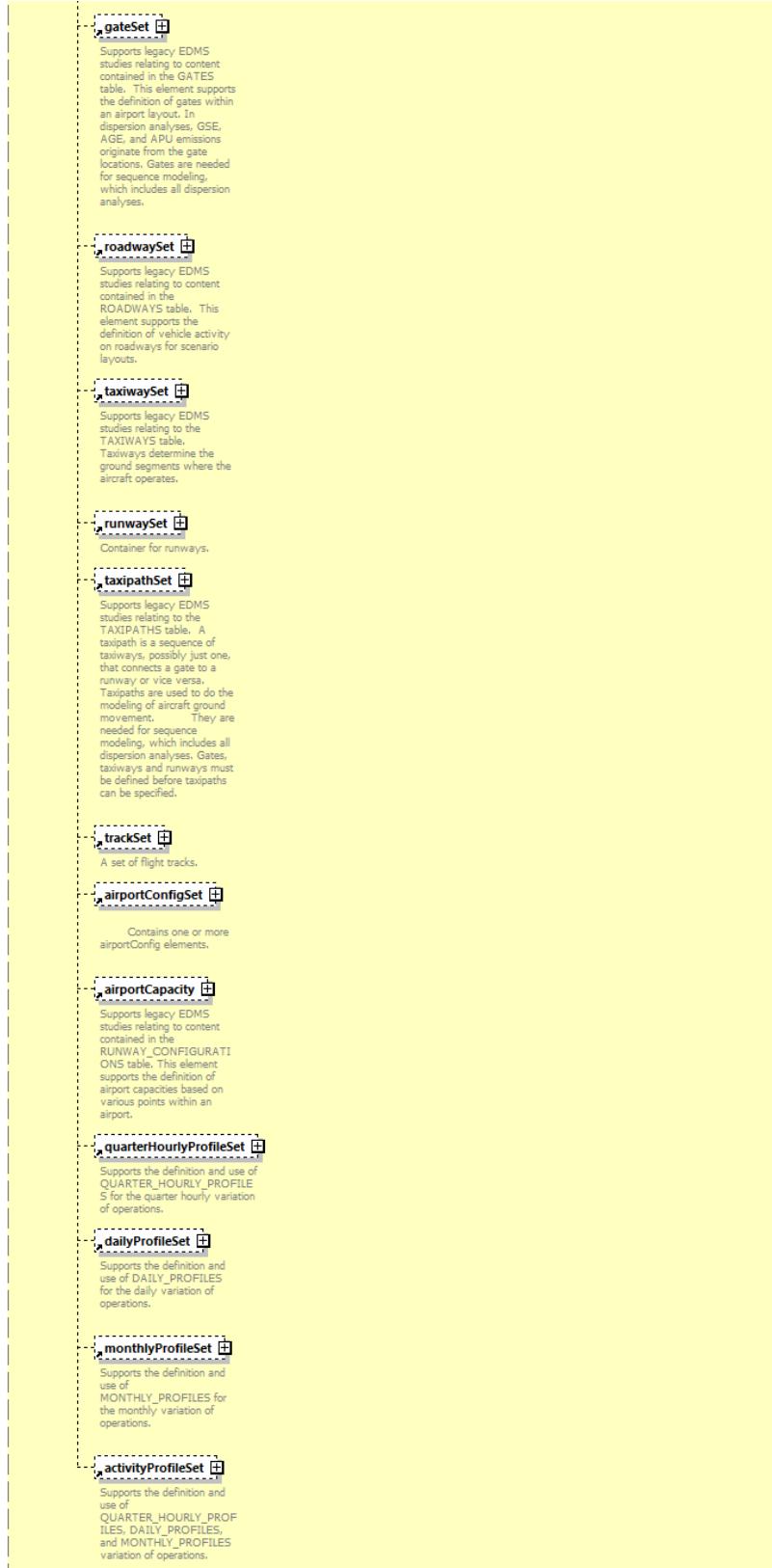
element airportLayoutSet

diagram	
properties	content complex
children	airportLayout
used by	elements AsifXml study
attributes	Name Type Use Default Fixed Annotation dummy xs:int optional

attribute **airportLayoutSet/@dummy**

type	xs:int
properties	use optional

element **airportLayoutSet/airportLayout**



	type airportLayoutType
properties	minOcc 1 maxOcc unbounded content complex
children	name airportCode startDate elevation peakMonthAverageDayScalingFactor taxiInTime taxiOutTime latitude longitude longitudeDMS utmN utmE utmZone buildingSet parkingFacilitySet stationarySourceSet gateSet roadwaySet taxiwaySet runwaySet taxipathSet trackSet airportConfigSet airportCapacity quarterHourlyProfileSet dailyProfileSet monthlyProfileSet activityProfileSet
annotation	documentation Contains information about the available layout of each airport in the study.

element **airportWeather**

diagram

properties	content complex
children	airportWeatherStationId airportWeatherStation
used by	complexType airport

element **airportWeather/airportWeatherStationId**

diagram	
type	xs:int
properties	content simple

element **airportWeatherStation**

diagram	
properties	content complex
children	airportWeatherStationId startDate endDate weatherStationCode weatherStationName latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone weatherStationElevationFeet distanceToStation cooperativeId wbnid weatherData
used by	element airportWeather

element **airportWeatherStation/airportWeatherStationId**

diagram	
type	xs:int
properties	content simple

element **airportWeatherStation/startDate**

diagram	
type	xs:date
properties	content simple

element **airportWeatherStation/endDate**

diagram	
type	xs:date
properties	content simple

element **airportWeatherStation/weatherStationCode**

diagram	
type	string5
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 5

element **airportWeatherStation/weatherStationName**

diagram	
type	string25
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 25

element **airportWeatherStation/weatherStationElevationFeet**

diagram	
type	xs:int
properties	content simple

element **airportWeatherStation/distanceToStation**

diagram	
type	xs:double
properties	content simple

element **airportWeatherStation/cooperativeId**

diagram	
type	string6
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 6

element **airportWeatherStation/wbanId**

diagram	
type	string5
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 5

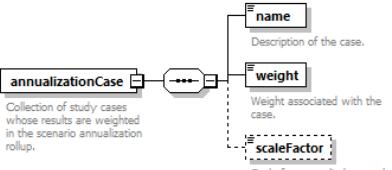
element **annualization**

diagram	 Contains annualizations for ASIF partial import into an existing study.
properties	content complex
children	name annualizationGroup
used by	elements AsifXml scenario
annotation	documentation

element annualization/name

diagram	
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Name of annualization.

element annualizationCase

diagram	
properties	content complex
children	name weight scaleFactor
used by	group annualizationGroupCase
annotation	documentation Collection of study cases whose results are weighted in the scenario annualization rollup.

element annualizationCase/name

diagram	
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Description of the case.

element annualizationCase/weight

diagram	
type	xs:double
properties	content simple
annotation	documentation Weight associated with the case.

element annualizationCase/scaleFactor

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 1
annotation	documentation Scale factor applied to results for the case.

element annualizationGroup

diagram	
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	<pre> classDiagram class annualizationGroup { weight scaleFactor } weight < --> annualizationGroup scaleFactor < --> annualizationGroup </pre>
properties	content complex
children	weight scaleFactor annualizationGroup annualizationCase
used by	element annualization group annualizationGroupCase
annotation	documentation Contains one or more weighted annualization group cases.

element annualizationGroup/weight

diagram	
type	xs:double
properties	content simple
annotation	documentation Weight associated with the annualization group.

element annualizationGroup/scaleFactor

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 1
annotation	documentation Scale factor applied to results for the annualization group.

element areaStationarySource

diagram	<pre> classDiagram class areaStationarySource { oneOrThreeCoords2DGroupSet pointCoord polygonCoords } oneOrThreeCoords2DGroupSet < --> areaStationarySource pointCoord < --> areaStationarySource polygonCoords < --> areaStationarySource </pre>
properties	content complex
children	pointCoord polygonCoords baseElevation releaseHeight sigmaZ
used by	element stationarySource
annotation	documentation Specifies the area in space occupied by a stationary source of emissions.

element areaStationarySource/baseElevation

diagram	
type	xs:double

properties	content simple
annotation	documentation Elevation in MSL of area, valid values -500 to 5000 (m)

element **areaStationarySource/releaseHeight**

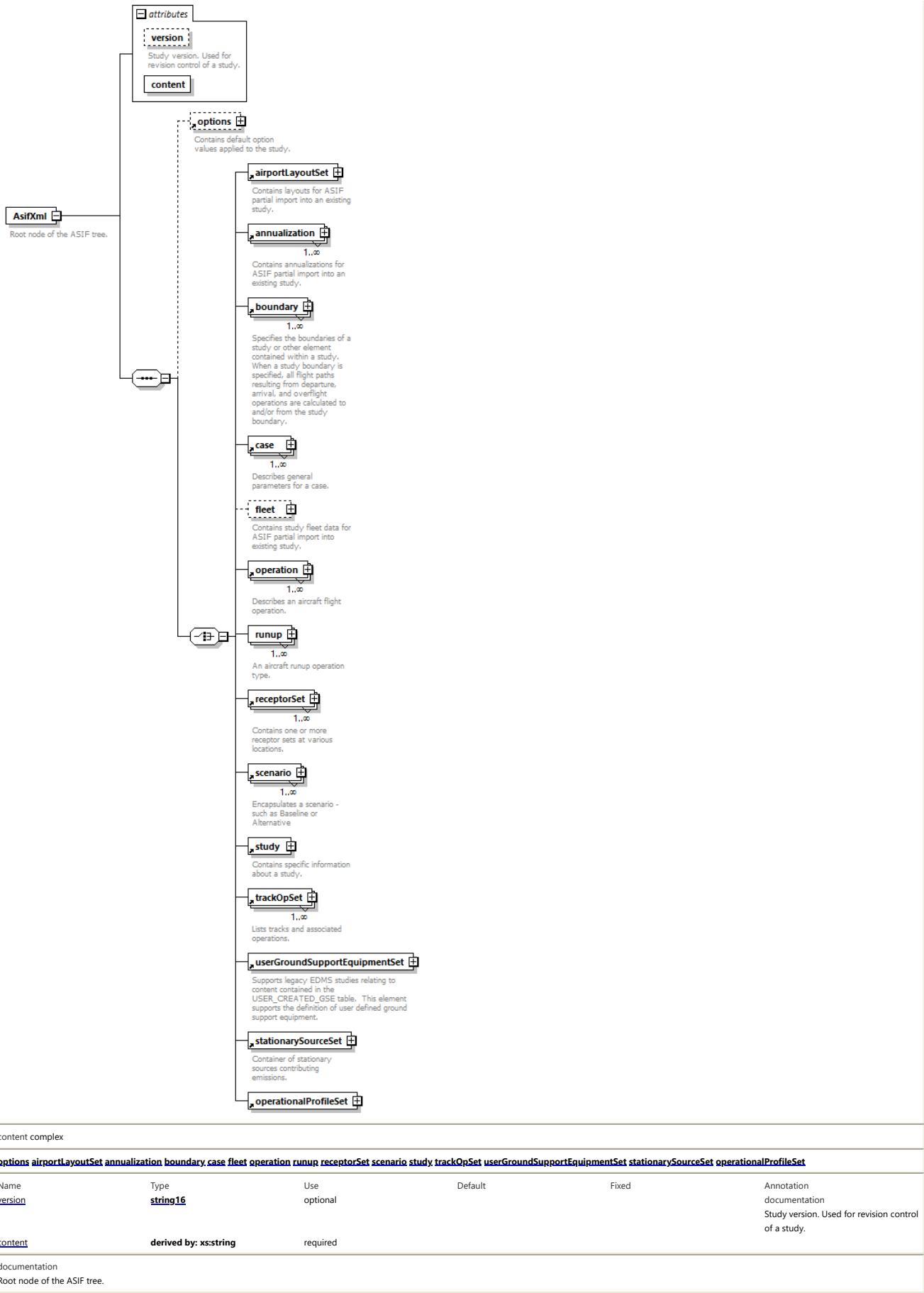
diagram	 releaseHeight Height at which emissions are released into the atmosphere. Valid values: 0 to 100 (m)
type	doubleInclusive100
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Height at which emissions are released into the atmosphere. Valid values: 0 to 100 (m)

element **areaStationarySource/sigmaZ**

diagram	 sigmaZ Vertical dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: 0.1 to 100.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Vertical dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: 0.1 to 100.

element **AsifXml**

diagram	
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attribute **AsifXml/@version**

type	string16
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properties	use optional
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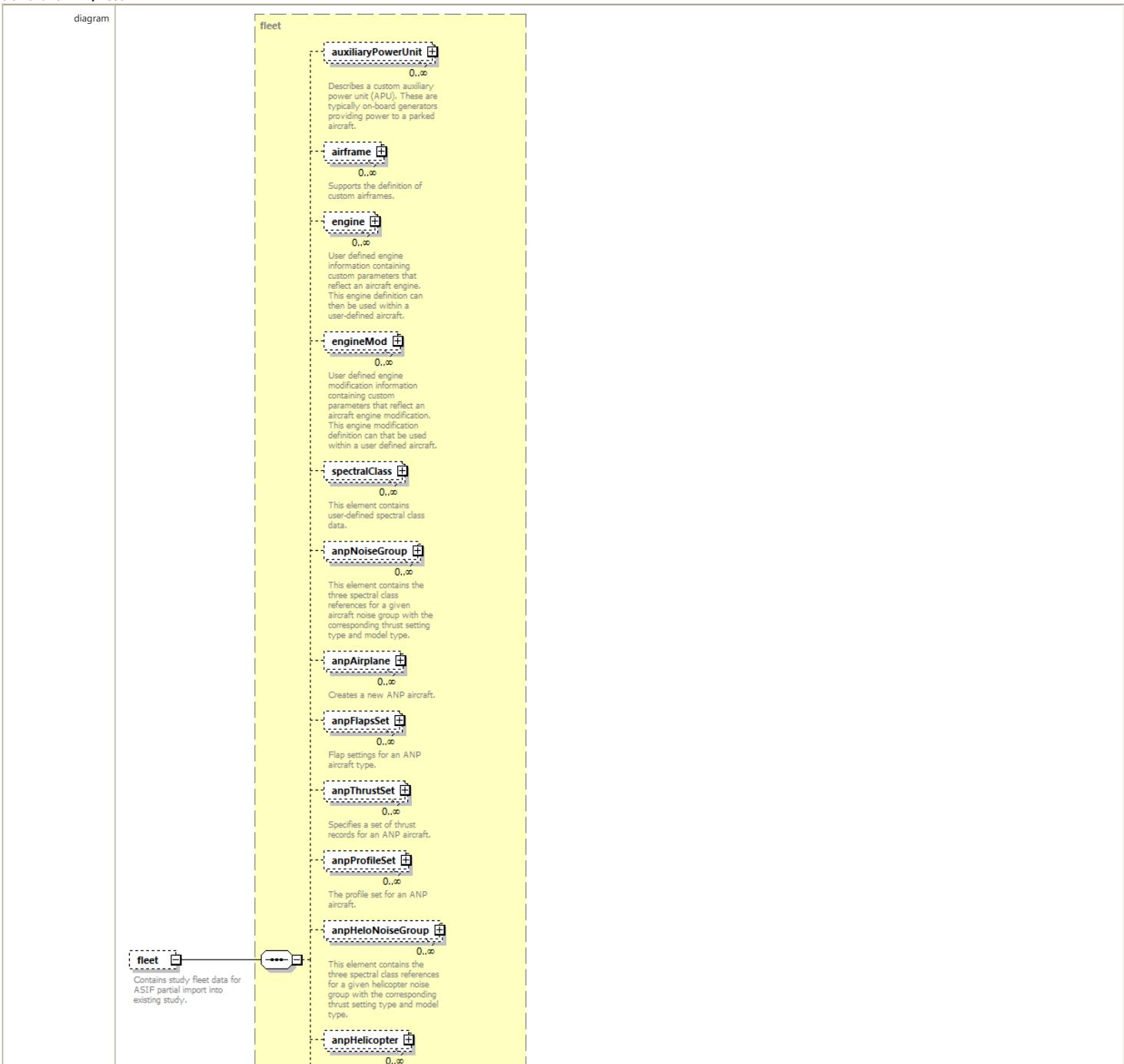
facets	Kind Value Annotation
	minLength 0
	maxLength 16

annotation	documentation
	Study version. Used for revision control of a study.

attribute AsifXml/@content

type	restriction of xs:string
properties	use required
facets	Kind Value Annotation

enumeration airportLayoutSet	
enumeration annualization	
enumeration case	
enumeration fleet	
enumeration receptorSets	
enumeration scenario	
enumeration study	
enumeration boundary	
enumeration trackOpSet	
enumeration runup	
enumeration userGroundSupportEquipmentSet	
enumeration stationarySourceSet	
enumeration operationalProfileSet	

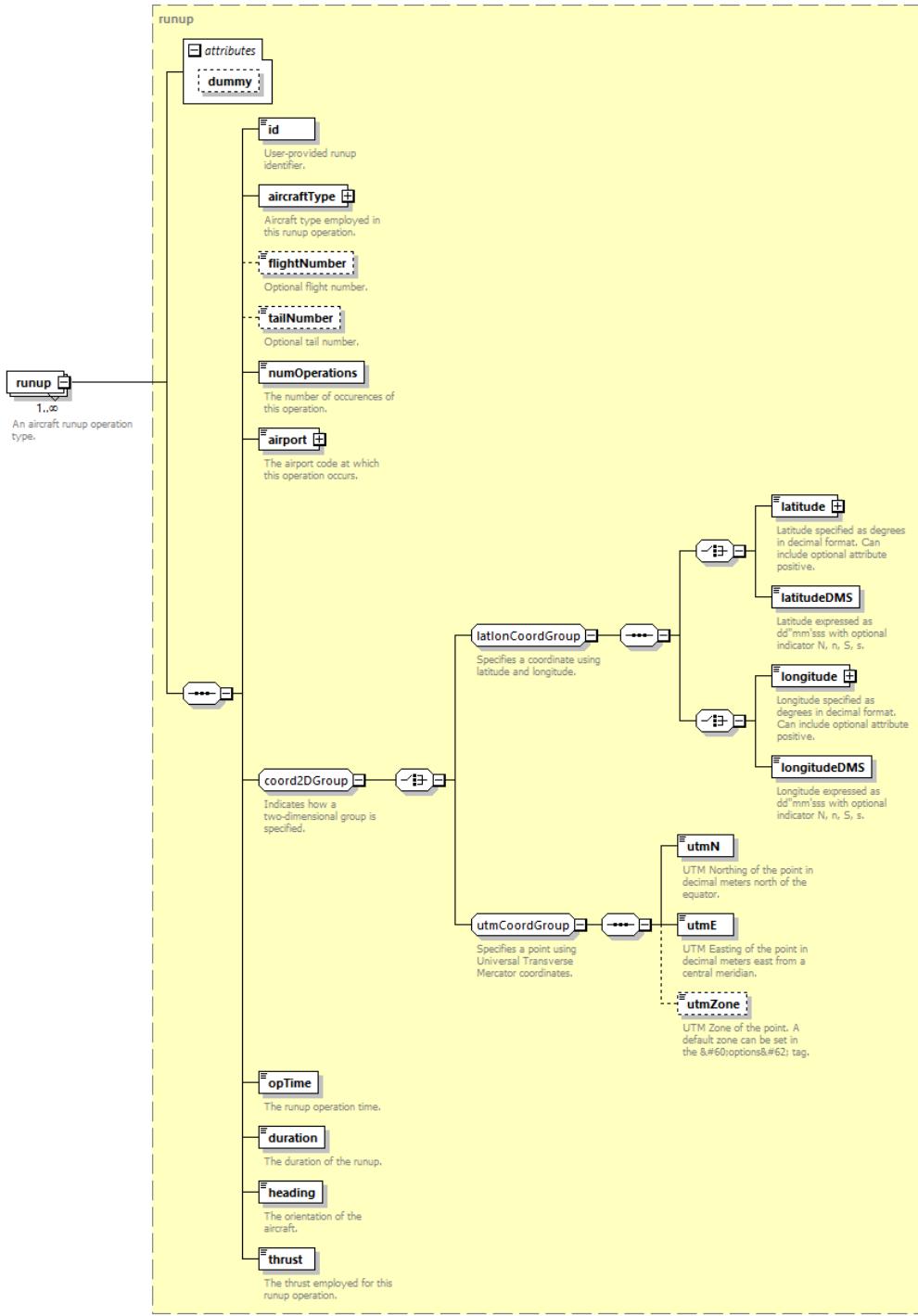
element AsifXml/fleet




type	fleet
properties	minOcc 0 maxOcc 1 content complex
children	auxiliaryPowerUnit airframe engine engineMod spectralClass anpNoiseGroup anpAirplane anpFlapsSet anpThrustSet anpProfileSet anpHeloNoiseGroup anpHelo anpHeloDirectivitySet anpHeloProfileSet badaAirplane badaAltitudeDistributionSet badaDefaultAltitudeDistributionSet badaProfileSet badaConfigSet badaFuel badaThrust bada4ProfileSet aircraft energyShare
annotation	documentation Contains study fleet data for ASIF partial import into existing study.

element AsifXml/runup

diagram	
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type	runup
properties	minOcc 1 maxOcc unbounded content complex
children	id aircraftType flightNumber tailNumber numOperations airport latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone opTime duration heading thrust
attributes	Name Type Use Default Fixed Annotation
annotation	documentation An aircraft runup operation type.

element backbone

diagram

	<p>backbone Represents the centerline of a set of dispersed tracks.</p> <p>dispersionWeight Dispersion weights associated with the subtracks for this backbone. Subtracks are numbered in increasing order from the backbone outward. The allowable number of subtracks for a backbone are 1, 3, 5, 7 and 9. Valid dispersion weight values are greater than one and less than or equal to 1. The sum of the dispersion weights for this backbone must equal 1.</p> <p>backboneNodes The set of 3D nodes for the backbone.</p>
properties	content complex
children	dispersionWeight backboneNodes
used by	element track
annotation	documentation Represents the centerline of a set of dispersed tracks.

element backboneNode

diagram	<p>backboneNode A 3D node that is part of a backbone.</p> <p>trackNode A flight track node.</p> <p>halfwidth Halfwidth in nautical miles. (nmi)</p>
properties	content complex
children	trackNode halfwidth
used by	element backboneNodes
annotation	documentation A 3D node that is part of a backbone.

element backboneNode/halfwidth

diagram	<p>halfwidth Halfwidth in nautical miles. (nmi)</p>
type	xs:double
properties	content simple
annotation	documentation Halfwidth in nautical miles. (nmi)

element backboneNodes

diagram	<p>backboneNodes The set of 3D nodes for the backbone.</p> <p>backboneNode A 3D node that is part of a backbone.</p>
properties	content complex
children	backboneNode
used by	element backbone
annotation	documentation The set of 3D nodes for the backbone.

element boilerHeaterTypeCode

diagram	<p>boilerHeaterTypeCode </p> <p>An integer value for the Boiler/Heater type represented. This value comes from the SUBCATEGORY_ID column of the STN_CATEGORY table in the AEDT FLEET database. Valid values: 1 to 27, 33 to 34, 38 to 62, 69 to 75, 80 to 91.</p>
type	union of (restriction of xs:int , restriction of xs:int , restriction of xs:int , restriction of xs:int , restriction of xs:int)
properties	content simple
used by	element categoryBoilerHeater
annotation	documentation An integer value for the Boiler/Heater type represented. This value comes from the SUBCATEGORY_ID column of the STN_CATEGORY table in the AEDT FLEET database. Valid values: 1 to 27, 33 to 34, 38 to 62, 69 to 75, 80 to 91.

element boundary

diagram	
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	<p>boundary </p> <p>Specifies the boundaries of a study or other element contained within a study. When a study boundary is specified, all flight paths resulting from departure, arrival, and overflight operations are calculated to and/or from the study boundary.</p> <p>polygon </p> <p>Set of coordinates defining the boundary.</p>												
properties	content complex												
children	polygon												
used by	elements AsifXml study												
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td><code>xs:int</code></td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	<code>xs:int</code>	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	<code>xs:int</code>	optional											
annotation	<p>documentation</p> <p>Specifies the boundaries of a study or other element contained within a study. When a study boundary is specified, all flight paths resulting from departure, arrival, and overflight operations are calculated to and/or from the study boundary.</p>												

attribute **boundary/@dummy**

type	<code>xs:int</code>
properties	use optional

element **boundary/polygon**

diagram	<p>polygon </p> <p>Set of coordinates defining the boundary.</p> <p>polygon2DType</p> <p>dummy</p> <p>vertex </p> <p>A list of vertices defining the polygon.</p>
type	polygon2DType
properties	minOcc 1 maxOcc unbounded content complex
children	dummy vertex
annotation	<p>documentation</p> <p>Set of coordinates defining the boundary.</p>

element **building**

diagram	<p>building </p> <p>Supports legacy EDMS studies relating to content contained in the BUILDINGS table. This element supports the definition of airport buildings. These building sources affect the emitted point source plumes by essentially serving as obstacles to those sources, and therefore have a significant impact on concentrations resulting from stationary source emissions. Buildings have no effect on the concentrations estimated from volume and area sources such as aircraft, APU, GSE, roadways, and parking facilities.</p> <p>name</p> <p>Name of the building.</p> <p>elevation</p> <p>Elevation of building. Valid values: -500 to 5000. (m)</p> <p>height</p> <p>Height of building. Valid values: 0 to 100 (m)</p> <p>releaseHeight</p> <p>Height at which emissions are released into the atmosphere. Valid values 0 to 100 (m)</p> <p>oneOrThreeCoords2DGroupSet</p> <p>Type of coordinate specifying the area.</p> <p>pointCoord </p> <p>Choice of a single point coordinate.</p> <p>polygonCoords </p> <p>Choice of a 2D polygon.</p>
properties	content complex
children	name elevation height releaseHeight pointCoord polygonCoords
used by	element buildingSet
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to content contained in the BUILDINGS table. This element supports the definition of airport buildings. These building sources affect the emitted point source plumes by essentially serving as obstacles to those sources, and therefore have a significant impact on concentrations resulting from stationary source emissions. Buildings have no effect on the concentrations estimated from volume and area sources such as aircraft, APU, GSE, roadways, and parking facilities.</p>

element **building/name**

diagram	<p>name</p> <p>Name of the building.</p>
type	<code>string255</code>
properties	content simple

facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Name of the building.

element building/elevation

diagram	 Elevation of building. Valid values: -500 to 5000. (m)
type	xs:double
properties	content simple
annotation	documentation Elevation of building. Valid values: -500 to 5000. (m)

element building/height

diagram	 Height of building. Valid values: 0 to 100 (m)
type	xs:double
properties	content simple
annotation	documentation Height of building. Valid values: 0 to 100 (m)

element building/releaseHeight

diagram	 Height at which emissions are released into the atmosphere. Valid values 0 to 100 (m)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Height at which emissions are released into the atmosphere. Valid values 0 to 100 (m)

element buildingSet

diagram	 Supports legacy EDMS studies relating to content contained in the BUILDINGS table. This element supports the definition of airport buildings. These building sources affect the emitted point source plumes by essentially serving as obstacles to those sources, and therefore have a significant impact on concentrations resulting from stationary source emissions. Buildings have no effect on the concentrations estimated from volume and area sources such as aircraft, APU, GSE, roadways, and parking facilities.
properties	content complex
children	building
used by	complexType airportLayoutType
attributes	Name Type Use Default Fixed Annotation dummy xs:int optional
annotation	documentation Supports legacy EDMS studies relating to content contained in the BUILDINGS table. This element supports the definition of airport buildings. These building sources affect the emitted point source plumes by essentially serving as obstacles to those sources, and therefore have a significant impact on concentrations resulting from stationary source emissions. Buildings have no effect on the concentrations estimated from volume and area sources such as aircraft, APU, GSE, roadways, and parking facilities.

attribute buildingSet/@dummy

type	xs:int
properties	use optional

element capacityPoint

diagram	
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	<p>capacityPoint</p> <p>Supports legacy EDMS studies relating to content contained in the RUNWAY_CONFIGURATIONS table. This element supports the definition of airport capacities based on various points within an airport.</p> <p>arrivalsPerHour</p> <p>Number of arrivals per hour. Valid values: 0.00 to 400.00. (operations per hour)</p> <p>departuresPerHour</p> <p>Number of departures per hour. Valid values: 0.00 to 400.00. (operations per hour)</p>
properties	content complex
children	arrivalsPerHour departuresPerHour
used by	element airportCapacity
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to content contained in the RUNWAY_CONFIGURATIONS table. This element supports the definition of airport capacities based on various points within an airport.</p>

element capacityPoint/arrivalsPerHour

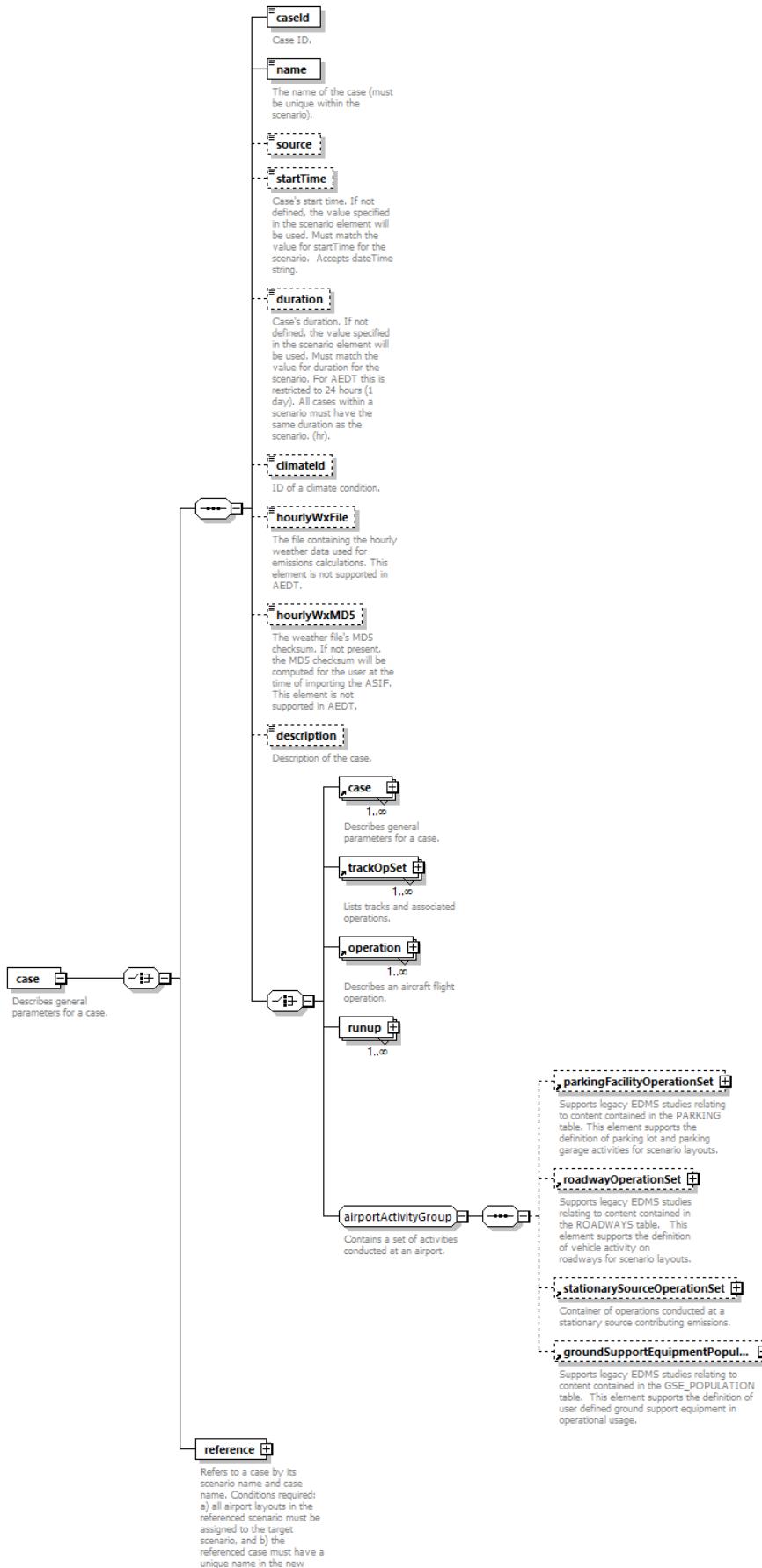
diagram	<p>arrivalsPerHour</p> <p>Number of arrivals per hour. Valid values: 0.00 to 400.00. (operations per hour)</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>Number of arrivals per hour. Valid values: 0.00 to 400.00. (operations per hour)</p>

element capacityPoint/departuresPerHour

diagram	<p>departuresPerHour</p> <p>Number of departures per hour. Valid values: 0.00 to 400.00. (operations per hour)</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>Number of departures per hour. Valid values: 0.00 to 400.00. (operations per hour)</p>

element case

diagram	
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properties	content complex
children	<code>caseId</code> <code>name</code> <code>source</code> <code>startTime</code> <code>duration</code> <code>climateId</code> <code>hourlyWxFile</code> <code>hourlyWxMDS</code> <code>description</code> <code>case</code> <code>trackOpSet</code> <code>operation</code> <code>runup</code> <code>parkingFacilityOperationSet</code> <code>roadwayOperationSet</code> <code>stationarySourceOperationSet</code> <code>groundSupportEquipmentPopulationOperationSet</code> <code>reference</code>
used by	elements <code>AsifXml</code> <code>case</code> <code>caseSet</code>

annotation	documentation Describes general parameters for a case.
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element case/caseId

diagram	 caseId Case ID.
type	xs:int
properties	content simple
annotation	documentation Case ID.

element case/name

diagram	 name The name of the case (must be unique within the scenario).
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The name of the case (must be unique within the scenario).

element case/source

diagram	 source
type	emissionsSourceType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation enumeration Container enumeration Aircraft enumeration GSE Population enumeration Parking Facilities enumeration Roadways enumeration Stationary Sources

element case/startTime

diagram	 startTime Case's start time. If not defined, the value specified in the scenario element will be used. Must match the value for startTime for the scenario. Accepts dateTime string.
type	xs:dateTime
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Case's start time. If not defined, the value specified in the scenario element will be used. Must match the value for startTime for the scenario. Accepts dateTime string.

element case/duration

diagram	 duration Case's duration. If not defined, the value specified in the scenario element will be used. Must match the value for duration for the scenario. For AEDT this is restricted to 24 hours (1 day). All cases within a scenario must have the same duration as the scenario. (hr).
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Case's duration. If not defined, the value specified in the scenario element will be used. Must match the value for duration for the scenario. For AEDT this is restricted to 24 hours (1 day). All cases within a scenario must have the same duration as the scenario. (hr).

element case/climateId

diagram	 climateId ID of a climate condition.
type	string8

properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation ID of a climate condition.

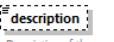
element **case/hourlyWxFile**

diagram	 The file containing the hourly weather data used for emissions calculations. This element is not supported in AEDT.
type	string255
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The file containing the hourly weather data used for emissions calculations. This element is not supported in AEDT.

element **case/hourlyWxMD5**

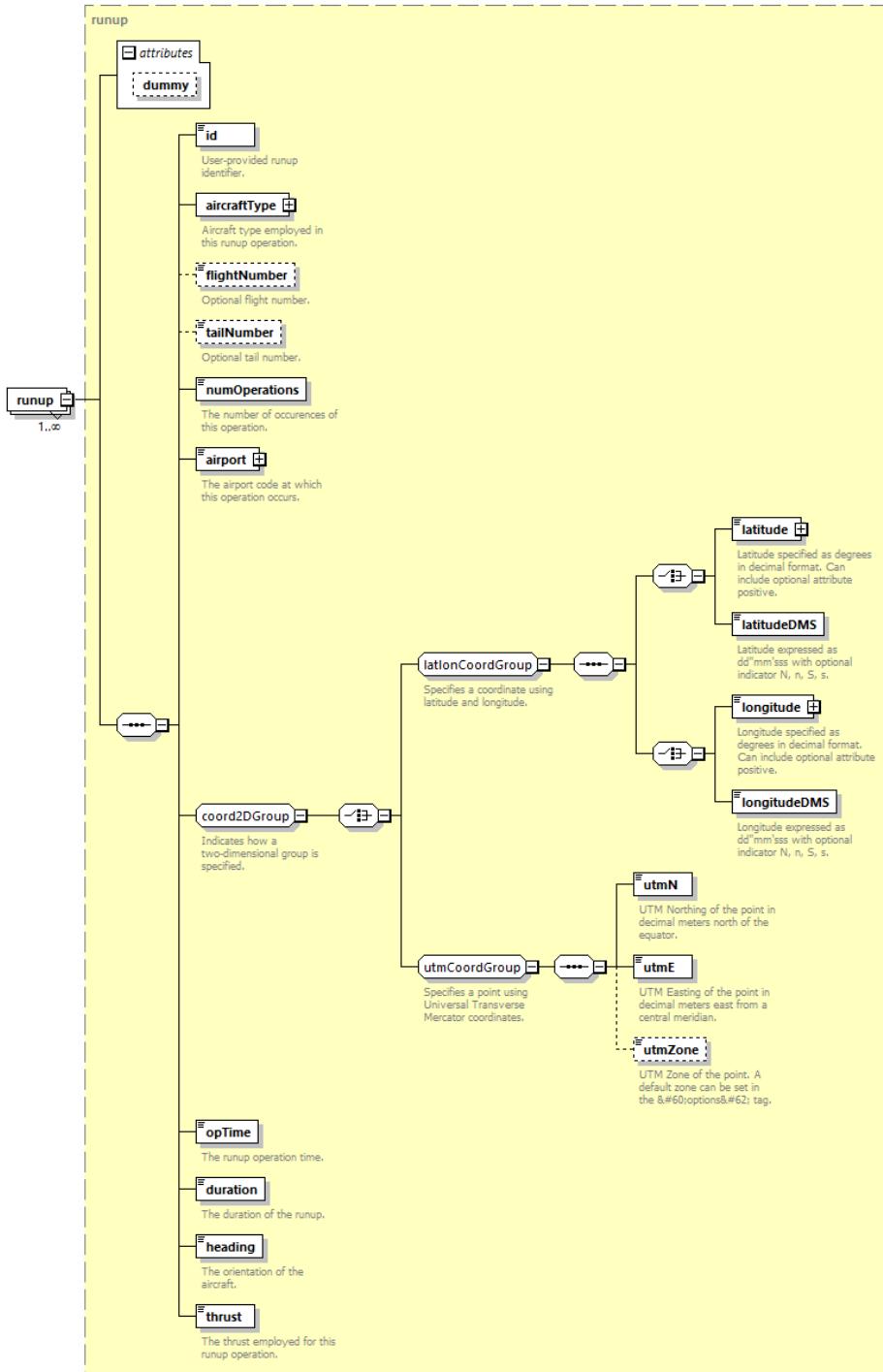
diagram	 The weather file's MD5 checksum. If not present, the MD5 checksum will be computed for the user at the time of importing the ASIF. This element is not supported in AEDT.
type	string16
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 16
annotation	documentation The weather file's MD5 checksum. If not present, the MD5 checksum will be computed for the user at the time of importing the ASIF. This element is not supported in AEDT.

element **case/description**

diagram	 Description of the case.
type	string255
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Description of the case.

element **case/runup**

diagram	
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type	runup												
properties	minOcc 1 maxOcc unbounded content complex												
children	id aircraftType flightNumber tailNumber numOperations airport latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone opTime duration heading thrust												
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											

element case/reference

diagram	<p>reference</p> <p>Refers to a case by its scenario name and case name. Conditions required: a) all airport layouts in the referenced scenario must be assigned to the target scenario, and b) the referenced case must have a unique name in the new scenario.</p>
properties	content complex

children	refScenario refCase
annotation	<p>documentation</p> <p>Refers to a case by its scenario name and case name. Conditions required: a) all airport layouts in the referenced scenario must be assigned to the target scenario, and b) the referenced case must have a unique name in the new scenario.</p>

element case/reference/refScenario

diagram										
	Scenario under which an existing case appears.									
type	string255									
properties	content simple									
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>255</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	minLength	0		maxLength	255	
Kind	Value	Annotation								
minLength	0									
maxLength	255									
annotation	<p>documentation</p> <p>Scenario under which an existing case appears.</p>									

element case/reference/refCase

diagram										
	Existing case that appears under the refScenario.									
type	string255									
properties	content simple									
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>255</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	minLength	0		maxLength	255	
Kind	Value	Annotation								
minLength	0									
maxLength	255									
annotation	<p>documentation</p> <p>Existing case that appears under the refScenario.</p>									

element caseSet

diagram	 Placeholder for one or more cases. dummy 1..∞ Describes general parameters for a case.												
properties	content complex												
children	case												
used by	element scenario												
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	<p>documentation</p> <p>Placeholder for one or more cases.</p>												

attribute caseSet/@dummy

type	xs:int
properties	use optional

element categoryAircraftEngine

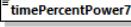
diagram	 Describes a category for the time an aircraft engine is at various power levels. Time at which engine is operating at 7% (taxi) power. Valid values: 0 to 1000. (min) Time at which engine is operating at 30% (approach) power. Valid values: 0 to 1000. (min) Time at which engine is operating at 85% (climbout) power. Valid values: 0 to 1000. (min) Time at which engine is operating at 100% (takeoff) power. Valid values: 0 to 1000. (min)
properties	content complex
children	engineCode timePercentPower7 timePercentPower30 timePercentPower85 timePercentPower100
used by	element stationarySource
annotation	documentation

Describes a category for the time an aircraft engine is at various power levels.

element **categoryAircraftEngine/engineCode**

diagram	
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255

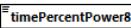
element **categoryAircraftEngine/timePercentPower7**

diagram	
	Time at which engine is operating at 7% (taxi) power. Valid values: 0 to 1000. (min)
type	doubleExclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation Time at which engine is operating at 7% (taxi) power. Valid values: 0 to 1000. (min)

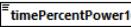
element **categoryAircraftEngine/timePercentPower30**

diagram	
	Time at which engine is operating at 30% (approach) power. Valid values: 0 to 1000. (min)
type	doubleExclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation Time at which engine is operating at 30% (approach) power. Valid values: 0 to 1000. (min)

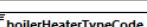
element **categoryAircraftEngine/timePercentPower85**

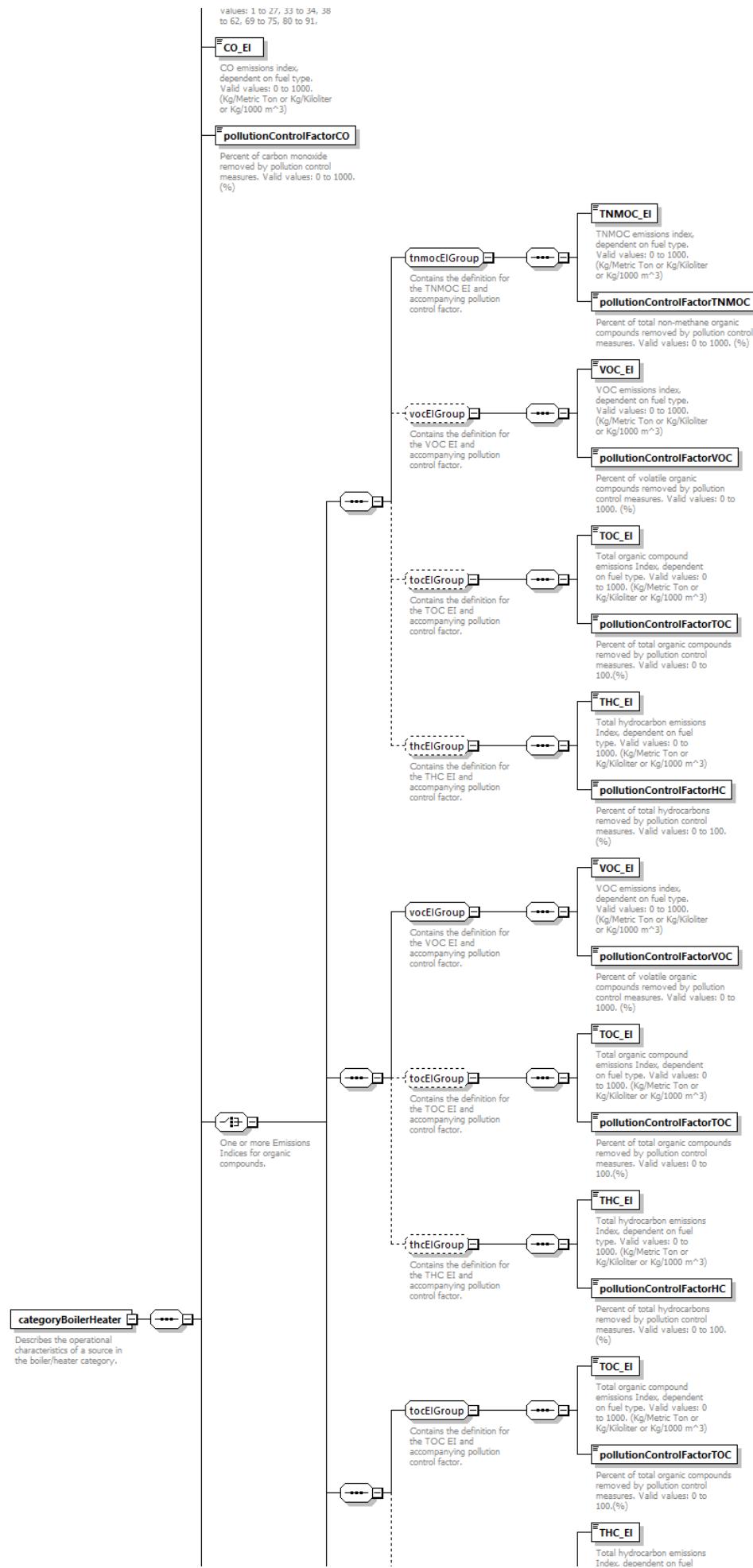
diagram	
	Time at which engine is operating at 85% (climbout) power. Valid values: 0 to 1000. (min)
type	doubleExclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation Time at which engine is operating at 85% (climbout) power. Valid values: 0 to 1000. (min)

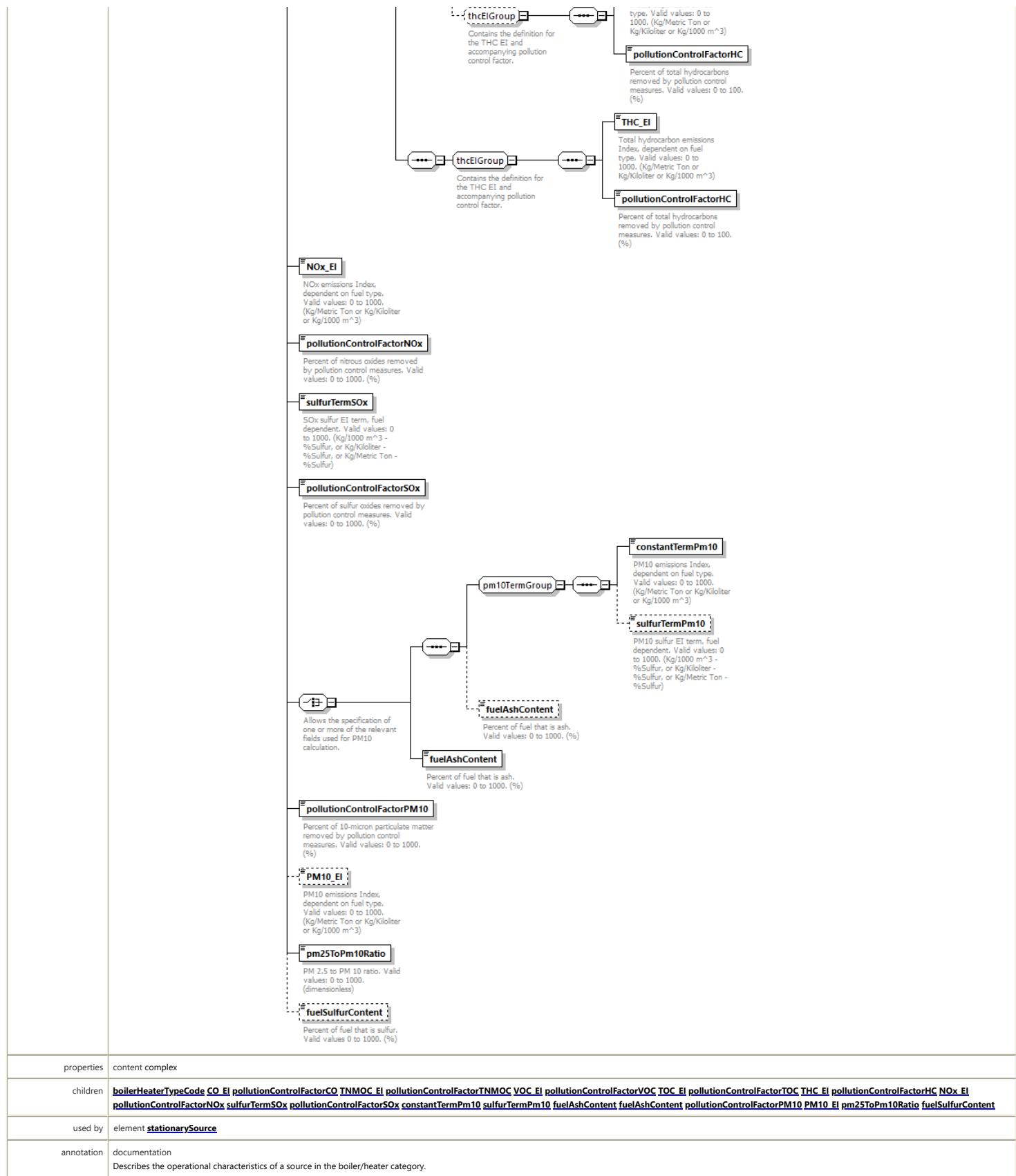
element **categoryAircraftEngine/timePercentPower100**

diagram	
	Time at which engine is operating at 100% (takeoff) power. Valid values: 0 to 1000. (min)
type	doubleExclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation Time at which engine is operating at 100% (takeoff) power. Valid values: 0 to 1000. (min)

element **categoryBoilerHeater**

diagram	
	An integer value for the Boiler/Heater type represented. This value comes from the SUBCATEGORY_ID column of the STN_CATEGORY table in the AEDT FLEET database. Valid



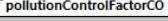


element categoryBoilerHeater/CO_EI

diagram	<p>CO emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)</p>
type	doubleInclusive1000
properties	content simple default 0

facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation CO emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)

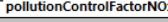
element categoryBoilerHeater/pollutionControlFactorCO

diagram	 pollutionControlFactorCO Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 1000. (%)
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 1000. (%)

element categoryBoilerHeater/NOx_EI

diagram	 NOx_EI NOx emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation NOx emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)

element categoryBoilerHeater/pollutionControlFactorNOx

diagram	 pollutionControlFactorNOx Percent of nitrous oxides removed by pollution control measures. Valid values: 0 to 1000. (%)
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of nitrous oxides removed by pollution control measures. Valid values: 0 to 1000. (%)

element categoryBoilerHeater/sulfurTermSOx

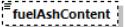
diagram	 sulfurTermSOx SOx sulfur EI term, fuel dependent. Valid values: 0 to 1000. (Kg/1000 m^3 - %Sulfur, or Kg/Kiloliter - %Sulfur, or Kg/Metric Ton - %Sulfur)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation SOx sulfur EI term, fuel dependent. Valid values: 0 to 1000. (Kg/1000 m^3 - %Sulfur, or Kg/Kiloliter - %Sulfur, or Kg/Metric Ton - %Sulfur)

element categoryBoilerHeater/pollutionControlFactorSOx

diagram	 pollutionControlFactorSOx Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 1000. (%)
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100

annotation	documentation Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 1000. (%)
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element **categoryBoilerHeater/fuelAshContent**

diagram	 fuelAshContent Percent of fuel that is ash. Valid values: 0 to 1000. (%)
type	doubleExclusive100
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation Percent of fuel that is ash. Valid values: 0 to 1000. (%)

element **categoryBoilerHeater/fuelAshContent**

diagram	 fuelAshContent Percent of fuel that is ash. Valid values: 0 to 1000. (%)
type	doubleExclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation Percent of fuel that is ash. Valid values: 0 to 1000. (%)

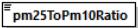
element **categoryBoilerHeater/pollutionControlFactorPM10**

diagram	 pollutionControlFactorPM10 Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 1000. (%)
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 1000. (%)

element **categoryBoilerHeater/PM10_EI**

diagram	 PM10 EI PM10 emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)
type	doubleInclusive1000
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation PM10 emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)

element **categoryBoilerHeater/pm25ToPm10Ratio**

diagram	 pm25ToPm10Ratio PM 2.5 to PM 10 ratio. Valid values: 0 to 1000. (dimensionless)
type	doubleInclusive1
properties	content simple default 1
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation PM 2.5 to PM 10 ratio. Valid values: 0 to 1000. (dimensionless)

element **categoryBoilerHeater/fuelSulfurContent**

diagram	<p>fuelSulfurContent Percent of fuel that is sulfur. Valid values 0 to 1000. (%)</p>
type	doubleExclusive100
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation Percent of fuel that is sulfur. Valid values 0 to 1000. (%)

element **categoryDeicingArea**

diagram	<p>categoryDeicingArea Describes the operational characteristics of a source in the deicing area category.</p> <p>typeCode Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category.</p> <p>VOC_EI VOC emissions index, fuel type dependent. Valid values: 0 to 1000, g/Kg of Propylene or Ethylene Glycol</p> <p>ethyleneGlycolDensity Ethylene glycol solution density. Valid values: 0 to 1000. (g/L)</p> <p>propyleneGlycolDensity Propylene glycol solution density. Valid values: 0 to 1000. (g/L)</p> <p>solutionConcentrationPercent Concentration of deicing solution. Valid values: 0 to 1000. (%)</p>
properties	content complex
children	typeCode VOC_EI ethyleneGlycolDensity propyleneGlycolDensity solutionConcentrationPercent
used by	element stationarySource
annotation	documentation Describes the operational characteristics of a source in the deicing area category.

element **categoryDeicingArea/typeCode**

diagram	<p>typeCode Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category.</p>
type	int1to4
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 4
annotation	documentation Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category.

element **categoryDeicingArea/VOC_EI**

diagram	<p>VOC_EI VOC emissions index, fuel type dependent. Valid values: 0 to 1000, g/Kg of Propylene or Ethylene Glycol</p>
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation VOC emissions index, fuel type dependent. Valid values: 0 to 1000, g/Kg of Propylene or Ethylene Glycol

element **categoryDeicingArea/ethyleneGlycolDensity**

diagram	<p>ethyleneGlycolDensity Ethylene glycol solution density. Valid values: 0 to 1000. (g/L)</p>
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type	doubleExclusive2000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 2000
annotation	documentation Ethylene glycol solution density. Valid values: 0 to 1000. (g/L)

element **categoryDeicingArea/propyleneGlycolDensity**

diagram	<p>Propylene glycol solution density. Valid values: 0 to 1000. (g/L)</p>
type	doubleExclusive2000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 2000
annotation	documentation Propylene glycol solution density. Valid values: 0 to 1000. (g/L)

element **categoryDeicingArea/solutionConcentrationPercent**

diagram	<p>Concentration of deicing solution. Valid values: 0 to 1000. (%)</p>
type	doubleExclusive100
properties	content simple default 50
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation Concentration of deicing solution. Valid values: 0 to 1000. (%)

element **categoryFuelTank**

diagram	<p>Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category.</p> <p>Describes the operational characteristics of a source in the fuel tank category.</p> <p>Diameter of tank. Valid values 0 to 1000. (m)</p> <p>Describes a horizontal fixed roof tank.</p> <p>Describes either a vertical fixed roof tank or a floating internal/external/domed roof tank.</p> <p>Reid vapor pressure. Valid values: 5 to 15. (PSI)</p>
properties	content complex
children	typeCode tankDiameter horizontalFixedRoofTank verticalOrFloatingTank reidVaporPressure
used by	element stationarySource
annotation	documentation Describes the operational characteristics of a source in the fuel tank category.

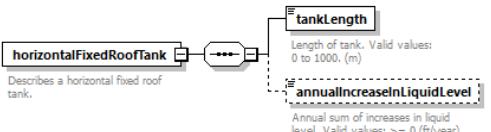
element **categoryFuelTank/typeCode**

diagram	<p>Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category.</p>
type	int1to25
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 25
annotation	documentation Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category.

element categoryFuelTank/tankDiameter

diagram	
	Diameter of tank. Valid values: 0 to 1000. (m)
type	doubleExclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation Diameter of tank. Valid values: 0 to 1000. (m)

element categoryFuelTank/horizontalFixedRoofTank

diagram	
	tankLength Length of tank. Valid values: 0 to 1000. (m) annualIncreaseInLiquidLevel Annual sum of increases in liquid level. Valid values: >= 0 (ft/year)
properties	content complex
children	tankLength annualIncreaseInLiquidLevel
annotation	documentation Describes a horizontal fixed roof tank.

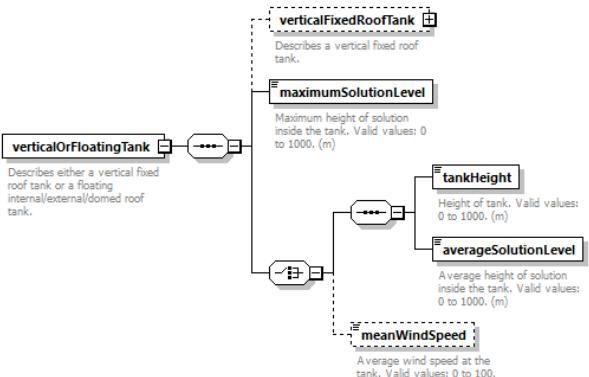
element categoryFuelTank/horizontalFixedRoofTank/tankLength

diagram	
	Length of tank. Valid values: 0 to 1000. (m)
type	doubleExclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation Length of tank. Valid values: 0 to 1000. (m)

element categoryFuelTank/horizontalFixedRoofTank/annualIncreaseInLiquidLevel

diagram	
	Annual sum of increases in liquid level. Valid values: >= 0 (ft/year)
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0
annotation	documentation Annual sum of increases in liquid level. Valid values: >= 0 (ft/year)

element categoryFuelTank/verticalOrFloatingTank

diagram	
	verticalFixedRoofTank Describes a vertical fixed roof tank. maximumSolutionLevel Maximum height of solution inside the tank. Valid values: 0 to 1000. (m) tankHeight Height of tank. Valid values: 0 to 1000. (m) averageSolutionLevel Average height of solution inside the tank. Valid values: 0 to 1000. (m) meanWindSpeed Average wind speed at the tank. Valid values: 0 to 100. (m/s)
properties	content complex
children	verticalFixedRoofTank maximumSolutionLevel tankHeight averageSolutionLevel meanWindSpeed
annotation	documentation

Describes either a vertical fixed roof tank or a floating internal/external/domed roof tank.

element categoryFuelTank/verticalOrFloatingTank/verticalFixedRoofTank

diagram	<pre> graph LR A[verticalFixedRoofTank] --- B[annualIncreaseInLiquidLevel] B --- C[coneRoof] B --- D[domeRoof] </pre> <p>verticalFixedRoofTank Describes a vertical fixed roof tank.</p> <p>annualIncreaseInLiquidLevel Annual sum of increases in liquid level. Valid values: >= 0 (ft/year)</p> <p>coneRoof A vertical fixed tank with a cone roof</p> <p>domeRoof A vertical fixed roof tank with a dome roof</p>
properties	minOcc 0 maxOcc 1 content complex
children	annualIncreaseInLiquidLevel coneRoof domeRoof
annotation	documentation Describes a vertical fixed roof tank.

element categoryFuelTank/verticalOrFloatingTank/verticalFixedRoofTank/annualIncreaseInLiquidLevel

diagram	<pre> graph LR A[annualIncreaseInLiquidLevel] </pre> <p>annualIncreaseInLiquidLevel Annual sum of increases in liquid level. Valid values: >= 0 (ft/year)</p>
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0
annotation	documentation Annual sum of increases in liquid level. Valid values: >= 0 (ft/year)

element categoryFuelTank/verticalOrFloatingTank/verticalFixedRoofTank/coneRoof

diagram	<pre> graph LR A[coneRoof] --- B[roofSlope] </pre> <p>coneRoof A vertical fixed tank with a cone roof</p> <p>roofSlope Slope of the cone roof. Default of 0.0625</p>
properties	content complex
children	roofSlope
annotation	documentation A vertical fixed tank with a cone roof

element categoryFuelTank/verticalOrFloatingTank/verticalFixedRoofTank/coneRoof/roofSlope

diagram	<pre> graph LR A[roofSlope] </pre> <p>roofSlope Slope of the cone roof. Default of 0.0625</p>
type	doubleInclusive1
properties	content simple default 0.0625
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation Slope of the cone roof. Default of 0.0625

element categoryFuelTank/verticalOrFloatingTank/verticalFixedRoofTank/domeRoof

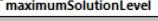
diagram	<pre> graph LR A[domeRoof] --- B[domeRadius] </pre> <p>domeRoof A vertical fixed roof tank with a dome roof</p> <p>domeRadius Radius of the dome roof in meters. Default value can be assumed to be the tank radius.</p>
properties	content complex
children	domeRadius
annotation	documentation A vertical fixed roof tank with a dome roof

element categoryFuelTank/verticalOrFloatingTank/verticalFixedRoofTank/domeRoof/domeRadius

diagram	<pre> graph LR A[domeRadius] </pre> <p>domeRadius Radius of the dome roof in meters. Default value can be assumed to be the tank radius.</p>
type	doubleInclusive500
properties	content simple

facets	Kind Value Annotation minInclusive 0 maxInclusive 500
annotation	documentation Radius of the dome roof in meters. Default value can be assumed to be the tank radius.

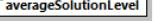
element **categoryFuelTank/verticalOrFloatingTank/maximumSolutionLevel**

diagram	 Maximum height of solution inside the tank. Valid values: 0 to 1000. (m)
type	doubleExclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation Maximum height of solution inside the tank. Valid values: 0 to 1000. (m)

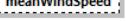
element **categoryFuelTank/verticalOrFloatingTank/tankHeight**

diagram	 Height of tank. Valid values: 0 to 1000. (m)
type	doubleExclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation Height of tank. Valid values: 0 to 1000. (m)

element **categoryFuelTank/verticalOrFloatingTank/averageSolutionLevel**

diagram	 Average height of solution inside the tank. Valid values: 0 to 1000. (m)
type	doubleExclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation Average height of solution inside the tank. Valid values: 0 to 1000. (m)

element **categoryFuelTank/verticalOrFloatingTank/meanWindSpeed**

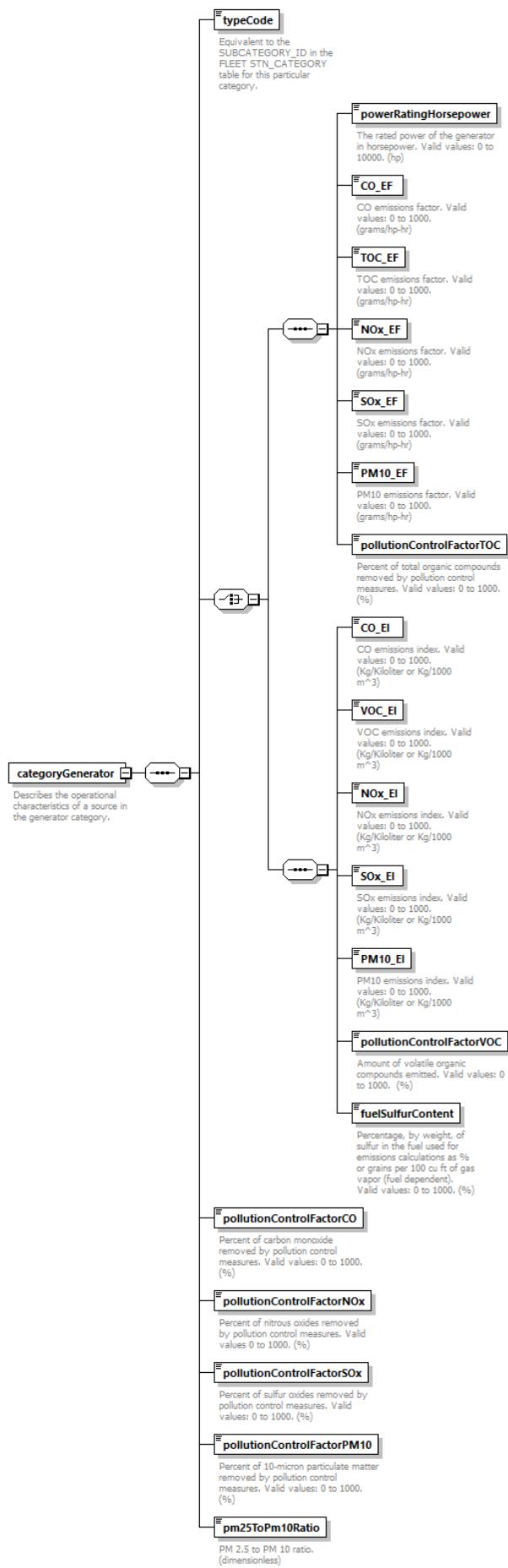
diagram	 Average wind speed at the tank. Valid values: 0 to 100. (m/s)
type	doubleExclusive100
properties	minOcc 0 maxOcc 1 content simple default 5
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation Average wind speed at the tank. Valid values: 0 to 100. (m/s)

element **categoryFuelTank/reidVaporPressure**

diagram	 Reid vapor pressure. Valid values: 5 to 15. (PSI)
type	int5to15
properties	minOcc 0 maxOcc 1 content simple default 10
facets	Kind Value Annotation minInclusive 5 maxInclusive 15

element categoryGenerator

diagram

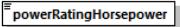


properties	content complex
children	typeCode powerRatingHorsepower CO_EF TOC_EF NOx_EF SOx_EF PM10_EF pollutionControlFactorTOC CO_EI VOC_EI NOx_EI SOx_EI PM10_EI pollutionControlFactorVOC fuelSulfurContent pollutionControlFactorCO pollutionControlFactorNOx pollutionControlFactorSOx pollutionControlFactorPM10 pm25ToPm10Ratio
used by	element stationarySource
annotation	documentation Describes the operational characteristics of a source in the generator category.

element categoryGenerator/typeCode

diagram	 typeCode Equivalent to the SUBCATEGORY_ID in the FLEET STN_CATEGORY table for this particular category.
type	int1to8
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 8
annotation	documentation Equivalent to the SUBCATEGORY_ID in the FLEET STN_CATEGORY table for this particular category.

element categoryGenerator/powerRatingHorsepower

diagram	 powerRatingHorsepower The rated power of the generator in horsepower. Valid values: 0 to 10000. (hp)
type	doubleInclusive10000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 10000
annotation	documentation The rated power of the generator in horsepower. Valid values: 0 to 10000. (hp)

element categoryGenerator/CO_EF

diagram	 CO_EF CO emissions factor. Valid values: 0 to 1000. (grams/hp-hr)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation CO emissions factor. Valid values: 0 to 1000. (grams/hp-hr)

element categoryGenerator/TOC_EF

diagram	 TOC_EF TOC emissions factor. Valid values: 0 to 1000. (grams/hp-hr)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation TOC emissions factor. Valid values: 0 to 1000. (grams/hp-hr)

element categoryGenerator/NOx_EF

diagram	 NOx_EF NOx emissions factor. Valid values: 0 to 1000. (grams/hp-hr)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000

annotation	documentation NOx emissions factor. Valid values: 0 to 1000. (grams/hp-hr)
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element **categoryGenerator/SOx_EF**

diagram	 SOx_EF SOx emissions factor. Valid values: 0 to 1000. (grams/hp-hr)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation SOx emissions factor. Valid values: 0 to 1000. (grams/hp-hr)

element **categoryGenerator/PM10_EF**

diagram	 PM10_EF PM10 emissions factor. Valid values: 0 to 1000. (grams/hp-hr)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation PM10 emissions factor. Valid values: 0 to 1000. (grams/hp-hr)

element **categoryGenerator/pollutionControlFactorTOC**

diagram	 pollutionControlFactorTOC Percent of total organic compounds removed by pollution control measures. Valid values: 0 to 1000. (%)
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of total organic compounds removed by pollution control measures. Valid values: 0 to 1000. (%)

element **categoryGenerator/CO_EI**

diagram	 CO_EI CO emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m^3)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation CO emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m^3)

element **categoryGenerator/VOC_EI**

diagram	 VOC_EI VOC emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m^3)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation VOC emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m^3)

element **categoryGenerator/NOx_EI**

diagram	 NOx_EI NOx emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m^3)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation NOx emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m^3)

element **categoryGenerator/SOx_EI**

diagram	 SOx_EI SOx emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m^3)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation SOx emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m^3)

element **categoryGenerator/PM10_EI**

diagram	 PM10_EI PM10 emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m^3)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation PM10 emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m^3)

element **categoryGenerator/pollutionControlFactorVOC**

diagram	 pollutionControlFactorVOC Amount of volatile organic compounds emitted. Valid values: 0 to 1000. (%)
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Amount of volatile organic compounds emitted. Valid values: 0 to 1000. (%)

element **categoryGenerator/fuelSulfurContent**

diagram	 fuelSulfurContent Percentage, by weight, of sulfur in the fuel used for emissions calculations as % or grains per 100 cu ft of gas vapor (fuel dependent). Valid values: 0 to 1000. (%)
type	doubleExclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 100

annotation documentation
Percentage, by weight, of sulfur in the fuel used for emissions calculations as % or grains per 100 cu ft of gas vapor (fuel dependent). Valid values: 0 to 1000. (%)

element **categoryGenerator/pollutionControlFactorCO**

diagram	
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	<p>pollutionControlFactorCO</p> <p>Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 1000. (%)

element **categoryGenerator/pollutionControlFactorNOx**

	<p>pollutionControlFactorNOx</p> <p>Percent of nitrous oxides removed by pollution control measures. Valid values 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of nitrous oxides removed by pollution control measures. Valid values 0 to 1000. (%)

element **categoryGenerator/pollutionControlFactorSOx**

	<p>pollutionControlFactorSOx</p> <p>Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 1000. (%)

element **categoryGenerator/pollutionControlFactorPM10**

	<p>pollutionControlFactorPM10</p> <p>Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 1000. (%)

element **categoryGenerator/pm25ToPm10Ratio**

	<p>pm25ToPm10Ratio</p> <p>PM 2.5 to PM 10 ratio. (dimensionless)</p>
type	doubleInclusive1
properties	content simple default 1
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation PM 2.5 to PM 10 ratio. (dimensionless)

element **categoryIncinerator**

diagram	

	<pre> classDiagram categoryIncinerator "1" -- "*" typeCode categoryIncinerator "1" -- "*" CO_EI categoryIncinerator "1" -- "*" VOC_EI categoryIncinerator "1" -- "*" NOx_EI categoryIncinerator "1" -- "*" SOx_EI categoryIncinerator "1" -- "*" PM10_EI categoryIncinerator "1" -- "*" pollutionControlFactorCO categoryIncinerator "1" -- "*" pollutionControlFactorVOC categoryIncinerator "1" -- "*" pollutionControlFactorNOx categoryIncinerator "1" -- "*" pollutionControlFactorSOx categoryIncinerator "1" -- "*" pollutionControlFactorPM10 categoryIncinerator "1" -- "*" pm25ToPm10Ratio </pre> <p>categoryIncinerator Describes the operational characteristics of a source in the incinerator category.</p>
properties	content complex
children	typeCode CO_EI VOC_EI NOx_EI SOx_EI PM10_EI pollutionControlFactorCO pollutionControlFactorVOC pollutionControlFactorNOx pollutionControlFactorSOx pollutionControlFactorPM10 pm25ToPm10Ratio
used by	element stationarySource
annotation	documentation Describes the operational characteristics of a source in the incinerator category.

element categoryIncinerator/typeCode

diagram	<pre> classDiagram typeCode </pre> <p>Equivalent to the SUBCATEGORY_ID in the FLEET STN_CATEGORY table for this particular category.</p>
type	int1to2
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 2
annotation	documentation Equivalent to the SUBCATEGORY_ID in the FLEET STN_CATEGORY table for this particular category.

element categoryIncinerator/CO_EI

diagram	<pre> classDiagram CO_EI </pre> <p>CO emissions index. Valid values: 0 to 1000. (Kg/Metric Ton)</p>
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation CO emissions index. Valid values: 0 to 1000. (Kg/Metric Ton)

element **categoryIncinerator/VOC_EI**

diagram	 VOC_EI VOC emissions index. Valid values: 0 to 1000. (Kg/Metric Ton)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation VOC emissions index. Valid values: 0 to 1000. (Kg/Metric Ton)

element **categoryIncinerator/NOx_EI**

diagram	 NOx_EI NOx emissions index. Valid values: 0 to 1000. (Kg/Metric Ton)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation NOx emissions index. Valid values: 0 to 1000. (Kg/Metric Ton)

element **categoryIncinerator/SOx_EI**

diagram	 SOx_EI SOx emissions index. Valid values: 0 to 1000. (Kg/Metric Ton)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation SOx emissions index. Valid values: 0 to 1000. (Kg/Metric Ton)

element **categoryIncinerator/PM10_EI**

diagram	 PM10_EI PM10 emissions index. Valid values: 0 to 1000. (Kg/Metric Ton)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation PM10 emissions index. Valid values: 0 to 1000. (Kg/Metric Ton)

element **categoryIncinerator/pollutionControlFactorCO**

diagram	 pollutionControlFactorCO Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 1000. (%)
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 1000. (%)

element **categoryIncinerator/pollutionControlFactorVOC**

diagram	
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	<p>pollutionControlFactorVOC</p> <p>Amount of volatile organic compounds emitted (kg/unit). Valid values: 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Amount of volatile organic compounds emitted (kg/unit). Valid values: 0 to 1000. (%)

element categoryIncinerator/pollutionControlFactorNOx

diagram	<p>pollutionControlFactorNOx</p> <p>Percent of nitrous oxides removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of nitrous oxides removed by pollution control measures. Valid values: 0 to 1000. (%)

element categoryIncinerator/pollutionControlFactorSOx

diagram	<p>pollutionControlFactorSOx</p> <p>Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 1000. (%)

element categoryIncinerator/pollutionControlFactorPM10

diagram	<p>pollutionControlFactorPM10</p> <p>Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 1000. (%)

element categoryIncinerator/pm25ToPm10Ratio

diagram	<p>pm25ToPm10Ratio</p> <p>PM2.5 to PM10 ratio. Valid values: 0 to 1000.</p>
type	doubleInclusive1
properties	content simple default 1
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation PM2.5 to PM10 ratio. Valid values: 0 to 1000.

element categoryOther

diagram	
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	<pre> graph TD categoryOther --> fuelUnits fuelUnits --> CO_EI fuelUnits --> THC_EI fuelUnits --> NOx_EI fuelUnits --> SOx_EI fuelUnits --> PM10_EI fuelUnits --> pollutionControlFactorCO fuelUnits --> pollutionControlFactorHC fuelUnits --> pollutionControlFactorNOx fuelUnits --> pollutionControlFactorSOx fuelUnits --> pollutionControlFactorPM10 fuelUnits --> pm25ToPm10Ratio </pre> <p>categoryOther Describes the operational characteristics of a source in the "other" category.</p>
properties	content complex
children	fuelUnits CO_EI THC_EI NOx_EI SOx_EI PM10_EI pollutionControlFactorCO pollutionControlFactorHC pollutionControlFactorNOx pollutionControlFactorSOx pollutionControlFactorPM10 pm25ToPm10Ratio
used by	element stationarySource
annotation	<p>documentation</p> <p>Describes the operational characteristics of a source in the "other" category.</p>

element categoryOther/fuelUnits

diagram	<pre> graph TD fuelUnits[fuelUnits] </pre> <p>fuelUnits Defines fuel units. Also defined in the STN_FUEL_UNITS table in FLEET. Valid values: 0 = Metric Tons, 1=Kiloliters, 2 = 1000s of m3, 3 = Hours, 4 = Test Cyles, 5 = Gallons.</p>						
type	int0to5						
properties	minOcc 0 maxOcc 1 content simple default 0						
facets	<table border="1"> <tr> <td>Kind</td> <td>Value Annotation</td> </tr> <tr> <td>minInclusive</td> <td>0</td> </tr> <tr> <td>maxInclusive</td> <td>5</td> </tr> </table>	Kind	Value Annotation	minInclusive	0	maxInclusive	5
Kind	Value Annotation						
minInclusive	0						
maxInclusive	5						
annotation	<p>documentation</p> <p>Defines fuel units. Also defined in the STN_FUEL_UNITS table in FLEET. Valid values: 0 = Metric Tons, 1=Kiloliters, 2 = 1000s of m3, 3 = Hours, 4 = Test Cyles, 5 = Gallons.</p>						

element categoryOther/CO_EI

diagram	<pre> graph TD CO_EI[CO_EI] </pre> <p>CO_EI CO emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit)</p>
type	doubleInclusive1000
properties	content simple default 0

facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation CO emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit)

element categoryOther/THC_EI

diagram	 Hydrocarbon emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation Hydrocarbon emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit)

element categoryOther/NOx_EI

diagram	 NOx emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation NOx emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit)

element categoryOther/SOx_EI

diagram	 SOx emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation SOx emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit)

element categoryOther/PM10_EI

diagram	 PM10 emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation PM10 emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit)

element categoryOther/pollutionControlFactorCO

diagram	 Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 1000. (%)
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 1000. (%)

element **categoryOther/pollutionControlFactorHC**

diagram	 pollutionControlFactorHC Percent of hydrocarbons removed by pollution control measures. Valid values: 0 to 1000. (%)
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of hydrocarbons removed by pollution control measures. Valid values: 0 to 1000. (%)

element **categoryOther/pollutionControlFactorNOx**

diagram	 pollutionControlFactorNOx Percent of nitrous oxides removed by pollution control measures. Valid values: 0 to 1000. (%)
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of nitrous oxides removed by pollution control measures. Valid values: 0 to 1000. (%)

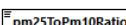
element **categoryOther/pollutionControlFactorSOx**

diagram	 pollutionControlFactorSOx Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 1000. (%)
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 1000. (%)

element **categoryOther/pollutionControlFactorPM10**

diagram	 pollutionControlFactorPM10 Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 1000. (%)
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 1000. (%)

element **categoryOther/pm25ToPm10Ratio**

diagram	 pm25ToPm10Ratio PM2.5 to PM10 Ratio. Valid values: 0 to 1000.
type	doubleInclusive1
properties	content simple default 1
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation PM2.5 to PM10 Ratio. Valid values: 0 to 1000.

element **categoryRecordCode**

diagram	
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	<p>categoryRecordCode → recordCode</p> <p>An integer value for a category to use as the basis of a new stationary source operation. This value comes from the CATEGORY_REC_ID column in the STN_CATEGORY table in the AEDT FLEET database. Valid values: 0 to 87, 89 to 148.</p>
properties	content complex
children	recordCode
used by	element stationarySource
annotation	<p>An integer value for a category to use as the basis of a new stationary source operation. This value comes from the CATEGORY_REC_ID column in the STN_CATEGORY table in the AEDT FLEET database.</p>

element categorySandSaltPile

diagram	<p>categorySandSaltPile → typeCode, surfaceWindSpeedFraction, surfaceRoughness, frictionVelocity, fastestMileOfWind, meanWindSpeed, moistureContent, massDisturbedPerDisturbance, erodedSurfaceArea</p> <p>Describes the emissions characteristics of a source in the sand or salt pile category.</p>
properties	content complex
children	typeCode surfaceWindSpeedFraction surfaceRoughness frictionVelocity fastestMileOfWind meanWindSpeed moistureContent massDisturbedPerDisturbance erodedSurfaceArea
used by	element stationarySource
annotation	<p>Describes the emissions characteristics of a source in the sand or salt pile category.</p>

element categorySandSaltPile/typeCode

diagram	<p>typeCode</p> <p>Equivalent to the SUBCATEGORY_ID in the FLEET STN_CATEGORY table for this particular category.</p>						
type	int1to5						
properties	content simple						
facets	<table border="1"> <tr> <td>Kind</td> <td>Value Annotation</td> </tr> <tr> <td>minInclusive</td> <td>1</td> </tr> <tr> <td>maxInclusive</td> <td>5</td> </tr> </table>	Kind	Value Annotation	minInclusive	1	maxInclusive	5
Kind	Value Annotation						
minInclusive	1						
maxInclusive	5						
annotation	<p>Equivalent to the SUBCATEGORY_ID in the FLEET STN_CATEGORY table for this particular category.</p>						

element categorySandSaltPile/surfaceWindSpeedFraction

diagram	<p>surfaceWindSpeedFraction</p> <p>Surface wind speed fraction. Valid values: 0 to 1000. (unitless)</p>				
type	doubleInclusive1				
properties	content simple default 0				
facets	<table border="1"> <tr> <td>Kind</td> <td>Value Annotation</td> </tr> <tr> <td>minInclusive</td> <td>0</td> </tr> </table>	Kind	Value Annotation	minInclusive	0
Kind	Value Annotation				
minInclusive	0				

	maxInclusive 1
annotation	documentation Surface wind speed fraction. Valid values: 0 to 1000. (unitless)

element **categorySandSaltPile/surfaceRoughness**

diagram	 <p>The surface roughness of the pile. Valid values: 0 to 1000. (cm)</p>
type	doubleExclusiveRange100
properties	content simple default 0.01
facets	Kind Value Annotation minExclusive 0 maxExclusive 100
annotation	documentation The surface roughness of the pile. Valid values: 0 to 1000. (cm)

element **categorySandSaltPile/frictionVelocity**

diagram	 <p>Friction velocity. Valid values: 0 to 1000. (m/s)</p>
type	doubleExclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation Friction velocity. Valid values: 0 to 1000. (m/s)

element **categorySandSaltPile/fastestMileOfWind**

diagram	 <p>Fastest mile of wind. Valid values: 0 to 1000. (m/s)</p>
type	doubleExclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation Fastest mile of wind. Valid values: 0 to 1000. (m/s)

element **categorySandSaltPile/meanWindSpeed**

diagram	 <p>Average wind speed at sand or salt pile. Valid values: 0 to 1000. (m/s)</p>
type	doubleExclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation Average wind speed at sand or salt pile. Valid values: 0 to 1000. (m/s)

element **categorySandSaltPile/moistureContent**

diagram	 <p>Percentage of sand or salt pile that is moisture. Valid values: 0 to 1000. (%)</p>
type	doubleExclusiveRange100
properties	content simple default 0.01
facets	Kind Value Annotation minExclusive 0 maxExclusive 100
annotation	documentation Percentage of sand or salt pile that is moisture. Valid values: 0 to 1000. (%)

element **categorySandSaltPile/massDisturbedPerDisturbance**

diagram	
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	<p>massDisturbedPerDisturbance</p> <p>The mass disturbed per disturbance. Valid values: 0 to 1000. (Metric Tons)</p>
type	doubleExclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation The mass disturbed per disturbance. Valid values: 0 to 1000. (Metric Tons)

element **categorySandSaltPile/erodedSurfaceArea**

diagram	<p>erodedSurfaceArea</p> <p>Eroded surface area of pile. Valid values: 0 to 1000. (meters²)</p>
type	doubleExclusive10000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 10000
annotation	documentation Eroded surface area of pile. Valid values: 0 to 1000. (meters ²)

element **categorySolventDegreaser**

diagram	<pre> graph LR A[categorySolventDegreaser] --- B{ } B --- C["typeCode Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category."] B --- D["solutionDensity Density of the deicing solution. Valid values: 0 to 1000. (g/L)"] B --- E["percentSolventDisposed Percentage of solvent removed by environmental controls. Valid values: 0 to 1000. (%)"] B --- F["pollutionControlFactor Percent of emissions removed by pollution control measures. Valid values: 0 to 1000. (%)"] </pre> <p>Describes the operational characteristics of a source in the solvent degreaser category.</p>
properties	content complex
children	typeCode solutionDensity percentSolventDisposed pollutionControlFactor
used by	element stationarySource
annotation	documentation Describes the operational characteristics of a source in the solvent degreaser category.

element **categorySolventDegreaser/typeCode**

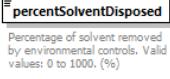
diagram	<p>typeCode</p> <p>Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category.</p>
type	int1to13
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 13
annotation	documentation Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category.

element **categorySolventDegreaser/solutionDensity**

diagram	<p>solutionDensity</p> <p>Density of the deicing solution. Valid values: 0 to 1000. (g/L)</p>
type	doubleExclusive2000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 2000
annotation	documentation

Density of the deicing solution. Valid values: 0 to 1000. (g/L)

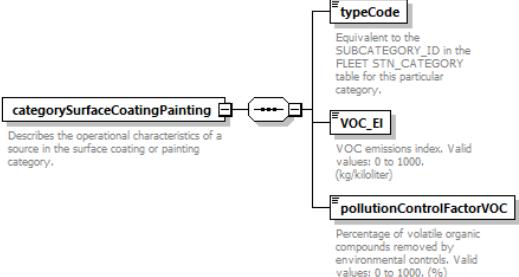
element categorySolventDegreaser/percentSolventDisposed

diagram	
	Percentage of solvent removed by environmental controls. Valid values: 0 to 1000. (%)
type	xs:double
properties	content simple default 0
annotation	documentation Percentage of solvent removed by environmental controls. Valid values: 0 to 1000. (%)

element categorySolventDegreaser/pollutionControlFactor

diagram	
	Percent of emissions removed by pollution control measures. Valid values: 0 to 1000. (%)
type	doubleInclusive100
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of emissions removed by pollution control measures. Valid values: 0 to 1000. (%)

element categorySurfaceCoatingPainting

diagram	
	categorySurfaceCoatingPainting Describes the operational characteristics of a source in the surface coating or painting category.
properties	content complex
children	typeCode VOC_EI pollutionControlFactorVOC
used by	element stationarySource
annotation	documentation Describes the operational characteristics of a source in the surface coating or painting category.

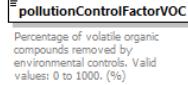
element categorySurfaceCoatingPainting/typeCode

diagram	
	Equivalent to the SUBCATEGORY_ID in the FLEET STN_CATEGORY table for this particular category.
type	int1to8
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 8
annotation	documentation Equivalent to the SUBCATEGORY_ID in the FLEET STN_CATEGORY table for this particular category.

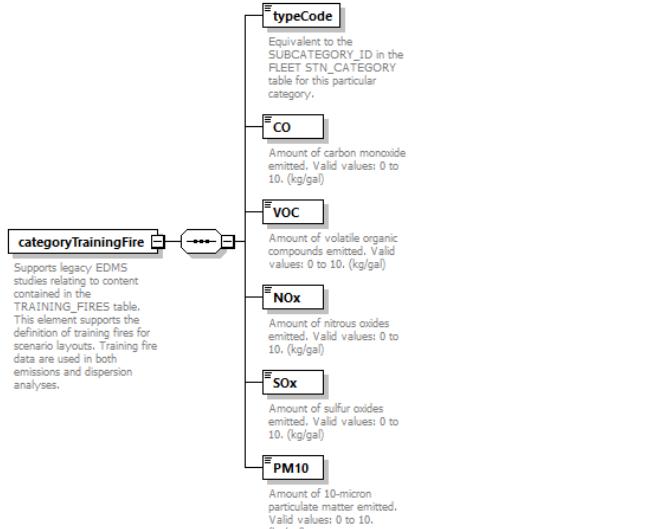
element categorySurfaceCoatingPainting/VOC_EI

diagram	
	VOC emissions index. Valid values: 0 to 1000. (kg/kiloliter)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation VOC emissions index. Valid values: 0 to 1000. (kg/kiloliter)

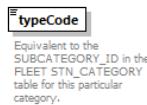
element **categorySurfaceCoatingPainting/pollutionControlFactorVOC**

diagram	
	Percentage of volatile organic compounds removed by environmental controls. Valid values: 0 to 1000. (%)
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percentage of volatile organic compounds removed by environmental controls. Valid values: 0 to 1000. (%)

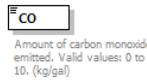
element **categoryTrainingFire**

diagram	
	typeCode Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category. CO Amount of carbon monoxide emitted. Valid values: 0 to 10. (kg/gal) VOC Amount of volatile organic compounds emitted. Valid values: 0 to 10. (kg/gal) NOx Amount of nitrous oxides emitted. Valid values: 0 to 10. (kg/gal) SOx Amount of sulfur oxides emitted. Valid values: 0 to 10. (kg/gal) PM10 Amount of 10-micron particulate matter emitted. Valid values: 0 to 10. (kg/gal)
properties	content complex
children	typeCode CO VOC NOx SOx PM10
used by	element stationarySource
annotation	documentation Supports legacy EDMS studies relating to content contained in the TRAINING_FIRES table. This element supports the definition of training fires for scenario layouts. Training fire data are used in both emissions and dispersion analyses.

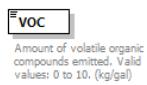
element **categoryTrainingFire/typeCode**

diagram	
	Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category.
type	int1to5
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 5
annotation	documentation Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category.

element **categoryTrainingFire/CO**

diagram	
	CO Amount of carbon monoxide emitted. Valid values: 0 to 10. (kg/gal)
type	xs:double
properties	content simple
annotation	documentation Amount of carbon monoxide emitted. Valid values: 0 to 10. (kg/gal)

element **categoryTrainingFire/VOC**

diagram	
	VOC Amount of volatile organic compounds emitted. Valid values: 0 to 10. (kg/gal)

type	xs:double
properties	content simple
annotation	documentation Amount of volatile organic compounds emitted. Valid values: 0 to 10. (kg/gal)

element **categoryTrainingFire/NOx**

diagram	 NOx Amount of nitrous oxides emitted. Valid values: 0 to 10. (kg/gal)
type	xs:double
properties	content simple
annotation	documentation Amount of nitrous oxides emitted. Valid values: 0 to 10. (kg/gal)

element **categoryTrainingFire/SOx**

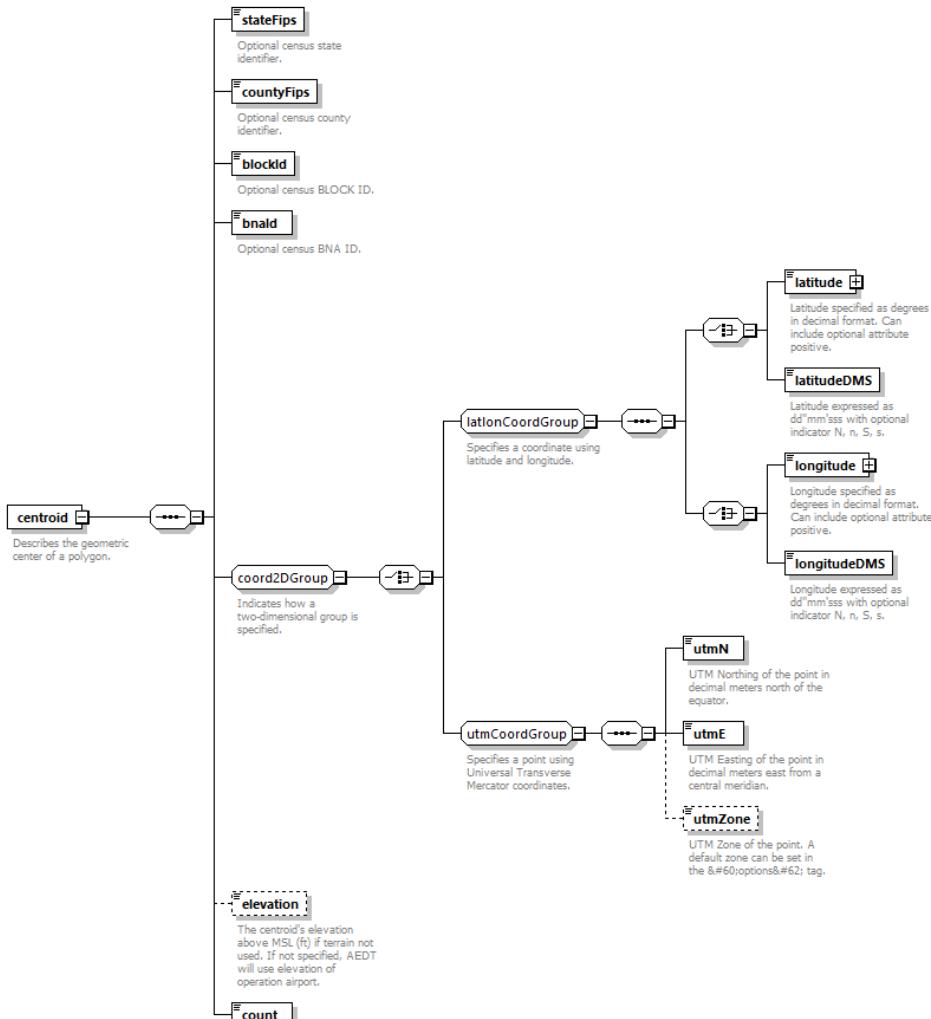
diagram	 SOx Amount of sulfur oxides emitted. Valid values: 0 to 10. (kg/gal)
type	xs:double
properties	content simple
annotation	documentation Amount of sulfur oxides emitted. Valid values: 0 to 10. (kg/gal)

element **categoryTrainingFire/PM10**

diagram	 PM10 Amount of 10-micron particulate matter emitted. Valid values: 0 to 10. (kg/gal)
type	xs:double
properties	content simple
annotation	documentation Amount of 10-micron particulate matter emitted. Valid values: 0 to 10. (kg/gal)

element **centroid**

diagram	
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properties	content complex
children	<code>stateFips countyFips blockId bnid latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation count</code>
used by	group receptorGroup .
annotation	documentation Describes the geometric center of a polygon.

element `centroid/stateFips`

diagram	
	Optional census state identifier.
type	<code>xs:int</code>
properties	content simple
annotation	documentation Optional census state identifier.

element `centroid/countyFips`

diagram	
	Optional census county identifier.
type	<code>xs:int</code>
properties	content simple
annotation	documentation Optional census county identifier.

element `centroid/blockId`

diagram	
	Optional census BLOCK ID.
type	<code>xs:int</code>
properties	content simple

annotation	documentation Optional census BLOCK ID.
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element centroid/bnald

diagram	 bnald Optional census BNA ID.
type	string6
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 6
annotation	documentation Optional census BNA ID.

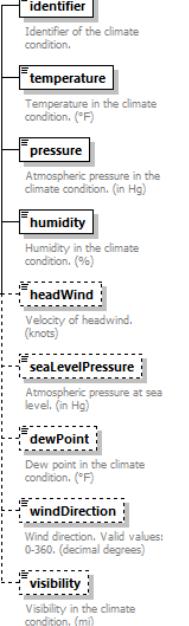
element centroid/elevation

diagram	 elevation The centroid's elevation above MSL (ft) if terrain not used. If not specified, AEDT will use elevation of operation airport.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The centroid's elevation above MSL (ft) if terrain not used. If not specified, AEDT will use elevation of operation airport.

element centroid/count

diagram	 count The population count of the centroid. Valid values: 0 to 999999.
type	xs:int
properties	content simple
annotation	documentation The population count of the centroid. Valid values: 0 to 999999.

element climate

diagram	 climate  <pre> graph LR climate[climate] --> identifier[identifier] climate --> temperature[temperature] climate --> pressure[pressure] climate --> humidity[humidity] climate --> headWind[headWind] climate --> seaLevelPressure[seaLevelPressure] climate --> dewPoint[dewPoint] climate --> windDirection[windDirection] climate --> visibility[visibility] </pre> <p>The climate element characterizes the climate during the study.</p>
properties	content complex
children	identifier temperature pressure humidity headWind seaLevelPressure dewPoint windDirection visibility
used by	element study
annotation	documentation Characterizes the climate during the study.

element climate/identifier

diagram	 identifier Identifier of the climate condition.
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	<p>type <code>string8</code></p>						
properties	content simple						
facets	<table> <tr> <td>Kind</td> <td>Value Annotation</td> </tr> <tr> <td>minLength</td> <td>0</td> </tr> <tr> <td>maxLength</td> <td>8</td> </tr> </table>	Kind	Value Annotation	minLength	0	maxLength	8
Kind	Value Annotation						
minLength	0						
maxLength	8						
annotation	<p>documentation</p> <p>Identifier of the climate condition.</p>						

element **climate/temperature**

<p>diagram</p> <p><code>temperature</code></p> <p>Temperature in the climate condition. (°F)</p>	
type	<code>xs:float</code>
properties	content simple
annotation	<p>documentation</p> <p>Temperature in the climate condition. (°F)</p>

element **climate/pressure**

<p>diagram</p> <p><code>pressure</code></p> <p>Atmospheric pressure in the climate condition. (in Hg)</p>	
type	<code>xs:float</code>
properties	content simple
annotation	<p>documentation</p> <p>Atmospheric pressure in the climate condition. (in Hg)</p>

element **climate/humidity**

<p>diagram</p> <p><code>humidity</code></p> <p>Humidity in the climate condition. (%)</p>	
type	<code>xs:double</code>
properties	content simple
annotation	<p>documentation</p> <p>Humidity in the climate condition. (%)</p>

element **climate/headWind**

<p>diagram</p> <p><code>headWind</code></p> <p>Velocity of headwind. (knots)</p>	
type	<code>xs:float</code>
properties	<p>minOcc 0</p> <p>maxOcc 1</p> <p>content simple</p>
annotation	<p>documentation</p> <p>Velocity of headwind. (knots)</p>

element **climate/seaLevelPressure**

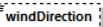
<p>diagram</p> <p><code>seaLevelPressure</code></p> <p>Atmospheric pressure at sea level. (in Hg)</p>	
type	<code>xs:double</code>
properties	<p>minOcc 0</p> <p>maxOcc 1</p> <p>content simple</p>
annotation	<p>documentation</p> <p>Atmospheric pressure at sea level. (in Hg)</p>

element **climate/dewPoint**

<p>diagram</p> <p><code>dewPoint</code></p> <p>Dew point in the climate condition. (°F)</p>	
type	<code>xs:double</code>
properties	<p>minOcc 0</p> <p>maxOcc 1</p> <p>content simple</p>
annotation	<p>documentation</p> <p>Dew point in the climate condition. (°F)</p>

element **climate/windDirection**

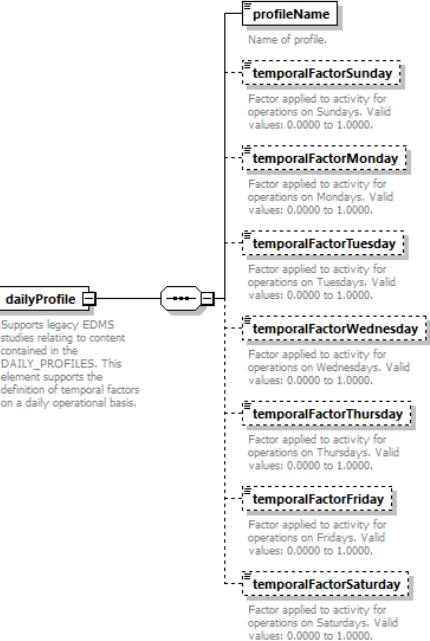
<p>diagram</p>	

	 <p>Wind direction. Valid values: 0-360. (decimal degrees)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Wind direction. Valid values: 0-360. (decimal degrees)

element climate/visibility

diagram	 <p>Visibility in the climate condition. (mi)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Visibility in the climate condition. (mi)

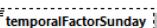
element dailyProfile

diagram	 <p>Supports legacy EDMS studies relating to content contained in the DAILY_PROFILES. This element supports the definition of temporal factors on a daily operational basis.</p>
properties	content complex
children	profileName temporalFactorSunday temporalFactorMonday temporalFactorTuesday temporalFactorWednesday temporalFactorThursday temporalFactorFriday temporalFactorSaturday
used by	element dailyProfileSet
annotation	documentation Supports legacy EDMS studies relating to content contained in the DAILY_PROFILES. This element supports the definition of temporal factors on a daily operational basis.

element dailyProfile/profileName

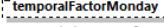
diagram	 <p>Name of profile.</p>
type	string100
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Name of profile.

element dailyProfile/temporalFactorSunday

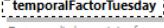
diagram	 <p>Factor applied to activity for operations on Sundays. Valid values: 0.0000 to 1.0000.</p>
type	doubleMin0
properties	minOcc 0

	maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations on Sundays. Valid values: 0.0000 to 1.0000.

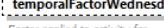
element **dailyProfile/temporalFactorMonday**

diagram	 Factor applied to activity for operations on Mondays. Valid values: 0.0000 to 1.0000.
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations on Mondays. Valid values: 0.0000 to 1.0000.

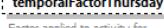
element **dailyProfile/temporalFactorTuesday**

diagram	 Factor applied to activity for operations on Tuesdays. Valid values: 0.0000 to 1.0000.
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations on Tuesdays. Valid values: 0.0000 to 1.0000.

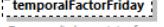
element **dailyProfile/temporalFactorWednesday**

diagram	 Factor applied to activity for operations on Wednesdays. Valid values: 0.0000 to 1.0000.
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations on Wednesdays. Valid values: 0.0000 to 1.0000.

element **dailyProfile/temporalFactorThursday**

diagram	 Factor applied to activity for operations on Thursdays. Valid values: 0.0000 to 1.0000.
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations on Thursdays. Valid values: 0.0000 to 1.0000.

element **dailyProfile/temporalFactorFriday**

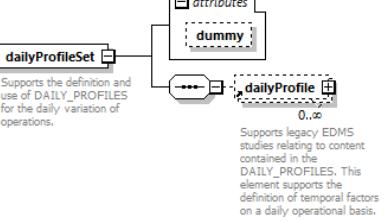
diagram	 Factor applied to activity for operations on Fridays. Valid values: 0.0000 to 1.0000.
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation

Factor applied to activity for operations on Fridays. Valid values: 0.0000 to 1.0000.

element dailyProfile/temporalFactorSaturday

diagram	
	Factor applied to activity for operations on Saturdays. Valid values: 0.0000 to 1.0000.
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations on Saturdays. Valid values: 0.0000 to 1.0000.

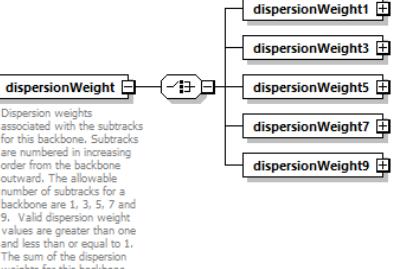
element dailyProfileSet

diagram	
	Supports the definition and use of DAILY_PROFILES for the daily variation of operations.
properties	content complex
children	dailyProfile
used by	element operationalProfileSet complexType airportLayoutType
attributes	Name Type Use Default Fixed Annotation <u>dummy</u> xs:int optional
annotation	documentation Supports the definition and use of DAILY_PROFILES for the daily variation of operations.

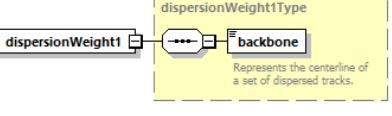
attribute dailyProfileSet/@dummy

type	xs:int
properties	use optional

element dispersionWeight

diagram	
	Dispersion weights associated with the subtracks for this backbone. Subtracks are numbered in increasing order from the backbone outward. The allowable number of subtracks for a backbone are 1, 3, 5, 7 and 9. Valid dispersion weight values are greater than one and less than or equal to 1. The sum of the dispersion weights for this backbone must equal 1.
properties	content complex
children	dispersionWeight1 dispersionWeight3 dispersionWeight5 dispersionWeight7 dispersionWeight9
used by	element backbone
annotation	documentation Dispersion weights associated with the subtracks for this backbone. Subtracks are numbered in increasing order from the backbone outward. The allowable number of subtracks for a backbone are 1, 3, 5, 7 and 9. Valid dispersion weight values are greater than one and less than or equal to 1. The sum of the dispersion weights for this backbone must equal 1.

element dispersionWeight/dispersionWeight1

diagram	
	Represents the centerline of a set of dispersed tracks.
type	dispersionWeight1Type
properties	content complex
children	backbone

element dispersionWeight/dispersionWeight3

diagram	<p>dispersionWeight3Type</p> <pre> graph LR DW3[dispersionWeight3] --- Backbone3[backbone] Backbone3 --- Weight1L3[weight1] Backbone3 --- Weight1R3[weight1] </pre> <p>Represents the centerline of a set of dispersed tracks.</p> <p>= weight1 Specify the dispersion weight for the first left subtrack.</p> <p>= weightr1 Specify the dispersion weight for the first right subtrack.</p>
type	dispersionWeight3Type
properties	content complex
children	backbone weight1 weightr1

element dispersionWeight/dispersionWeight5

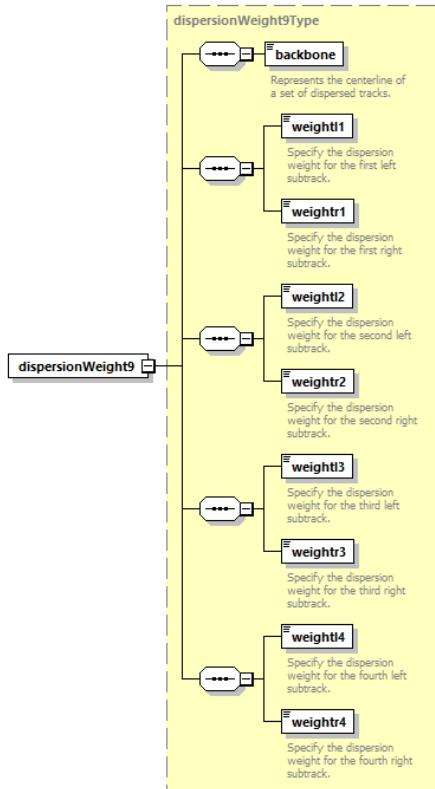
diagram	<p>dispersionWeight5Type</p> <pre> graph LR DW5[dispersionWeight5] --- Backbone5[backbone] Backbone5 --- Weight1L1[weight1] Backbone5 --- Weight1R1[weight1] Backbone5 --- Weight1L2[weight1] Backbone5 --- Weight1R2[weight1] </pre> <p>Represents the centerline of a set of dispersed tracks.</p> <p>= weight1 Specify the dispersion weight for the first left subtrack.</p> <p>= weightr1 Specify the dispersion weight for the first right subtrack.</p> <p>= weight1L2 Specify the dispersion weight for the second left subtrack.</p> <p>= weightr2 Specify the dispersion weight for the second right subtrack.</p>
type	dispersionWeight5Type
properties	content complex
children	backbone weight1 weightr1 weight1L2 weightr2

element dispersionWeight/dispersionWeight7

diagram	<p>dispersionWeight7Type</p> <pre> graph LR DW7[dispersionWeight7] --- Backbone7[backbone] Backbone7 --- Weight1L1[weight1] Backbone7 --- Weight1R1[weight1] Backbone7 --- Weight1L2[weight1] Backbone7 --- Weight1R2[weight1] Backbone7 --- Weight1L3[weight1] Backbone7 --- Weight1R3[weight1] </pre> <p>Represents the centerline of a set of dispersed tracks.</p> <p>= weight1 Specify the dispersion weight for the first left subtrack.</p> <p>= weightr1 Specify the dispersion weight for the first right subtrack.</p> <p>= weight1L2 Specify the dispersion weight for the second left subtrack.</p> <p>= weightr2 Specify the dispersion weight for the second right subtrack.</p> <p>= weight1L3 Specify the dispersion weight for the third left subtrack.</p> <p>= weightr3 Specify the dispersion weight for the third right subtrack.</p>
type	dispersionWeight7Type
properties	content complex
children	backbone weight1 weightr1 weight1L2 weightr2 weight1L3 weightr3

element dispersionWeight/dispersionWeight9

diagram	
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	type dispersionWeight9Type properties content complex children backbone weight1 weightr1 weightl2 weightr2 weight13 weightr3 weight14 weightr4
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element emissionsUsage

diagram	<pre> classDiagram emissionsUsage { yearlyValue hourlyValue byPeakQuarterHour } </pre>
properties	content complex
children	yearlyValue hourlyValue byPeakQuarterHour activityProfile
used by	elements parkingFacilityOperation roadwayOperation stationarySourceOperation
annotation	documentation Describes the amount of emissions for a given activity profile.

element emissionsUsage/yearlyValue

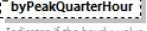
diagram	<pre> classDiagram yearlyValue { ... } </pre>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Annualized amount of emissions.

element emissionsUsage/hourlyValue

diagram	<pre> classDiagram hourlyValue { ... } </pre>
type	xs:double
properties	content simple
annotation	documentation

Hourly amount of emissions.

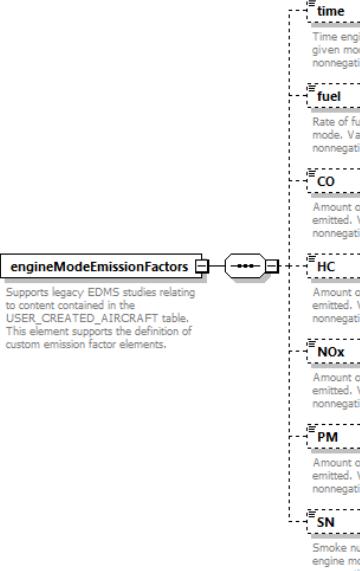
element `emissionsUsage/byPeakQuarterHour`

diagram	 Indicates if the hourly value is the peak hourly value.
type	<code>xs:boolean</code>
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation Indicates if the hourly value is the peak hourly value.

element `emissionsUsage/activityProfile`

diagram	 An activity profile type (e.g. reference to one of hourlyProfile, dailyProfile or weeklyProfile).
type	<code>string40</code>
properties	minOcc 0 maxOcc 1 content simple
used by	element activityProfileSet
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation An activity profile type (e.g. reference to one of hourlyProfile, dailyProfile or weeklyProfile).

element `engineModeEmissionFactors`

diagram	 <p>Supports legacy EDMS studies relating to content contained in the USER_CREATED_AIRCRAFT table. This element supports the definition of custom emission factor elements.</p>
properties	content complex
children	time fuel CO HC NOx PM SN
annotation	documentation Supports legacy EDMS studies relating to content contained in the USER_CREATED_AIRCRAFT table. This element supports the definition of custom emission factor elements.

element `engineModeEmissionFactors/time`

diagram	 Time engine operates in a given mode. Valid values: nonnegative. (minutes)
type	<code>xs:double</code>
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Time engine operates in a given mode. Valid values: nonnegative. (minutes)

element `engineModeEmissionFactors/fuel`

diagram	
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	 <p>Rate of fuel burn in given mode. Valid values: nonnegative. (kg/s)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Rate of fuel burn in given mode. Valid values: nonnegative. (kg/s)

element engineModeEmissionFactors/CO

diagram	 <p>Amount of carbon monoxide emitted. Valid values: nonnegative. (kg/s)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Amount of carbon monoxide emitted. Valid values: nonnegative. (kg/s)

element engineModeEmissionFactors/HC

diagram	 <p>Amount of hydrocarbons emitted. Valid values: nonnegative. (kg/s)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Amount of hydrocarbons emitted. Valid values: nonnegative. (kg/s)

element engineModeEmissionFactors/NOx

diagram	 <p>Amount of nitrous oxide emitted. Valid values: nonnegative. (kg/s)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Amount of nitrous oxide emitted. Valid values: nonnegative. (kg/s)

element engineModeEmissionFactors/PM

diagram	 <p>Amount of particulate matter emitted. Valid values: nonnegative. (kg/s)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Amount of particulate matter emitted. Valid values: nonnegative. (kg/s)

element engineModeEmissionFactors/SN

diagram	 <p>Smoke number for the engine mode. Valid values: nonnegative. (kg/s)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Smoke number for the engine mode. Valid values: nonnegative. (kg/s)

element gate

diagram	<p>Supports legacy EDMS studies relating to content contained in the GATES table. This element supports the definition of gates within an airport layout. In dispersion analyses, GSE, AGE, and APU emissions originate from the gate locations. Gates are needed for sequence modeling, which includes all dispersion analyses.</p>
properties	content complex
children	name elevation releaseHeight sigmaY sigmaZ pointCoord polygonCoords
used by	element gateSet
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to content contained in the GATES table. This element supports the definition of gates within an airport layout. In dispersion analyses, GSE, AGE, and APU emissions originate from the gate locations. Gates are needed for sequence modeling, which includes all dispersion analyses.</p>

element gate/name

diagram							
type	string40						
properties	content simple						
facets	<table> <tr> <td>Kind</td> <td>Value Annotation</td> </tr> <tr> <td>minLength</td> <td>0</td> </tr> <tr> <td>maxLength</td> <td>40</td> </tr> </table>	Kind	Value Annotation	minLength	0	maxLength	40
Kind	Value Annotation						
minLength	0						
maxLength	40						
annotation	<p>documentation</p> <p>Identifying name of gate.</p>						

element gate/elevation

diagram							
type	xs:double						
properties	<table> <tr> <td>minOcc</td> <td>0</td> </tr> <tr> <td>maxOcc</td> <td>1</td> </tr> <tr> <td>content</td> <td>simple</td> </tr> </table>	minOcc	0	maxOcc	1	content	simple
minOcc	0						
maxOcc	1						
content	simple						
annotation	<p>documentation</p> <p>Gate's elevation above mean sea level in meters. Valid values: -500 to 5000. (m)</p>						

element gate/releaseHeight

diagram							
type	xs:double						
properties	<table> <tr> <td>minOcc</td> <td>0</td> </tr> <tr> <td>maxOcc</td> <td>1</td> </tr> <tr> <td>content</td> <td>simple</td> </tr> </table>	minOcc	0	maxOcc	1	content	simple
minOcc	0						
maxOcc	1						
content	simple						
annotation	<p>documentation</p> <p>Height above ground level at which emissions are released into the atmosphere. Valid values: Variable, by airport. (m)</p>						

element gate/sigmaY

diagram	
---------	--

	<p>sigmaY</p> <p>Horizontal dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: Variable, by airport. (m)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Horizontal dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: Variable, by airport. (m)

element gate/sigmaZ

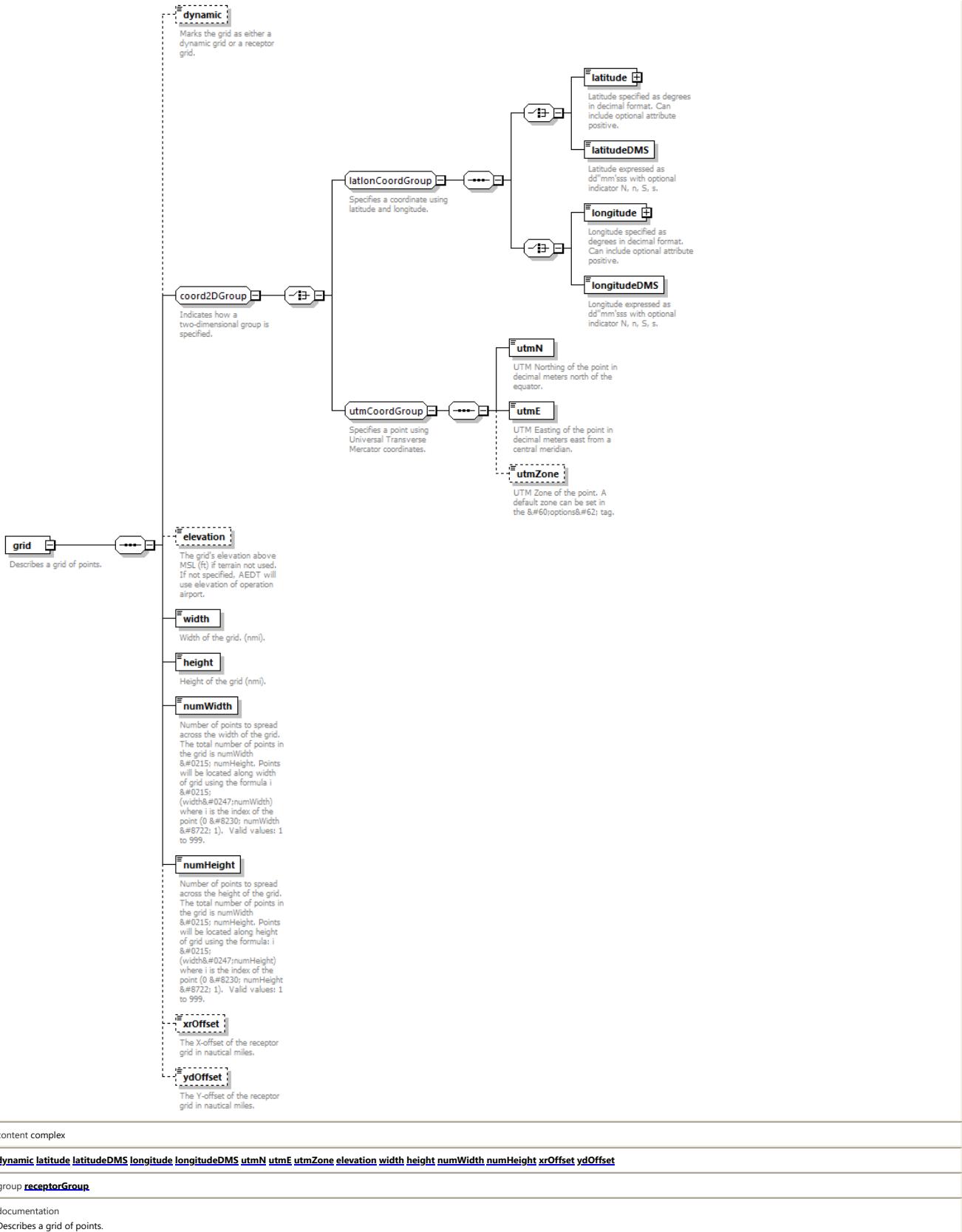
diagram	<p>sigmaZ</p> <p>Vertical dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: Variable, by airport. (m)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Vertical dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: Variable, by airport. (m)

element gateSet

diagram	<p>Supports legacy EDMS studies relating to content contained in the GATES table. This element supports the definition of gates within an airport layout. In dispersion analyses, GSE, AGE, and APU emissions originate from the gate locations. Gates are needed for sequence modeling, which includes all dispersion analyses.</p> <p>1..x</p> <p>Supports legacy EDMS studies relating to content contained in the GATES table. This element supports the definition of gates within an airport layout. In dispersion analyses, GSE, AGE, and APU emissions originate from the gate locations. Gates are needed for sequence modeling, which includes all dispersion analyses.</p>
properties	content complex
children	gate
used by	complexType airportLayoutType
annotation	documentation Supports legacy EDMS studies relating to content contained in the GATES table. This element supports the definition of gates within an airport layout. In dispersion analyses, GSE, AGE, and APU emissions originate from the gate locations. Gates are needed for sequence modeling, which includes all dispersion analyses.

element grid

diagram	
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element **grid/dynamic**

diagram	<p>Marks the grid as either a dynamic grid or a receptor grid.</p>
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple default false

annotation	documentation Marks the grid as either a dynamic grid or a receptor grid.
------------	--

element grid/elevation

diagram	 elevation The grid's elevation above MSL (ft) if terrain not used. If not specified, AEDT will use elevation of operation airport.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The grid's elevation above MSL (ft) if terrain not used. If not specified, AEDT will use elevation of operation airport.

element grid/width

diagram	 width Width of the grid. (nmi).
type	xs:double
properties	content simple
annotation	documentation Width of the grid. (nmi).

element grid/height

diagram	 height Height of the grid (nmi).
type	xs:double
properties	content simple
annotation	documentation Height of the grid (nmi).

element grid/numWidth

diagram	 numWidth Number of points to spread across the width of the grid. The total number of points in the grid is numWidth × numHeight. Points will be located along width of grid using the formula i × (width÷numWidth) where i is the index of the point (0 … numWidth − 1). Valid values: 1 to 999.
type	xs:int
properties	content simple
annotation	documentation Number of points to spread across the width of the grid. The total number of points in the grid is numWidth × numHeight. Points will be located along width of grid using the formula i × (width÷numWidth) where i is the index of the point (0 … numWidth − 1). Valid values: 1 to 999.

element grid/numHeight

diagram	 numHeight Number of points to spread across the height of the grid. The total number of points in the grid is numWidth × numHeight. Points will be located along height of grid using the formula: i × (width÷numHeight) where i is the index of the point (0 … numHeight − 1). Valid values: 1 to 999.
type	xs:int
properties	content simple
annotation	documentation Number of points to spread across the height of the grid. The total number of points in the grid is numWidth × numHeight. Points will be located along height of grid using the formula: i × (width÷numHeight) where i is the index of the point (0 … numHeight − 1). Valid values: 1 to 999.

element grid/xrOffset

diagram	 xrOffset The X-offset of the receptor grid in nautical miles.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0

annotation	documentation The X-offset of the receptor grid in nautical miles.
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element **grid/ydOffset**

diagram	<p>The Y-offset of the receptor grid in nautical miles.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation The Y-offset of the receptor grid in nautical miles.

element **groundSupportEquipmentGateAssignment**

diagram	<p>Supports legacy EDMS studies relating to content contained in the USER_CREATED_GSE table. This element supports the definition of user defined ground support equipment.</p> <p>gate Gate to which GSE is assigned.</p> <p>fractionAssigned Fraction of GSE assigned to this gate. Must sum to 1.0 for all gate assignments for the GSE. Valid values: 0.0 to 1.0.</p>
properties	content complex
children	gate fractionAssigned
used by	element groundSupportEquipmentGateAssignmentSet
annotation	documentation Supports legacy EDMS studies relating to content contained in the USER_CREATED_GSE table. This element supports the definition of user defined ground support equipment.

element **groundSupportEquipmentGateAssignment/gate**

diagram	<p>Gate to which GSE is assigned.</p>
type	string20
properties	content simple
used by	element gateSet
facets	Kind Value Annotation minLength 0 maxLength 20
annotation	documentation Gate to which GSE is assigned.

element **groundSupportEquipmentGateAssignment/fractionAssigned**

diagram	<p>Fraction of GSE assigned to this gate. Must sum to 1.0 for all gate assignments for the GSE. Valid values: 0.0 to 1.0.</p>
type	doubleInclusive1
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation Fraction of GSE assigned to this gate. Must sum to 1.0 for all gate assignments for the GSE. Valid values: 0.0 to 1.0.

element **groundSupportEquipmentGateAssignmentSet**

diagram	<p>Supports legacy EDMS studies relating to content contained in the GSE_POPULATION_GATE_ASSIGNMENTS table. This element supports the definition of gate to ground support equipment assignments.</p> <p>groundSupportEquipmentGateAssignment</p> <p>attributes</p> <p>dummy</p> <p>groundSupportEquipmentGateAssignment</p> <p>1..∞</p> <p>Supports legacy EDMS studies relating to content contained in the USER_CREATED_GSE table. This element supports the definition of user defined ground support equipment.</p>
properties	content complex
children	groundSupportEquipmentGateAssignment
used by	element groundSupportEquipmentPopulationOperation
attributes	Name Type Use Default Fixed Annotation <u>dummy</u> xs:int optional

annotation	documentation Supports legacy EDMS studies relating to content contained in the GSE_POPULATION_GATE_ASSIGNMENTS table. This element supports the definition of gate to ground support equipment assignments.
------------	---

attribute **groundSupportEquipmentGateAssignmentSet/@dummy**

type	xs:int
properties	use optional

element **groundSupportEquipmentLTOOperation**

diagram	<p>The diagram illustrates the structure of the groundSupportEquipmentLTOOperation element. It shows a main element box labeled "groundSupportEquipmentLTOOp..." which contains several attribute boxes. Each attribute box has a dashed line pointing to a detailed description box below it:</p> <ul style="list-style-type: none"> gseID: The GSE ID. fuelType horsepower: GSE horsepower in bore hp. Valid values: 0.00 to 10000.00. (hp) loadFactor: Load factor of GSE (will be empty for APU). Valid values: 0.00 to 100.00. manufactureYear: The manufacture year and age of the equipment, if not using system defaults. Valid values: 1940 to 2050. (Latest valid year will be the year of the study.) departureOpTime: The number of minutes used for a departure aircraft operation. Valid values: 0.00 to 480.00. (min) arrivalOpTime: The number of minutes used for an arrival aircraft operation. Valid values: 0.00 to 480.00. (min)
properties	content complex
children	gseID fuelType horsepower loadFactor manufactureYear departureOpTime arrivalOpTime
used by	element groundSupportEquipmentLTOOperationSet
annotation	documentation Describes operation of GSE operation.

element **groundSupportEquipmentLTOOperation/gseID**

diagram	<p>The diagram illustrates the structure of the groundSupportEquipmentLTOOperation/gseID element. It shows a main element box labeled "gseID" which contains a detailed description box below it:</p> <ul style="list-style-type: none"> gseID: The GSE ID.
type	xs:int
properties	content simple
annotation	documentation The GSE ID.

element **groundSupportEquipmentLTOOperation/fuelType**

diagram	<p>The diagram illustrates the structure of the groundSupportEquipmentLTOOperation/fuelType element. It shows a main element box labeled "fuelType" which contains a detailed description box below it:</p> <ul style="list-style-type: none"> fuelType
type	fuelType
properties	content simple
facets	Kind Value Annotation pattern G Gasoline D Diesel C Compressed Natural Gas L Liquefied Petroleum Gas E Electric

element **groundSupportEquipmentLTOOperation/horsepower**

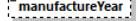
diagram	<p>The diagram illustrates the structure of the groundSupportEquipmentLTOOperation/horsepower element. It shows a main element box labeled "horsepower" which contains a detailed description box below it:</p> <ul style="list-style-type: none"> horsepower: GSE horsepower in bore hp. Valid values: 0.00 to 10000.00. (hp)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation GSE horsepower in bore hp. Valid values: 0.00 to 10000.00. (hp)

element **groundSupportEquipmentLTOOperation/loadFactor**

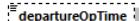
diagram	<p>The diagram illustrates the structure of the groundSupportEquipmentLTOOperation/loadFactor element. It shows a main element box labeled "loadFactor" which contains a detailed description box below it:</p> <ul style="list-style-type: none"> loadFactor: Load factor of GSE (will be empty for APU). Valid values: 0.00 to 100.00.
type	xs:double
properties	minOcc 0

	maxOcc 1 content simple
annotation	documentation Load factor of GSE (will be empty for APU). Valid values: 0.00 to 100.00.

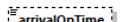
element **groundSupportEquipmentLTOOperation/manufactureYear**

diagram	 <p>The manufacture year and age of the equipment, if not using system defaults. Valid values: 1940 to 2050. (Latest valid year will the year of the study.)</p>
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The manufacture year and age of the equipment, if not using system defaults. Valid values: 1940 to 2050. (Latest valid year will the year of the study.)

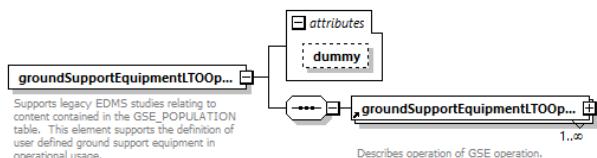
element **groundSupportEquipmentLTOOperation/departureOpTime**

diagram	 <p>The number of minutes used for a departure aircraft operation. Valid values: 0.00 to 480.00. (min)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The number of minutes used for a departure aircraft operation. Valid values: 0.00 to 480.00. (min)

element **groundSupportEquipmentLTOOperation/arrivalOpTime**

diagram	 <p>The number of minutes used for an arrival aircraft operation. Valid values: 0.00 to 480.00. (min)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The number of minutes used for an arrival aircraft operation. Valid values: 0.00 to 480.00. (min)

element **groundSupportEquipmentLTOOperationSet**

diagram	 <p>Supports legacy EDMS studies relating to content contained in the GSE_POPULATION table. This element supports the definition of user defined ground support equipment in operational usage.</p>												
properties	content complex												
children	groundSupportEquipmentLTOOperation												
used by	complexType aircraftType												
attributes	<table border="1"> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> <tr> <td><u>dummy</u></td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </table>	Name	Type	Use	Default	Fixed	Annotation	<u>dummy</u>	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
<u>dummy</u>	xs:int	optional											
annotation	documentation Supports legacy EDMS studies relating to content contained in the GSE_POPULATION table. This element supports the definition of user defined ground support equipment in operational usage.												

attribute **groundSupportEquipmentLTOOperationSet/@dummy**

type	xs:int
properties	use optional

element **groundSupportEquipmentPopulationOperation**

diagram	
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	<pre> classDiagram gseID < -- fuelType gseID < -- gseType gseID < -- numUnits gseID < -- annualOpTime gseID < -- pkQtrHourOpTime gseID < -- activityProfile gseID < -- horsepower gseID < -- loadFactor gseID < -- useNonRoad gseID < -- manufactureYear gseID --> groundSupportEquipmentGateAssignmentSet groundSupportEquipmentPopulationOperationSet --> groundSupportEquipmentPopulationOperation </pre> <p>groundSupportEquipmentPopulationOperation</p> <p>Supports legacy EDMS studies relating to content contained in the GSE_POPULATION table. This element supports the definition of user defined ground support equipment in operational usage.</p> <p>Fuel type for a specific piece of GSE.</p>
properties	content complex
children	gseID fuelType gseType numUnits annualOpTime pkQtrHourOpTime activityProfile horsepower loadFactor useNonRoad manufactureYear groundSupportEquipmentGateAssignmentSet
used by	element groundSupportEquipmentPopulationOperationSet
annotation	documentation Supports legacy EDMS studies relating to content contained in the GSE_POPULATION table. This element supports the definition of user defined ground support equipment in operational usage.

element **groundSupportEquipmentPopulationOperation/gseID**

diagram	
	The GSE ID.
type	xs:int
properties	content simple
annotation	documentation The GSE ID.

element **groundSupportEquipmentPopulationOperation/fuelType**

diagram	
type	fuelType
properties	content simple
facets	Kind Value Annotation pattern G Gasoline D Diesel C Compressed Natural Gas L Liquefied Petroleum Gas E Electric

element **groundSupportEquipmentPopulationOperation/gseType**

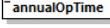
diagram	
	The type of GSE.
type	xs:string
properties	content simple
annotation	documentation The type of GSE.

element **groundSupportEquipmentPopulationOperation/numUnits**

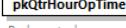
diagram	
	GSE number of units. Valid values: 0 to 10000.
type	xs:double

properties	content simple
annotation	documentation GSE number of units. Valid values: 0 to 10000.

element **groundSupportEquipmentPopulationOperation/annualOpTime**

diagram	 annualOpTime Operation time, yearly. Valid values: 0 to 8784. (hr)
type	xs:double
properties	content simple
annotation	documentation Operation time, yearly. Valid values: 0 to 8784. (hr)

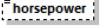
element **groundSupportEquipmentPopulationOperation/pkQtrHourOpTime**

diagram	 pkQtrHourOpTime Peak quarter hour operation time. Valid values: 0 to 15. (min/hr)
type	xs:double
properties	content simple
annotation	documentation Peak quarter hour operation time. Valid values: 0 to 15. (min/hr)

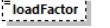
element **groundSupportEquipmentPopulationOperation/activityProfile**

diagram	 activityProfile Activity profile; (quarterly, daily, monthly).
type	string40
properties	content simple
used by	element activityProfileSet
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Activity profile; (quarterly, daily, monthly).

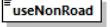
element **groundSupportEquipmentPopulationOperation/horsepower**

diagram	 horsepower Horsepower is in hp units. Valid values: 0 to 10000. (hp)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Horsepower is in hp units. Valid values: 0 to 10000. (hp)

element **groundSupportEquipmentPopulationOperation/loadFactor**

diagram	 loadFactor Load factor of GSE. (Will be empty for APU.) Valid values: 0 to 100.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Load factor of GSE. (Will be empty for APU.) Valid values: 0 to 100.

element **groundSupportEquipmentPopulationOperation/useNonRoad**

diagram	 useNonRoad User non-road version flag.
type	xs:boolean
properties	content simple
annotation	documentation User non-road version flag.

element **groundSupportEquipmentPopulationOperation/manufactureYear**

diagram	
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	<p>manufactureYear</p> <p>The manufacture year and age of the equipment, if not using system defaults. Valid values: 1940 to 2050. (Latest valid date will be the year of the study.)</p>
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	<p>documentation</p> <p>The manufacture year and age of the equipment, if not using system defaults. Valid values: 1940 to 2050. (Latest valid date will be the year of the study.)</p>

element **groundSupportEquipmentPopulationOperationSet**

diagram	<p>The diagram illustrates the structure of the groundSupportEquipmentPopulationOperationSet element. It consists of a main element box labeled "groundSupportEquipmentPopul..." with a dashed border. To its right is a "dummy" attribute box, also with a dashed border. A line connects the two. Below the main element is a multiplicity indicator "1..∞". A callout box provides a detailed description: "Supports legacy EDMS studies relating to content contained in the GSE_POPULATION table. This element supports the definition of user defined ground support equipment in operational usage." Another callout box below the multiplicity indicates: "Supports legacy EDMS studies relating to content contained in the GSE_POPULATION table. This element supports the definition of user defined ground support equipment in operational usage."</p>												
properties	content complex												
children	groundSupportEquipmentPopulationOperation												
used by	group airportActivityGroup												
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to content contained in the GSE_POPULATION table. This element supports the definition of user defined ground support equipment in operational usage.</p>												

attribute **groundSupportEquipmentPopulationOperationSet/@dummy**

type	xs:int
properties	use optional

element **monthlyProfile**

diagram	
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	<pre> classDiagram class monthlyProfile { <<Supports legacy EDMS studies relating to content contained in the MONTHLY_PROFILES. This element supports the definition of temporal factors on a monthly operational basis.>> } class profileName { <<Name of profile.>> } class temporalFactorJanuary { <<Factor applied to activity for operations during January. Valid values: 0.0000 to 1.0000.>> } class temporalFactorFebruary { <<Factor applied to activity for operations during February. Valid values: 0.0000 to 1.0000.>> } class temporalFactorMarch { <<Factor applied to activity for operations during March. Valid values: 0.0000 to 1.0000.>> } class temporalFactorApril { <<Factor applied to activity for operations during April. Valid values: 0.0000 to 1.0000.>> } class temporalFactorMay { <<Factor applied to activity for operations during May. Valid values: 0.0000 to 1.0000.>> } class temporalFactorJune { <<Factor applied to activity for operations during June. Valid values: 0.0000 to 1.0000.>> } class temporalFactorJuly { <<Factor applied to activity for operations during July. Valid values: 0.0000 to 1.0000.>> } class temporalFactorAugust { <<Factor applied to activity for operations during August. Valid values: 0.0000 to 1.0000.>> } class temporalFactorSeptember { <<Factor applied to activity for operations during September. Valid values: 0.0000 to 1.0000.>> } class temporalFactorOctober { <<Factor applied to activity for operations during October. Valid values: 0.0000 to 1.0000.>> } class temporalFactorNovember { <<Factor applied to activity for operations during November. Valid values: 0.0000 to 1.0000.>> } class temporalFactorDecember { <<Factor applied to activity for operations during December. Valid values: 0.0000 to 1.0000.>> } monthlyProfile "1" --> "1" profileName monthlyProfile "1" --> "1" temporalFactorJanuary monthlyProfile "1" --> "1" temporalFactorFebruary monthlyProfile "1" --> "1" temporalFactorMarch monthlyProfile "1" --> "1" temporalFactorApril monthlyProfile "1" --> "1" temporalFactorMay monthlyProfile "1" --> "1" temporalFactorJune monthlyProfile "1" --> "1" temporalFactorJuly monthlyProfile "1" --> "1" temporalFactorAugust monthlyProfile "1" --> "1" temporalFactorSeptember monthlyProfile "1" --> "1" temporalFactorOctober monthlyProfile "1" --> "1" temporalFactorNovember monthlyProfile "1" --> "1" temporalFactorDecember </pre>
properties	content complex
children	profileName temporalFactorJanuary temporalFactorFebruary temporalFactorMarch temporalFactorApril temporalFactorMay temporalFactorJune temporalFactorJuly temporalFactorAugust temporalFactorSeptember temporalFactorOctober temporalFactorNovember temporalFactorDecember
used by	element monthlyProfileSet
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to content contained in the MONTHLY_PROFILES. This element supports the definition of temporal factors on a monthly operational basis.</p>

element monthlyProfile/profileName

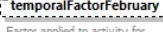
diagram	<pre> classDiagram class profileName { <<Name of profile.>> } </pre>									
type	string100									
properties	content simple									
facets	<table> <tr> <td>Kind</td> <td>Value</td> <td>Annotation</td> </tr> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>100</td> <td></td> </tr> </table>	Kind	Value	Annotation	minLength	0		maxLength	100	
Kind	Value	Annotation								
minLength	0									
maxLength	100									
annotation	<p>documentation</p> <p>Name of profile.</p>									

element monthlyProfile/temporalFactorJanuary

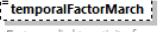
diagram	<pre> classDiagram class temporalFactorJanuary { <<Factor applied to activity for operations during January. Valid values: 0.0000 to 1.0000.>> } </pre>									
type	doubleMin0									
properties	<table> <tr> <td>minOcc</td> <td>0</td> <td></td> </tr> <tr> <td>maxOcc</td> <td>1</td> <td></td> </tr> <tr> <td>content</td> <td>simple</td> <td></td> </tr> </table>	minOcc	0		maxOcc	1		content	simple	
minOcc	0									
maxOcc	1									
content	simple									
facets	<table> <tr> <td>Kind</td> <td>Value</td> <td>Annotation</td> </tr> <tr> <td>minInclusive</td> <td>0</td> <td></td> </tr> </table>	Kind	Value	Annotation	minInclusive	0				
Kind	Value	Annotation								
minInclusive	0									

annotation	documentation Factor applied to activity for operations during January. Valid values: 0.0000 to 1.0000.
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element monthlyProfile/temporalFactorFebruary

diagram	 Factor applied to activity for operations during February. Valid values: 0.0000 to 1.0000.
type	<u>doubleMin0</u>
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations during February. Valid values: 0.0000 to 1.0000.

element monthlyProfile/temporalFactorMarch

diagram	 Factor applied to activity for operations during March. Valid values: 0.0000 to 1.0000.
type	<u>doubleMin0</u>
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations during March. Valid values: 0.0000 to 1.0000.

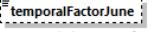
element monthlyProfile/temporalFactorApril

diagram	 Factor applied to activity for operations during April. Valid values: 0.0000 to 1.0000.
type	<u>doubleMin0</u>
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations during April. Valid values: 0.0000 to 1.0000.

element monthlyProfile/temporalFactorMay

diagram	 Factor applied to activity for operations during May. Valid values: 0.0000 to 1.0000.
type	<u>doubleMin0</u>
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations during May. Valid values: 0.0000 to 1.0000.

element monthlyProfile/temporalFactorJune

diagram	 Factor applied to activity for operations during June. Valid values: 0.0000 to 1.0000.
type	<u>doubleMin0</u>
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations during June. Valid values: 0.0000 to 1.0000.

element monthlyProfile/temporalFactorJuly

diagram	
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	<p>temporalFactorJuly</p> <p>Factor applied to activity for operations during July. Valid values: 0.0000 to 1.0000.</p>
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations during July. Valid values: 0.0000 to 1.0000.

element **monthlyProfile/temporalFactorAugust**

diagram	<p>temporalFactorAugust</p> <p>Factor applied to activity for operations during August. Valid values: 0.0000 to 1.0000.</p>
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations during August. Valid values: 0.0000 to 1.0000.

element **monthlyProfile/temporalFactorSeptember**

diagram	<p>temporalFactorSeptember</p> <p>Factor applied to activity for operations during September. Valid values: 0.0000 to 1.0000.</p>
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations during September. Valid values: 0.0000 to 1.0000.

element **monthlyProfile/temporalFactorOctober**

diagram	<p>temporalFactorOctober</p> <p>Factor applied to activity for operations during October. Valid values: 0.0000 to 1.0000.</p>
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations during October. Valid values: 0.0000 to 1.0000.

element **monthlyProfile/temporalFactorNovember**

diagram	<p>temporalFactorNovember</p> <p>Factor applied to activity for operations during November. Valid values: 0.0000 to 1.0000.</p>
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations during November. Valid values: 0.0000 to 1.0000.

element **monthlyProfile/temporalFactorDecember**

diagram	<p>temporalFactorDecember</p> <p>Factor applied to activity for operations during December. Valid values: 0.0000 to 1.0000.</p>
type	doubleMin0

properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations during December. Valid values: 0.0000 to 1.0000.

element monthlyProfileSet

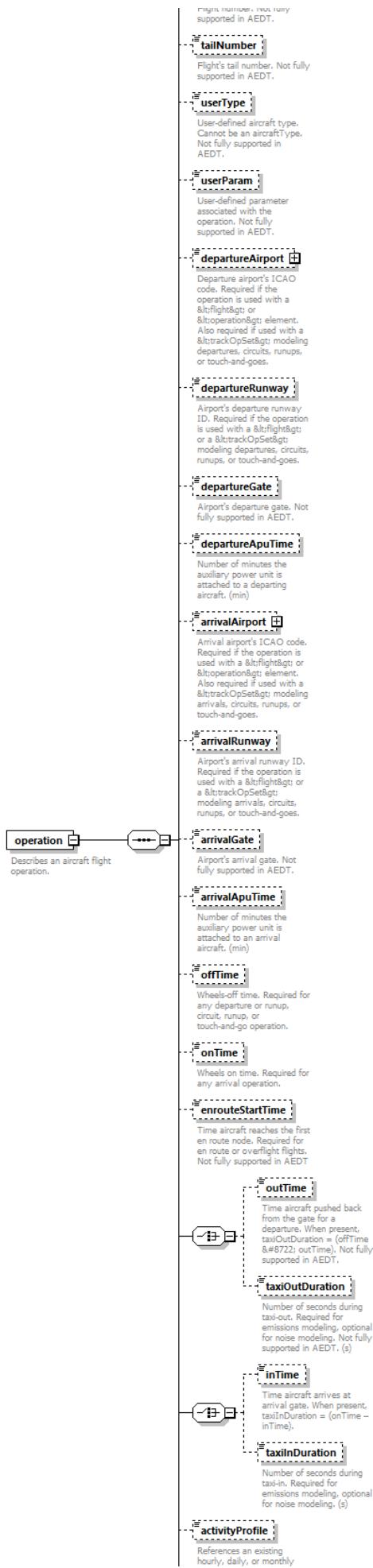
diagram	<p>Supports the definition and use of MONTHLY_PROFILES for the monthly variation of operations.</p> <p>Supports legacy EDMS studies relating to content contained in the MONTHLY_PROFILES. This element supports the definition of temporal factors on a monthly operational basis.</p>												
properties	content complex												
children	monthlyProfile												
used by	element operationalProfileSet complexType airportLayoutType												
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	documentation Supports the definition and use of MONTHLY_PROFILES for the monthly variation of operations.												

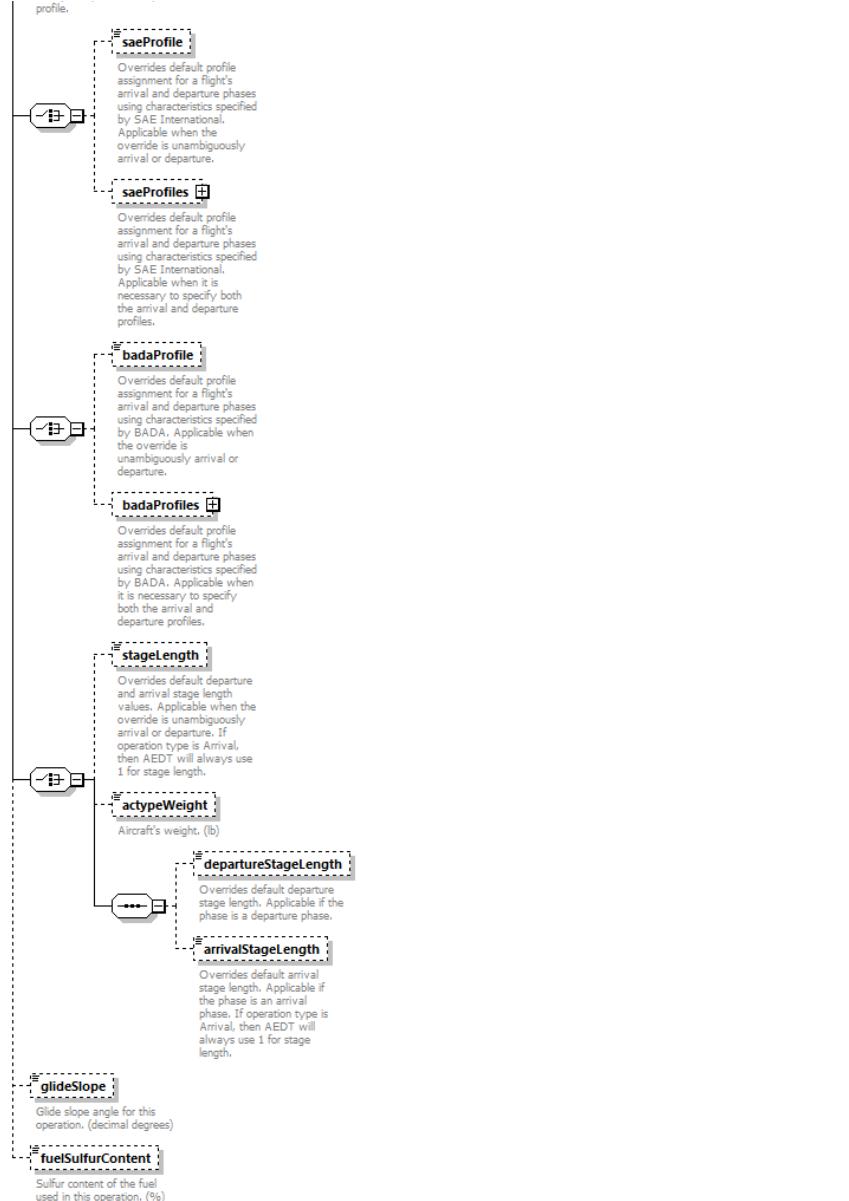
attribute monthlyProfileSet/@dummy

type	xs:int
properties	use optional

element operation

diagram	<p>User specified identifier for the operation. One purpose served by this field is to allow the user to tie the AEDT AirOperations back to some original data source by setting the id field to an identifying identifier from the original data source. Another purpose is to set each ID to a project-specific value for each AirOperation. The ID field is used in several AEDT lists and reports that print out the AirOperations. In addition, the Impact Evaluation dialog uses the ID as its main method of distinguishing AirOperations when allowing the user to pick and choose operations to be moved to alternative flight tracks. If, however, the user has no outside data sources that need to be tied to the AEDT AirOperations, or if the user's intent is identical in the sense that no specific AirOperation is more valuable than another or that there will be no intent to distinguish one AirOperation over another, then the suggested approach is to just set the UserID field to unique number or set of characters. This will allow the user to distinguish the AirOperations if the need ever arises. Nevertheless, one can leave all the id fields empty or not even set of id at all. However, in doing so, the user will be forced to use other identifying fields of the AirOperation if they should ever want to distinguish between AirOperations.</p> <p>Type of aircraft in the flight.</p> <p>Override aircraft cruise altitude MSL for this operation. UNITS: feet.</p> <p>Number of operations comprising this operation.</p> <p>Carrier flying the flight. Not fully supported in AEDT.</p> <p>Flight number. Not fully supported in AEDT.</p>
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properties	content complex
children	id aircraftType cruiseAltitude numOperations opType carrier flightNumber tailNumber userType userParam departureAirport departureRunway departureGate departureAptTime arrivalAirport arrivalRunway arrivalGate arrivalAptTime offTime onTime enrouteStartTime outTime taxiOutDuration inTime taxiInDuration activityProfile saeProfile saeProfiles badaProfile badaProfiles stageLength actypeWeight departureStageLength arrivalStageLength glideSlope fuelSulfurContent
used by	elements AsifXml case operations
annotation	documentation Describes an aircraft flight operation.

element **operation/id**

diagram	
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	<p>id</p> <p>User specified identifier for the operation. One purpose served by this field is to allow the user to tie the AEDT AirOperations back to some original data source by setting the id field to an identifying identifier from the original data source. Another purpose is to easily tie to a project-specific value for each AirOperation. The ID field is used in several AEDT lists and reports that print out the AirOperations. In addition, the Impact Evaluation dialog uses the ID as its main method of distinguishing AirOperations when allowing the user to pick and choose operations to be moved to alternative flight tracks. If, however, the user has no outside data sources that need to be tied to the AEDT AirOperations, or if each AirOperation is identical in the sense that no specific AirOperation is more valuable than another or that there will be no intent to distinguish one AirOperation over another, then the suggested approach is to just set the UserID Field to unique number or set of characters. This will allow the user to distinguish the AirOperations if the need ever arises. Nevertheless, one can leave all the id fields empty or non-unique set of ids; however, in doing so, the user will be forced to use other identifying fields of the AirOperation if they should ever want to distinguish between AirOperations.</p>						
type	string16						
properties	content simple						
facets	<table border="1"> <tr> <td>Kind</td><td>Value Annotation</td></tr> <tr> <td>minLength</td><td>0</td></tr> <tr> <td>maxLength</td><td>16</td></tr> </table>	Kind	Value Annotation	minLength	0	maxLength	16
Kind	Value Annotation						
minLength	0						
maxLength	16						
annotation	<p>documentation</p> <p>User specified identifier for the operation. One purpose served by this field is to allow the user to tie the AEDT AirOperations back to some original data source by setting the id field to an identifying identifier from the original data source. Another purpose is to set each ID to a project-specific value for each AirOperation. The ID field is used in several AEDT lists and reports that print out the AirOperations. In addition, the Impact Evaluation dialog uses the ID as its main method of distinguishing AirOperations when allowing the user to pick and choose operations to be moved to alternative flight tracks. If, however, the user has no outside data sources that need to be tied to the AEDT AirOperations, or if each AirOperation is identical in the sense that no specific AirOperation is more valuable than another or that there will be no intent to distinguish one AirOperation over another, then the suggested approach is to just set the UserID field to unique number or set of characters. This will allow the user to distinguish the AirOperations if the need ever arises. Nevertheless, one can leave all the id fields empty or non-unique set of ids; however, in doing so, the user will be forced to use other identifying fields of the AirOperation if they should ever want to distinguish between AirOperations.</p>						

element **operation/aircraftType**

diagram	<pre> classDiagram class aircraftType { <<Type of aircraft in the flight.>> } class anpAircraftId class airframeModel { <<Air frame model.>> } class engineCode { <<Engine code, Valid values: E (Electric), J (Jet), P (Piston), T (Turbo-prop).>> } class engineModCode { <<Engine modification code, (AEDT database reference table FLEET.FLT_ENGINE_MOD 5 column ENGINE_MOD_CODE.)>> } class apuName { <<Name of auxiliary power unit used by this type of aircraft.>> } class groundSupportEquipmentLTOOper... <<Supports legacy EDMS studies relating to content contained in the GSE_POPULATION table. This element supports the definition of user defined ground support equipment in operational usage.>> } class assignDefaultGse { <<Whether the application should assign default GSE for this operation or not>> } aircraftType "1..*" -- "1..1" anpAircraftId aircraftType "1..*" -- "1..1" airframeModel aircraftType "1..*" -- "1..1" engineCode aircraftType "1..*" -- "1..1" engineModCode aircraftType "1..*" -- "1..1" apuName aircraftType "1..*" -- "1..1" groundSupportEquipmentLTOOper... aircraftType "1..*" -- "1..1" assignDefaultGse </pre>
type	aircraftType
properties	content complex
children	anpAircraftId airframeModel engineCode engineModCode apuName groundSupportEquipmentLTOOper... assignDefaultGse
annotation	<p>documentation</p> <p>Type of aircraft in the flight.</p>

element **operation/cruiseAltitude**

diagram	<p>cruiseAltitude</p> <p>Override aircraft cruise altitude MSL for this operation. UNITS: feet.</p>
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	<p>type <code>xs:double</code></p>
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Override aircraft cruise altitude MSL for this operation. UNITS: feet.

element **operation/numOperations**

diagram	<p><code>numOperations</code></p> <p>Number of operations comprising this operation.</p>
type	<code>xs:double</code>
properties	content simple
annotation	documentation Number of operations comprising this operation.

element **operation/opType**

diagram	<p><code>opType</code></p>
type	<code>opType</code>
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern A Arrival D Departure V Overflight F Circuit T TouchAndGo R Runup W RunwayToRunway L LTO LandingTakoff X Taxi

element **operation/carrier**

diagram	<p><code>carrier</code></p> <p>Carrier flying the flight. Not fully supported in AEDT.</p>
type	<code>string4</code>
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 4
annotation	documentation Carrier flying the flight. Not fully supported in AEDT.

element **operation/flightNumber**

diagram	<p><code>flightNumber</code></p> <p>Flight number. Not fully supported in AEDT.</p>
type	<code>string16</code>
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 16
annotation	documentation Flight number. Not fully supported in AEDT.

element **operation/tailNumber**

diagram	<p><code>tailNumber</code></p> <p>Flight's tail number. Not fully supported in AEDT.</p>
type	<code>string8</code>
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation Flight's tail number. Not fully supported in AEDT.

element **operation/userType**

diagram	<p><code>userType</code></p> <p>User-defined aircraft type. Cannot be an aircraftType. Not fully supported in AEDT.</p>
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type	string12
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 12
annotation	documentation User-defined aircraft type. Cannot be an aircraftType. Not fully supported in AEDT.

element operation/userParam

diagram	<p>The diagram shows the <code>userParam</code> element with its attributes <code>type</code> and <code>country</code>. The <code>type</code> attribute is highlighted in yellow.</p>
type	string16
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 16
annotation	documentation User-defined parameter associated with the operation. Not fully supported in AEDT.

element operation/departureAirport

diagram	<p>The diagram shows the <code>departureAirport</code> element with its attributes <code>type</code> and <code>country</code>. The <code>type</code> attribute is highlighted in yellow.</p>																		
type	airportCode																		
properties	minOcc 0 maxOcc 1 content complex																		
facets	Kind Value Annotation minLength 0 maxLength 4																		
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>type</td> <td>airportCodeType</td> <td>optional</td> <td>ANY</td> <td></td> <td></td> </tr> <tr> <td>country</td> <td>string3</td> <td>optional</td> <td>ANY</td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	type	airportCodeType	optional	ANY			country	string3	optional	ANY		
Name	Type	Use	Default	Fixed	Annotation														
type	airportCodeType	optional	ANY																
country	string3	optional	ANY																
annotation	documentation Departure airport's ICAO code. Required if the operation is used with a <code><flight></code> ; or <code><operation></code> element. Also required if used with a <code><trackOpSet></code> modeling departures, circuits, runups, or touch-and-goes.																		

element operation/departureRunway

diagram	<p>The diagram shows the <code>departureRunway</code> element. It is a dashed-line box with the text "Airport's departure runway ID. Required if the operation is used with a <flight> or a <trackOpSet> modeling departures, circuits, runups, or touch-and-goes." below it.</p>
type	string8
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation Airport's departure runway ID. Required if the operation is used with a <code><flight></code> or a <code><trackOpSet></code> modeling departures, circuits, runups, or touch-and-goes.

element operation/departureGate

diagram	<p>The diagram shows the <code>departureGate</code> element. It is a dashed-line box with the text "Airport's departure gate. Not fully supported in AEDT." below it.</p>
type	string40
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0

	maxLength 40
annotation	documentation Airport's departure gate. Not fully supported in AEDT.

element operation/departureApuTime

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Number of minutes the auxiliary power unit is attached to a departing aircraft. (min)

element operation/arrivalAirport

diagram																			
type	airportCode																		
properties	minOcc 0 maxOcc 1 content complex																		
facets	Kind Value Annotation minLength 0 maxLength 4																		
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>type</td> <td>airportCodeType</td> <td>optional</td> <td>ANY</td> <td></td> <td></td> </tr> <tr> <td>country</td> <td>string3</td> <td>optional</td> <td>ANY</td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	type	airportCodeType	optional	ANY			country	string3	optional	ANY		
Name	Type	Use	Default	Fixed	Annotation														
type	airportCodeType	optional	ANY																
country	string3	optional	ANY																
annotation	documentation Arrival airport's ICAO code. Required if the operation is used with a <flight> or <operation> element. Also required if used with a <trackOpSet> modeling arrivals, circuits, runups, or touch-and-goes.																		

element operation/arrivalRunway

diagram	
type	string8
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation Airport's arrival runway ID. Required if the operation is used with a <flight> or a <trackOpSet> modeling arrivals, circuits, runups, or touch-and-goes.

element operation/arrivalGate

diagram	
type	string40
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Airport's arrival gate. Not fully supported in AEDT.

element operation/arrivalApuTime

diagram	
annotation	documentation Number of minutes the auxiliary power unit is attached to an arrival aircraft. (min)

type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Number of minutes the auxiliary power unit is attached to an arrival aircraft. (min)

element **operation/offTime**

diagram	 <p>Wheels-off time. Required for any departure or runup, circuit, runup, or touch-and-go operation.</p>
type	xs:dateTime
properties	minOcc 0 maxOcc 1 content simple

annotation documentation
Wheels-off time. Required for any departure or runup, circuit, runup, or touch-and-go operation.

element **operation/onTime**

diagram	 <p>Wheels on time. Required for any arrival operation.</p>
type	xs:dateTime
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Wheels on time. Required for any arrival operation.

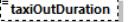
element **operation/enrouteStartTime**

diagram	 <p>Time aircraft reaches the first en route node. Required for en route or overflight flights. Not fully supported in AEDT.</p>
type	xs:dateTime
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Time aircraft reaches the first en route node. Required for en route or overflight flights. Not fully supported in AEDT

element **operation/outTime**

diagram	 <p>Time aircraft pushed back from the gate for a departure. When present, taxiOutDuration = (offTime - &#8722; outTime). Not fully supported in AEDT.</p>
type	xs:dateTime
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Time aircraft pushed back from the gate for a departure. When present, taxiOutDuration = (offTime - − outTime). Not fully supported in AEDT.

element **operation/taxiOutDuration**

diagram	 <p>Number of seconds during taxi-out. Required for emissions modeling, optional for noise modeling. Not fully supported in AEDT. (s)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Number of seconds during taxi-out. Required for emissions modeling, optional for noise modeling. Not fully supported in AEDT. (s)

element **operation/inTime**

diagram	 <p>Time aircraft arrives at arrival gate. When present, taxiInDuration = (onTime - inTime).</p>
type	xs:dateTime

properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Time aircraft arrives at arrival gate. When present, taxInDuration = (onTime – inTime).

element **operation/taxiInDuration**

diagram	<p>taxiInDuration Number of seconds during taxi-in. Required for emissions modeling, optional for noise modeling. (s)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Number of seconds during taxi-in. Required for emissions modeling, optional for noise modeling. (s)

element **operation/activityProfile**

diagram	<p>activityProfile References an existing hourly, daily, or monthly profile.</p>
type	string100
properties	minOcc 0 maxOcc 1 content simple
used by	element activityProfileSet
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation References an existing hourly, daily, or monthly profile.

element **operation/saeProfile**

diagram	<p>saeProfile Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by SAE International. Applicable when the override is unambiguously arrival or departure.</p>
type	profileType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by SAE International. Applicable when the override is unambiguously arrival or departure.

element **operation/saeProfiles**

diagram	<p>saeProfiles Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by SAE International. Applicable when it is necessary to specify both the arrival and departure profiles.</p>
type	profiles
properties	minOcc 0 maxOcc 1 content complex
children	departureProfile arrivalProfile
annotation	documentation Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by SAE International. Applicable when it is necessary to specify both the arrival and departure profiles.

element **operation/badaProfile**

diagram	
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	<p>badaProfile</p> <p>Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by BADA. Applicable when the override is unambiguously arrival or departure.</p>
type	profileType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by BADA. Applicable when the override is unambiguously arrival or departure.

element operation/badaProfiles

diagram	<pre> graph LR profiles[profiles] --- departureProfile[departureProfile] profiles --- arrivalProfile[arrivalProfile] style profiles fill:#ffffcc style departureProfile fill:#ffffcc style arrivalProfile fill:#ffffcc </pre>
type	profiles
properties	minOcc 0 maxOcc 1 content complex
children	departureProfile arrivalProfile
annotation	documentation Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by BADA. Applicable when it is necessary to specify both the arrival and departure profiles.

element operation/stageLength

diagram	<p>stageLength</p> <p>Overrides default departure and arrival stage length values. Applicable when the override is unambiguously arrival or departure. If operation type is Arrival, then AEDT will always use 1 for stage length.</p>
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Overrides default departure and arrival stage length values. Applicable when the override is unambiguously arrival or departure. If operation type is Arrival, then AEDT will always use 1 for stage length.

element operation/actypeWeight

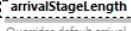
diagram	<p>actypeWeight</p> <p>Aircraft's weight. (lb)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Aircraft's weight. (lb)

element operation/departureStageLength

diagram	<p>departureStageLength</p> <p>Overrides default departure stage length. Applicable if the phase is a departure phase.</p>
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation

Overrides default departure stage length. Applicable if the phase is a departure phase.

element **operation/arrivalStageLength**

diagram	 Overrides default arrival stage length. Applicable if the phase is an arrival phase. If operation type is Arrival, then AEDT will always use 1 for stage length.
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Overrides default arrival stage length. Applicable if the phase is an arrival phase. If operation type is Arrival, then AEDT will always use 1 for stage length.

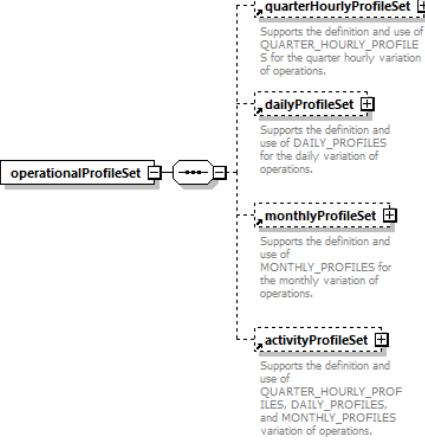
element **operation/glideSlope**

diagram	 Glide slope angle for this operation. (decimal degrees)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Glide slope angle for this operation. (decimal degrees)

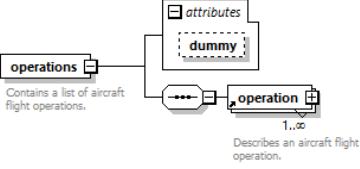
element **operation/fuelSulfurContent**

diagram	 Sulfur content of the fuel used in this operation. (%)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Sulfur content of the fuel used in this operation. (%)

element **operationalProfileSet**

diagram	 <p>The diagram shows the operationalProfileSet element with four child elements: quarterHourlyProfileSet, dailyProfileSet, monthlyProfileSet, and activityProfileSet. Each child element has a detailed description of its purpose and supported profiles.</p> <ul style="list-style-type: none"> quarterHourlyProfileSet: Supports the definition and use of QUARTER_HOURLY_PROFILE5 for the quarter hourly variation of operations. dailyProfileSet: Supports the definition and use of DAILY_PROFILES for the daily variation of operations. monthlyProfileSet: Supports the definition and use of MONTHLY_PROFILES for the monthly variation of operations. activityProfileSet: Supports the definition and use of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES variation of operations.
properties	content complex
children	quarterHourlyProfileSet dailyProfileSet monthlyProfileSet activityProfileSet
used by	element AsifXml

element **operations**

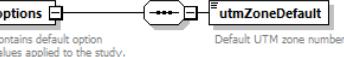
diagram	 <p>The diagram shows the operations element containing a dummy element, which in turn contains an operation element. The operations element has a description: "Contains a list of aircraft flight operations." The operation element has a multiplicity of 1..∞ and a description: "Describes an aircraft flight operation."</p>
properties	content complex

children	operation
used by	element trackOpSet
attributes	Name Type Use Default Fixed Annotation <u>dummy</u> xs:int optional
annotation	documentation Contains a list of aircraft flight operations.

attribute **operations/@dummy**

type	xs:int
properties	use optional

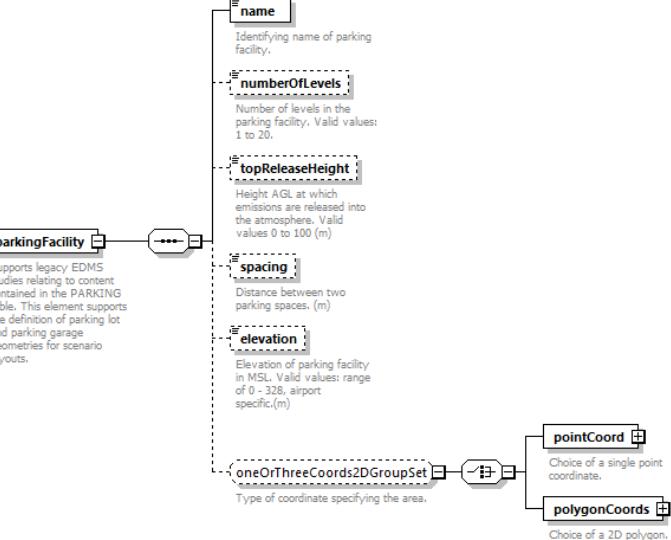
element **options**

diagram	 Contains default option values applied to the study.
properties	content complex
children	utmZoneDefault
used by	element AsifXml
annotation	documentation Contains default option values applied to the study.

element **options/utmZoneDefault**

diagram	 Default UTM zone number.
type	xs:int
properties	content simple default -1
annotation	documentation Default UTM zone number.

element **parkingFacility**

diagram	 Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage geometries for scenario layouts.
properties	content complex
children	name numberOfLevels topReleaseHeight spacing elevation pointCoord polygonCoords
used by	element parkingFacilitySet
annotation	documentation Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage geometries for scenario layouts.

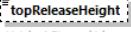
element **parkingFacility/name**

diagram	 Identifying name of parking facility.
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Identifying name of parking facility.

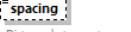
element parkingFacility/numberOfLevels

diagram	 numberOfLevels Number of levels in the parking facility. Valid values: 1 to 20.
type	xs:int
properties	minOcc 0 maxOcc 1 content simple default 1
annotation	documentation Number of levels in the parking facility. Valid values: 1 to 20.

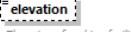
element parkingFacility/topReleaseHeight

diagram	 topReleaseHeight Height AGL at which emissions are released into the atmosphere. Valid values 0 to 100 (m)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Height AGL at which emissions are released into the atmosphere. Valid values 0 to 100 (m)

element parkingFacility/spacing

diagram	 spacing Distance between two parking spaces. (m)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Distance between two parking spaces. (m)

element parkingFacility/elevation

diagram	 elevation Elevation of parking facility in MSL. Valid values: range of 0 - 328, airport specific.(m)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Elevation of parking facility in MSL. Valid values: range of 0 - 328, airport specific.(m)

element parkingFacilityOperation

diagram	
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	<p>refName</p> <p>Identifying name of parking facility.</p> <p>useAnnualFigures</p> <p>Indicates if the quantities in the element are annualized.</p> <p>vehicleType</p> <p>Type of vehicle involved in the operation. Valid values: 0 = Default Fleet Mix, 1 = Passenger Cars, 2 = Light Trucks 1, 3 = Light Trucks 2, 4 = Light Trucks 3, 5 = Light Trucks 4, 6 = Class 2b Heavy Trucks, 7 = Class 3 Heavy Trucks, 8 = Class 4 Heavy Trucks, 9 = Class 5 Heavy Trucks, 10 = Class 6 Heavy Trucks, 11 = Class 7 Heavy Trucks, 12 = Class 8a Heavy Trucks, 13 = Class 8b Heavy Trucks, 14 = School Buses, 15 = Transit and Urban Buses, 16 = Motorcycle.</p>
parkingFacilityOperation	<p>Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage activities for scenario layouts.</p>
properties	content complex
children	refName useAnnualFigures vehicleType fuelType emissionsUsage averageSpeed averageDistanceTraveled averageIdleTime vehicleEmissionFactors
used by	element parkingFacilityOperationSet
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage activities for scenario layouts.</p>

element **parkingFacilityOperation/refName**

diagram	<p>refName</p> <p>Identifying name of parking facility.</p>
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	<p>documentation</p> <p>Identifying name of parking facility.</p>

element **parkingFacilityOperation/useAnnualFigures**

diagram	<p>useAnnualFigures</p> <p>Indicates if the quantities in the element are annualized.</p>
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple default false
annotation	<p>documentation</p> <p>Indicates if the quantities in the element are annualized.</p>

element **parkingFacilityOperation/vehicleType**

diagram	
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	<p>vehicleType</p> <p>Type of vehicle involved in the operation. Valid values: 0 = Default Fleet Mix, 1 = Passenger Cars, 2 = Light Trucks 1, 3 = Light Trucks 2, 4 = Light Trucks 3, 5 = Light Trucks 4, 6 = Class 2b Heavy Trucks, 7 = Class 3 Heavy Trucks, 8 = Class 4 Heavy Trucks, 9 = Class 5 Heavy Trucks, 10 = Class 6 Heavy Trucks, 11 = Class 7 Heavy Trucks, 12 = Class 8a Heavy Trucks, 13 = Class 8b Heavy Trucks, 14 = School Buses, 15 = Transit and Urban Buses, 16 = Motorcycle.</p>
type	groundVehicleType
properties	content simple
facets	<p>Kind Value</p> <p>Annotation</p> <p>pattern 0 Default Fleet Mix 1 Passenger Cars 2 Light Trucks 1 3 Light Trucks 2 4 Light Trucks 3 5 Light Trucks 4 6 Class 2b Heavy Trucks 7 Class 3 Heavy Trucks 8 Class 4 Heavy Trucks 9 Class 5 Heavy Trucks 10 Class 6 Heavy Trucks 11 Class 7 Heavy Trucks 12 Class 8a Heavy Trucks 13 Class 8b Heavy Trucks 14 School Buses 15 Transit and Urban Buses 16 Motorcycle</p>
annotation	<p>documentation</p> <p>Type of vehicle involved in the operation. Valid values: 0 = Default Fleet Mix, 1 = Passenger Cars, 2 = Light Trucks 1, 3 = Light Trucks 2, 4 = Light Trucks 3, 5 = Light Trucks 4, 6 = Class 2b Heavy Trucks, 7 = Class 3 Heavy Trucks, 8 = Class 4 Heavy Trucks, 9 = Class 5 Heavy Trucks, 10 = Class 6 Heavy Trucks, 11 = Class 7 Heavy Trucks, 12 = Class 8a Heavy Trucks, 13 = Class 8b Heavy Trucks, 14 = School Buses, 15 = Transit and Urban Buses, 16 = Motorcycle.</p>

element parkingFacilityOperation/fuelType

diagram	<p>fuelType</p> <p>Type of fuel involved in the operation.</p>
type	fuelType
properties	<p>minOcc 0 maxOcc 1 content simple default G</p>
facets	<p>Kind Value</p> <p>Annotation</p> <p>pattern G Gasoline D Diesel C Compressed Natural Gas L Liquefied Petroleum Gas E Electric</p>
annotation	<p>documentation</p> <p>Type of fuel involved in the operation.</p>

element parkingFacilityOperation/averageSpeed

diagram	<p>averageSpeed</p> <p>Average speed during the operation. Valid values: 2.5 to 40. (mph)</p>
type	xs:double
properties	<p>minOcc 0 maxOcc 1 content simple default 10</p>
annotation	<p>documentation</p> <p>Average speed during the operation. Valid values: 2.5 to 40. (mph)</p>

element parkingFacilityOperation/averageDistanceTraveled

diagram	<p>averageDistanceTraveled</p> <p>Average distance traveled during the operation. Valid values: 0 to 32808. (m)</p>
type	xs:double
properties	<p>minOcc 0 maxOcc 1 content simple default 0</p>
annotation	<p>documentation</p> <p>Average distance traveled during the operation. Valid values: 0 to 32808. (m)</p>

element parkingFacilityOperation/averageIdleTime

diagram	<p>averageIdleTime</p> <p>Average time vehicle is idle while conducting the operation. Valid values: 0 to 30. (min)</p>
type	xs:double
properties	<p>minOcc 0 maxOcc 1 content simple default 0</p>
annotation	<p>documentation</p> <p>Average time vehicle is idle while conducting the operation. Valid values: 0 to 30. (min)</p>

element parkingFacilityOperationSet

diagram	
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	<p>parkingFacilityOperationSet</p> <p>Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage activities for scenario layouts.</p> <p>parkingFacilityOperation</p> <p>Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage activities for scenario layouts.</p>												
properties	content complex												
children	parkingFacilityOperation												
used by	group airportActivityGroup												
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td><u>dummy</u></td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	<u>dummy</u>	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
<u>dummy</u>	xs:int	optional											
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage activities for scenario layouts.</p>												

attribute **parkingFacilityOperationSet/@dummy**

type	xs:int
properties	use optional

element **parkingFacilitySet**

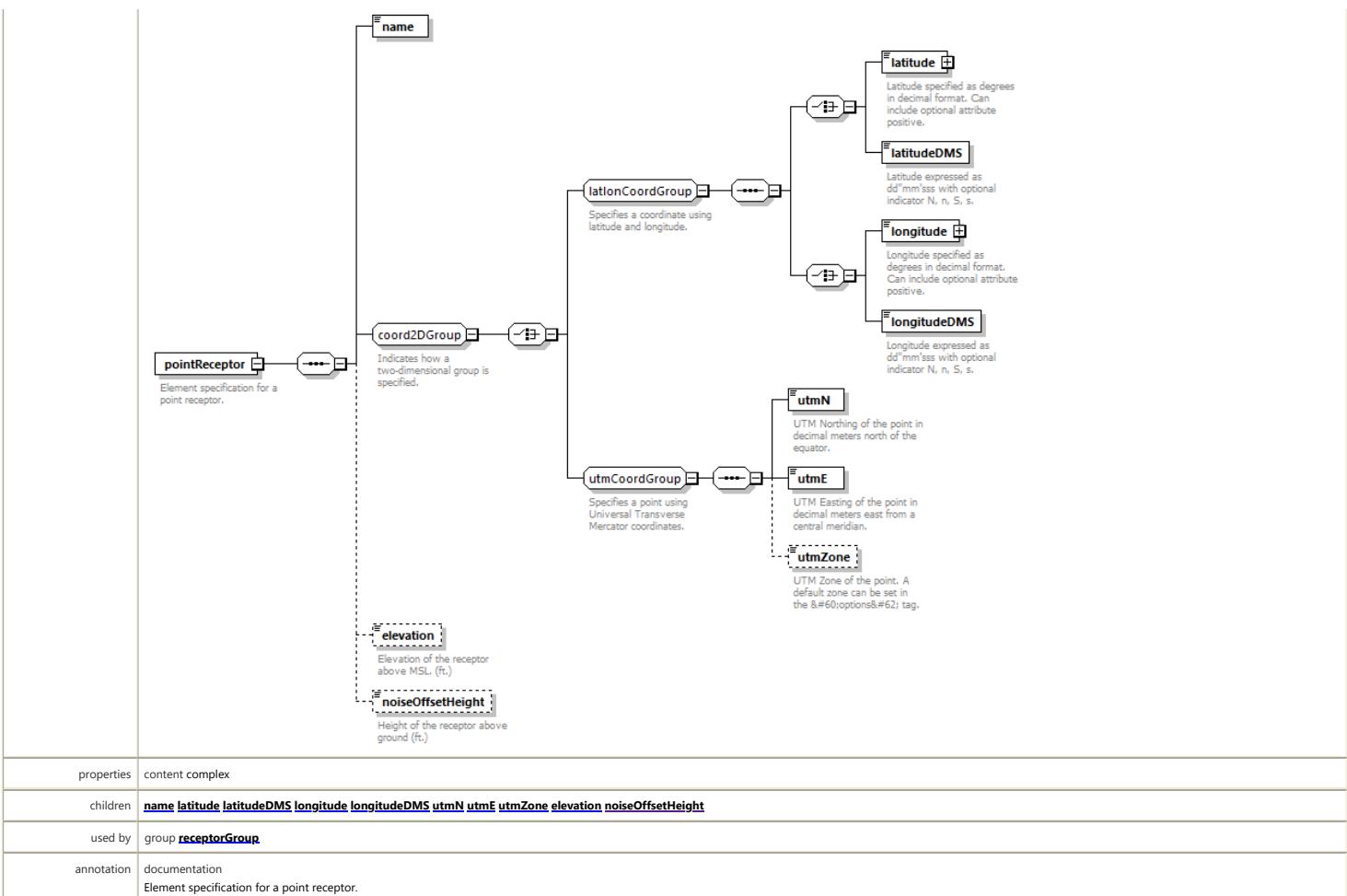
diagram	<p>parkingFacilitySet</p> <p>Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage activities for scenario layouts.</p> <p>parkingFacility</p> <p>Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage geometries for scenario layouts.</p>												
properties	content complex												
children	parkingFacility												
used by	complexType airportLayoutType												
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td><u>dummy</u></td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	<u>dummy</u>	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
<u>dummy</u>	xs:int	optional											
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage activities for scenario layouts.</p>												

attribute **parkingFacilitySet/@dummy**

type	xs:int
properties	use optional

element **pointReceptor**

diagram	
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properties content complex

children [name](#) [latitude](#) [latitudeDMS](#) [longitude](#) [longitudeDMS](#) [utmN](#) [utmE](#) [utmZone](#) [elevation](#) [noiseOffsetHeight](#)

used by group [receptorGroup](#)

annotation documentation
Element specification for a point receptor.

element pointReceptor/name

diagram	
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255

element pointReceptor/elevation

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Elevation of the receptor above MSL (ft.)

element pointReceptor/noiseOffsetHeight

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Height of the receptor above ground (ft.)

element pointStationarySource

diagram	
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	<pre> <?xml version="1.0" encoding="UTF-8"?> <xs:element name="pointStationarySource"> <xs:complexType> <xs:sequence> <xs:element name="pointCoord" type="pointCoordType" /> <xs:element name="baseElevation" type="double" /> <xs:element name="releaseHeight" type="double" /> <xs:element name="gasVelocity" type="double" /> <xs:element name="stackDiameter" type="double" /> <xs:element name="temperature" type="double" /> <xs:element name="aboveAmbientTemperature" type="boolean" /> </xs:sequence> </xs:complexType> </xs:element> </pre> <p>pointCoord Type of 2-D coordinates specifying the point.</p> <p>baseElevation Elevation of point. Valid values: -500 to 5000. (m)</p> <p>releaseHeight Height above ground level at which emissions are released into the atmosphere. Valid values 0 to 100 (m)</p> <p>gasVelocity Velocity at which gas escapes from the source (m/s)</p> <p>stackDiameter Diameter of stack where gas escapes from the source. Valid values: 0.1 to 50 (m)</p> <p>temperature Temperature at point (*F)</p> <p>aboveAmbientTemperature Indicates if temperature is absolute (False) or temperature is relative to current ambient temperature (True).</p>
properties	content complex
children	pointCoord baseElevation releaseHeight gasVelocity stackDiameter temperature aboveAmbientTemperature
used by	element stationarySource
annotation	<p>documentation</p> <p>Specifies the point in space occupied by a stationary source of emissions.</p>

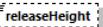
element pointStationarySource/pointCoord

	<pre> <?xml version="1.0" encoding="UTF-8"?> <xs:element name="pointCoord"> <xs:complexType> <xs:sequence> <xs:choice> <xs:sequence> <xs:element name="coord2DType" type="coord2DType" /> <xs:element name="latlonCoordGroup" type="latlonCoordGroupType" /> </xs:sequence> <xs:sequence> <xs:element name="utmCoordGroup" type="utmCoordGroupType" /> <xs:element name="utmZone" type="string" /> </xs:sequence> </xs:choice> </xs:sequence> </xs:complexType> </xs:element> </pre> <p>pointCoord Type of 2-D coordinates specifying the point.</p> <p>coord2DType</p> <p>latlonCoordGroup Specifies a coordinate using latitude and longitude.</p> <p>latitude Latitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>latitudeDMS Latitude expressed as dd°mm'ss with optional indicator N, n, S, s.</p> <p>longitude Longitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>longitudeDMS Longitude expressed as dd°mm'ss with optional indicator N, n, S, s.</p> <p>utmCoordGroup Specifies a point using Universal Transverse Mercator coordinates.</p> <p>utmN UTM Northing of the point in decimal meters north of the equator.</p> <p>utmE UTM Easting of the point in decimal meters east from a central meridian.</p> <p>utmZone UTM Zone of the point. A default zone can be set in the &#60;options&#62; tag.</p>
type	coord2DType
properties	content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone
annotation	<p>documentation</p> <p>Type of 2-D coordinates specifying the point.</p>

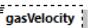
element pointStationarySource/baseElevation

	<pre> <?xml version="1.0" encoding="UTF-8"?> <xs:element name="baseElevation"> <xs:complexType> <xs:sequence> <xs:element name="value" type="double" /> </xs:sequence> </xs:complexType> </xs:element> </pre> <p>baseElevation Elevation of point. Valid values: -500 to 5000. (m)</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>Elevation of point. Valid values: -500 to 5000. (m)</p>

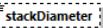
element pointStationarySource/releaseHeight

diagram	 releaseHeight Height above ground level at which emissions are released into the atmosphere. Valid values 0 to 100 (m)
type	doubleInclusive100
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Height above ground level at which emissions are released into the atmosphere. Valid values 0 to 100 (m)

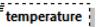
element **pointStationarySource/gasVelocity**

diagram	 gasVelocity Velocity at which gas escapes from the source (m/s)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 1
annotation	documentation Velocity at which gas escapes from the source (m/s)

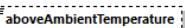
element **pointStationarySource/stackDiameter**

diagram	 stackDiameter Diameter of stack where gas escapes from the source. Valid values: 0.1 to 50 (m)
type	doubleExclusive0Inclusive10
properties	minOcc 0 maxOcc 1 content simple default 0.1
facets	Kind Value Annotation maxInclusive 10 minExclusive 0
annotation	documentation Diameter of stack where gas escapes from the source. Valid values: 0.1 to 50 (m)

element **pointStationarySource/temperature**

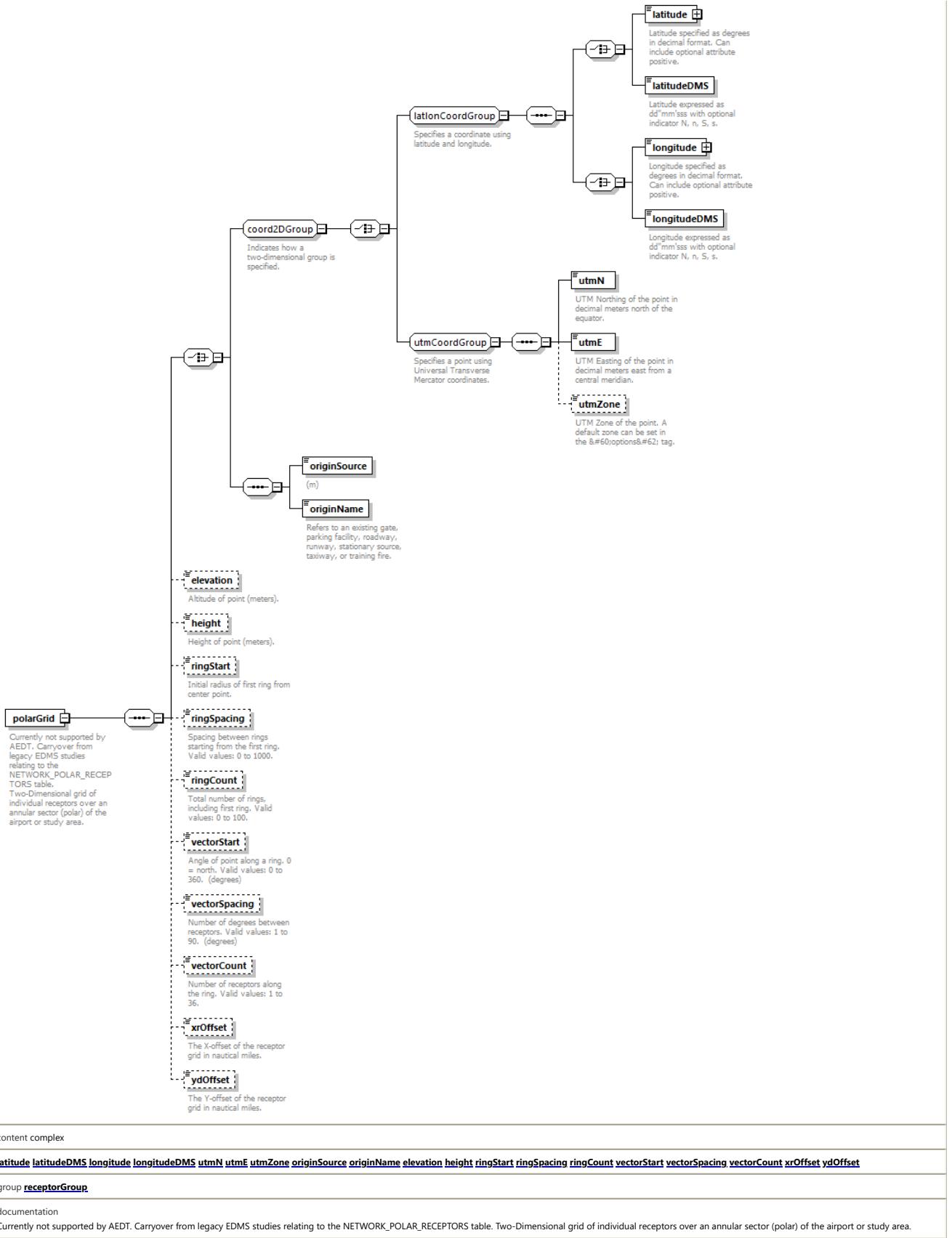
diagram	 temperature Temperature at point (^F)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 32
annotation	documentation Temperature at point (^F)

element **pointStationarySource/aboveAmbientTemperature**

diagram	 aboveAmbientTemperature Indicates if temperature is absolute (False) or if temperature is relative to current ambient temperature (True).
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation Indicates if temperature is absolute (False) or if temperature is relative to current ambient temperature (True).

element **polarGrid**

diagram	
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properties	content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone originSource originName elevation height ringStart ringSpacing ringCount vectorStart vectorSpacing vectorCount xOffset yOffset
used by	group receptorGroup
annotation	Currently not supported by AEDT. Carryover from legacy EDMS studies relating to the NETWORK_POLAR_RECEPATORS table. Two-Dimensional grid of individual receptors over an annular sector (polar) of the airport or study area.

element polarGrid/originSource

diagram	originSource (m)
type	originSourceType
properties	content simple
facets	Kind Value pattern Gate Parking Facility Roadway Runway Stationary Source Taxiway Training Fire Annotation

annotation	documentation (m)
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element polarGrid/originName

diagram	 originName Refers to an existing gate, parking facility, roadway, runway, stationary source, taxiway, or training fire.
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Refers to an existing gate, parking facility, roadway, runway, stationary source, taxiway, or training fire.

element polarGrid/elevation

diagram	 elevation Altitude of point (meters).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Altitude of point (meters).

element polarGrid/height

diagram	 height Height of point (meters).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Height of point (meters).

element polarGrid/ringStart

diagram	 ringStart Initial radius of first ring from center point.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 1
annotation	documentation Initial radius of first ring from center point.

element polarGrid/ringSpacing

diagram	 ringSpacing Spacing between rings starting from the first ring. Valid values: 0 to 1000.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 1
annotation	documentation Spacing between rings starting from the first ring. Valid values: 0 to 1000.

element polarGrid/ringCount

diagram	 ringCount Total number of rings, including first ring. Valid values: 0 to 100.
type	xs:int
properties	minOcc 0 maxOcc 1 content simple default 1
annotation	documentation Total number of rings, including first ring. Valid values: 0 to 100.

element polarGrid/vectorStart

diagram	 vectorStart Angle of point along a ring, 0 = north. Valid values: 0 to 360. (degrees)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Angle of point along a ring. 0 = north. Valid values: 0 to 360. (degrees)

element polarGrid/vectorSpacing

diagram	 vectorSpacing Number of degrees between receptors. Valid values: 1 to 90. (degrees)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 1
annotation	documentation Number of degrees between receptors. Valid values: 1 to 90. (degrees)

element polarGrid/vectorCount

diagram	 vectorCount Number of receptors along the ring. Valid values: 1 to 36.
type	xs:int
properties	minOcc 0 maxOcc 1 content simple default 1
annotation	documentation Number of receptors along the ring. Valid values: 1 to 36.

element polarGrid/xrOffset

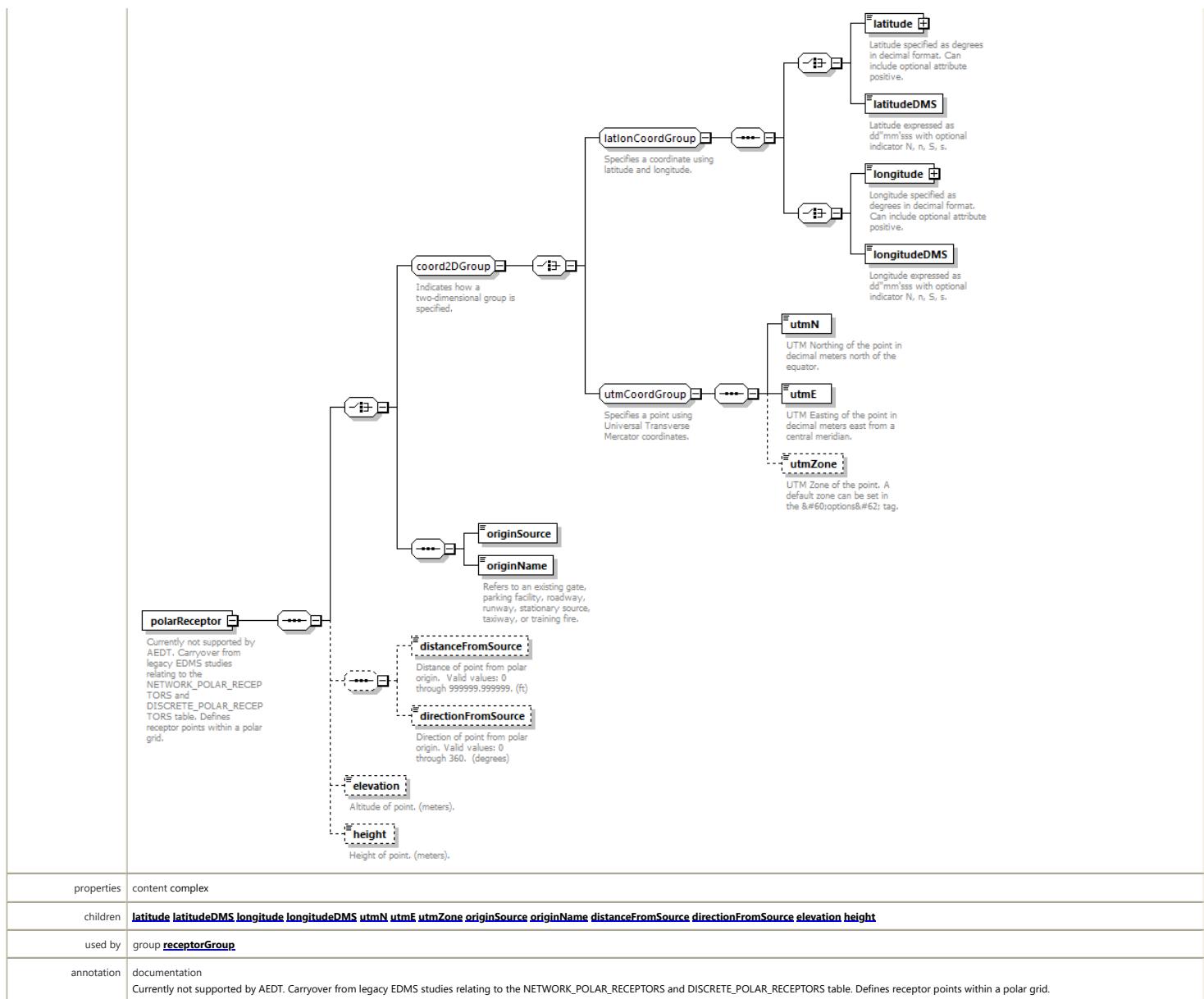
diagram	 xrOffset The X-offset of the receptor grid in nautical miles.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation The X-offset of the receptor grid in nautical miles.

element polarGrid/ydOffset

diagram	 ydOffset The Y-offset of the receptor grid in nautical miles.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation The Y-offset of the receptor grid in nautical miles.

element polarReceptor

diagram	
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element polarReceptor/originSource

diagram	originSource
type	originSourceType
properties	content simple
facets	Kind Value Annotation pattern Gate Parking Facility Roadway Runway Stationary Source Taxiway Training Fire

element polarReceptor/originName

diagram	originName
	Refers to an existing gate, parking facility, roadway, runway, stationary source, taxiway, or training fire.
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Refers to an existing gate, parking facility, roadway, runway, stationary source, taxiway, or training fire.

element polarReceptor/distanceFromSource

diagram	distanceFromSource
	Distance of point from polar origin. Valid values: 0 through 999999.999999. (ft)

	<p>type xs:double</p> <p>properties minOcc 0 maxOcc 1 content simple</p> <p>annotation documentation Distance of point from polar origin. Valid values: 0 through 999999.999999. (ft)</p>
--	---

element polarReceptor/directionFromSource

	<p>diagram </p> <p>type xs:double</p> <p>properties minOcc 0 maxOcc 1 content simple</p> <p>annotation documentation Direction of point from polar origin. Valid values: 0 through 360. (degrees)</p>
--	--

element polarReceptor/elevation

	<p>diagram </p> <p>type xs:double</p> <p>properties minOcc 0 maxOcc 1 content simple default 0</p> <p>annotation documentation Altitude of point. (meters).</p>
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element polarReceptor/height

	<p>diagram </p> <p>type xs:double</p> <p>properties minOcc 0 maxOcc 1 content simple default 0</p> <p>annotation documentation Height of point. (meters).</p>
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element quarterHourlyProfile

	<p>diagram </p> <p>properties content complex</p> <p>children profileName temporalFactor</p> <p>used by element quarterHourlyProfileSet</p> <p>annotation documentation Supports legacy EDMS studies relating to content contained in the QUARTER_HOURLY_PROFILES. This element supports the definition of temporal factors on a quarter-hourly operational basis.</p>
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element quarterHourlyProfile/profileName

	<p>diagram </p> <p>type string100</p> <p>properties content simple</p> <p>facets Kind Value Annotation minLength 0 maxLength 100</p> <p>annotation documentation Name of profile.</p>
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element quarterHourlyProfile/temporalFactor

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	<p>temporalFactor <i>0..∞</i> Factor applied to activity for operations during the indicated quarter hour. Valid values: 0.0000 to 1.0000.</p> <p>attributes</p> <ul style="list-style-type: none"> startHour: The starting hour as an integer between 0 and 23. startMinutes: The starting quarter-hourly minute value as either 0, 15, 30, or 45. 																		
type	extension of doubleMin0																		
properties	minOcc 0 maxOcc unbounded content complex																		
facets	Kind Value Annotation minInclusive 0																		
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>startHour</td> <td>int0to23</td> <td>required</td> <td></td> <td></td> <td>documentation The starting hour as an integer between 0 and 23.</td> </tr> <tr> <td>startMinutes</td> <td>quarterHourMinutes</td> <td>required</td> <td></td> <td></td> <td>documentation The starting quarter-hourly minute value as either 0, 15, 30, or 45.</td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	startHour	int0to23	required			documentation The starting hour as an integer between 0 and 23.	startMinutes	quarterHourMinutes	required			documentation The starting quarter-hourly minute value as either 0, 15, 30, or 45.
Name	Type	Use	Default	Fixed	Annotation														
startHour	int0to23	required			documentation The starting hour as an integer between 0 and 23.														
startMinutes	quarterHourMinutes	required			documentation The starting quarter-hourly minute value as either 0, 15, 30, or 45.														
annotation	documentation Factor applied to activity for operations during the indicated quarter hour. Valid values: 0.0000 to 1.0000.																		

attribute **quarterHourlyProfile/temporalFactor/@startHour**

type	int0to23
properties	use required
facets	Kind Value Annotation minInclusive 0 maxInclusive 23
annotation	documentation The starting hour as an integer between 0 and 23.

attribute **quarterHourlyProfile/temporalFactor/@startMinutes**

type	quarterHourMinutes
properties	use required
facets	Kind Value Annotation enumeration 0 enumeration 15 enumeration 30 enumeration 45
annotation	documentation The starting quarter-hourly minute value as either 0, 15, 30, or 45.

element **quarterHourlyProfileSet**

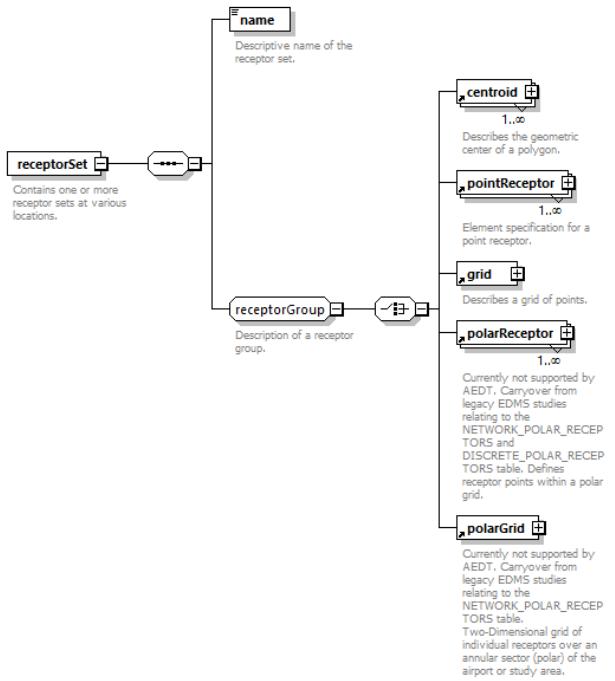
diagram	<p>quarterHourlyProfileSet <i>0..∞</i> Supports the definition and use of QUARTER_HOUR_PROFILE S for the quarter hourly variation of operations.</p> <p>attributes</p> <ul style="list-style-type: none"> dummy <p>children</p> <ul style="list-style-type: none"> quarterHourlyProfile <i>0..∞</i> Supports legacy EDMS studies relating to content contained in the QUARTER_HOUR_PROFILE S. This element supports the definition of temporal factors on a quarter-hourly operational basis. 												
properties	content complex												
children	quarterHourlyProfile												
used by	element operationalProfileSet complexType airportLayoutType												
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	documentation Supports the definition and use of QUARTER_HOUR_PROFILE S for the quarter hourly variation of operations.												

attribute **quarterHourlyProfileSet/@dummy**

type	xs:int
properties	use optional

element **receptorSet**

diagram	
---------	--



properties	content complex
children	name centroid pointReceptor grid polarReceptor polarGrid
used by	elements AsifXml study
annotation	documentation Contains one or more receptor sets at various locations.

element receptorSet/name

diagram	<p>Descriptive name of the receptor set.</p>
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Descriptive name of the receptor set.

element recordCode

diagram	<p>An integer value for a category to use as the basis of a new stationary source operation. This value comes from the CATEGORY_REC_ID column in the STN_CATEGORY table in the AEDT FLEET database. Valid values: 0 to 87, 89 to 148.</p>
type	union of (restriction of xs:int , restriction of xs:int)
properties	content simple
used by	element categoryRecordCode
annotation	documentation An integer value for a category to use as the basis of a new stationary source operation. This value comes from the CATEGORY_REC_ID column in the STN_CATEGORY table in the AEDT FLEET database. Valid values: 0 to 87, 89 to 148.

element roadway

diagram	<p>Identifying name for the roadway.</p> <p>Roadway's width. Valid values: 1 to 99. (m)</p> <p>Set of three-dimensional coordinates describing the roadway.</p>
properties	content complex
children	name width coordinates

used by	element roadwaySet
annotation	documentation Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle geometry on roadways for scenario layouts.

element **roadway/name**

diagram	 name Identifying name for the roadway.
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Identifying name for the roadway.

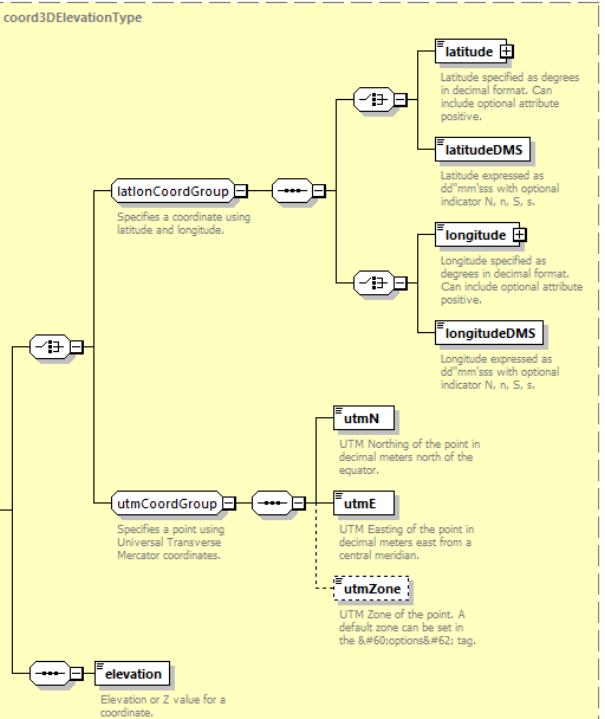
element **roadway/width**

diagram	 width Roadway's width. Valid values: 1 to 99. (m)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Roadway's width. Valid values: 1 to 99. (m)

element **roadway/coordinates**

diagram	 coordinates Set of three-dimensional coordinates describing the roadway. vertex A point representing one of the coordinates.
properties	minOcc 0 maxOcc 1 content complex
children	vertex
annotation	documentation Set of three-dimensional coordinates describing the roadway.

element **roadway/coordinates/vertex**

diagram	 coord3DElevationType latlonCoordGroup Specifies a coordinate using latitude and longitude. utmCoordGroup Specifies a point using Universal Transverse Mercator coordinates. vertex A point representing one of the coordinates. elevation Elevation or Z value for a coordinate.
type	coord3DElevationType
properties	minOcc 2 maxOcc unbounded content complex

children	<code>latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation</code>
annotation	documentation A point representing one of the coordinates.

element roadwayOperation

diagram	<pre> graph TD roadwayOperation[roadwayOperation] --- refName[refName] roadwayOperation --- useAnnualFigures[useAnnualFigures] roadwayOperation --- vehicleType[vehicleType] roadwayOperation --- fuelType[fuelType] roadwayOperation --- emissionsUsage[emissionsUsage] roadwayOperation --- vehicleEmissionFactors[vehicleEmissionFactors] roadwayOperation --- speed[speed] roadwayOperation --- roundTripDistance[roundTripDistance] </pre> <p>The diagram illustrates the structure of the <code>roadwayOperation</code> element. It is a complex type with the following components:</p> <ul style="list-style-type: none"> refName: Identifying name of roadway operation. useAnnualFigures: Indicates if the quantities in the element are annualized. vehicleType: Type of vehicle involved in the operation. Valid values (the numeral corresponds to the text value; either are valid): 0 = Default Fleet, Mix, 1 = Passenger Cars, 2 = Light Trucks, 3 = Light Trucks, 4 = Light Trucks, 5 = Light Trucks, 6 = Class 2 Heavy Trucks, 7 = Class 3 Heavy Trucks, 8 = Class 4 Heavy Trucks, 9 = Class 5 Heavy Trucks, 10 = Class 6 Heavy Trucks, 11 = Class 7 Heavy Trucks, 12 = Class 8a Heavy Trucks, 13 = Class 8b Heavy Trucks, 14 = School Buses, 15 = Transit and Urban Buses, 16 = Motorcycle. fuelType: Type of fuel involved in the operation. Valid values: G = gasoline, D = diesel. emissionsUsage: Describes the amount of emissions for a given activity profile. vehicleEmissionFactors: Supports legacy EDMS studies relating to content contained in the ROADWAYS/PARKING table. This element supports the definition of custom emission factor specifications for roadways and parking. speed: Speed during the operation. Valid values: 5 to 65, (mph). roundTripDistance: Round trip vehicle distance, (mi).
properties	content complex
children	<code>refName useAnnualFigures vehicleType fuelType emissionsUsage vehicleEmissionFactors speed roundTripDistance</code>
used by	element <code>roadwayOperationSet</code>
annotation	documentation Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle activity on roadways for scenario layouts.

element roadwayOperation/refName

diagram	<pre> graph TD refName[refName] </pre> <p>The diagram illustrates the structure of the <code>refName</code> element, which is a simple string type.</p>
type	<code>string40</code>
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Identifying name of roadway operation.

element roadwayOperation/useAnnualFigures

diagram	<pre> graph TD useAnnualFigures[useAnnualFigures] </pre> <p>The diagram illustrates the structure of the <code>useAnnualFigures</code> element, which is a simple boolean type.</p>
type	<code>xs:boolean</code>
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation Indicates if the quantities in the element are annualized.

element roadwayOperation/vehicleType

diagram	
---------	--

	<p>VehicleType</p> <p>Type of vehicle involved in the operation. Valid values (the numeral corresponds to the text value; either are valid): 0 = Default Fleet Mix, 1 = Passenger Cars, 2 = Light Trucks 1, 3 = Light Trucks 2, 4 = Light Trucks 3, 5 = Light Trucks 4, 6 = Class 2b Heavy Trucks, 7 = Class 3 Heavy Trucks, 8 = Class 4 Heavy Trucks, 9 = Class 5 Heavy Trucks, 10 = Class 6 Heavy Trucks, 11 = Class 7 Heavy Trucks, 12 = Class 8a Heavy Trucks, 13 = Class 8b Heavy Trucks, 14 = School Busses, 15 = Transit and Urban Busses, 16 = Motorcycle.</p>
type	groundVehicleType
properties	content simple
facets	<p>Kind Value Annotation</p> <p>pattern 0 Default Fleet Mix 1 Passenger Cars 2 Light Trucks 1 3 Light Trucks 2 4 Light Trucks 3 5 Light Trucks 4 6 Class 2b Heavy Trucks 7 Class 3 Heavy Trucks 8 Class 4 Heavy Trucks 9 Class 5 Heavy Trucks 10 Class 6 Heavy Trucks 11 Class 7 Heavy Trucks 12 Class 8a Heavy Trucks 13 Class 8b Heavy Trucks 14 School Busses 15 Transit and Urban Busses 16 Motorcycle</p>
annotation	<p>documentation</p> <p>Type of vehicle involved in the operation. Valid values (the numeral corresponds to the text value; either are valid): 0 = Default Fleet Mix, 1 = Passenger Cars, 2 = Light Trucks 1, 3 = Light Trucks 2, 4 = Light Trucks 3, 5 = Light Trucks 4, 6 = Class 2b Heavy Trucks, 7 = Class 3 Heavy Trucks, 8 = Class 4 Heavy Trucks, 9 = Class 5 Heavy Trucks, 10 = Class 6 Heavy Trucks, 11 = Class 7 Heavy Trucks, 12 = Class 8a Heavy Trucks, 13 = Class 8b Heavy Trucks, 14 = School Busses, 15 = Transit and Urban Busses, 16 = Motorcycle.</p>

element roadwayOperation/fuelType

diagram	<p>Type of fuel involved in the operation. Valid values: G = gasoline, D = diesel.</p>
type	fuelType
properties	minOcc 0 maxOcc 1 content simple default G
facets	<p>Kind Value Annotation</p> <p>pattern G Gasoline D Diesel C Compressed Natural Gas L Liquefied Petroleum Gas E Electric</p>
annotation	<p>documentation</p> <p>Type of fuel involved in the operation. Valid values: G = gasoline, D = diesel.</p>

element roadwayOperation/speed

diagram	<p>Speed during the operation. Valid values: 5 to 65. (mph)</p>
type	int5to65
properties	minOcc 0 maxOcc 1 content simple default 35
facets	<p>Kind Value Annotation</p> <p>minInclusive 5 maxInclusive 65</p>
annotation	<p>documentation</p> <p>Speed during the operation. Valid values: 5 to 65. (mph)</p>

element roadwayOperation/roundTripDistance

diagram	<p>Round trip vehicle distance. (mi)</p>
type	doubleInclusive4000
properties	minOcc 0 maxOcc 1 content simple
facets	<p>Kind Value Annotation</p> <p>minInclusive 0 maxInclusive 4000</p>
annotation	<p>documentation</p> <p>Round trip vehicle distance. (mi)</p>

element roadwayOperationSet

diagram	
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	<p>roadwayOperationSet Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle activity on roadways for scenario layouts.</p> <p>dummy</p> <p>roadwayOperation Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle activity on roadways for scenario layouts.</p>												
properties	content complex												
children	roadwayOperation												
used by	group airportActivityGroup												
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle activity on roadways for scenario layouts.</p>												

attribute **roadwayOperationSet/@dummy**

type	xs:int
properties	use optional

element **roadwaySet**

diagram	<p>roadwaySet Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle activity on roadways for scenario layouts.</p> <p>dummy</p> <p>roadway Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle geometry on roadways for scenario layouts.</p>												
properties	content complex												
children	roadway												
used by	complexType airportLayoutType												
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle activity on roadways for scenario layouts.</p>												

attribute **roadwaySet/@dummy**

type	xs:int
properties	use optional

element **runway**

diagram	<p>runway Describes dimensions of a runway.</p> <p>length Length of runway. Valid values: nonnegative. (feet)</p> <p>width Width of runway. Valid values: nonnegative. (feet)</p> <p>runwayEnd Characterizes the runway's endpoint.</p>
properties	content complex
children	length width runwayEnd
used by	element runwaySet
annotation	<p>documentation</p> <p>Describes dimensions of a runway.</p>

element **runway/length**

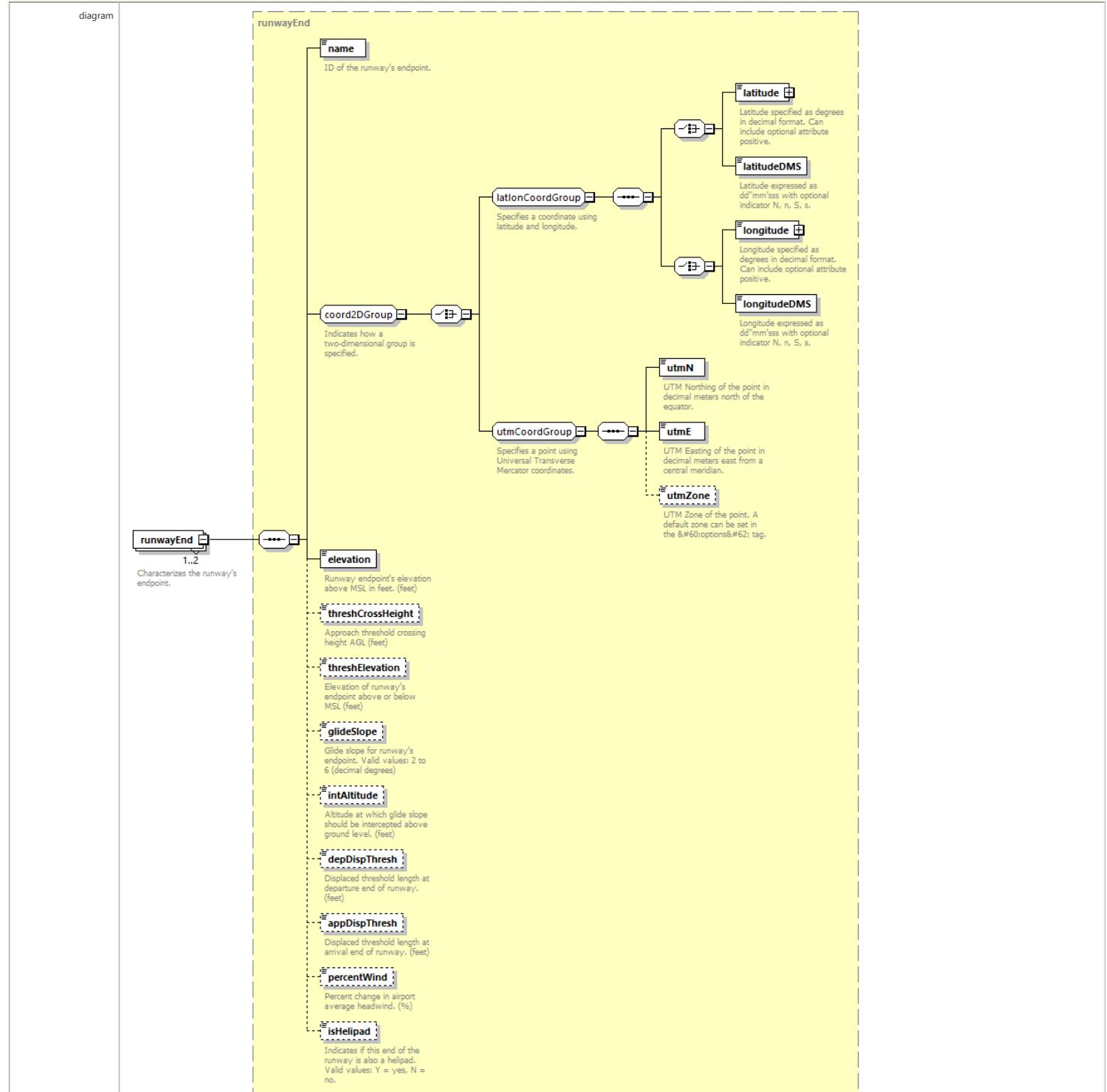
diagram	<p>length Length of runway. Valid values: nonnegative. (feet)</p>
type	xs:short
properties	content simple
annotation	<p>documentation</p> <p>Length of runway. Valid values: nonnegative. (feet)</p>

element runway/width

diagram	
	Width of runway. Valid values: nonnegative. (feet)
type	xs:short
properties	content simple

annotation
Width of runway. Valid values: nonnegative. (feet)

element runway/runwayEnd



type [runwayEnd](#)

properties	minOcc 1 maxOcc 2 content complex
children	name latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation threshCrossHeight threshElevation glideSlope intAltitude depDispThresh appDispThresh percentWind isHelpad
annotation	documentation

Characterizes the runway's endpoint.

element runwayAssignment

diagram	<pre> graph LR runwayAssignment[runwayAssignment] --- runway[runway] runway --- aircraftSize[aircraftSize] runway --- arrivalPercentage[arrivalPercentage] runway --- departurePercentage[departurePercentage] runway --- tgoPercentage[tgoPercentage] </pre> <p>Defines a assignment of operations to runways, by aircraft size.</p> <p>Size of the aircraft. Valid values: Small, Large, Heavy.</p> <p>Name of the runway.</p> <p>Percentage of arrivals of the given aircraft size using this runway. Valid values: 0 to 100. (%)</p> <p>Percentage of departures of the given aircraft size using this runway. Valid values: 0 to 100. (%)</p> <p>Percentage of touch and go of the given aircraft size using this runway. Valid values: 0 to 100. (%)</p>
properties	content complex
children	aircraftSize runway arrivalPercentage departurePercentage tgoPercentage
used by	element runwayAssignmentSet
annotation	<p>documentation</p> <p>Defines a assignment of operations to runways, by aircraft size.</p>

element runwayAssignment/aircraftSize

diagram	<pre> graph TD aircraftSizeType[aircraftSizeType] </pre>												
type	AircraftSizeType												
properties	<p>minOcc 0</p> <p>maxOcc 1</p> <p>content simple</p>												
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>enumeration</td> <td>S</td> <td></td> </tr> <tr> <td>enumeration</td> <td>L</td> <td></td> </tr> <tr> <td>enumeration</td> <td>H</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	enumeration	S		enumeration	L		enumeration	H	
Kind	Value	Annotation											
enumeration	S												
enumeration	L												
enumeration	H												

element runwayAssignment/runway

diagram	<pre> graph TD runway[runway] </pre> <p>Name of the runway.</p>									
type	string8									
properties	content simple									
used by	element runwaySet									
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>8</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	minLength	0		maxLength	8	
Kind	Value	Annotation								
minLength	0									
maxLength	8									
annotation	<p>documentation</p> <p>Name of the runway.</p>									

element runwayAssignment/arrivalPercentage

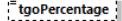
diagram	<pre> graph TD arrivalPercentage[arrivalPercentage] </pre> <p>Percentage of arrivals of the given aircraft size using this runway. Valid values: 0 to 100. (%)</p>									
type	doubleInclusive100									
properties	<p>minOcc 0</p> <p>maxOcc 1</p> <p>content simple</p>									
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>minInclusive</td> <td>0</td> <td></td> </tr> <tr> <td>maxInclusive</td> <td>100</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	minInclusive	0		maxInclusive	100	
Kind	Value	Annotation								
minInclusive	0									
maxInclusive	100									
annotation	<p>documentation</p> <p>Percentage of arrivals of the given aircraft size using this runway. Valid values: 0 to 100. (%)</p>									

element runwayAssignment/departurePercentage

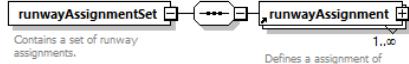
diagram	<pre> graph TD departurePercentage[departurePercentage] </pre> <p>Percentage of departures of the given aircraft size using this runway. Valid values: 0 to 100. (%)</p>
type	doubleInclusive100
properties	<p>minOcc 0</p> <p>maxOcc 1</p> <p>content simple</p>

facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percentage of departures of the given aircraft size using this runway. Valid values: 0 to 100. (%)

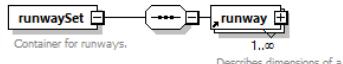
element **runwayAssignment/tgoPercentage**

diagram	 <p>Percentage of touch and go of the given aircraft size using the runway. Valid values: 0 to 100. (%)</p>
type	doubleInclusive100
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percentage of touch and go of the given aircraft size using this runway. Valid values: 0 to 100. (%)

element **runwayAssignmentSet**

diagram	 <p>Contains a set of runway assignments.</p> <p>Defines a assignment of operations to runways, by aircraft size.</p>
properties	content complex
children	runwayAssignment
used by	element airportConfig
annotation	documentation Contains a set of runway assignments.

element **runwaySet**

diagram	 <p>Container for runways.</p> <p>Describes dimensions of a runway.</p>
properties	content complex
children	runway
used by	complexType airportLayoutType
annotation	documentation Container for runways.

element **scenario**

diagram	
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	<pre> classDiagram class scenario { name startTime duration taxiModel timeInModeBasis acftPerfModel bankAngle altitudeCutoff sulfurConversionRate fuelSulfurContent description scenarioAirportLayoutSet caseSet annualization } </pre> <p>scenario Encapsulates a scenario - such as Baseline or Alternative</p> <p>name Description of scenario.</p> <p>startTime Start time of scenario. Accepts dateTime string.</p> <p>duration Scenario's duration (hr).</p> <p>taxiModel Taxi model for scenario.</p> <p>timeInModeBasis</p> <p>acftPerfModel Aircraft performance model.</p> <p>bankAngle</p> <p>Indicates if bank angle calculation should be included in calculations. NOTE: AEDT ignores this value and treats all scenarios as if their bank angle value was set to true.</p> <p>altitudeCutoff</p> <p>Altitude in MSL (feet) to cutoff trajectory modeling for this scenario. The scenario altitude cutoff only affects noise impact calculation in AEDT. Fuel burn and emissions will be calculated until a flight reaches the study boundary.</p> <p>sulfurConversionRate</p> <p>Portion of sulfur in the fuel that, when combusted, becomes sulfuric acid used for emissions calculations. (%)</p> <p>fuelSulfurContent</p> <p>Percentage, by weight, of sulfur in the fuel used for emissions calculations. Default Value: 0.0006 (0.069%) (%)</p> <p>description</p> <p>A description of the scenario.</p> <p>scenarioAirportLayoutSet</p> <p>Contains a set of airport layout types.</p> <p>caseSet</p> <p>Placeholder for one or more cases.</p> <p>annualization</p> <p>0..∞</p> <p>Contains annualizations for ASIF partial import into an existing study.</p>
properties	content complex
children	name startTime duration taxiModel timeInModeBasis acftPerfModel bankAngle altitudeCutoff sulfurConversionRate fuelSulfurContent description scenarioAirportLayoutSet caseSet annualization
used by	elements AsifXml study .
annotation	<p>documentation</p> <p>Encapsulates a scenario - such as Baseline or Alternative</p>

element scenario/name

diagram	<pre> classDiagram class name { description } </pre> <p>name Description of scenario.</p>						
type	string255						
properties	content simple						
facets	<table> <tr> <td>Kind</td> <td>Value Annotation</td> </tr> <tr> <td>minLength</td> <td>0</td> </tr> <tr> <td>maxLength</td> <td>255</td> </tr> </table>	Kind	Value Annotation	minLength	0	maxLength	255
Kind	Value Annotation						
minLength	0						
maxLength	255						
annotation	<p>documentation</p> <p>Description of scenario.</p>						

element scenario/startTime

diagram	<pre> classDiagram class startTime { description } </pre> <p>startTime Start time of scenario. Accepts dateTime string.</p>
type	xs:dateTime
properties	content simple
annotation	<p>documentation</p> <p>Start time of scenario. Accepts dateTime string.</p>

element scenario/duration

diagram	 duration Scenario's duration (hr).
type	xs:int
properties	content simple
annotation	documentation Scenario's duration (hr).

element scenario/taxiModel

diagram	 taxiModel Taxi model for scenario.
type	taxiModelType
properties	content simple
facets	Kind Value Annotation enumeration UserSpecified enumeration Delayed enumeration Sequencing
annotation	documentation Taxi model for scenario.

element scenario/timeInModeBasis

diagram	 timeInModeBasis []
type	timeInModeBasisType
properties	minOcc 0 maxOcc 1 content simple default ICAO
facets	Kind Value Annotation enumeration Performance enumeration ICAO

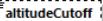
element scenario/acftPerfModel

diagram	 acftPerfModel Aircraft performance model.
type	aircraftPerformanceModelType
properties	content simple
facets	Kind Value Annotation enumeration ICAO enumeration SAE1845
annotation	documentation Aircraft performance model.

element scenario/bankAngle

diagram	 bankAngle [] Indicates if bank angle calculations should be included in calculations. NOTE: AEDT ignores this value and treats all scenarios as if their bank angle value was set to true.
type	xs:boolean
properties	content simple
annotation	documentation Indicates if bank angle calculations should be included in calculations. NOTE: AEDT ignores this value and treats all scenarios as if their bank angle value was set to true.

element scenario/altitudeCutoff

diagram	 altitudeCutoff [] Altitude in MSL (feet) to cutoff trajectory modeling for this scenario. The scenario altitude cutoff only affects noise impact calculation in AEDT. Fuel burn and emissions will be calculated until a flight reaches the study boundary.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 18000
annotation	documentation Altitude in MSL (feet) to cutoff trajectory modeling for this scenario. The scenario altitude cutoff only affects noise impact calculation in AEDT. Fuel burn and emissions will be calculated until a flight reaches the study boundary.

element scenario/sulfurConversionRate

diagram	
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	<p>sulfurConversionRate</p> <p>Portion of sulfur in the fuel that, when combusted, becomes sulfuric acid used for emissions calculations. (%)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Portion of sulfur in the fuel that, when combusted, becomes sulfuric acid used for emissions calculations. (%)

element scenario/fuelSulfurContent

	<p>fuelSulfurContent</p> <p>Percentage, by weight, of sulfur in the fuel used for emissions calculations. Default Values: 0.0006 (0.06%) (%)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Percentage, by weight, of sulfur in the fuel used for emissions calculations. Default Values: 0.0006 (0.06%) (%)

element scenario/description

	<p>description</p> <p>A description of the scenario.</p>
type	string255
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation A description of the scenario.

element scenarioAirportLayoutSet

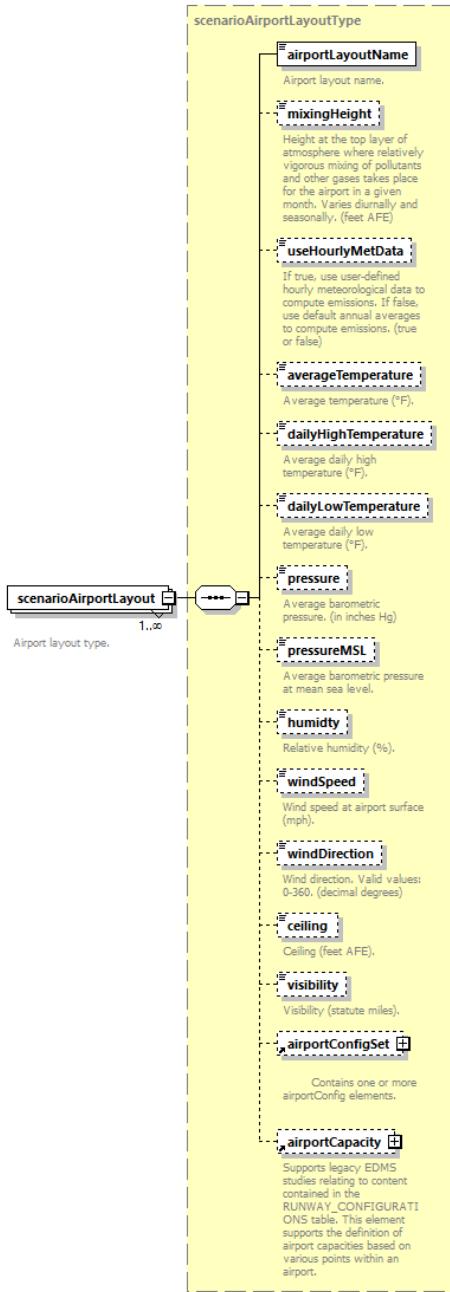
	<pre> classDiagram class scenarioAirportLayoutSet { <<Contains a set of airport layout types.>> } class scenarioAirportLayout { <<Airport layout type.>> } scenarioAirportLayoutSet "1..>" scenarioAirportLayout scenarioAirportLayoutSet --> attributes scenarioAirportLayoutSet --> dummy </pre>
properties	content complex
children	<u>scenarioAirportLayout</u>
used by	element <u>scenario</u>
attributes	Name Type Use Default Fixed Annotation <u>dummy</u> xs:int optional
annotation	documentation Contains a set of airport layout types.

attribute scenarioAirportLayoutSet/@dummy

type	xs:int
properties	use optional

element scenarioAirportLayoutSet/scenarioAirportLayout

diagram	
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type	scenarioAirportLayoutType
properties	minOcc 1 maxOcc unbounded content complex
children	airportLayoutName mixingHeight useHourlyMetData averageTemperature dailyHighTemperature dailyLowTemperature pressure pressureMSL humidity windSpeed windDirection ceiling visibility airportConfigSet airportCapacity
annotation	documentation Airport layout type.

element sensorNode

diagram	
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	<pre> graph LR sensorNode[sensorNode] --> lat[lat] sensorNode --> long[long] sensorNode --> altitude[altitude] sensorNode --> messageTime[messageTime] sensorNode --> sequenceNum[sequenceNum] sensorNode --> speed[speed] sensorNode --> thrust[thrust] sensorNode --> source[source] </pre> <p>sensorNode Describes a single node of a radar flight path.</p>
properties	content complex
children	lat long altitude messageTime sequenceNum speed thrust source
used by	element sensorPath
annotation	documentation Describes a single node of a radar flight path.

element **sensorNode/lat**

diagram	<pre> graph LR lat[lat] </pre> <p>Latitude for this location (decimal degrees).</p>
type	xs:double
properties	content simple
annotation	documentation Latitude for this location (decimal degrees).

element **sensorNode/long**

diagram	<pre> graph LR long[long] </pre> <p>Longitude for this location (decimal degrees).</p>
type	xs:double
properties	content simple
annotation	documentation Longitude for this location (decimal degrees).

element **sensorNode/altitude**

diagram	<pre> graph LR altitude[altitude] </pre> <p>Altitude in MSL at this location. UNITS: feet</p>
type	xs:double
properties	content simple
annotation	documentation Altitude in MSL at this location. UNITS: feet

element **sensorNode/messageTime**

diagram	<pre> graph LR messageTime[messageTime] </pre> <p>Time aircraft reaches this location. NOTE: Not used in AEDT.</p>
type	xs:dateTime
properties	content simple
annotation	documentation Time aircraft reaches this location. NOTE: Not used in AEDT.

element **sensorNode/sequenceNum**

diagram	<pre> graph LR sequenceNum[sequenceNum] </pre> <p>Order of this location in node list.</p>
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type	xs:int
properties	content simple
annotation	documentation Order of this location in node list.

element **sensorNode/speed**

diagram	 <p>Ground speed of aircraft at this location. UNITS: knots.</p>
type	xs:double
properties	content simple
annotation	documentation Ground speed of aircraft at this location. UNITS: knots.

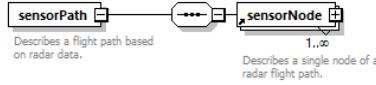
element **sensorNode/thrust**

diagram	 <p>Thrust of aircraft at this location. NOTE: Not used in AEDT. (lb)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Thrust of aircraft at this location. NOTE: Not used in AEDT. (lb)

element **sensorNode/source**

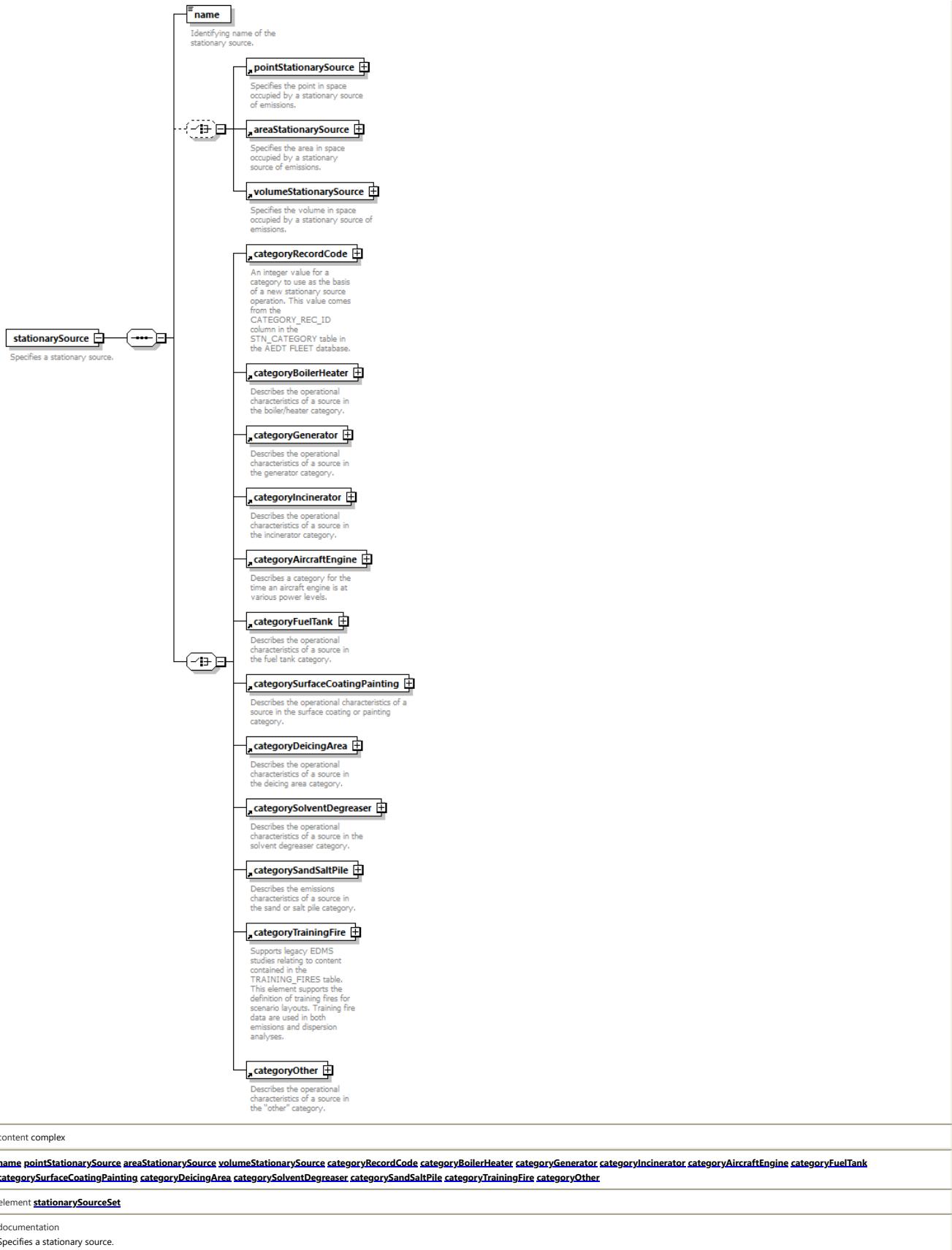
diagram	 <p>Source of the data for this node. NOTE: Not used in AEDT.</p>
type	string255
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Source of the data for this node. NOTE: Not used in AEDT.

element **sensorPath**

diagram	 <p>Describes a flight path based on radar data.</p> <p>Describes a single node of a radar flight path.</p>
properties	content complex
children	sensorNode
used by	element trackOpSet
annotation	documentation Describes a flight path based on radar data.

element **stationarySource**

diagram	
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element **stationarySource/name**

diagram	name (rectangle with a small icon) Identifying name of the stationary source.	
type	string40	
properties	content simple	
facets	Kind Value Annotation	

	minLength 0 maxLength 40
annotation	documentation Identifying name of the stationary source.

element **stationarySourceOperation**

diagram	<pre> graph LR A[refName] --- B[elevation] A --- C[pointCoord] A --- D[emissionsUsage] B --- E[stationarySourceOperation] style E fill:#e0f2e0 style A fill:#e0f2e0 style B fill:#e0f2e0 style C fill:#e0f2e0 style D fill:#e0f2e0 </pre>
properties	content complex
children	refName elevation pointCoord emissionsUsage
used by	element stationarySourceOperationSet
annotation	documentation Defines an operation at a stationary source that generates emissions.

element **stationarySourceOperation/refName**

diagram	<pre> graph LR A[refName] style A fill:#e0f2e0 </pre>
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Identifier of the operation.

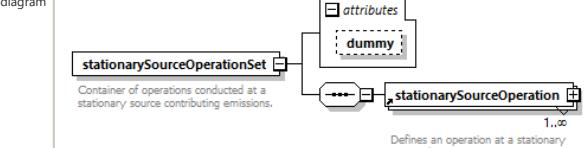
element **stationarySourceOperation/elevation**

diagram	<pre> graph LR A[elevation] style A fill:#e0f2e0 </pre>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple

element **stationarySourceOperation/pointCoord**

diagram	<pre> graph TD A[pointCoord] --> B[latitude] A --> C[longitude] B --> D[latitudeDMS] B --> E[utmN] B --> F[utmE] C --> G[longitudeDMS] C --> H[utmN] C --> I[utmE] style A fill:#e0f2e0 style B fill:#e0f2e0 style C fill:#e0f2e0 style D fill:#e0f2e0 style E fill:#e0f2e0 style F fill:#e0f2e0 style G fill:#e0f2e0 style H fill:#e0f2e0 style I fill:#e0f2e0 </pre>
type	coord2DType
properties	minOcc 0 maxOcc 1 content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone

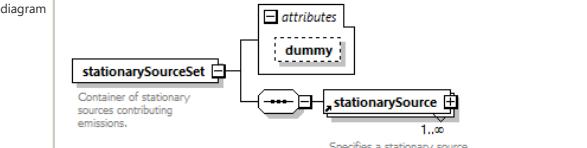
element **stationarySourceOperationSet**

diagram	 <p>Container of operations conducted at a stationary source contributing emissions.</p> <p>stationarySourceOperation</p> <p>Defines an operation at a stationary source that generates emissions.</p>												
properties	content complex												
children	stationarySourceOperation												
used by	group airportActivityGroup												
attributes	<table border="1"> <thead> <tr> <th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr> </thead> <tbody> <tr> <td>dummy</td><td>xs:int</td><td>optional</td><td></td><td></td><td></td></tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	<p>documentation</p> <p>Container of operations conducted at a stationary source contributing emissions.</p>												

attribute **stationarySourceOperationSet/@dummy**

type	xs:int
properties	use optional

element **stationarySourceSet**

diagram	 <p>Container of stationary sources contributing emissions.</p> <p>stationarySource</p> <p>Specifies a stationary source.</p>												
properties	content complex												
children	stationarySource												
used by	element AsifXml complexType airportLayoutType												
attributes	<table border="1"> <thead> <tr> <th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr> </thead> <tbody> <tr> <td>dummy</td><td>xs:int</td><td>optional</td><td></td><td></td><td></td></tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	<p>documentation</p> <p>Container of stationary sources contributing emissions.</p>												

attribute **stationarySourceSet/@dummy**

type	xs:int
properties	use optional

element **study**

diagram	
---------	--

	<pre> classDiagram class study { name studyType emissionsUnits description boundary climate } study "0..1" -- "0..1" userDefinedAirportSet : userDefinedAirportSet study "0..1" -- "0..1" airportLayoutSet : airportLayoutSet study "0..1" -- "0..1" terrainFiles : terrainFiles study "0..1" -- "0..1" receptorSet : receptorSet study "0..1" -- "0..1" fleet : fleet study "0..1" -- "0..1" userGroundSupportEquipmentSet : userGroundSupportEquipmentSet study "0..1" -- "0..1" scenario : scenario </pre>
properties	content complex
children	name studyType emissionsUnits description boundary climate userDefinedAirportSet airportLayoutSet terrainFiles receptorSet fleet userGroundSupportEquipmentSet scenario
used by	element AsifXml
annotation	documentation Contains specific information about a study.

element study/name

diagram	
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Name of the study.

element study/studyType

diagram	
type	studyType
properties	content simple
facets	Kind Value Annotation enumeration Emissions enumeration Dispersion enumeration Noise and Emissions enumeration Noise and Dispersion

element study/emissionsUnits

diagram	
---------	--

	emissionsUnits																		
type	emissionsUnitsType																		
properties	content simple																		
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>enumeration</td> <td>MetricTonnes</td> <td></td> </tr> <tr> <td>enumeration</td> <td>Kilograms</td> <td></td> </tr> <tr> <td>enumeration</td> <td>Grams</td> <td></td> </tr> <tr> <td>enumeration</td> <td>ImperialTons</td> <td></td> </tr> <tr> <td>enumeration</td> <td>Pounds</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	enumeration	MetricTonnes		enumeration	Kilograms		enumeration	Grams		enumeration	ImperialTons		enumeration	Pounds	
Kind	Value	Annotation																	
enumeration	MetricTonnes																		
enumeration	Kilograms																		
enumeration	Grams																		
enumeration	ImperialTons																		
enumeration	Pounds																		

element **study/study**

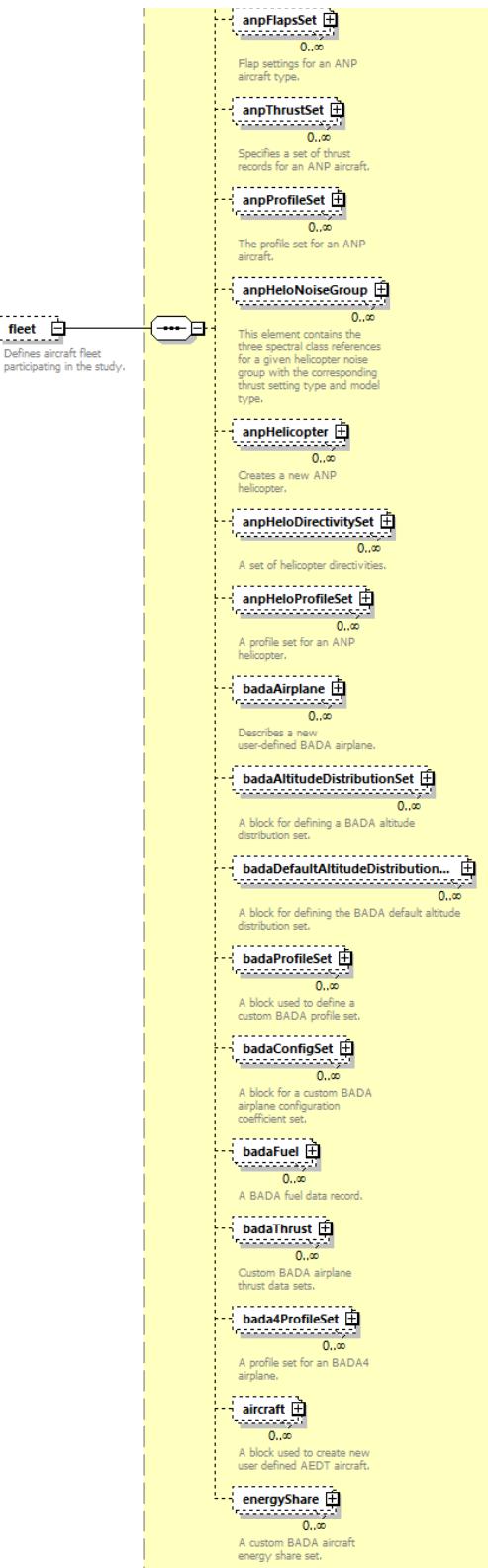
diagram	description Optional description of the study.									
type	string255									
properties	minOcc 0 maxOcc 1 content simple									
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>255</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	minLength	0		maxLength	255	
Kind	Value	Annotation								
minLength	0									
maxLength	255									
annotation	documentation Optional description of the study.									

element **study/terrainFiles**

diagram	terrainFiles List of files containing descriptions of terrain.									
type	string255									
properties	minOcc 0 maxOcc 1 content simple									
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>255</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	minLength	0		maxLength	255	
Kind	Value	Annotation								
minLength	0									
maxLength	255									
annotation	documentation List of files containing descriptions of terrain.									

element **study/fleet**





type	fleet
properties	minOcc 0 maxOcc 1 content complex
children	auxiliaryPowerUnit airframe engine engineMod spectralClass anpNoiseGroup anpAirplane anpFlapsSet anpThrustSet anpProfileSet anpHeloNoiseGroup anpHelicopter anpHeloDirectivitySet anpHeloProfileSet badaAirplane badaAltitudeDistributionSet badaDefaultAltitudeDistributionSet badaProfileSet badaConfigSet badaFuel badaThrust bada4ProfileSet aircraft energyShare
annotation	documentation Defines aircraft fleet participating in the study.

element subtrack

diagram	
---------	--

	<pre> graph LR subtrack["subtrack"] --> id["id"] subtrack --> dispersionWeight["dispersionWeight"] subtrack --> trackVectors["trackVectors"] subtrack --> trackNodes["trackNodes"] id --- descId["ID for a subtrack."] dispersionWeight --- descDispersionWeight["dispersion weight value; must be greater than one and less than or equal to 1."] trackVectors --- descTrackVectors["A list of flight track vectors."] trackNodes --- descTrackNodes["A set of flight track nodes"] </pre>
properties	content complex
children	id dispersionWeight trackVectors trackNodes
used by	element track
annotation	documentation Intended to represent a dispersed child track of a parent track.

element subtrack/id

diagram	<pre> graph LR id["id"] </pre> <p>ID for a subtrack.</p>
type	<code>xs:int</code>
properties	content simple
annotation	documentation ID for a subtrack.

element subtrack/dispersionWeight

diagram	<pre> graph LR dispersionWeight["dispersionWeight"] </pre> <p>dispersion weight value; must be greater than one and less than or equal to 1.</p>
type	<code>xs:double</code>
properties	content simple
used by	element backbone
annotation	documentation dispersion weight value; must be greater than one and less than or equal to 1.

element taxiNode

diagram	<pre> graph LR taxiNode["taxiNode"] coord2DGroup["coord2DGroup"] latlonCoordGroup["latlonCoordGroup"] utmCoordGroup["utmCoordGroup"] elevation["elevation"] speed["speed"] taxiNode --> coord2DGroup coord2DGroup --> latlonCoordGroup coord2DGroup --> utmCoordGroup latlonCoordGroup --> latitude["latitude"] latlonCoordGroup --> longitude["longitude"] utmCoordGroup --> utmN["utmN"] utmCoordGroup --> utmE["utmE"] utmCoordGroup --> utmZone["utmZone"] elevation --- descElevation["Taxi node's elevation above MSL. Valid values: -500 to 5000. (m)"] speed --- descSpeed["Speed of aircraft at node. Valid values: 1.00 to 60.00. (mph)"] </pre> <p>Supports legacy EDMS studies relating to the TAXWAYS table. Taxi nodes define the points for a given taxiway.</p>
properties	content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation speed
used by	element taxiNodeSet
annotation	documentation

Supports legacy EDMS studies relating to the TAXIWAYS table. Taxi nodes define the points for a given taxiway.

element taxiNode/elevation

diagram	 Taxi node's elevation above MSL. Valid values: -500 to 5000. (m)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Taxi node's elevation above MSL. Valid values: -500 to 5000. (m)

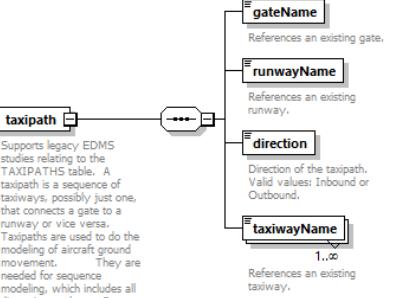
element taxiNode/speed

diagram	 Speed of aircraft at node. Valid values: 1.00 to 60.00. (mph)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Speed of aircraft at node. Valid values: 1.00 to 60.00. (mph)

element taxiNodeSet

diagram	 Supports legacy EDMS studies relating to the TAXIWAYS table. Taxi nodes define the points for a given taxiway.
properties	content complex
children	taxiNode
used by	element taxiway
annotation	documentation Supports legacy EDMS studies relating to the TAXIWAYS table. Taxi nodes define the points for a given taxiway.

element taxipath

diagram	 Supports legacy EDMS studies relating to the TAXIPATHS table. A taxipath is a sequence of taxiways, possibly just one, that connects a gate to a runway or vice versa. Taxipaths are used to do the modeling of aircraft ground movement. They are needed for sequence modeling, which includes all dispersion analyses. Gates, taxiways and runways must be defined before taxipaths can be specified.
properties	content complex
children	gateName runwayName direction taxiwayName
used by	element taxipathSet
annotation	documentation Supports legacy EDMS studies relating to the TAXIPATHS table. A taxipath is a sequence of taxiways, possibly just one, that connects a gate to a runway or vice versa. Taxipaths are used to do the modeling of aircraft ground movement. They are needed for sequence modeling, which includes all dispersion analyses. Gates, taxiways and runways must be defined before taxipaths can be specified.

element taxipath/gateName

diagram	 References an existing gate.
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0

	maxLength 40
annotation	documentation References an existing gate.

element taxipath/runwayName

diagram	
	References an existing runway.
type	string8
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation References an existing runway.

element taxipath/direction

diagram	
	Direction of the taxipath. Valid values: Inbound or Outbound.
type	directionType
properties	content simple
facets	Kind Value Annotation pattern A Arrival D Departure Inbound O Outbound
annotation	documentation Direction of the taxipath. Valid values: Inbound or Outbound.

element taxipath/taxiwayName

diagram	
	1..∞ References an existing taxiway.
type	string20
properties	minOcc 1 maxOcc unbounded content simple
facets	Kind Value Annotation minLength 0 maxLength 20
annotation	documentation References an existing taxiway.

element taxipathSet

diagram	
	Supports legacy EDMS studies relating to the TAXIPATHS table. A taxipath is a sequence of taxiways, possibly just one, that connects a gate to a runway or vice versa. Taxipaths are used to do the modeling of aircraft ground movement. They are needed for sequence modeling, which includes all dispersion analyses. Gates, taxiways and runways must be defined before taxipaths can be specified.
properties	content complex
children	taxipath
used by	complexType airportLayoutType
annotation	documentation Supports legacy EDMS studies relating to the TAXIPATHS table. A taxipath is a sequence of taxiways, possibly just one, that connects a gate to a runway or vice versa. Taxipaths are used to do the modeling of aircraft ground movement. They are needed for sequence modeling, which includes all dispersion analyses. Gates, taxiways and runways must be defined before taxipaths can be specified.

element taxiTime

diagram	
properties	content complex
children	source taxiIn taxiOut
used by	complexType airport

element **taxiTime/source**

diagram	
type	string6
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 6

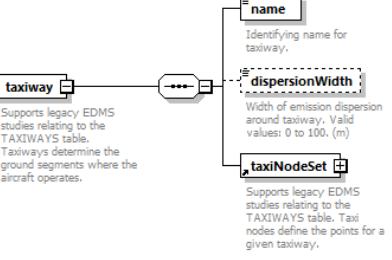
element **taxiTime/taxiIn**

diagram	
type	xs:int
properties	minOcc 0 maxOcc 1 content simple

element **taxiTime/taxiOut**

diagram	
type	xs:int
properties	minOcc 0 maxOcc 1 content simple

element **taxisway**

diagram	 <p>Supports legacy EDMS studies relating to the TAXIWAYS table. Taxiways determine the ground segments where the aircraft operates.</p>
properties	content complex
children	name dispersionWidth taxiNodeSet
used by	element taxiswaySet
annotation	documentation Supports legacy EDMS studies relating to the TAXIWAYS table. Taxiways determine the ground segments where the aircraft operates.

element **taxisway/name**

diagram	
	Identifying name for taxiway.
type	string20
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 20
annotation	documentation Identifying name for taxiway.

element **taxisway/dispersionWidth**

diagram	
	Width of emission dispersion around taxiway. Valid values: 0 to 100. (m)
type	doubleExclusive100
properties	minOcc 0 maxOcc 1 content simple default 1
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation Width of emission dispersion around taxiway. Valid values: 0 to 100. (m)

element taxiwaySet

diagram	<p>Supports legacy EDMS studies relating to the TAXIWAYS table. Taxiways determine the ground segments where the aircraft operates.</p>
properties	content complex
children	taxiway
used by	complexType airportLayoutType
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to the TAXIWAYS table. Taxiways determine the ground segments where the aircraft operates.</p>

element track

diagram	<p>A flight track that can be used for flight operations.</p>
properties	content complex
children	name optype wingtype airport runway vectorCourseHelpad backbone subtrack
used by	elements trackOpSet trackSet
annotation	<p>documentation</p> <p>A flight track that can be used for flight operations.</p>

element track/name

diagram	
type	string64
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 64
annotation	<p>documentation</p> <p>The name of the track.</p>

element track/optype

diagram	
type	trackType
properties	content simple
facets	Kind Value Annotation pattern A Arrival D Departure V Overflight T TouchAndGo X ArrivalHeliTaxi O DepartureHeliTaxi
annotation	<p>documentation</p> <p>Type of track. (A = arrival, D = departure, V = overflight, T = Touch and Go)</p>

element track/wingtype

diagram	
type	wingType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern F FixedWing R RotaryWing
annotation	documentation Type of wing. (F = fixed wing, R = rotary wing)

element track/airport

diagram	
type	airportCode
properties	minOcc 0 maxOcc 1 content complex
facets	Kind Value Annotation minLength 0 maxLength 4
attributes	Name Type Use Default Fixed Annotation type airportCodeType optional ANY country string3 optional ANY
annotation	documentation The IATA airport code.

element track/runway

diagram	
type	string8
properties	minOcc 0 maxOcc 1 content simple
used by	element runwaySet
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation The name of the runway.

element track/vectorCourseHelipad

diagram	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Direction for helicopter operations of vector type (angle from North).

element trackNode

diagram	
---------	--

	<pre> classDiagram class nodeIDGroup { <<A group of nodes.>> } class id { <<String identifier for the grouping of nodes.>> } class description { <<An optional description for the grouping of nodes.>> } class trackNode { <<A flight track node.>> } class coord2DGroup { <<Indicates how a two-dimensional group is specified.>> } class lationCoordGroup { <<Specifies a coordinate using latitude and longitude.>> } class latitude { <<Latitude specified as degrees in decimal format. Can include optional attribute positive.>> } class latitudeDMS { <<Latitude expressed as dd' mm''ss with optional indicator N, n, S, s.>> } class longitude { <<Longitude specified as degrees in decimal format. Can include optional attribute positive.>> } class longitudeDMS { <<Longitude expressed as dd' mm''ss with optional indicator N, n, S, s.>> } class utmCoordGroup { <<Specifies a point using Universal Transverse Mercator coordinates.>> } class utmN { <<UTM Northing of the point in decimal meters north of the equator.>> } class utmE { <<UTM Easting of the point in decimal meters east from a central meridian.>> } class utmZone { <<UTM Zone of the point. A default zone can be set in the &#60;options&#62; tag.>> } class altitude { <<Node's altitude above or below MSL (feet). Includes attribute node.>> } class speed { <<Speed of aircraft at node (KCAS). Includes attribute node. Valid values: nonnegative. Units: knots>> } nodeIDGroup --> id nodeIDGroup --> description trackNode --> coord2DGroup coord2DGroup --> lationCoordGroup lationCoordGroup --> latitude lationCoordGroup --> longitude utmCoordGroup --> utmN utmCoordGroup --> utmE utmCoordGroup --> utmZone altitude --> attributes speed --> attributes </pre>
properties	content complex
children	id description latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone altitude speed
used by	elements backboneNode trackNodes
annotation	documentation A flight track node.

element trackNode/altitude

diagram	<pre> classDiagram class altitude { <<Node's altitude above or below MSL (feet). Includes attribute node.>> } class attributes class control altitude --> attributes altitude --> control </pre>												
type	extension of <code>xs:double</code>												
properties	minOcc 0 maxOcc 1 content complex												
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>control</td> <td>nodeControlType</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	control	nodeControlType	optional			
Name	Type	Use	Default	Fixed	Annotation								
control	nodeControlType	optional											
annotation	documentation Node's altitude above or below MSL (feet). Includes attribute node.												

attribute trackNode/altitude/@control

type	nodeControlType
properties	use optional
facets	Kind Value Annotation pattern 0 None 1 AtOrBelow 2 Match 3 AtOrAbove

element trackNode/speed

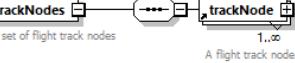
diagram	<pre> classDiagram class speed { <<Speed of aircraft at node (KCAS). Includes attribute node. Valid values: nonnegative. Units: knots>> } class attributes class control speed --> attributes speed --> control </pre>
type	extension of <code>xs:double</code>
properties	minOcc 0 maxOcc 1 content complex

	attributes	Name	Type	Use	Default	Fixed	Annotation
	annotation	control	nodeControlType	optional			Speed of aircraft at node (KCAS). Includes attribute node. Valid values: nonnegative, Units: knots

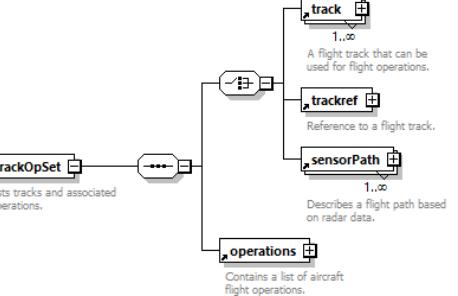
attribute `trackNode/speed/@control`

	type	nodeControlType
	properties	use optional
	facets	Kind Value Annotation pattern 0 None 1 AtOrBelow 2 Match 3 AtOrAbove

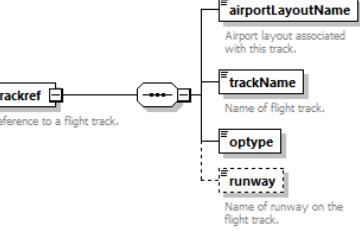
element `trackNodes`

diagram	
	A set of flight track nodes.
	1..∞
	A flight track node.
properties	content complex
children	trackNode
used by	element subtrack
annotation	documentation A set of flight track nodes

element `trackOpSet`

diagram	
	Lists tracks and associated operations.
	1..∞
	A flight track that can be used for flight operations.
	track
	1..∞
	Reference to a flight track.
	trackref
	1..∞
	Describes a flight path based on radar data.
	sensorPath
	1..∞
	Contains a list of aircraft flight operations.
	operations
properties	content complex
children	track trackref sensorPath operations
used by	elements AsifXml case
annotation	documentation Lists tracks and associated operations.

element `trackref`

diagram	
	Reference to a flight track.
	1..∞
	Airport layout associated with this track.
	airportLayoutName
	Airport layout associated with this track.
	trackName
	Name of flight track.
	optype
	runway
	Name of runway on the flight track.
properties	content complex
children	airportLayoutName trackName optype runway
used by	element trackOpSet
annotation	documentation Reference to a flight track.

element `trackref/airportLayoutName`

diagram	
	1..∞
	Airport layout associated with this track.
	airportLayoutName
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airport layout associated with this track.

element `trackref/trackName`

diagram	
---------	--

	 <p>Name of flight track.</p>									
type	string255									
properties	content simple									
facets	<table> <thead> <tr> <th>Kind</th><th>Value</th><th>Annotation</th></tr> </thead> <tbody> <tr> <td>minLength</td><td>0</td><td></td></tr> <tr> <td>maxLength</td><td>255</td><td></td></tr> </tbody> </table>	Kind	Value	Annotation	minLength	0		maxLength	255	
Kind	Value	Annotation								
minLength	0									
maxLength	255									
annotation	documentation Name of flight track.									

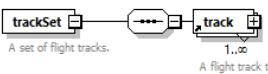
element **trackref/optype**

diagram							
type	trackType						
properties	content simple						
facets	<table> <thead> <tr> <th>Kind</th><th>Value</th><th>Annotation</th></tr> </thead> <tbody> <tr> <td>pattern</td><td>A Arrival D Departure V Overflight T TouchAndGo X ArrivalHeliTaxi O DepartureHeliTaxi</td><td></td></tr> </tbody> </table>	Kind	Value	Annotation	pattern	A Arrival D Departure V Overflight T TouchAndGo X ArrivalHeliTaxi O DepartureHeliTaxi	
Kind	Value	Annotation					
pattern	A Arrival D Departure V Overflight T TouchAndGo X ArrivalHeliTaxi O DepartureHeliTaxi						

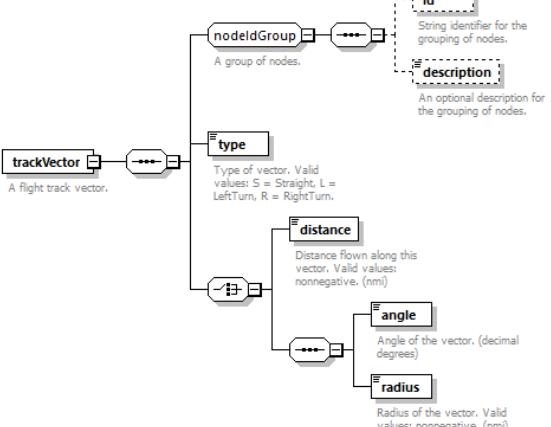
element **trackref/runway**

diagram	 <p>Name of runway on the flight track.</p>									
type	string8									
properties	<table> <thead> <tr> <th>minOcc</th><th>0</th> </tr> </thead> <tbody> <tr> <td>maxOcc</td><td>1</td> </tr> <tr> <td>content</td><td>simple</td> </tr> </tbody> </table>	minOcc	0	maxOcc	1	content	simple			
minOcc	0									
maxOcc	1									
content	simple									
used by	element runwaySet									
facets	<table> <thead> <tr> <th>Kind</th><th>Value</th><th>Annotation</th></tr> </thead> <tbody> <tr> <td>minLength</td><td>0</td><td></td></tr> <tr> <td>maxLength</td><td>8</td><td></td></tr> </tbody> </table>	Kind	Value	Annotation	minLength	0		maxLength	8	
Kind	Value	Annotation								
minLength	0									
maxLength	8									
annotation	documentation Name of runway on the flight track.									

element **trackSet**

diagram	 <p>A set of flight tracks.</p> <p>1..∞</p> <p>A flight track that can be used for flight operations.</p>
properties	content complex
children	track
used by	complexType airportLayoutType
annotation	documentation A set of flight tracks.

element **trackVector**

diagram	 <p>A flight track vector.</p> <p>nodeIdGroup A group of nodes.</p> <p>id String identifier for the grouping of nodes.</p> <p>description An optional description for the grouping of nodes.</p> <p>type Type of vector. Valid values: S = Straight, L = LeftTurn, R = RightTurn.</p> <p>distance Distance flown along this vector. Valid values: nonnegative. (nm)</p> <p>angle Angle of the vector. (decimal degrees)</p> <p>radius Radius of the vector. Valid values: nonnegative. (nm)</p>
properties	content complex
children	id description type distance angle radius
used by	element trackVectors
annotation	documentation A flight track vector.

element **trackVector/type**

diagram	
---------	--

	<p>type</p> <p>Type of vector. Valid values: S = Straight, L = LeftTurn, R = RightTurn.</p>
type	vectorTrackType
properties	content simple
facets	Kind Value Annotation pattern S Straight L LeftTurn R RightTurn
annotation	documentation Type of vector. Valid values: S = Straight, L = LeftTurn, R = RightTurn.

element trackVector/distance

diagram	<p>distance</p> <p>Distance flown along this vector. Valid values: nonnegative. (nmi)</p>
type	xs:double
properties	content simple
annotation	documentation Distance flown along this vector. Valid values: nonnegative. (nmi)

element trackVector/angle

diagram	<p>angle</p> <p>Angle of the vector. (decimal degrees)</p>
type	xs:double
properties	content simple
annotation	documentation Angle of the vector. (decimal degrees)

element trackVector/radius

diagram	<p>radius</p> <p>Radius of the vector. Valid values: nonnegative. (nmi)</p>
type	xs:double
properties	content simple
annotation	documentation Radius of the vector. Valid values: nonnegative. (nmi)

element trackVectors

diagram	<p>A list of flight track vectors.</p>
properties	content complex
children	trackVector
used by	element subtrack
annotation	documentation A list of flight track vectors.

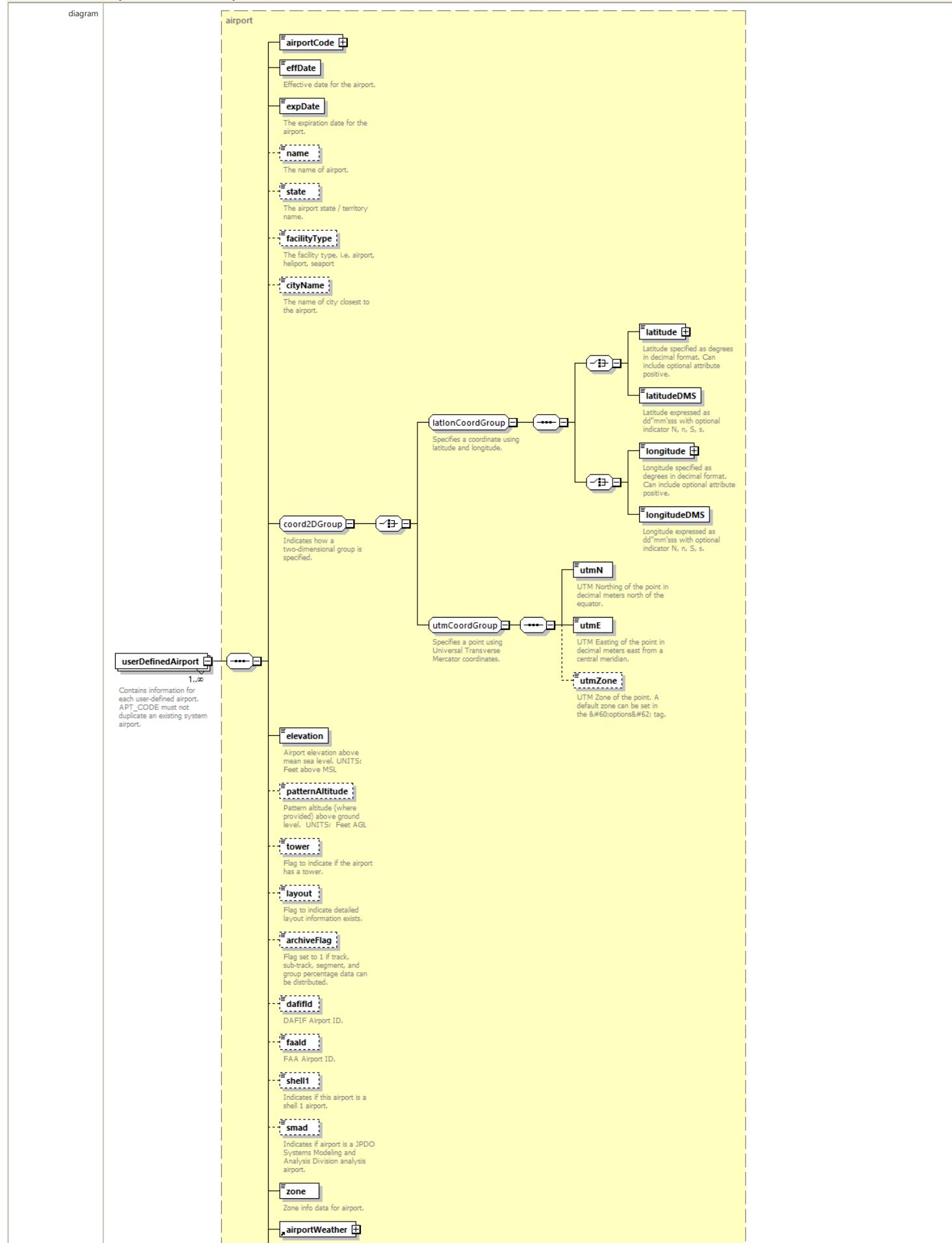
element userDefinedAirportSet

diagram	<p>Contains user-defined airports.</p>
properties	content complex
children	userDefinedAirport
used by	element study
attributes	Name Type Use Default Fixed Annotation dummy xs:int optional
annotation	documentation Contains user-defined airports.

attribute userDefinedAirportSet/@dummy

type	xs:int
properties	use optional

element **userDefinedAirportSet/userDefinedAirport**





type	airport
properties	minOcc 1 maxOcc unbounded content complex
children	airportCode effDate expDate name state facilityType cityName latitude longitude longitudeDMS utmN utmE utmZone elevation patternAltitude tower layout archiveFlag dafield faid shell1 smad zone airportWeather windRose taxiTime
annotation	documentation Contains information for each user-defined airport. APT_CODE must not duplicate an existing system airport.

element [userGroundSupportEquipment](#)

diagram	<pre> graph LR UGSE[userGroundSupportEquipment] --> gseID[gseID] UGSE --> gseName[gseName] UGSE --> defaultLoadFactor[defaultLoadFactor] UGSE --> defaultHorsepower[defaultHorsepower] UGSE --> defaultOpTimeDepartures[defaultOpTimeDepartures] UGSE --> defaultOpTimeArrivals[defaultOpTimeArrivals] UGSE --> defaultAnnualOpTime[defaultAnnualOpTime] UGSE --> userEmissionFactors[userEmissionFactors] </pre> <p>Supports legacy EDMS studies relating to content contained in the USER_CREATED_GSE table. This element supports the definition of user defined ground support equipment.</p>
properties	content complex
children	gseID gseName defaultLoadFactor defaultHorsepower defaultOpTimeDepartures defaultOpTimeArrivals defaultAnnualOpTime userEmissionFactors
used by	element userGroundSupportEquipmentSet
annotation	documentation Supports legacy EDMS studies relating to content contained in the USER_CREATED_GSE table. This element supports the definition of user defined ground support equipment.

element [userGroundSupportEquipment/gseID](#)

diagram	<pre> graph LR gseID[gseID] </pre> <p>User GSE ID (used as identifier (System GSE ID) in AIRCRAFT_GSE_ASSIGNMENTS, GSE_POPULATION, GSE_POPULATION_GATE_ASSIGNMENTS).</p>
type	xs:int
properties	content simple
annotation	User GSE ID (used as identifier (System GSE ID) in AIRCRAFT_GSE_ASSIGNMENTS, GSE_POPULATION, GSE_POPULATION_GATE_ASSIGNMENTS).

element [userGroundSupportEquipment/gseName](#)

diagram	<pre> graph LR gseName[gseName] </pre> <p>Custom GSE name.</p>
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Custom GSE name.

element [userGroundSupportEquipment/defaultLoadFactor](#)

diagram	
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	<p>defaultLoadFactor</p> <p>GSE default load factor. Valid values: 0 to 100. (%)</p>
type	doubleInclusive1
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation GSE default load factor. Valid values: 0 to 100. (%)

element userGroundSupportEquipment/defaultHorsepower

diagram	<p>defaultHorsepower</p> <p>GSE default horsepower. Valid values: 0 to 10000. (hp)</p>
type	xs:double
properties	content simple
annotation	documentation GSE default horsepower. Valid values: 0 to 10000. (hp)

element userGroundSupportEquipment/defaultOpTimeDepartures

diagram	<p>defaultOpTimeDepartures</p> <p>GSE default operation time departures. Valid values: 0 to 1000. (min/LTO)</p>
type	xs:double
properties	content simple
annotation	documentation GSE default operation time departures. Valid values: 0 to 1000. (min/LTO)

element userGroundSupportEquipment/defaultOpTimeArrivals

diagram	<p>defaultOpTimeArrivals</p> <p>GSE default operation time arrivals. Valid values: 0 to 1000. (min/LTO)</p>
type	xs:double
properties	content simple
annotation	documentation GSE default operation time arrivals. Valid values: 0 to 1000. (min/LTO)

element userGroundSupportEquipment/defaultAnnualOpTime

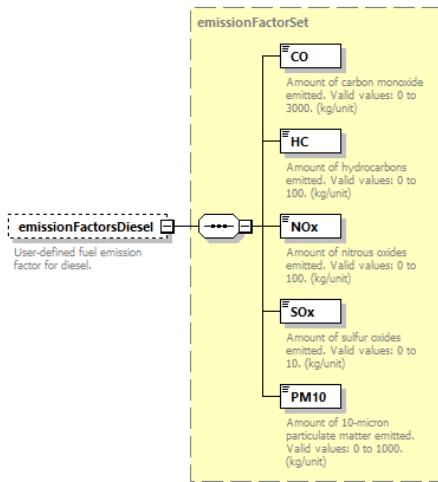
diagram	<p>defaultAnnualOpTime</p> <p>GSE default operation time annual. Valid values: 0 to 8784. (min/LTO)</p>
type	xs:double
properties	content simple
annotation	documentation GSE default operation time annual. Valid values: 0 to 8784. (min/LTO)

element userGroundSupportEquipment/userEmissionFactors

diagram	<p>userEmissionFactors</p> <p>Describes user-defined fuel emission factors.</p> <ul style="list-style-type: none"> emissionFactorsDiesel: User-defined fuel emission factor for diesel. emissionFactorsGas: User-defined fuel emission factor for gasoline. emissionFactorsCNG: User-defined fuel emission factor for compressed natural gas. emissionFactorsLPG: User-defined fuel emission factor for liquefied petroleum gas.
properties	content complex
children	emissionFactorsDiesel emissionFactorsGas emissionFactorsCNG emissionFactorsLPG
annotation	documentation Describes user-defined fuel emission factors.

element userGroundSupportEquipment/userEmissionFactors/emissionFactorsDiesel

diagram	
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type	emissionFactorSet
properties	minOcc 0 maxOcc 1 content complex
children	CO HC NOx SOx PM10
annotation	documentation User-defined fuel emission factor for diesel.

element **userGroundSupportEquipment/userEmissionFactors/emissionFactorsGas**

diagram	<pre> classDiagram class emissionFactorSet { <<User-defined fuel emission factor for gasoline.>> <<CO>> Amount of carbon monoxide emitted. Valid values: 0 to 3000. (kg/unit) <<HC>> Amount of hydrocarbons emitted. Valid values: 0 to 100. (kg/unit) <<NOx>> Amount of nitrous oxides emitted. Valid values: 0 to 100. (kg/unit) <<SOx>> Amount of sulfur oxides emitted. Valid values: 0 to 10. (kg/unit) <<PM10>> Amount of 10-micron particulate matter emitted. Valid values: 0 to 1000. (kg/unit) } </pre>
type	emissionFactorSet
properties	minOcc 0 maxOcc 1 content complex
children	CO HC NOx SOx PM10
annotation	documentation User-defined fuel emission factor for gasoline.

element **userGroundSupportEquipment/userEmissionFactors/emissionFactorsCNG**

diagram	
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	<p>emissionFactorSet</p> <ul style="list-style-type: none"> CO: Amount of carbon monoxide emitted. Valid values: 0 to 3000. (kg/unit) HC: Amount of hydrocarbons emitted. Valid values: 0 to 100. (kg/unit) NOx: Amount of nitrous oxides emitted. Valid values: 0 to 100. (kg/unit) SOx: Amount of sulfur oxides emitted. Valid values: 0 to 10. (kg/unit) PM10: Amount of 10-micron particulate matter emitted. Valid values: 0 to 1000. (kg/unit) <p>emissionFactorsCNG User-defined fuel emission factor for compressed natural gas.</p>
type	emissionFactorSet
properties	minOcc 0 maxOcc 1 content complex
children	CO HC NOx SOx PM10
annotation	documentation User-defined fuel emission factor for compressed natural gas.

element userGroundSupportEquipment/userEmissionFactors/emissionFactorsLPG

	<p>emissionFactorSet</p> <ul style="list-style-type: none"> CO: Amount of carbon monoxide emitted. Valid values: 0 to 3000. (kg/unit) HC: Amount of hydrocarbons emitted. Valid values: 0 to 100. (kg/unit) NOx: Amount of nitrous oxides emitted. Valid values: 0 to 100. (kg/unit) SOx: Amount of sulfur oxides emitted. Valid values: 0 to 10. (kg/unit) PM10: Amount of 10-micron particulate matter emitted. Valid values: 0 to 1000. (kg/unit) <p>emissionFactorsLPG User-defined fuel emission factor for liquefied petroleum gas.</p>
type	emissionFactorSet
properties	minOcc 0 maxOcc 1 content complex
children	CO HC NOx SOx PM10
annotation	documentation User-defined fuel emission factor for liquefied petroleum gas.

element userGroundSupportEquipmentSet

	<p>userGroundSupportEquipmentSet</p> <p>Supports legacy EDMS studies relating to content contained in the USER_CREATED_GSE table. This element supports the definition of user defined ground support equipment.</p> <p>userGroundSupportEquipment</p> <p>Supports legacy EDMS studies relating to content contained in the USER_CREATED_GSE table. This element supports the definition of user defined ground support equipment.</p>												
properties	content complex												
children	userGroundSupportEquipment												
used by	elements AsifXml study												
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	documentation Supports legacy EDMS studies relating to content contained in the USER_CREATED_GSE table. This element supports the definition of user defined ground support equipment.												

attribute **userGroundSupportEquipmentSet/@dummy**

type	xs:int
properties	use optional

element **vehicleEmissionFactors**

diagram	<pre> graph LR A[vehicleEmissionFactors] --> B[CO] A --> C[NMHC] A --> D[VOC] A --> E[THC] A --> F[TOG] A --> G[NOx] A --> H[SOx] A --> I[PM10] A --> J[PM25] A --> K[Benzene] A --> L[MTBE] A --> M[Butadiene] A --> N[Formaldehyde] A --> O[Acetaldehyde] A --> P[Acrolein] </pre>
properties	content complex
children	CO NMHC VOC THC TOG NOx SOx PM-10 PM-2.5 Benzene MTBE Butadiene Formaldehyde Acetaldehyde Acrolein
used by	elements parkingFacilityOperation roadwayOperation
annotation	documentation Supports legacy EDMS studies relating to content contained in the ROADWAYS/PARKING table. This element supports the definition of custom emission factor specifications for roadways and parking.

element **vehicleEmissionFactors/CO**

diagram	<pre> graph LR A[CO] </pre>
type	xs:double
properties	content simple
annotation	documentation Amount of carbon monoxide emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)

element **vehicleEmissionFactors/NMHC**

diagram	
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	 NMHC Amount of non-methane hydrocarbons emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of non-methane hydrocarbons emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)

element **vehicleEmissionFactors/VOC**

	 VOC Amount of volatile organic compounds emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of volatile organic compounds emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)

element **vehicleEmissionFactors/THC**

	 THC Amount of total hydrocarbons emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of total hydrocarbons emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)

element **vehicleEmissionFactors/TOG**

	 TOG Amount of total organic gasses emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of total organic gasses emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)

element **vehicleEmissionFactors/NOx**

	 NOx Amount of nitrous oxides emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of nitrous oxides emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)

element **vehicleEmissionFactors/SOx**

	 SOx Amount of sulfur oxides emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of sulfur oxides emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)

element **vehicleEmissionFactors/PM-10**

	 PM-10 Amount of 10-micron particulate matter emitted. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of 10-micron particulate matter emitted. (grams/vehicle-mile)

element **vehicleEmissionFactors/PM-2.5**

diagram	 PM-2.5 Amount of 2.5-micron particulate matter emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of 2.5-micron particulate matter emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)

element **vehicleEmissionFactors/Benzene**

diagram	 Benzene Amount of benzene emitted. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of benzene emitted. (grams/vehicle-mile)

element **vehicleEmissionFactors/MTBE**

diagram	 MTBE Amount of methyl tertiary butyl ether emitted. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of methyl tertiary butyl ether emitted. (grams/vehicle-mile)

element **vehicleEmissionFactors/Butadiene**

diagram	 Butadiene Amount of butadiene emitted. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of butadiene emitted. (grams/vehicle-mile)

element **vehicleEmissionFactors/Formaldehyde**

diagram	 Formaldehyde Amount of formaldehyde emitted. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of formaldehyde emitted. (grams/vehicle-mile)

element **vehicleEmissionFactors/Acetaldehyde**

diagram	 Acetaldehyde Amount of acetaldehyde emitted. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of acetaldehyde emitted. (grams/vehicle-mile)

element **vehicleEmissionFactors/Acrolein**

diagram	 Acrolein Amount of acrolein emitted. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of acrolein emitted. (grams/vehicle-mile)

element **volumeStationarySource**

diagram	
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	<pre> graph LR VS[volumeStationarySource] --> PC[pointCoord] PC --- BE[baseElevation] PC --- RH[releaseHeight] PC --- SZ[sigmaZ] PC --- SY[sigmaY] </pre>
properties	content complex
children	pointCoord baseElevation releaseHeight sigmaZ sigmaY
used by	element stationarySource
annotation	<p>Specifies the volume in space occupied by a stationary source of emissions.</p>

element volumeStationarySource/pointCoord

diagram	<pre> graph LR PC[pointCoord] --> C2D[coord2DType] C2D --- LCG[lationCoordGroup] C2D --- UCG[utmCoordGroup] LCG --- LAT[latitude] LCG --- LONG[longitude] UCG --- UTMN[utmN] UCG --- UTME[utmE] UCG --- UTMZ[utmZone] </pre>
type	coord2DType
properties	content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone
annotation	<p>Type of 2D coordinates specifying the volume.</p>

element volumeStationarySource/baseElevation

diagram	<pre> graph LR BE[baseElevation] </pre>
type	xs:double
properties	content simple
annotation	<p>Height of volume. (m)</p>

element volumeStationarySource/releaseHeight

diagram	<pre> graph LR RH[releaseHeight] </pre>
type	doubleInclusive100

properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Height at which emissions are released into the atmosphere. Valid values 0 to 100 (m)

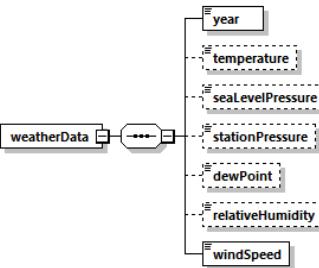
element **volumeStationarySource/sigmaZ**

diagram	 Vertical dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: 0.1 to 100.0. (m)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Vertical dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: 0.1 to 100.0. (m)

element **volumeStationarySource/sigmaY**

diagram	 Horizontal dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: 0.1 to 100.0. (m)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Horizontal dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: 0.1 to 100.0. (m)

element **weatherData**

diagram	
properties	content complex
children	year temperature seaLevelPressure stationPressure dewPoint relativeHumidity windSpeed
used by	element airportWeatherStation

element **weatherData/year**

diagram	
type	weatherDataYear
properties	content simple

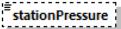
element **weatherData/temperature**

diagram	
type	xs:decimal
properties	minOcc 0 maxOcc 1 content simple

element **weatherData/seaLevelPressure**

diagram	
type	xs:decimal
properties	minOcc 0 maxOcc 1 content simple

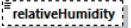
element weatherData/stationPressure

diagram	 stationPressure
type	xs:decimal
properties	minOcc 0 maxOcc 1 content simple

element weatherData/dewPoint

diagram	 dewPoint
type	xs:decimal
properties	minOcc 0 maxOcc 1 content simple

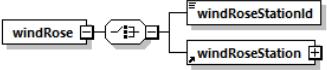
element weatherData/relativeHumidity

diagram	 relativeHumidity
type	xs:double
properties	minOcc 0 maxOcc 1 content simple

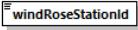
element weatherData/windSpeed

diagram	 windSpeed
type	xs:decimal
properties	content simple

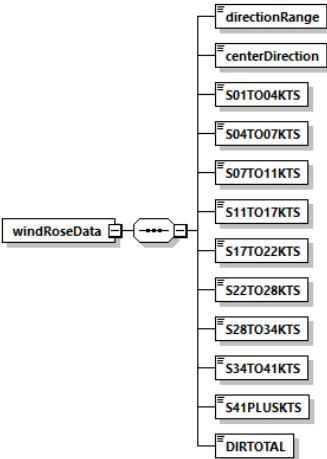
element windRose

diagram	 windRose
properties	content complex
children	windRoseStationId windRoseStation
used by	complexType airport

element windRose/windRoseStationId

diagram	 windRoseStationId
type	string5
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 5

element windRoseData

diagram	 windRoseData
properties	content complex
children	directionRange centerDirection S01TO04KTS S04TO07KTS S07TO11KTS S11TO17KTS S17TO22KTS S22TO28KTS S28TO34KTS S34TO41KTS S41PLUSKTS DIRTOTAL
used by	element windRoseStation

element windRoseData/directionRange

diagram	 directionRange
type	string14
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 14

element windRoseData/centerDirection

diagram	 centerDirection
type	xs:int
properties	content simple

element windRoseData/S01TO04KTS

diagram	 S01TO04KTS
type	xs:int
properties	content simple

element windRoseData/S04TO07KTS

diagram	 S04TO07KTS
type	xs:int
properties	content simple

element windRoseData/S07TO11KTS

diagram	 S07TO11KTS
type	xs:int
properties	content simple

element windRoseData/S11TO17KTS

diagram	 S11TO17KTS
type	xs:int
properties	content simple

element windRoseData/S17TO22KTS

diagram	 S17TO22KTS
type	xs:int
properties	content simple

element windRoseData/S22TO28KTS

diagram	 S22TO28KTS
type	xs:int
properties	content simple

element windRoseData/S28TO34KTS

diagram	 S28TO34KTS
type	xs:int
properties	content simple

element windRoseData/S34TO41KTS

diagram	 S34TO41KTS
type	xs:int
properties	content simple

element windRoseData/S41PLUSKTS

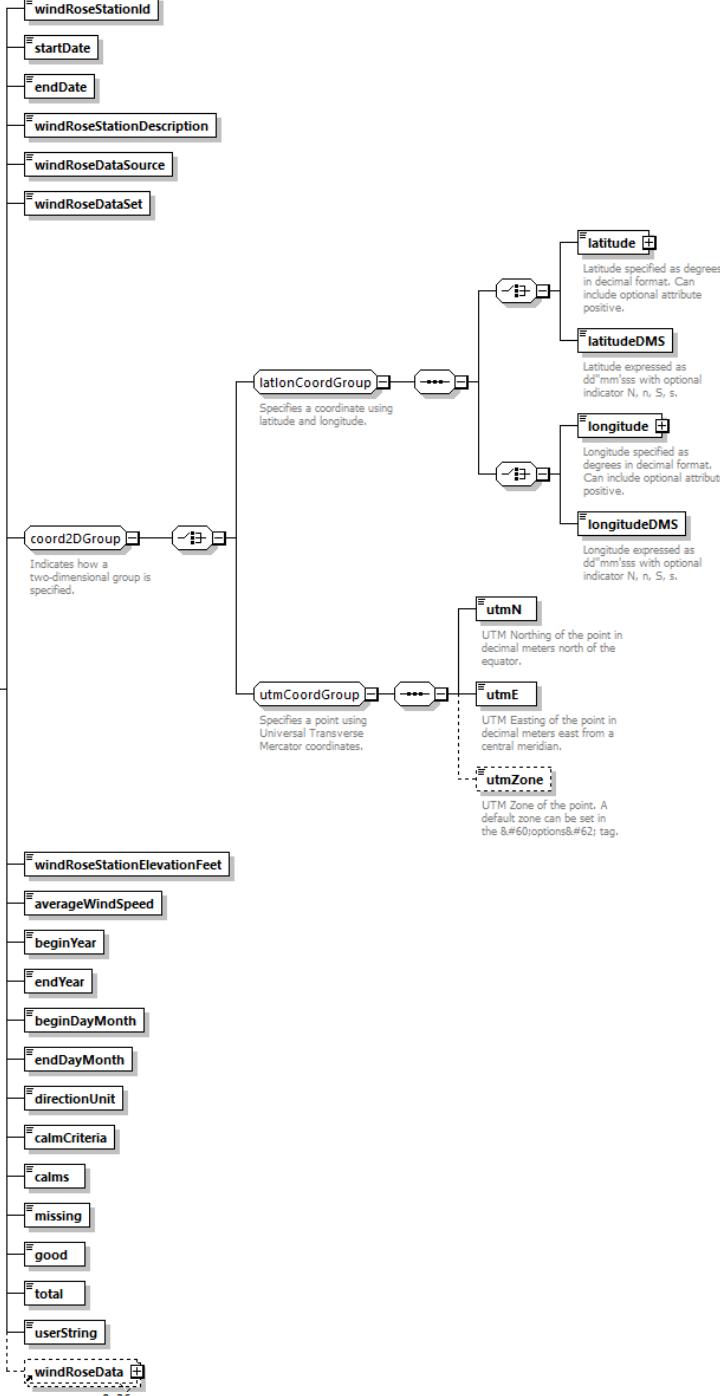
diagram	 S41PLUSKTS
type	xs:int

properties	content simple
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element **windRoseData/DIRTOTAL**

diagram	
type	xs:int
properties	content simple

element **windRoseStation**

diagram	 <pre> graph TD windRoseStation[windRoseStation] --> windRoseStationId[windRoseStationId] windRoseStation --> startDate[startDate] windRoseStation --> endDate[endDate] windRoseStation --> windRoseStationDescription[windRoseStationDescription] windRoseStation --> windRoseDataSource[windRoseDataSource] windRoseStation --> windRoseDataSet[windRoseDataSet] windRoseStationId --- coord2DGroup[coord2DGroup] windRoseStationId --- utmCoordGroup[utmCoordGroup] windRoseStationId --- windRoseStationElevationFeet[windRoseStationElevationFeet] windRoseStationId --- averageWindSpeed[averageWindSpeed] windRoseStationId --- beginYear[beginYear] windRoseStationId --- endYear[endYear] windRoseStationId --- beginDayMonth[beginDayMonth] windRoseStationId --- endDayMonth[endDayMonth] windRoseStationId --- directionUnit[directionUnit] windRoseStationId --- calmCriteria[calmCriteria] windRoseStationId --- calms[calms] windRoseStationId --- missing[missing] windRoseStationId --- good[good] windRoseStationId --- total[total] windRoseStationId --- userString[userString] windRoseStationId --- windRoseData[windRoseData] coord2DGroup --- latitude[latitude] coord2DGroup --- longitude[longitude] utmCoordGroup --- utmN[utmN] utmCoordGroup --- utmE[utmE] utmCoordGroup --- utmZone[utmZone] </pre>
properties	content complex
children	windRoseStationId startDate endDate windRoseStationDescription windRoseDataSource windRoseDataSet latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone windRoseStationElevationFeet averageWindSpeed beginYear endYear beginDayMonth endDayMonth directionUnit calmCriteria calms missing good total userString windRoseData
used by	element windRose

element **windRoseStation/windRoseStationId**

diagram	
type	string5

properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 5

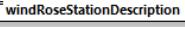
element **windRoseStation/startDate**

diagram	
type	xs:date
properties	content simple

element **windRoseStation/endDate**

diagram	
type	xs:date
properties	content simple

element **windRoseStation/windRoseStationDescription**

diagram	
type	string42
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 42

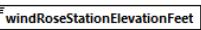
element **windRoseStation/windRoseDataSource**

diagram	
type	string32
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 32

element **windRoseStation/windRoseDataSet**

diagram	
type	string66
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 66

element **windRoseStation/windRoseStationElevationFeet**

diagram	
type	xs:int
properties	content simple

element **windRoseStation/averageWindSpeed**

diagram	
type	xs:double
properties	content simple

element **windRoseStation/beginYear**

diagram	
type	xs:int
properties	content simple

element **windRoseStation/endYear**

diagram	
type	xs:int
properties	content simple

element **windRoseStation/beginDayMonth**

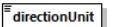
diagram	
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type	string12
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 12

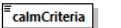
element **windRoseStation/endDayMonth**

diagram	
type	string11
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 11

element **windRoseStation/directionUnit**

diagram	
type	string9
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 9

element **windRoseStation/calmCriteria**

diagram	
type	string11
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 11

element **windRoseStation/calms**

diagram	
type	xs:int
properties	content simple

element **windRoseStation/missing**

diagram	
type	xs:int
properties	content simple

element **windRoseStation/good**

diagram	
type	xs:int
properties	content simple

element **windRoseStation/total**

diagram	
type	xs:int
properties	content simple

element **windRoseStation/userString**

diagram	
type	string11
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 11

group **airportActivityGroup**

diagram	
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	<p>airportActivityGroup Contains a set of activities conducted at an airport.</p> <p>parkingFacilityOperationSet Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage activities for scenario layouts.</p> <p>roadwayOperationSet Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle activity on roadways for scenario layouts.</p> <p>stationarySourceOperationSet Container of operations conducted at a stationary source contributing emissions.</p> <p>groundSupportEquipmentPopulationOperationSet Supports legacy EDMS studies relating to content contained in the GSE_POPULATION table. This element supports the definition of user defined ground support equipment in operational usage.</p>
children	parkingFacilityOperationSet roadwayOperationSet stationarySourceOperationSet groundSupportEquipmentPopulationOperationSet
used by	element case
annotation	documentation Contains a set of activities conducted at an airport.

group annualizationGroupCase

diagram	<p>annualizationGroupCase Allows for grouping cases into groups, and groups into parent groups.</p> <p>annualizationGroup 0.. Contains one or more weighted annualization group cases.</p> <p>annualizationCase 0.. Collection of study cases whose results are weighted in the scenario annualization rollup.</p>
children	annualizationGroup annualizationCase
used by	element annualizationGroup
annotation	documentation Allows for grouping cases into groups, and groups into parent groups.

group coord2DGroup

diagram	<p>coord2DGroup Indicates how a two-dimensional group is specified.</p> <p>latlonCoordGroup Specifies a coordinate using latitude and longitude.</p> <p>longitudeCoordGroup Latitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>latitudeCoordGroup Latitude expressed as dd°mm'ss with optional indicator N, n, S, s.</p> <p>longitudeDMS Longitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>latitudeDMS Longitude expressed as dd°mm'ss with optional indicator N, n, S, s.</p> <p>utmCoordGroup Specifies a point using Universal Transverse Mercator coordinates.</p> <p>utmN UTM Northing of the point in decimal meters north of the equator.</p> <p>utmE UTM Easting of the point in decimal meters east from a central meridian.</p> <p>utmZone UTM Zone of the point. A default zone can be set in the &#60;options&#62; tag.</p>
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone
used by	elements airportWeatherStation centroid grid pointReceptor polarGrid polarReceptor taxiNode trackNode windRoseStation complexTypes airport airportLayoutType runup runwayEnd
annotation	documentation Indicates how a two-dimensional group is specified.

group lationCoordGroup

diagram	
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	<pre> sequenceDiagram participant LCG as lationCoordGroup participant L as latitude participant LD as latitudeDMS participant LDMS as longitudeDMS participant L2 as longitude participant LD2 as longitudeDMS L->>L: Specifies a coordinate using latitude and longitude. activate L L->>L: latitude activate L L-->>L: positive activate L L-->>LD: latitudeDMS deactivate L activate LD LD-->>LD: dd°mm'ss with optional indicator N, n, S, s. deactivate LD activate L2 L2-->>L2: longitude deactivate L2 activate L2 L2-->>L2: positive deactivate L2 L2-->>LD2: longitudeDMS deactivate L2 activate LD2 LD2-->>LD2: dd°mm'ss with optional indicator N, n, S, s. deactivate LD2 </pre>
children	latitude latitudeDMS longitude longitudeDMS
used by	complexType coord2DType group coord2DGroup
annotation	documentation Specifies a coordinate using latitude and longitude.

element lationCoordGroup/latitude

diagram	<pre> sequenceDiagram participant LCG as lationCoordGroup participant L as latitude participant LD as longitudeDecimalType participant A as attributes participant P as positive L->>L: Latitude specified as degrees in decimal format. Can include optional attribute positive. activate L L-->>L: positive activate L L-->>LD: longitudeDecimalType deactivate L activate LD LD-->>LD: attributes activate LD LD-->>P: positive deactivate LD deactivate P </pre>												
type	latitudeDecimalType												
properties	content complex												
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>positive</td> <td>derived by: xs:string</td> <td>optional</td> <td>N</td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	positive	derived by: xs:string	optional	N		
Name	Type	Use	Default	Fixed	Annotation								
positive	derived by: xs:string	optional	N										

element lationCoordGroup/latitudeDMS

diagram	<pre> sequenceDiagram participant LCG as lationCoordGroup participant LD as latitudeDMS L->>L: Latitude expressed as dd°mm'ss with optional indicator N, n, S, s. activate L L-->>LD: latitudeDMS deactivate L </pre>						
type	latitudeDMSType						
properties	content simple						
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>pattern</td> <td>[0-9]{2}[\.-]{"[0-9]{2}[\.-]'"&apos;}[0-9]{2}[\.-]'"&apos;][0-9]{2}(.{0-9}{3})?[N n S s]</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	pattern	[0-9]{2}[\.-]{"[0-9]{2}[\.-]'"'}[0-9]{2}[\.-]'"'][0-9]{2}(.{0-9}{3})?[N n S s]	
Kind	Value	Annotation					
pattern	[0-9]{2}[\.-]{"[0-9]{2}[\.-]'"'}[0-9]{2}[\.-]'"'][0-9]{2}(.{0-9}{3})?[N n S s]						

element lationCoordGroup/longitude

diagram	<pre> sequenceDiagram participant LCG as lationCoordGroup participant L as longitude participant LD as longitudeDecimalType participant A as attributes participant P as positive L->>L: Longitude specified as degrees in decimal format. Can include optional attribute positive. activate L L-->>L: positive activate L L-->>LD: longitudeDecimalType deactivate L activate LD LD-->>LD: attributes activate LD LD-->>P: positive deactivate LD deactivate P </pre>												
type	longitudeDecimalType												
properties	content complex												
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>positive</td> <td>derived by: xs:string</td> <td>optional</td> <td>E</td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	positive	derived by: xs:string	optional	E		
Name	Type	Use	Default	Fixed	Annotation								
positive	derived by: xs:string	optional	E										

element lationCoordGroup/longitudeDMS

diagram	<pre> sequenceDiagram participant LCG as lationCoordGroup participant LD as longitudeDMS L->>L: Longitude expressed as dd°mm'sss with optional indicator N, n, S, s. activate L L-->>LD: longitudeDMS deactivate L </pre>						
type	longitudeDMSType						
properties	content simple						
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>pattern</td> <td>[0-9]{2}[\.-]{"[0-9]{2}[\.-]'"&apos;}[0-9]{2}[\.-]'"&apos;][0-9]{2}(.{0-9}{3})?[E e W w]</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	pattern	[0-9]{2}[\.-]{"[0-9]{2}[\.-]'"'}[0-9]{2}[\.-]'"'][0-9]{2}(.{0-9}{3})?[E e W w]	
Kind	Value	Annotation					
pattern	[0-9]{2}[\.-]{"[0-9]{2}[\.-]'"'}[0-9]{2}[\.-]'"'][0-9]{2}(.{0-9}{3})?[E e W w]						

group nodeIdGroup

diagram	<p>A group of nodes.</p> <p>id String identifier for the grouping of nodes.</p> <p>description An optional description for the grouping of nodes.</p>
children	id description
used by	elements trackNode trackVector
annotation	documentation A group of nodes.

element nodeIdGroup/id

diagram	<p>String identifier for the grouping of nodes.</p>
type	string16
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 16
annotation	documentation String identifier for the grouping of nodes.

element nodeIdGroup/description

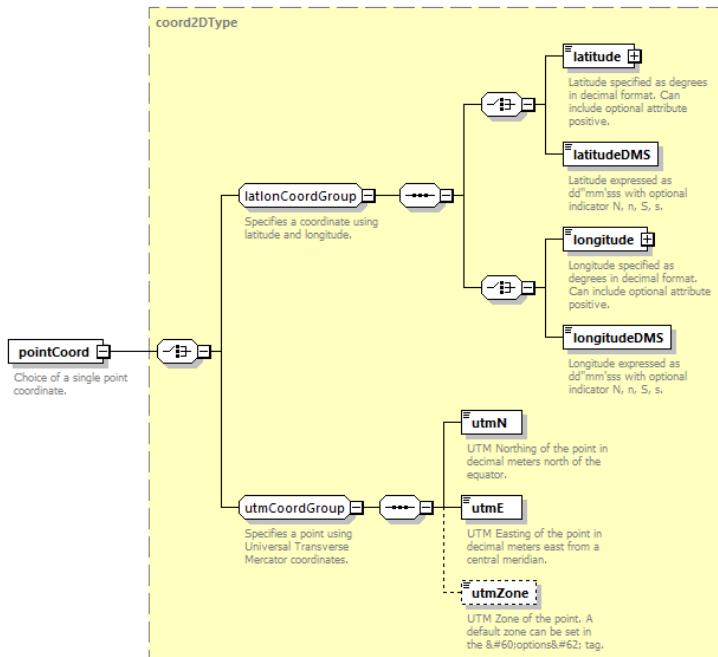
diagram	<p>An optional description for the grouping of nodes.</p>
type	string16
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 16
annotation	documentation An optional description for the grouping of nodes.

group oneOrThreeCoords2DGroupSet

diagram	<p>Type of coordinate specifying the area.</p> <p>pointCoord Choice of a single point coordinate.</p> <p>polygonCoords Choice of a 2D polygon.</p>
children	pointCoord polygonCoords
used by	elements areaStationarySource building gate parkingFacility
annotation	documentation Type of coordinate specifying the area.

element oneOrThreeCoords2DGroupSet/pointCoord

diagram	
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type	coord2DType
properties	content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone
annotation	Choice of a single point coordinate.

element oneOrThreeCoords2DGroupSet/polygonCoords

diagram	<pre> classDiagram polygon2DType { polygonCoords dummy vertex } </pre> <p>The diagram illustrates the <code>polygon2DType</code> element, which defines a 2D polygon. It includes:</p> <ul style="list-style-type: none"> <code>polygonCoords</code>: Choice of a 2D polygon. <code>dummy</code>: A placeholder for a vertex. <code>vertex</code>: A list of vertices defining the polygon, with a multiplicity of 3..∞.
type	polygon2DType
properties	content complex
children	dummy vertex
annotation	Choice of a 2D polygon.

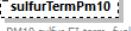
group pm10TermGroup

diagram	<pre> classDiagram pm10TermGroup { constantTermPm10 sulfurTermPm10 } </pre> <p>The diagram illustrates the <code>pm10TermGroup</code> group, which contains two terms:</p> <ul style="list-style-type: none"> <code>constantTermPm10</code>: PM10 emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³) <code>sulfurTermPm10</code>: PM10 sulfur E1 term, fuel dependent. Valid values: 0 to 1000. (Kg/1000 m³) - %Sulfur, or Kg/Kiloliter - %Sulfur, or Kg/Metric Ton - %Sulfur
children	constantTermPm10 sulfurTermPm10
used by	element categoryBoilerHeater

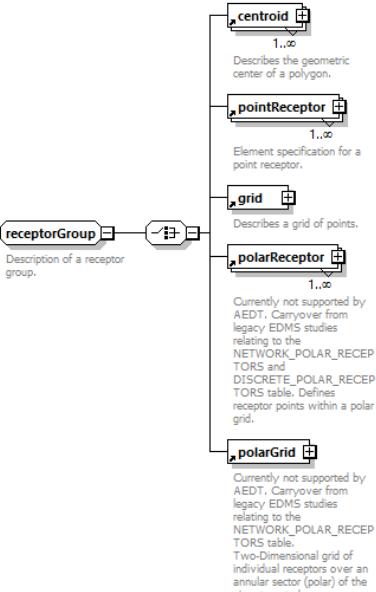
element pm10TermGroup/constantTermPm10

diagram	<pre> classDiagram constantTermPm10 </pre> <p>The diagram illustrates the <code>constantTermPm10</code> element, which defines the PM10 emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)</p>
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation

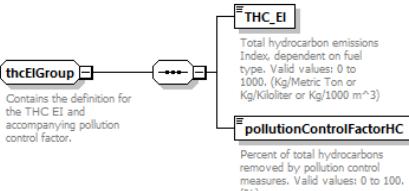
element pm10TermGroup/sulfurTermPm10

diagram	 PM10 sulfur EI term, fuel dependent. Valid values: 0 to 1000. (Kg/1000 m^3 - %Sulfur, or Kg/Kiloliter - %Sulfur, or Kg/Metric Ton - %Sulfur)
type	doubleInclusive1000
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation PM10 sulfur EI term, fuel dependent. Valid values: 0 to 1000. (Kg/1000 m^3 - %Sulfur, or Kg/Kiloliter - %Sulfur, or Kg/Metric Ton - %Sulfur)

group receptorGroup

diagram	 Description of a receptor group. A diagram showing the structure of the receptorGroup element. It consists of a central rounded rectangle labeled "receptorGroup" connected by a line to a dashed oval. From this dashed oval, four lines lead to four separate boxes: "centroid", "pointReceptor", "grid", and "polarReceptor". Each box contains a brief description of its function. <ul style="list-style-type: none">centroid: Describes the geometric center of a polygon.pointReceptor: Element specification for a point receptor.grid: Describes a grid of points.polarReceptor: Currently not supported by AEDT. Carryover from legacy EDMS studies relating to the NETWORK_POLAR_RECEP TORS table. DISCRETE_POLAR_RECEP TORS table. Defines receptor points within a polar grid.
children	centroid pointReceptor grid polarReceptor polarGrid
used by	element receptorSet
annotation	documentation Description of a receptor group.

group thcElGroup

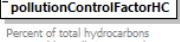
diagram	 Contains the definition for the THC EI and accompanying pollution control factor. A diagram showing the structure of the thcElGroup element. It consists of a central rounded rectangle labeled "thcElGroup" connected by a line to a dashed oval. From this dashed oval, two lines lead to two separate boxes: "THC_EI" and "pollutionControlFactorHC". Each box contains a brief description of its function. <ul style="list-style-type: none">THC_EI: Total hydrocarbon emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)pollutionControlFactorHC: Percent of total hydrocarbons removed by pollution control measures. Valid values: 0 to 100. (%)
children	THC_EI pollutionControlFactorHC
used by	element categoryBoilerHeater
annotation	documentation Contains the definition for the THC EI and accompanying pollution control factor.

element thcElGroup/THC_EI

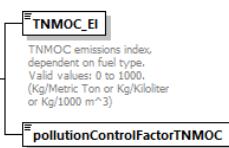
diagram	 Total hydrocarbon emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0

	maxInclusive 1000
annotation	documentation Total hydrocarbon emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)

element **thcElGroup/pollutionControlFactorHC**

diagram	 <p>Percent of total hydrocarbons removed by pollution control measures. Valid values: 0 to 100. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of total hydrocarbons removed by pollution control measures. Valid values: 0 to 100. (%)

group **tnmocElGroup**

diagram	 <p>TNMOC_EI TNMOC emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3) pollutionControlFactorTNMOC Percent of total non-methane organic compounds removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
children	TNMOC_EI pollutionControlFactorTNMOC
used by	element categoryBoilerHeater
annotation	documentation Contains the definition for the TNMOC EI and accompanying pollution control factor.

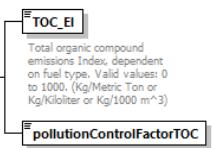
element **tnmocElGroup/TNMOC_EI**

diagram	 <p>TNMOC_EI TNMOC emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)</p>
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation TNMOC emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)

element **tnmocElGroup/pollutionControlFactorTNMOC**

diagram	 <p>pollutionControlFactorTNMOC Percent of total non-methane organic compounds removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of total non-methane organic compounds removed by pollution control measures. Valid values: 0 to 1000. (%)

group **tocElGroup**

diagram	 <p>TOC_EI Total organic compound emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3) pollutionControlFactorTOC Percent of total organic compounds removed by pollution control measures. Valid values: 0 to 100. (%)</p>
children	TOC_EI pollutionControlFactorTOC
used by	element categoryBoilerHeater
annotation	documentation

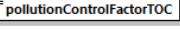
Contains the definition for the TOC EI and accompanying pollution control factor.

element **tocEIGroup/TOC_EI**

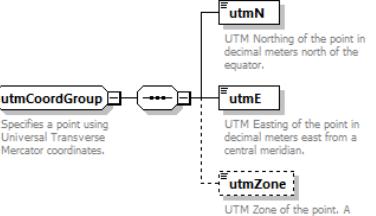
diagram	 TOC_EI Total organic compound emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000

annotation documentation
Total organic compound emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)

element **tocEIGroup/pollutionControlFactorTOC**

diagram	 pollutionControlFactorTOC Percent of total organic compounds removed by pollution control measures. Valid values: 0 to 100.(%)
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of total organic compounds removed by pollution control measures. Valid values: 0 to 100.(%)

group **utmCoordGroup**

diagram	 utmCoordGroup --- utmN Specifies a point using Universal Transverse Mercator coordinates. utmE UTM Northing of the point in decimal meters north of the equator. utmE UTM Easting of the point in decimal meters east from a central meridian. utmZone UTM Zone of the point. A default zone can be set in the <options> tag.
children	<u>utmN</u> <u>utmE</u> <u>utmZone</u>
used by	complexType <u>coord2DType</u> group <u>coord2DGroup</u>
annotation	documentation Specifies a point using Universal Transverse Mercator coordinates.

element **utmCoordGroup/utmN**

diagram	 utmN UTM Northing of the point in decimal meters north of the equator.
type	xs:double
properties	content simple
annotation	documentation UTM Northing of the point in decimal meters north of the equator.

element **utmCoordGroup/utmE**

diagram	 utmE UTM Easting of the point in decimal meters east from a central meridian.
type	xs:double
properties	content simple
annotation	documentation UTM Easting of the point in decimal meters east from a central meridian.

element **utmCoordGroup/utmZone**

diagram	 utmZone UTM Zone of the point. A default zone can be set in the <options> tag.
type	xs:int

properties	minOcc 0 maxOcc 1 content simple default -1
annotation	documentation UTM Zone of the point. A default zone can be set in the <options> tag.

group vocElGroup

diagram	<p>vocElGroup</p> <p>Contains the definition for the VOC EI and accompanying pollution control factor.</p> <p>VOC_EI</p> <p>VOC emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)</p> <p>pollutionControlFactorVOC</p> <p>Percent of volatile organic compounds removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
children	VOC_EI pollutionControlFactorVOC
used by	element categoryBoilerHeater
annotation	documentation Contains the definition for the VOC EI and accompanying pollution control factor.

element vocElGroup/VOC_EI

diagram	<p>VOC_EI</p> <p>VOC emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)</p>
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation VOC emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)

element vocElGroup/pollutionControlFactorVOC

diagram	<p>pollutionControlFactorVOC</p> <p>Percent of volatile organic compounds removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of volatile organic compounds removed by pollution control measures. Valid values: 0 to 1000. (%)

complexType aircraft

diagram	
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	<pre> classDiagram class aircraft { <<Main block for creating new user defined AEDT aircraft.>> } class description { <<The description for this user defined aircraft.>> } class airframeModel { <<The airframe model used for this user defined aircraft.>> } class engineCode { <<The engine code used for this user defined aircraft.>> } class engineModCode { <<The engine modification code used for this user defined aircraft.>> } class anpAirplaneId { <<The ANP airplane linked to this user defined aircraft.>> } class badaAirplaneId { <<The BADA airplane linked to this user defined aircraft.>> } class anpHelicopterId { <<The ANP helicopter linked to this user defined helicopter.>> } class bada4AirplaneModel { <<Airplane's BADA 4 model.>> } class bada4Engine { <<Airplane's BADA 4 engine.>> } class bada4Suffix { <<User-defined BADA 4 model suffix.>> } class bada4FlapsMapSourceAnpId { <<Source ANP airplane ID for mapping ANP Flaps to BADA 4.>> } aircraft <--> description aircraft <--> airframeModel aircraft <--> engineCode aircraft <--> engineModCode aircraft <--> anpAirplaneId aircraft <--> badaAirplaneId aircraft <--> anpHelicopterId aircraft <--> bada4AirplaneModel aircraft <--> bada4Engine aircraft <--> bada4Suffix aircraft <--> bada4FlapsMapSourceAnpId </pre>
children	description airframeModel engineCode engineModCode anpAirplaneId badaAirplaneId anpHelicopterId bada4AirplaneModel bada4Engine bada4Suffix bada4FlapsMapSourceAnpId
used by	element fleet/aircraft
annotation	documentation Main block for creating new user defined AEDT aircraft.

element aircraft/description

diagram	<p>The description for this user defined aircraft.</p>
type	string255
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The description for this user defined aircraft.

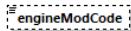
element aircraft/airframeModel

diagram	<p>The airframe model used for this user defined aircraft.</p>
type	airframeModel
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The airframe model used for this user defined aircraft.

element aircraft/engineCode

diagram	<p>The engine code used for this user defined aircraft.</p>
type	engineCode
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The engine code used for this user defined aircraft.

element **aircraft/engineModCode**

diagram	 engineModCode The engine modification code used for this user defined aircraft.
type	engineModCode
properties	minOcc 0 maxOcc 1 content simple default NONE
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation The engine modification code used for this user defined aircraft.

element **aircraft/anpAirplaneId**

diagram	 anpAirplaneId The ANP airplane linked to this user defined aircraft.
type	anpAirplaneId
properties	content.simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The ANP airplane linked to this user defined aircraft.

element **aircraft/badaAirplaneId**

diagram	 badaAirplaneId The BADA airplane linked to this user defined aircraft.
type	badaAirplaneId
properties	content.simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The BADA airplane linked to this user defined aircraft.

element **aircraft/anpHelicopterId**

diagram	 anpHelicopterId The ANP helicopter linked to this user defined helicopter.
type	anpHelid
properties	content.simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The ANP helicopter linked to this user defined helicopter.

element **aircraft/bada4AirplaneModel**

diagram	 bada4AirplaneModel Airplane's BADA 4 model.
type	bada4AirplaneModel
properties	content.simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's BADA 4 model.

element **aircraft/bada4Engine**

diagram	 bada4Engine Airplane's BADA 4 engine.
type	bada4Engine
properties	content.simple
facets	Kind Value Annotation minLength 0

	maxLength 255
annotation	documentation Airplane's BADA 4 engine.

element aircraft/bada4Suffix

diagram	bada4Suffix User-defined BADA 4 model suffix.
type	bada4Suffix
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation User-defined BADA 4 model suffix.

element aircraft/bada4FlapsMapSourceAnpid

diagram	bada4FlapsMapSourceAnpid Source ANP airplane ID for mapping ANP flaps to BADA 4.
type	anpAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Source ANP airplane ID for mapping ANP flaps to BADA 4.

complexType aircraftEngine

diagram	
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	<p>code</p> <p>Unique ICAO UID.</p> <p>model</p> <p>Engine model.</p> <p>engineType</p> <p>Engine type. Valid values: J (jet), T (turboprop), P (piston).</p> <p>notes</p> <p>Free-text notes for the engine.</p> <p>emissionsEngineModel</p> <p>ICAO emissions model for the engine.</p> <p>performanceEngineModel</p> <p>ICAO performance model for the engine.</p> <p>manufacturer</p> <p>Engine manufacturer.</p> <p>combustor</p> <p>Combustor used on engine.</p> <p>superseded</p> <p>ICAO UID of engine that supersedes the given engine.</p> <p>ratedEngineOut</p> <p>Rated engine output (in kN). Valid values: Nonnegative.</p> <p>source</p> <p>Source of engine data.</p> <p>bypassRatio</p> <p>Engine's bypass ratio. Valid values: Nonnegative.</p> <p>pressureRatio</p> <p>Engine's pressure ratio. Valid values: Nonnegative.</p> <p>tmtFlag</p> <p>Turbo-fan or Mixed turn-fan flag. Valid values: TF (turbofan) or MTF (mixed turbofan).</p> <p>defaultSOx</p> <p>Sulfur oxides emitted (grams per kilogram of fuel). Valid values: Nonnegative.</p> <p>taxiIdleEmissionFactors</p> <p>Emission factor when aircraft is idling.</p> <p>takeOffEmissionFactors</p> <p>Emission factor when aircraft is taking off.</p> <p>climbEmissionFactors</p> <p>Emission factor when aircraft is climbing.</p> <p>approachEmissionFactors</p> <p>Emission factor when aircraft is on approach.</p>
children	code model engineType notes emissionsEngineModel performanceEngineModel manufacturer combustor superseded ratedEngineOut source bypassRatio pressureRatio tmtFlag defaultSOx taxiIdleEmissionFactors takeOffEmissionFactors climbEmissionFactors approachEmissionFactors
used by	element fleet/engine
annotation	<p>documentation</p> <p>User defined engine information containing custom parameters that reflect an aircraft engine. This engine definition can that be used within a user defined aircraft.</p>

element aircraftEngine/code

diagram	<p>code</p> <p>Unique ICAO UID.</p>
type	engineCode
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	<p>documentation</p> <p>Unique ICAO UID.</p>

element aircraftEngine/model

diagram	<p>model</p> <p>Engine model.</p>
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type	engineModel
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Engine model.

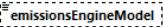
element **aircraftEngine/engineType**

diagram	 engineType Engine type. Valid values: J (jet), T (turboprop), P (piston).
type	engineType
properties	content simple
facets	Kind Value Annotation pattern Jet T Turbo Turboprop T Prop Piston P
annotation	documentation Engine type. Valid values: J (jet), T (turboprop), P (piston).

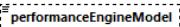
element **aircraftEngine/notes**

diagram	 notes Free-text notes for the engine.
type	string200
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 200
annotation	documentation Free-text notes for the engine.

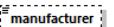
element **aircraftEngine/emissionsEngineModel**

diagram	 emissionsEngineModel ICAO emissions model for the engine.
type	string25
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 25
annotation	documentation ICAO emissions model for the engine.

element **aircraftEngine/performanceEngineModel**

diagram	 performanceEngineModel ICAO performance model for the engine.
type	string25
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 25
annotation	documentation ICAO performance model for the engine.

element **aircraftEngine/manufacturer**

diagram	 manufacturer Engine manufacturer.
type	string100
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation

Engine manufacturer.

element aircraftEngine/combustor

diagram	 Combustor used on engine.
type	string50
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation Combustor used on engine.

element aircraftEngine/superseded

diagram	 ICAO UID of engine that supersedes the given engine.
type	string10
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 10
annotation	documentation ICAO UID of engine that supersedes the given engine.

element aircraftEngine/ratedEngineOut

diagram	 Rated engine output (in kN). Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Rated engine output (in kN). Valid values: Nonnegative.

element aircraftEngine/source

diagram	 Source of engine data.
type	string100
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Source of engine data.

element aircraftEngine/bypassRatio

diagram	 Engine's bypass ratio. Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Engine's bypass ratio. Valid values: Nonnegative.

element aircraftEngine/pressureRatio

diagram	 Engine's pressure ratio. Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple

annotation	documentation Engine's pressure ratio. Valid values: Nonnegative.
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element aircraftEngine/tfmtFlag

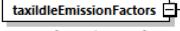
diagram	 <p>Turbo-fan or Mixed turn-fan flag. Valid values: TF (turbofan) or MTF (mixed turbofan).</p>
type	string50
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 50

annotation documentation
Turbo-fan or Mixed turn-fan flag. Valid values: TF (turbofan) or MTF (mixed turbofan).

element aircraftEngine/defaultSOx

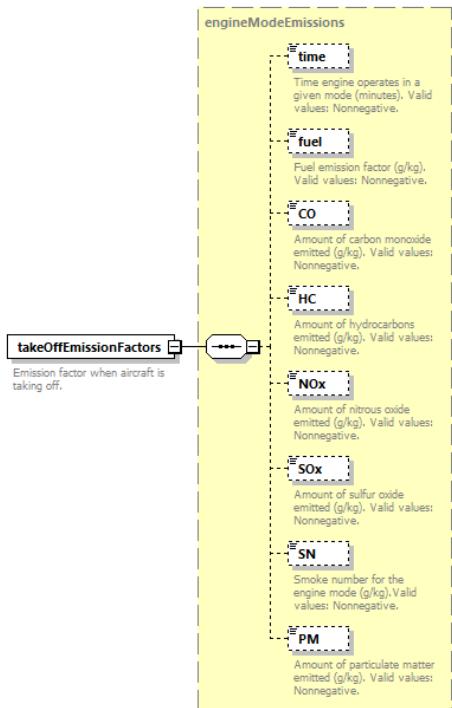
diagram	 <p>Sulfur oxides emitted (grams per kilogram of fuel). Valid values: Nonnegative.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Sulfur oxides emitted (grams per kilogram of fuel). Valid values: Nonnegative.

element aircraftEngine/taxidleEmissionFactors

diagram	 <p>Emission factor when aircraft is idling.</p> <div style="border: 1px solid black; padding: 10px;">  <p>engineModeEmissions</p> <ul style="list-style-type: none">  time Time engine operates in a given mode (minutes). Valid values: Nonnegative.  fuel Fuel emission factor (g/kg). Valid values: Nonnegative.  CO Amount of carbon monoxide emitted (g/kg). Valid values: Nonnegative.  HC Amount of hydrocarbons emitted (g/kg). Valid values: Nonnegative.  NOx Amount of nitrous oxide emitted (g/kg). Valid values: Nonnegative.  SOx Amount of sulfur oxide emitted (g/kg). Valid values: Nonnegative.  SN Smoke number for the engine mode (g/kg). Valid values: Nonnegative.  PM Amount of particulate matter emitted (g/kg). Valid values: Nonnegative. </div>
type	engineModeEmissions
properties	content complex
children	time fuel CO HC NOx SOx SN PM
annotation	documentation Emission factor when aircraft is idling.

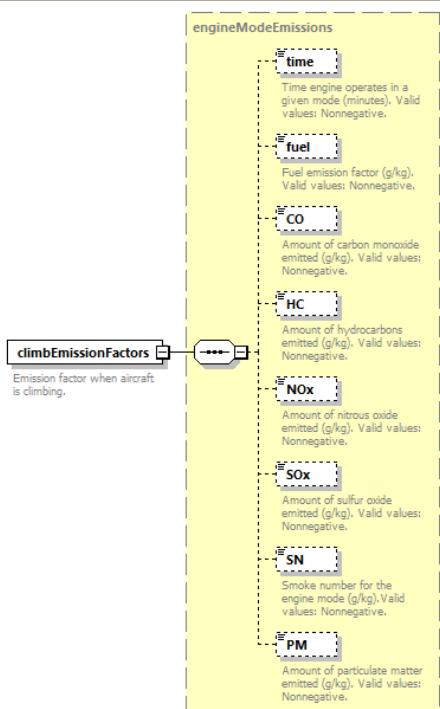
element aircraftEngine/takeOffEmissionFactors

diagram	
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type	engineModeEmissions
properties	content complex
children	time fuel CO HC Nox Sox SN PM
annotation	documentation Emission factor when aircraft is taking off.

element `aircraftEngine/climbEmissionFactors`



type	engineModeEmissions
properties	content complex
children	time fuel CO HC Nox Sox SN PM
annotation	documentation Emission factor when aircraft is climbing.

element `aircraftEngine/approachEmissionFactors`

diagram

	<p>engineModeEmissions</p> <p>approachEmissionFactors</p> <p>Emission factor when aircraft is on approach.</p> <p>time Time engine operates in a given mode (minutes). Valid values: Nonnegative.</p> <p>fuel Fuel emission factor (g/kg). Valid values: Nonnegative.</p> <p>CO Amount of carbon monoxide emitted (g/kg). Valid values: Nonnegative.</p> <p>HC Amount of hydrocarbons emitted (g/kg). Valid values: Nonnegative.</p> <p>NOx Amount of nitrous oxide emitted (g/kg). Valid values: Nonnegative.</p> <p>SOx Amount of sulfur oxide emitted (g/kg). Valid values: Nonnegative.</p> <p>SN Smoke number for the engine mode (g/kg). Valid values: Nonnegative.</p> <p>PM Amount of particulate matter emitted (g/kg). Valid values: Nonnegative.</p>
type	engineModeEmissions
properties	content complex
children	time fuel CO HC NOx SOx SN PM
annotation	<p>documentation</p> <p>Emission factor when aircraft is on approach.</p>

complexType **aircraftEngineMod**

diagram	<p>aircraftEngineMod</p> <p>User defined engine modification information containing custom parameters that reflect an aircraft engine modification. This engine modification definition can that be used within a user defined aircraft.</p> <p>code Unique ICAO UID.</p> <p>description Description of engine modifications.</p>
children	code description
used by	element fleet/engineMod
annotation	<p>documentation</p> <p>User defined engine modification information containing custom parameters that reflect an aircraft engine modification. This engine modification definition can that be used within a user defined aircraft.</p>

element **aircraftEngineMod/code**

diagram	<p>code Unique ICAO UID.</p>
type	engineModCode
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	<p>documentation</p> <p>Unique ICAO UID.</p>

element **aircraftEngineMod/description**

diagram	<p>description Description of engine modifications.</p>
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	<p>documentation</p> <p>Description of engine modifications.</p>

complexType **aircraftType**

<p>diagram</p>	<pre> classDiagram aircraftType "Characterizes an aircraft." --> anpAircraftId anpAircraftId "Air frame model." --> airframeModel anpAircraftId --> engineCode anpAircraftId --> engineModCode anpAircraftId --> apuName anpAircraftId --> groundSupportEquipmentLTOOp... anpAircraftId --> assignDefaultGse </pre>
children	anpAircraftId airframeModel engineCode engineModCode apuName groundSupportEquipmentLTOOp... assignDefaultGse
used by	elements operation/aircraftType runup/aircraftType
annotation	documentation Characterizes an aircraft.

element aircraftType/anpAircraftId

diagram	
type	anpAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255

element aircraftType/airframeModel

diagram	 Air frame model.
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Air frame model.

element aircraftType/engineCode

diagram	 Engine code. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop).
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Engine code. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop).

element aircraftType/engineModCode

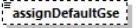
diagram	 Engine modification code. (AEDT database reference table FLEET.FLT_ENGINE_MOD S column ENGINE_MOD_CODE.)
type	engineModCode
properties	minOcc 0 maxOcc 1 content simple default NONE
facets	Kind Value Annotation

	minLength 0 maxLength 50
annotation	documentation Engine modification code. (AEDT database reference table FLEET.FLT_ENGINE_MODS column ENGINE_MOD_CODE.)

element **aircraftType/apuName**

diagram	 Name of auxiliary power unit used by this type of aircraft.
type	xs:string
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Name of auxiliary power unit used by this type of aircraft.

element **aircraftType/assignDefaultGse**

diagram	 Whether the application should assign default GSE for this operation or not
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation Whether the application should assign default GSE for this operation or not

complexType **airframe**

diagram	 This element supports the definition of custom airframes. <p>The diagram shows the structure of the airframe complex type. It includes the following fields:</p> <ul style="list-style-type: none"> model: Unique description of airframe. engineCount: Number of engines on airframe. engineLocation: Position of engine on airframe. Valid values: F (Fuselage/Tail), W (Wing). designationCode: Type of aviation. Valid values: C (Civil), G (General Aviation), M (Military). maxRange: Number of miles airframe can fly fully fueled. Valid values: Nonnegative. introYear: Year airframe was introduced. Valid values: Nonnegative. euroGroupCode: European group code for this airframe. Valid values: H1 (Helicopter Light), H2 (Helicopter Heavy), JB (Jet Business), Jt (Jet Large), JM (Jet Medium), JR (Jet Regional), JS (Jet Small), pp (Propeller), SS (Supersonic), TP (Turboprop). usageCode: Usage code for this airframe. Valid values: H (Heavy), L (Large), M (Medium), S (Small), T (Light), V (Very Light). sizeCode: Size code for this airframe. Valid values: H (Heavy), L (Large), M (Medium), S (Small), T (Light), V (Very Light). engineType: Type of engine on this airframe. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop). auxiliaryPowerUnitId: Identifier of an auxiliary power unit.
children	model engineCount engineLocation designationCode maxRange introYear euroGroupCode usageCode sizeCode engineType auxiliaryPowerUnitId
used by	element fleet/airframe
annotation	documentation This element supports the definition of custom airframes.

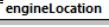
element **airframe/model**

diagram	 model Unique description of airframe.
type	airframeModel
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255

element **airframe/engineCount**

diagram	 engineCount Number of engines on airframe.
type	xs:int
properties	content simple
annotation	documentation Number of engines on airframe.

element **airframe/engineLocation**

diagram	 engineLocation Position of engine on airframe. Valid values: F (Fuselage/Tail), W (Wing).
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Position of engine on airframe. Valid values: F (Fuselage/Tail), W (Wing).

element **airframe/designationCode**

diagram	 designationCode Type of aviation. Valid values: C (Civil), G (General Aviation), M (Military).
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of aviation. Valid values: C (Civil), G (General Aviation), M (Military).

element **airframe/maxRange**

diagram	 maxRange Number of miles airframe can fly fully fueled. Valid values: Nonnegative.
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Number of miles airframe can fly fully fueled. Valid values: Nonnegative.

element **airframe/introYear**

diagram	 introYear Year airframe was introduced. Valid values: Nonnegative.
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Year airframe was introduced. Valid values: Nonnegative.

element **airframe/euroGroupCode**

diagram	
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	<p>euroGroupCode</p> <p>European group code for this airframe. Valid values: H1 (Helicopter Light), H2 (Helicopter Heavy), JB (Jet Business), JL (Jet Large), JM (Jet Medium), JR (Jet Regional), JS (Jet Small), PP (Propeller), SS (Supersonic), TP (Turboprop).</p>
type	string2
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 2
annotation	documentation European group code for this airframe. Valid values: H1 (Helicopter Light), H2 (Helicopter Heavy), JB (Jet Business), JL (Jet Large), JM (Jet Medium), JR (Jet Regional), JS (Jet Small), PP (Propeller), SS (Supersonic), TP (Turboprop).

element airframe/usageCode

diagram	<p>usageCode</p> <p>Usage code for this airframe. Valid values: H (Heavy), L (Large), M (Medium), S (Small), T (Light), V (Very Light).</p>
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Usage code for this airframe. Valid values: H (Heavy), L (Large), M (Medium), S (Small), T (Light), V (Very Light).

element airframe/sizeCode

diagram	<p>sizeCode</p> <p>Size code for this airframe. Valid values: H (Heavy), L (Large), M (Medium), S (Small), T (Light), V (Very Light).</p>
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Size code for this airframe. Valid values: H (Heavy), L (Large), M (Medium), S (Small), T (Light), V (Very Light).

element airframe/engineType

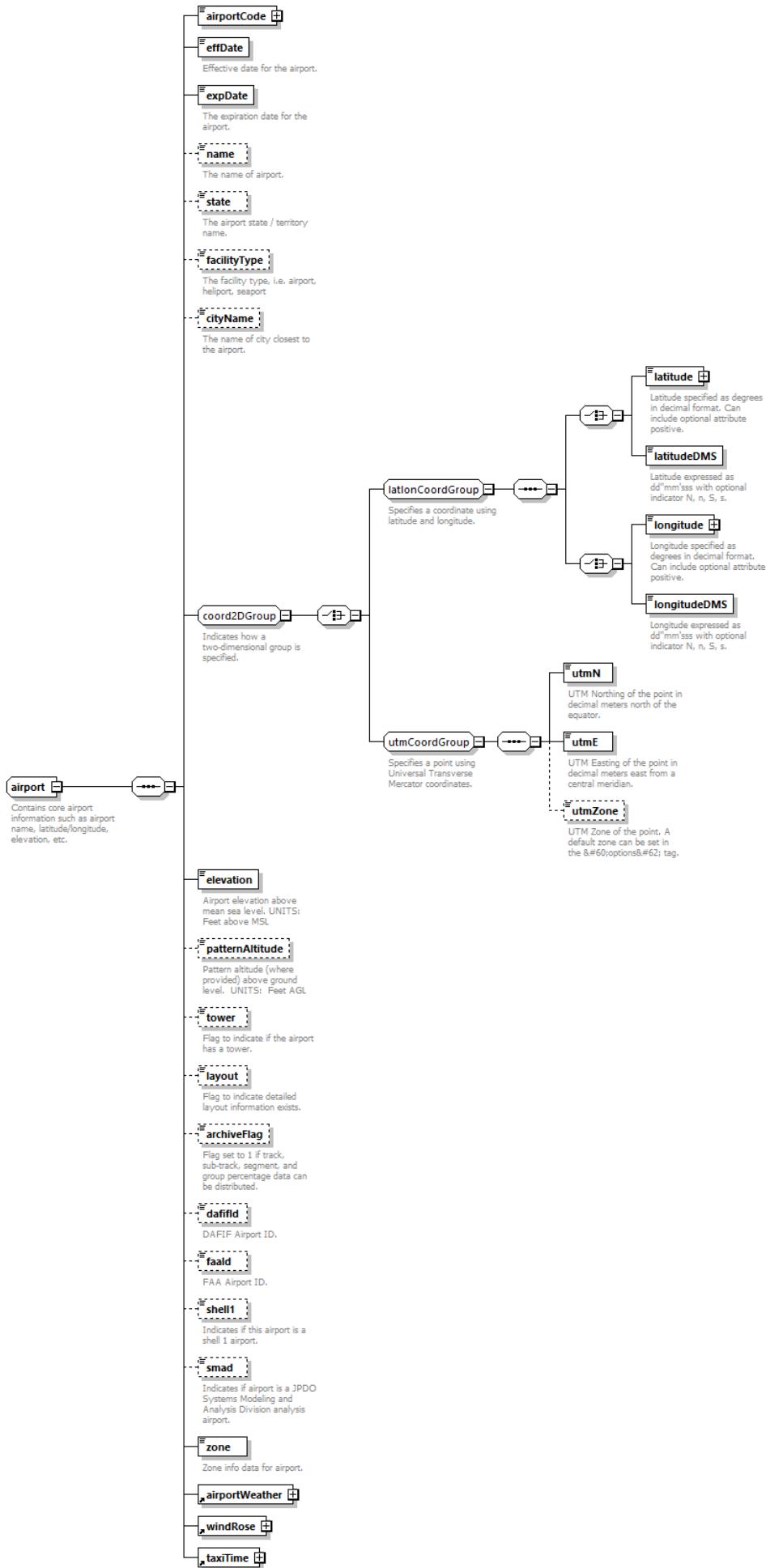
diagram	<p>engineType</p> <p>Type of engine on this airframe. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop).</p>
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of engine on this airframe. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop).

element airframe/auxiliaryPowerUnitId

diagram	<p>auxiliaryPowerUnitId</p> <p>Identifier of an auxiliary power unit.</p>
type	apuName
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 30
annotation	documentation Identifier of an auxiliary power unit.

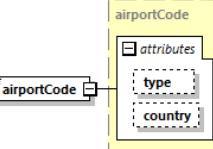
complexType airport

diagram	
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children	airportCode effDate expDate name state facilityType cityName latitude longitudeDMS longitude utmN utmE utmZone elevation patternAltitude tower layout archiveFlag dafid faald shell1 smad zone airportWeather windRose taxiTime
used by	element userDefinedAirportSet / userDefinedAirport
annotation	documentation Contains core airport information such as airport name, latitude/longitude, elevation, etc.

element **airport/airportCode**

diagram	
type	airportCode
properties	content complex
facets	Kind Value Annotation minLength 0 maxLength 4
attributes	Name Type Use Default Fixed Annotation type airportCodeType optional ANY country string3 optional ANY

element **airport/effDate**

diagram	
	Effective date for the airport.
type	xs:date
properties	content simple

element **airport/expDate**

diagram	
	The expiration date for the airport.
type	xs:date
properties	content simple

element **airport/name**

diagram	
	The name of airport.
type	string100
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation The name of airport.

element **airport/state**

diagram	
	The airport state / territory name.
type	string50
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation The airport state / territory name.

element **airport/facilityType**

diagram	
	The facility type, i.e. airport, heliport, seaport.

type	string25
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 25
annotation	documentation The facility type, i.e. airport, heliport, seaport

element **airport/cityName**

diagram	 cityName The name of city closest to the airport.
type	string50
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation The name of city closest to the airport.

element **airport/elevation**

diagram	 elevation Airport elevation above mean sea level. UNITS: Feet above MSL
type	xs:double
properties	content simple
annotation	documentation Airport elevation above mean sea level. UNITS: Feet above MSL

element **airport/patternAltitude**

diagram	 patternAltitude Pattern altitude (where provided) above ground level. UNITS: Feet AGL
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Pattern altitude (where provided) above ground level. UNITS: Feet AGL

element **airport/tower**

diagram	 tower Flag to indicate if the airport has a tower.
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Flag to indicate if the airport has a tower.

element **airport/layout**

diagram	 layout Flag to indicate detailed layout information exists.
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation Flag to indicate detailed layout information exists.

element **airport/archiveFlag**

diagram	 archiveFlag Flag set to 1 if track, sub-track, segment, and group percentage data can be distributed.
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type	<code>xs:boolean</code>
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation Flag set to 1 if track, sub-track, segment, and group percentage data can be distributed.

element **airport/dafid**

diagram	 dafid DAFIF Airport ID.
type	<code>string7</code>
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 7
annotation	documentation DAFIF Airport ID.

element **airport/faaid**

diagram	 faaid FAA Airport ID.
type	<code>string15</code>
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 15
annotation	documentation FAA Airport ID.

element **airport/shell1**

diagram	 shell1 Indicates if this airport is a shell 1 airport.
type	<code>xs:boolean</code>
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation Indicates if this airport is a shell 1 airport.

element **airport/smad**

diagram	 smad Indicates if airport is a JPDO Systems Modeling and Analysis Division analysis airport.
type	<code>xs:boolean</code>
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation Indicates if airport is a JPDO Systems Modeling and Analysis Division analysis airport.

element **airport/zone**

diagram	 zone Zone info data for airport.
type	<code>string100</code>
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Zone info data for airport.

complexType **airportCode**

diagram	
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type	extension of string4																		
properties	base string4																		
used by	elements track/airport/runup/airport/airport/airportCode airportLayoutType/airportCode operation/arrivalAirport operation/departureAirport																		
facets	Kind Value Annotation minLength 0 maxLength 4																		
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>type</td> <td>airportCodeType</td> <td>optional</td> <td>ANY</td> <td></td> <td></td> </tr> <tr> <td>country</td> <td>string3</td> <td>optional</td> <td>ANY</td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	type	airportCodeType	optional	ANY			country	string3	optional	ANY		
Name	Type	Use	Default	Fixed	Annotation														
type	airportCodeType	optional	ANY																
country	string3	optional	ANY																
annotation	documentation An airport code.																		

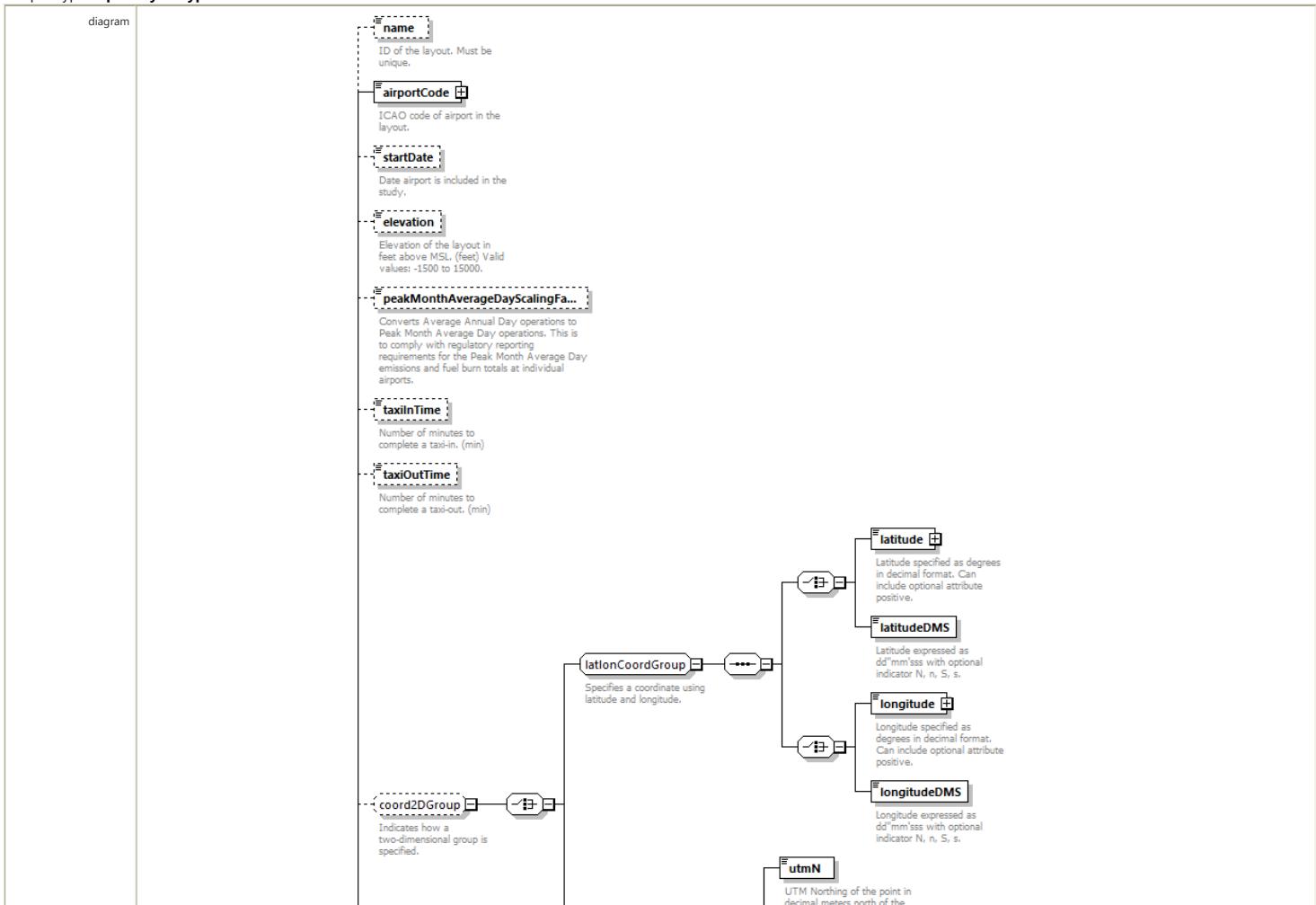
attribute `airportCode/@type`

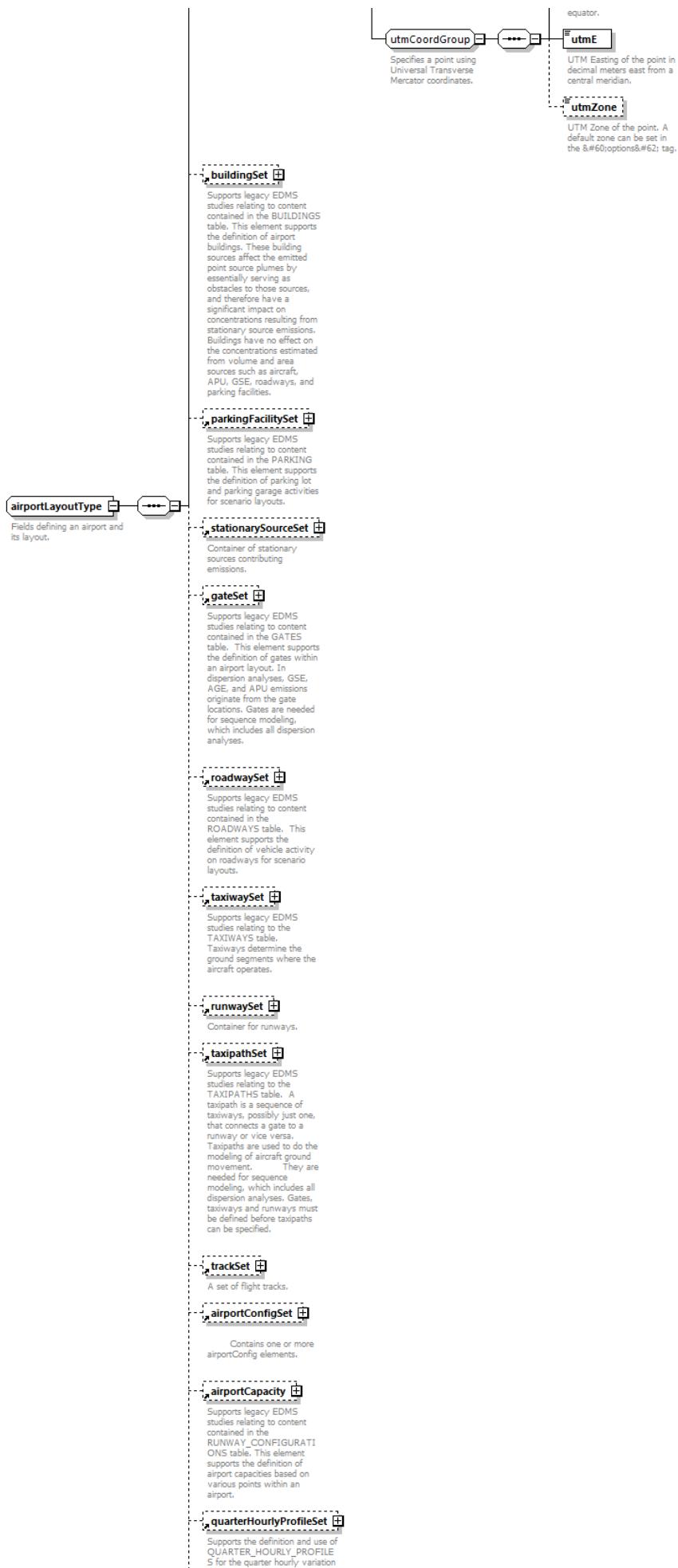
type	airportCodeType
properties	use optional default ANY
facets	Kind Value Annotation enumeration ICAO enumeration IATA enumeration FAA enumeration OTHER enumeration ANY

attribute `airportCode/@country`

type	string3
properties	use optional default ANY
facets	Kind Value Annotation minLength 0 maxLength 3

complexType `airportLayoutType`





	<p>or operations.</p> <p>dailyProfileSet </p> <p>Supports the definition and use of DAILY_PROFILES for the daily variation of operations.</p> <p>monthlyProfileSet </p> <p>Supports the definition and use of MONTHLY_PROFILES for the monthly variation of operations.</p> <p>activityProfileSet </p> <p>Supports the definition and use of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES variation of operations.</p>
children	name airportCode startDate elevation peakMonthAverageDayScalingFactor taxiInTime latitude longitudeDMS longitude DMS utmN utmE utmZone buildingSet parkingFacilitySet stationarySourceSet gateSet roadwaySet taxiwaySet runwaySet taxipathSet trackSet airportConfigSet airportCapacity quarterHourlyProfileSet dailyProfileSet monthlyProfileSet activityProfileSet
used by	element airportLayoutSet / airportLayout
annotation	<p>documentation</p> <p>Fields defining an airport and its layout.</p>

element `airportLayoutType/name`

diagram	
	ID of the layout. Must be unique.
type	string255
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	<p>documentation</p> <p>ID of the layout. Must be unique.</p>

element `airportLayoutType/airportCode`

diagram	<p>ICAO code of airport in the layout.</p>																		
type	airportCode																		
properties	content complex																		
facets	Kind Value Annotation minLength 0 maxLength 4																		
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>type</td> <td>airportCodeType</td> <td>optional</td> <td>ANY</td> <td></td> <td></td> </tr> <tr> <td>country</td> <td>string3</td> <td>optional</td> <td>ANY</td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	type	airportCodeType	optional	ANY			country	string3	optional	ANY		
Name	Type	Use	Default	Fixed	Annotation														
type	airportCodeType	optional	ANY																
country	string3	optional	ANY																
annotation	<p>documentation</p> <p>ICAO code of airport in the layout.</p>																		

element `airportLayoutType/startDate`

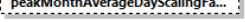
diagram	<p>Date airport is included in the study.</p>
type	xs:date
properties	minOcc 0 maxOcc 1 content simple
annotation	<p>documentation</p> <p>Date airport is included in the study.</p>

element `airportLayoutType/elevation`

diagram	<p>Elevation of the layout in feet above MSL (feet) Valid values: -1500 to 15000.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple

annotation	documentation Elevation of the layout in feet above MSL. (feet) Valid values: -1500 to 15000.
------------	--

element airportLayoutType/peakMonthAverageDayScalingFactor

diagram	 peakMonthAverageDayScalingFa... Converts Average Annual Day operations to Peak Month Average Day operations. This is to comply with regulatory reporting requirements for the Peak Month Average Day emissions and fuel burn totals at individual airports.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 1.0
annotation	documentation Converts Average Annual Day operations to Peak Month Average Day operations. This is to comply with regulatory reporting requirements for the Peak Month Average Day emissions and fuel burn totals at individual airports.

element airportLayoutType/taxiInTime

diagram	 taxiInTime Number of minutes to complete a taxi-in. (min)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Number of minutes to complete a taxi-in. (min)

element airportLayoutType/taxiOutTime

diagram	 taxiOutTime Number of minutes to complete a taxi-out. (min)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Number of minutes to complete a taxi-out. (min)

complexType anpAirplane

diagram	
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	<p>anpAirplaneId</p> <p>ID of ANP airplane. Must be a new, unique value.</p> <p>description</p> <p>Description of ANP airplane.</p> <p>sizeCode</p> <p>Size code for this airframe. Valid values: H (Heavy), L (Large), M (Medium), S (Small), T (Light), V (Very Light).</p> <p>owner</p> <p>The owner category: commercial, general aviation, military.</p> <p>engineTypeCode</p> <p>The engine type code: prop, jet, turbo.</p> <p>numberEngines</p> <p>Number of engines on this airplane. Valid values: 1 through 8.</p> <p>maxGrossWeightTakeoff</p> <p>Maximum gross weight on takeoff (min = 0, max = 999999, lbs).</p> <p>maxGrossWeightLand</p> <p>Maximum gross weight on landing (min = 0, max = 999999, lbs).</p> <p>maxDsStop</p> <p>FAR landing field length at maximum landing weight (min = 0, max = 20000, feet).</p> <p>depThrustCoeffType</p> <p>Type of thrust coefficients: J=jet, P=prop.</p> <p>thrustStatic</p> <p>Static rated thrust or 100% thrust (lb, min = 0, max = 200000).</p> <p>thrustRestore</p> <p>Flag indicating aircraft has automated thrust restoration system.</p> <p>noiseld</p> <p>ID of a Noise Group.</p> <p>noiseCategory</p> <p>The noise category stage number.</p> <p>minBurn</p> <p>Minimum fuel burn rate. (kg/sec)</p>
children	anpAirplaneId description sizeCode owner engineTypeCode numberEngines maxGrossWeightTakeoff maxGrossWeightLand maxDsStop depThrustCoeffType thrustStatic thrustRestore noiseld noiseCategory minBurn
used by	element: fleet/anpAirplane
annotation	documentation Creates a new ANP airplane.

element anpAirplane/anpAirplaneId

diagram	<p>anpAirplaneId</p> <p>ID of ANP airplane. Must be a new, unique value.</p>
type	anpAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255

element anpAirplane/description

diagram	<p>description</p> <p>Description of ANP airplane.</p>
type	string255
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255

annotation	documentation Description of ANP airplane.
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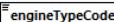
element **anpAirplane/sizeCode**

diagram	 <p>Size code for this airframe. Valid values: H (Heavy), L (Large), M (Medium), S (Small), T (Light), V (Very Light).</p>
type	anpSizeCode
properties	content simple
facets	Kind Value Annotation pattern Heavy H Large L Small S
annotation	documentation Size code for this airframe. Valid values: H (Heavy), L (Large), M (Medium), S (Small), T (Light), V (Very Light).

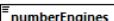
element **anpAirplane/owner**

diagram	 <p>The owner category: commercial, general aviation, military.</p>
type	anpOwnerType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern Commercial C Military M General G
annotation	documentation The owner category: commercial, general aviation, military.

element **anpAirplane/engineTypeCode**

diagram	 <p>The engine type code: prop, jet, turbo.</p>
type	engineType
properties	content simple
facets	Kind Value Annotation pattern Jet J Turbo Turboprop T Prop Piston P
annotation	documentation The engine type code: prop, jet, turbo.

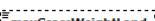
element **anpAirplane/numberEngines**

diagram	 <p>Number of engines on this airplane. Valid values: 1 through 8.</p>
type	xs:int
properties	content simple
annotation	documentation Number of engines on this airplane. Valid values: 1 through 8.

element **anpAirplane/maxGrossWeightTakeoff**

diagram	 <p>Maximum gross weight on takeoff (min = 0, max = 999999, lbs).</p>
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Maximum gross weight on takeoff (min = 0, max = 999999, lbs).

element **anpAirplane/maxGrossWeightLand**

diagram	 <p>Maximum gross weight on landing (min = 0, max = 999999, lbs).</p>
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Maximum gross weight on landing (min = 0, max = 999999, lbs).

element **anpAirplane/maxDsStop**

diagram	 maxDsStop FAR landing field length at maximum landing weight (min =0, max = 20000, feet).
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation FAR landing field length at maximum landing weight (min =0, max = 20000, feet).

element **anpAirplane/depThrustCoeffType**

diagram	 depThrustCoeffType Type of thrust coefficients: J=jet, P=prop.
type	anpCoeffType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern Jet Prop P
annotation	documentation Type of thrust coefficients: J=jet, P=prop.

element **anpAirplane/thrustStatic**

diagram	 thrustStatic Static rated thrust or 100% thrust (lb, min =0, max = 200000).
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Static rated thrust or 100% thrust (lb, min =0, max = 200000).

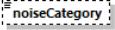
element **anpAirplane/thrustRestore**

diagram	 thrustRestore Flag indicating aircraft has automated thrust restoration system.
type	yesNoType
properties	content simple default N
facets	Kind Value Annotation pattern Yes No N
annotation	documentation Flag indicating aircraft has automated thrust restoration system.

element **anpAirplane/noiseld**

diagram	 noiseld ID of a Noise Group.
type	anpNoiseld
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation ID of a Noise Group.

element **anpAirplane/noiseCategory**

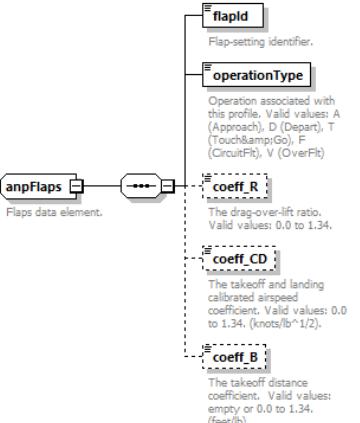
diagram	 noiseCategory The noise category stage number.
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation

The noise category stage number.

element anpAirplane/minBurn

diagram	 minBurn Minimum fuel burn rate. (kg/sec)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Minimum fuel burn rate. (kg/sec)

complexType anpFlaps

diagram	 anpFlaps Flaps data element. flapId Flap-setting identifier. operationType Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFlt), V (OverFlt) coeff_R The drag-over-lift ratio. Valid values: 0.0 to 1.34. coeff_CD The takeoff and landing calibrated airspeed coefficient. Valid values: 0.0 to 1.34. (knots/lb ^{1/2}) coeff_B The takeoff distance coefficient. Valid values: empty or 0.0 to 1.34. (feet/lb).
children	flapId operationType coeff_R coeff_CD coeff_B
used by	element anpFlapsSet/flaps
annotation	documentation Flaps data element.

element anpFlaps/flapId

diagram	 flapId Flap-setting identifier.
type	anpFlapId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 6
annotation	documentation Flap-setting identifier.

element anpFlaps/operationType

diagram	 operationType Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFlt), V (OverFlt)
type	string
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFlt), V (OverFlt)

element anpFlaps/coeff_R

diagram	 coeff_R The drag-over-lift ratio. Valid values: 0.0 to 1.34.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The drag-over-lift ratio. Valid values: 0.0 to 1.34.

element **anpFlaps/coeff_CD**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The takeoff and landing calibrated airspeed coefficient. Valid values: 0.0 to 1.34. (knots/lb^1/2).

element **anpFlaps/coeff_B**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The takeoff distance coefficient. Valid values: empty or 0.0 to 1.34. (feet/lb).

complexType **anpFlapsSet**

diagram	
children	anpAirplaneld flaps
used by	element fleet/anpFlapsSet
annotation	documentation Flap settings set for an ANP aircraft type.

element **anpFlapsSet/anpAirplaneld**

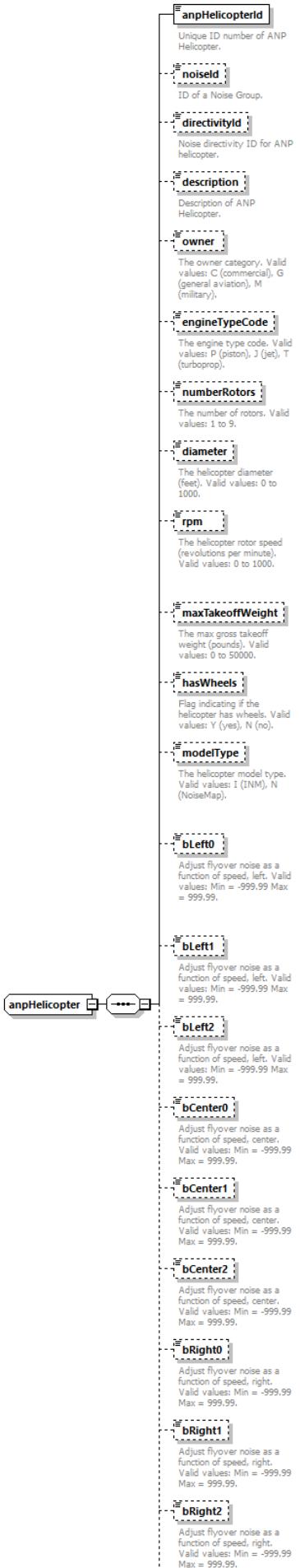
diagram	
type	anpAirplaneld
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's ANP ID.

element **anpFlapsSet/flaps**

diagram	
type	anpFlaps
properties	minOcc 1 maxOcc unbounded content complex
children	flapId operationType coeff_R coeff_CD coeff_B

complexType **anpHelicopter**

diagram



	<p>dbVerticalAscent Decibel offset added to NPD levels, vertical ascent (dB). Valid values: Min = -50 Max = 50.</p> <p>dbVerticalDescent Decibel offset added to NPD levels, vertical descent (dB). Valid values: Min = -50 Max = 50.</p> <p>dbHorizontalAcceleration Decibel offset added to NPD levels, depart horizontal acceleration (dB). Valid values: Min = -50 Max = 50.</p> <p>dbClimbAcceleration Decibel offset added to NPD levels, depart with climbing acceleration (dB). Valid values: Min = -50 Max = 50.</p> <p>dbHorizontalDeceleration Decibel offset added to NPD levels, approach with horizontal deceleration (dB). Valid values: Min = -50 Max = 50.</p> <p>dbDescendDeceleration Decibel offset added to NPD levels, approach with descending deceleration (dB). Valid values: Min = -50 Max = 50.</p>
children	anpHelicopterId noiseld directivityId description owner engineTypeCode numberRotors diameter rpm maxTakeoffWeight hasWheels modelType bLeft0 bLeft1 bLeft2 bCenter0 bCenter1 bCenter2 bRight0 bRight1 bRight2 dbVerticalAscent dbVerticalDescent dbHorizontalAcceleration dbClimbAcceleration dbHorizontalDeceleration dbDescendDeceleration
used by	element fleet / anpHelicopter

element anpHelicopter/anpHelicopterId

diagram	<p>anpHelicopterId Unique ID number of ANP Helicopter.</p>
type	anpHeloid
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Unique ID number of ANP Helicopter.

element anpHelicopter/noiseld

diagram	<p>noiseld ID of a Noise Group.</p>
type	anpHeloNoiseld
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation ID of a Noise Group.

element anpHelicopter/directivityId

diagram	<p>directivityId Noise directivity ID for ANP helicopter.</p>
type	anpHeloDirectivityId
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 12
annotation	documentation Noise directivity ID for ANP helicopter.

element anpHelicopter/description

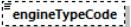
diagram	<p>description Description of ANP Helicopter.</p>
type	string255
properties	minOcc 0

	maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Description of ANP Helicopter.

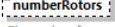
element **anpHelicopter/owner**

diagram	 owner The owner category. Valid values: C (commercial), G (general aviation), M (military).
type	anpOwnerType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern Commercial C Military M General G
annotation	documentation The owner category. Valid values: C (commercial), G (general aviation), M (military).

element **anpHelicopter/engineTypeCode**

diagram	 engineTypeCode The engine type code. Valid values: P (piston), J (jet), T (turboprop).
type	engineType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern Jet J Turbo Turboprop T Prop Piston P
annotation	documentation The engine type code. Valid values: P (piston), J (jet), T (turboprop).

element **anpHelicopter/numberRotors**

diagram	 numberRotors The number of rotors. Valid values: 1 to 9.
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The number of rotors. Valid values: 1 to 9.

element **anpHelicopter/diameter**

diagram	 diameter The helicopter diameter (feet). Valid values: 0 to 1000.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The helicopter diameter (feet). Valid values: 0 to 1000.

element **anpHelicopter/rpm**

diagram	 rpm The helicopter rotor speed (revolutions per minute). Valid values: 0 to 1000.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The helicopter rotor speed (revolutions per minute). Valid values: 0 to 1000.

element **anpHelicopter/maxTakeoffWeight**

diagram	
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	<p>maxTakeoffWeight</p> <p>The max gross takeoff weight (pounds). Valid values: 0 to 50000.</p>
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The max gross takeoff weight (pounds). Valid values: 0 to 50000.

element **anpHelicopter/hasWheels**

diagram	<p>hasWheels</p> <p>Flag indicating if the helicopter has wheels. Valid values: Y (yes), N (no).</p>
type	yesNoType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern Yes Y No N
annotation	documentation Flag indicating if the helicopter has wheels. Valid values: Y (yes), N (no).

element **anpHelicopter/modelType**

diagram	<p>modelType</p> <p>The helicopter model type. Valid values: I (INM), N (NoiseMap).</p>
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation The helicopter model type. Valid values: I (INM), N (NoiseMap).

element **anpHelicopter/bLeft0**

diagram	<p>bLeft0</p> <p>Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.

element **anpHelicopter/bLeft1**

diagram	<p>bLeft1</p> <p>Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.

element **anpHelicopter/bLeft2**

diagram	<p>bLeft2</p> <p>Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple

annotation	documentation Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.
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element **anpHelicopter/bCenter0**

diagram	 bCenter0 Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.

element **anpHelicopter/bCenter1**

diagram	 bCenter1 Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.

element **anpHelicopter/bCenter2**

diagram	 bCenter2 Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.

element **anpHelicopter/bRight0**

diagram	 bRight0 Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.

element **anpHelicopter/bRight1**

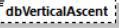
diagram	 bRight1 Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.

element **anpHelicopter/bRight2**

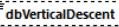
diagram	 bRight2 Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation

Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.

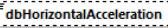
element anpHelicopter/dbVerticalAscent

diagram	 dbVerticalAscent Decibel offset added to NPD levels, vertical ascent (dB). Valid values: Min = -50 Max = 50.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel offset added to NPD levels, vertical ascent (dB). Valid values: Min = -50 Max = 50.

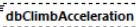
element anpHelicopter/dbVerticalDescent

diagram	 dbVerticalDescent Decibel offset added to NPD levels, vertical descent (dB). Valid values: Min = -50 Max = 50.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel offset added to NPD levels, vertical descent (dB). Valid values: Min = -50 Max = 50.

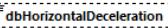
element anpHelicopter/dbHorizontalAcceleration

diagram	 dbHorizontalAcceleration Decibel offset added to NPD levels, depart horizontal acceleration (dB). Valid values: Min = -50 Max = 50.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel offset added to NPD levels, depart horizontal acceleration (dB). Valid values: Min = -50 Max = 50.

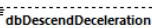
element anpHelicopter/dbClimbAcceleration

diagram	 dbClimbAcceleration Decibel offset added to NPD levels, depart with climbing acceleration (dB). Valid values: Min = -50 Max = 50.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel offset added to NPD levels, depart with climbing acceleration (dB). Valid values: Min = -50 Max = 50.

element anpHelicopter/dbHorizontalDeceleration

diagram	 dbHorizontalDeceleration Decibel offset added to NPD levels, approach with horizontal deceleration (dB). Valid values: Min = -50 Max = 50.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel offset added to NPD levels, approach with horizontal deceleration (dB). Valid values: Min = -50 Max = 50.

element anpHelicopter/dbDescendDeceleration

diagram	 dbDescendDeceleration Decibel offset added to NPD levels, approach with descending deceleration (dB). Valid values: Min = -50 Max = 50.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel offset added to NPD levels, approach with descending deceleration (dB). Valid values: Min = -50 Max = 50.

complexType **anpHeloDirectivity**

diagram



	<p>(dB). Valid values: Min = -99.9 Max = 999.9.</p> <p>R090 Decibel adjustment at 90 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p> <p>R105 Decibel adjustment at 105 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p> <p>R120 Decibel adjustment at 120 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p> <p>R135 Decibel adjustment at 135 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p> <p>R150 Decibel adjustment at 150 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p> <p>R165 Decibel adjustment at 165 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p> <p>R180 Decibel adjustment at 180 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
children	groundType opMode L180 L165 L150 L135 L120 L105 L090 L075 L060 L045 L030 L015 C000 R015 R030 R045 R060 R075 R090 R105 R120 R135 R150 R165 R180
used by	element anpHeloDirectivitySet/anpHeloDirectivity .

element anpHeloDirectivity/groundType

diagram	<p>Type of ground resistivity. Valid values: H (hard), S (soft), F (file), N (none).</p>
type	anpHeloGroundType
properties	content simple
facets	Kind Value Annotation pattern Hard H Software S File F None N
annotation	documentation Type of ground resistivity. Valid values: H (hard), S (soft), F (file), N (none).

element anpHeloDirectivity/opMode

diagram	<p>Operational Mode. Valid values: A (approach), D (departure).</p>
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Operational Mode. Valid values: A (approach), D (departure).

element anpHeloDirectivity/L180

diagram	<p>Decibel adjustment at 180 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 180 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element anpHeloDirectivity/L165

diagram	<p>Decibel adjustment at 165 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
used by	element anpHeloDirectivitySet/anpHeloDirectivity .

type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 165 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/L150**

diagram	 L150 Decibel adjustment at 150 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 150 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/L135**

diagram	 L135 Decibel adjustment at 135 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 135 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/L120**

diagram	 L120 Decibel adjustment at 120 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 120 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/L105**

diagram	 L105 Decibel adjustment at 105 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 105 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/L090**

diagram	 L090 Decibel adjustment at 90 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 90 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/L075**

diagram	 L075 Decibel adjustment at 75 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	xs:double

properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 75 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/L060**

diagram	 L060 Decibel adjustment at 60 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 60 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/L045**

diagram	 L045 Decibel adjustment at 45 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 45 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/L030**

diagram	 L030 Decibel adjustment at 30 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 30 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/L015**

diagram	 L015 Decibel adjustment at 0 degrees along the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 0 degrees along the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/C000**

diagram	 C000 Decibel adjustment at 180 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 180 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R015**

diagram	 R015 Decibel adjustment at 15 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	xs:double
properties	minOcc 0

	maxOcc 1 content simple
annotation	documentation Decibel adjustment at 15 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R030**

diagram	 R030 Decibel adjustment at 30 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 30 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R045**

diagram	 R045 Decibel adjustment at 45 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 45 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R060**

diagram	 R060 Decibel adjustment at 60 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 60 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R075**

diagram	 R075 Decibel adjustment at 75 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 75 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R090**

diagram	 R090 Decibel adjustment at 90 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 90 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R105**

diagram	 R105 Decibel adjustment at 105 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1

	content simple
annotation	documentation Decibel adjustment at 105 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element anpHeloDirectivity/R120

diagram	<p>R120</p> <p>Decibel adjustment at 120 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 120 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element anpHeloDirectivity/R135

diagram	<p>R135</p> <p>Decibel adjustment at 135 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 135 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element anpHeloDirectivity/R150

diagram	<p>R150</p> <p>Decibel adjustment at 150 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 150 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element anpHeloDirectivity/R165

diagram	<p>R165</p> <p>Decibel adjustment at 165 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 165 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element anpHeloDirectivity/R180

diagram	<p>R180</p> <p>Decibel adjustment at 180 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 180 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

complexType anpHeloDirectivitySet

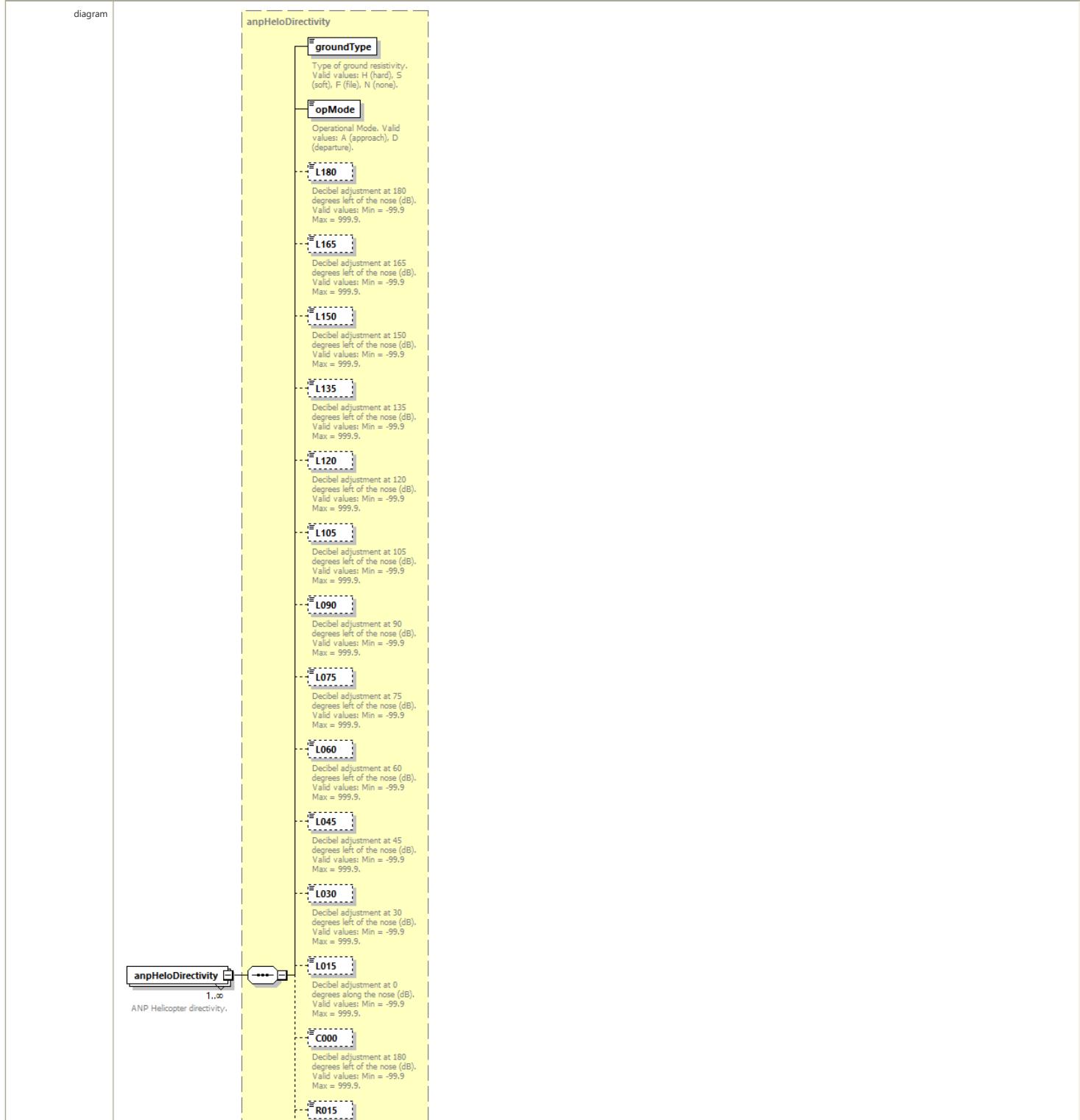
diagram	<p>The diagram illustrates the complex type anpHeloDirectivitySet. It shows a sequence of elements: anpHeloDirectivitySet, anpHelicopterId, and anpHeloDirectivity. The anpHeloDirectivitySet element has a self-loop association with itself. It also has a sequence association to the anpHelicopterId element. The anpHelicopterId element is associated with the anpHeloDirectivity element via a sequence association. A note indicates that anpHeloDirectivitySet is a "A set of helicopter directivities." and anpHeloDirectivity is a "ANP Helicopter directivity."</p>
children	anpHelicopterId anpHeloDirectivity
used by	element fleet/anpHeloDirectivitySet

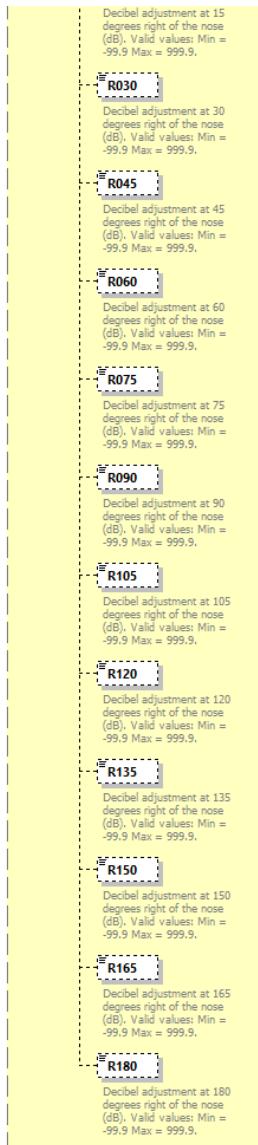
annotation	documentation A set of helicopter directivities.
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element **anpHeloDirectivitySet/anpHeliocpterId**

diagram	
	Unique ID for ANP helicopters.
type	anpHeloDirectId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 12
annotation	documentation Unique ID for ANP helicopters.

element **anpHeloDirectivitySet/anpHeloDirectivity**





type	anpHeloDirectivity
properties	minOcc 1 maxOcc unbounded content complex
children	groundType opMode L180 L165 L150 L135 L120 L105 L090 L075 L060 L045 L030 L015 C000 R015 R030 R045 R060 R075 R090 R105 R120 R135 R150 R165 R180
annotation	documentation ANP Helicopter directivity.

complexType anpHeloNoiseGroup

diagram	
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	<pre> graph LR anpHeloNoiseGroup[anpHeloNoiseGroup] --- noiseld[noiseld] anpHeloNoiseGroup --- spectralClassApproach[spectralClassApproach] anpHeloNoiseGroup --- spectralClassDeparture[spectralClassDeparture] anpHeloNoiseGroup --- spectralClassFlyover[spectralClassFlyover] anpHeloNoiseGroup --- speedApproach[speedApproach] anpHeloNoiseGroup --- speedDeparture[speedDeparture] anpHeloNoiseGroup --- speedFlyover[speedFlyover] anpHeloNoiseGroup --- npdCurves[npdCurves] </pre> <p>This element contains the three spectral class references for a given aircraft Noise group with the corresponding thrust setting type and model type.</p>
children	noiseld spectralClassApproach spectralClassDeparture spectralClassFlyover speedApproach speedDeparture speedFlyover npdCurves
used by	element fleet/anpHeloNoiseGroup
annotation	<p>documentation</p> <p>This element contains the three spectral class references for a given aircraft Noise group with the corresponding thrust setting type and model type.</p>

element anpHeloNoiseGroup/noiseld

diagram	<pre> graph LR noiseld[noiseld] </pre> <p>The noise group id.</p>						
type	anpHeloNoiseld						
properties	content simple						
facets	<table> <tr> <td>Kind</td> <td>Value Annotation</td> </tr> <tr> <td>minLength</td> <td>0</td> </tr> <tr> <td>maxLength</td> <td>255</td> </tr> </table>	Kind	Value Annotation	minLength	0	maxLength	255
Kind	Value Annotation						
minLength	0						
maxLength	255						
annotation	<p>documentation</p> <p>The noise group id.</p>						

element anpHeloNoiseGroup/spectralClassApproach

diagram	<pre> graph LR spectralClassApproach[spectralClassApproach] </pre> <p>The approach spectral class number. Valid values: 0 to 999.</p>						
type	xs:short						
properties	<table> <tr> <td>minOcc</td> <td>0</td> </tr> <tr> <td>maxOcc</td> <td>1</td> </tr> <tr> <td>content</td> <td>simple</td> </tr> </table>	minOcc	0	maxOcc	1	content	simple
minOcc	0						
maxOcc	1						
content	simple						
annotation	<p>documentation</p> <p>The approach spectral class number. Valid values: 0 to 999.</p>						

element anpHeloNoiseGroup/spectralClassDeparture

diagram	<pre> graph LR spectralClassDeparture[spectralClassDeparture] </pre> <p>The departure spectral class number. Valid values: 0 to 999.</p>						
type	xs:short						
properties	<table> <tr> <td>minOcc</td> <td>0</td> </tr> <tr> <td>maxOcc</td> <td>1</td> </tr> <tr> <td>content</td> <td>simple</td> </tr> </table>	minOcc	0	maxOcc	1	content	simple
minOcc	0						
maxOcc	1						
content	simple						
annotation	<p>documentation</p> <p>The departure spectral class number. Valid values: 0 to 999.</p>						

element anpHeloNoiseGroup/spectralClassFlyover

diagram	<pre> graph LR spectralClassFlyover[spectralClassFlyover] </pre> <p>The flyover spectral class number. Valid values: 0 to 999.</p>				
type	xs:short				
properties	<table> <tr> <td>minOcc</td> <td>0</td> </tr> <tr> <td>maxOcc</td> <td>1</td> </tr> </table>	minOcc	0	maxOcc	1
minOcc	0				
maxOcc	1				

	content simple
annotation	documentation The flyover spectral class number. Valid values: 0 to 999.

element **anpHeloNoiseGroup/speedApproach**

diagram	 <p>N 6.1 Approach reference true airspeed (KTAS). Valid values: Min = 0.0 Max = 250.0. UNITS: knots.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	<p>documentation</p> <p>N 6.1 Approach reference true airspeed (KTAS). Valid values: Min = 0.0 Max = 250.0. UNITS: knots.</p>

element **anpHeloNoiseGroup/speedDeparture**

diagram	 speedDeparture N 6.1 Depart reference true airspeed (KTAS) Min = 0.0 Max = 250.0. UNITS: knots.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation N 6.1 Depart reference true airspeed (KTAS) Min = 0.0 Max = 250.0. UNITS: knots.

element **anpHeloNoiseGroup/speedFlyover**

diagram	 speedflyover N 6.1 Flyover reference true airspeed (KTAS) Min = 0.0 Max = 250.0. UNITS: knots.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation N 6.1 Flyover reference true airspeed (KTAS) Min = 0.0 Max = 250.0. UNITS: knots.

element anpHeloNoiseGroup/npdCurves

diagram	 <pre> graph LR npdCurves[npdCurves] --> anpHeloNPDCurves[anpHeloNPDCurves] anpHeloNPDCurves --> npdCurve[npdCurve] </pre> <p>The set of noise curves for this group.</p> <p>anpHeloNPDCurves</p> <p>npdCurve</p> <p>1..∞</p> <p>Base noise data interpolated/extrapolated upon according to slant range distance and thrust setting for aircraft.</p>
type	anpHeloNPDCurves
properties	minOcc 0 maxOcc 1 content complex
children	npdCurve
annotation	<p>documentation</p> <p>The set of noise curves for this group.</p>

complexType *anpHeloNPDCurve*

	<pre> classDiagram class noiseType { Type of noise described by this curve. Valid values: S (SEL), M (LAMAX), E (EPNL), P (PNLTM). } class opMode { Engine operation mode. } class sideType { Operation side type. Valid values: L (left), C (center), R (right), S (static) } class L_200 { Decibel level at 200 feet AGL. Valid values: Min = -50.0 Max = 999.9. } class L_400 { Decibel level at 400 feet AGL. Valid values: Min = -50.0 Max = 999.9. } class L_630 { Decibel level at 630 feet AGL. Valid values: Min = -50.0 Max = 999.9. } class L_1000 { Decibel level at 1000 feet AGL. Valid values: Min = -50.0 Max = 999.9. } class L_2000 { Decibel level at 2000 feet AGL. Valid values: Min = -50.0 Max = 999.9. } class L_4000 { Decibel level at 4000 feet AGL. Valid values: Min = -50.0 Max = 999.9. } class L_6300 { Decibel level at 6300 feet AGL. Valid values: Min = -50.0 Max = 999.9. } class L_10000 { Decibel level at 10000 feet AGL. Valid values: Min = -50.0 Max = 999.9. } class L_16000 { Decibel level at 16000 feet AGL. Valid values: Min = -50.0 Max = 999.9. } class L_25000 { Decibel level at 25000 feet AGL. Valid values: Min = -50.0 Max = 999.9. } anpHeloNPDCurve < --> noiseType anpHeloNPDCurve < --> opMode anpHeloNPDCurve < --> sideType anpHeloNPDCurve --> L_200 anpHeloNPDCurve --> L_400 anpHeloNPDCurve --> L_630 anpHeloNPDCurve --> L_1000 anpHeloNPDCurve --> L_2000 anpHeloNPDCurve --> L_4000 anpHeloNPDCurve --> L_6300 anpHeloNPDCurve --> L_10000 anpHeloNPDCurve --> L_16000 anpHeloNPDCurve --> L_25000 </pre> <p>The Noise Power Distance curve table for a specified noise ID, noise type, operation mode, and thrust setting.</p>
children	noiseType opMode sideType L_200 L_400 L_630 L_1000 L_2000 L_4000 L_6300 L_10000 L_16000 L_25000
used by	element anpHeloNPDCurves/npdCurve
annotation	documentation The Noise Power Distance curve table for a specified noise ID, noise type, operation mode, and thrust setting.

element anpHeloNPDCurve/noiseType

diagram	<p>Type of noise described by this curve. Valid values: S (SEL), M (LAMAX), E (EPNL), P (PNLTM).</p>
type	anpNpdNoiseType
properties	content simple
facets	Kind Value Annotation pattern S M E P
annotation	documentation Type of noise described by this curve. Valid values: S (SEL), M (LAMAX), E (EPNL), P (PNLTM).

element anpHeloNPDCurve/opMode

diagram	<p>Engine operation mode.</p>
type	anpNpdOpMode
properties	content simple
facets	Kind Value Annotation pattern A D L G H I J V W Y Z B C E F X S
annotation	documentation Engine operation mode.

element anpHeloNPDCurve/sideType

diagram	
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	<p>sideType</p> <p>Operation side type. Valid values: L (left), C (center), R (right), S (static)</p>
type	anpHeloSideType
properties	content simple
facets	Kind Value Annotation pattern Left L Center C Right R Static S
annotation	documentation Operation side type. Valid values: L (left), C (center), R (right), S (static)

element anpHeloNPDCurve/L_200

diagram	<p>L_200</p> <p>Decibel level at 200 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 200 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element anpHeloNPDCurve/L_400

diagram	<p>L_400</p> <p>Decibel level at 400 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 400 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element anpHeloNPDCurve/L_630

diagram	<p>L_630</p> <p>Decibel level at 630 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 630 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element anpHeloNPDCurve/L_1000

diagram	<p>L_1000</p> <p>Decibel level at 1000 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 1000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element anpHeloNPDCurve/L_2000

diagram	<p>L_2000</p> <p>Decibel level at 2000 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 2000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element anpHeloNPDCurve/L_4000

diagram	<p>L_4000</p> <p>Decibel level at 4000 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p>
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type	xs:double
properties	content simple
annotation	documentation Decibel level at 4000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element anpHeloNPDCurve/L_6300

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 6300 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element anpHeloNPDCurve/L_10000

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 10000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element anpHeloNPDCurve/L_16000

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 16000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element anpHeloNPDCurve/L_25000

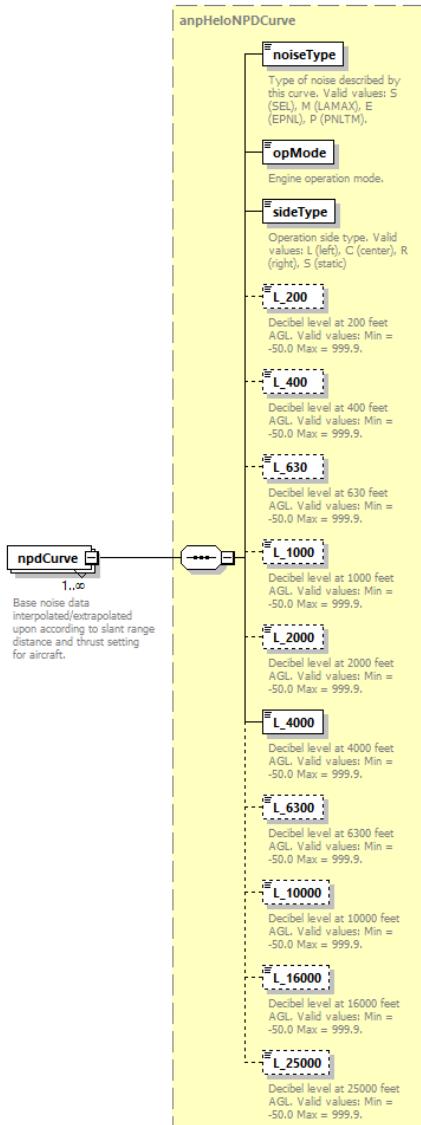
diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 25000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

complexType anpHeloNPDCurves

diagram	 The set of noise curves. Base noise data interpolated/extrapolated upon according to slant range distance and thrust setting for aircraft.
children	npdCurve
used by	element anpHeloNoiseGroup/npdCurves
annotation	documentation The set of noise curves.

element anpHeloNPDCurves/npdCurve

diagram	
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type	anpHeloNPDCurve
properties	minOcc 1 maxOcc unbounded content complex
children	noiseType opMode sideType L_200 L_400 L_630 L_1000 L_2000 L_4000 L_6300 L_10000 L_16000 L_25000
annotation	documentation Base noise data interpolated/extrapolated upon according to slant range distance and thrust setting for aircraft.

complexType **anpHeloProcedureStep**

diagram

	<pre> classDiagram class anpHeloProcedureStep { <<Procedure data element.>> } class stepNum class operationType class profileGroupId class profileStageLength class stepType class duration class distance class altitude class speed anpHeloProcedureStep "1..1" --> stepNum : anpHeloProcedureStep "1..1" --> operationType : anpHeloProcedureStep "1..1" --> profileGroupId : anpHeloProcedureStep "1..1" --> profileStageLength : anpHeloProcedureStep "1..1" --> stepType : anpHeloProcedureStep "1..1" --> duration : anpHeloProcedureStep "1..1" --> distance : anpHeloProcedureStep "1..1" --> altitude : anpHeloProcedureStep "1..1" --> speed : </pre>
children	stepNum operationType profileGroupId profileStageLength stepType duration distance altitude speed
used by	element anpHeloProfile/step
annotation	documentation Procedure data element.

element anpHeloProcedureStep/stepNum

diagram	
	<p>stepNum</p> <p>Step number of the procedure. Must be unique in a sequence.</p>
type	xs:int
properties	content simple

element anpHeloProcedureStep/operationType

diagram	
	<p>operationType</p> <p>Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFit), V (OverFit)</p>
type	string
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation

element **anpHeloProcedureStep/profileGroupid**

diagram	 profileGroup Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).

element **anpHeloProcedureStep/profileStageLength**

diagram	 profileStageLength Profile stage number (min = 1, max = 9). Approach stage numbers are not related to trip distance. There is only one standard approach profile for most standard aircraft and its stage number is set to 1. Approach stage numbers are used to distinguish members of a group. For example, approach stage can mean different kinds of approaches (e.g., 1 = 3 degree approach, 2 = 5 degree approach).
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Profile stage number (min = 1, max = 9). Approach stage numbers are not related to trip distance. There is only one standard approach profile for most standard aircraft and its stage number is set to 1. Approach stage numbers are used to distinguish members of a group. For example, approach stage can mean different kinds of approaches (e.g. 1 = 3 degree approach, 2 = 5 degree approach).

element **anpHeloProcedureStep/stepType**

diagram	 stepType Type of step. (A) Approach at constant speed, (D) Depart at constant speed, (L) Level flyover at constant speed, (G) Ground idle, (H) Flight idle, (I) Hover in ground effect, (J) Hover out of ground effect, (V) Vertical ascent in ground effect, (W) Vertical ascent out of ground effect, (Y) Vertical descent in ground effect, (Z) Vertical descent out of ground effect, (B) Approach with horizontal deceleration, (C) Approach with descending deceleration, (E) Depart with horizontal deceleration, (F) Depart with climbing acceleration, (X) Taxi at constant speed, (S) Start altitude at constant speed
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of step. (A) Approach at constant speed, (D) Depart at constant speed, (L) Level flyover at constant speed, (G) Ground idle, (H) Flight idle, (I) Hover in ground effect, (J) Hover out of ground effect, (V) Vertical ascent in ground effect, (W) Vertical ascent out of ground effect, (Y) Vertical descent in ground effect, (Z) Vertical descent out of ground effect, (B) Approach with horizontal deceleration, (C) Approach with descending deceleration, (E) Depart with horizontal deceleration, (F) Depart with climbing acceleration, (X) Taxi at constant speed, (S) Start altitude at constant speed

element **anpHeloProcedureStep/duration**

diagram	 duration Procedure's duration (seconds).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Procedure's duration (seconds).

element **anpHeloProcedureStep/distance**

diagram	
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	<p>distance</p> <p>Length of a particular segment (min = -9999999.9, max = 9999999.9, feet).</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Length of a particular segment (min = -9999999.9, max = 9999999.9, feet).

element anpHeloProcedureStep/altitude

diagram	<p>altitude</p> <p>Altitude above runway elevation (ARE) of aircraft (min = -9999, max = 60000). UNITS: feet.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Altitude above runway elevation (ARE) of aircraft (min = -9999, max = 60000). UNITS: feet.

element anpHeloProcedureStep/speed

diagram	<p>speed</p> <p>True airspeed (KTAS) at this point (min = 0, max = 600). UNITS: knots.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation True airspeed (KTAS) at this point (min = 0, max = 600). UNITS: knots.

complexType anpHeloProfile

diagram	
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	<pre> classDiagram class anpHeloProfile { <<Profile data element>> } class anpHeloProfileSet { <<Profile data element set>> } class profileGroup anpHeloProfile "1" --> "1" anpHeloProfileSet anpHeloProfile "1" --> "1" profileGroup </pre>
children	<code>operationType profileGroupId profileStageLength weight useDirectivity useTrack headingTakeoffGround headingTakeoffHover headingLandGround headingLandHover step</code>
used by	element anpHeloProfileSet/profile
annotation	documentation Profile data element.

element anpHeloProfile/operationType

diagram	<pre> classDiagram class operationType { profileStageLength weight useDirectivity useTrack headingTakeoffGround headingTakeoffHover headingLandGround headingLandHover step } </pre>
type	<code>string1</code>
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFit), V (OverFit)

element anpHeloProfile/profileGroupId

diagram	<pre> classDiagram class profileGroupId { profileStageLength weight useDirectivity useTrack headingTakeoffGround headingTakeoffHover headingLandGround headingLandHover step } </pre>
type	<code>string255</code>
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).

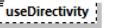
element **anpHeloProfile/profileStageLength**

diagram	 profileStageLength Profile stage number (min = 1, max = 9). Approach stage numbers are not related to trip distance. There is only one standard approach profile for most standard aircraft and its stage number is set to 1. Approach stage numbers are used to distinguish members of a group. For example, approach stage can mean different kinds of approaches (e.g. 1 = 3 degree approach, 2 = 5 degree approach).
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Profile stage number (min = 1, max = 9). Approach stage numbers are not related to trip distance. There is only one standard approach profile for most standard aircraft and its stage number is set to 1. Approach stage numbers are used to distinguish members of a group. For example, approach stage can mean different kinds of approaches (e.g. 1 = 3 degree approach, 2 = 5 degree approach).

element **anpHeloProfile/weight**

diagram	 weight Aircraft weight during this operation type. Valid values: 0 through 999999. (lb)
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Aircraft weight during this operation type. Valid values: 0 through 999999. (lb)

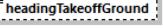
element **anpHeloProfile/useDirectivity**

diagram	 useDirectivity Use directivity? Y=Yes N=No.
type	yesNoType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern Yes No N
annotation	documentation Use directivity? Y=Yes N=No.

element **anpHeloProfile/useTrack**

diagram	 useTrack Use track (static heading is relative to track)? Y=Yes N=No.
type	yesNoType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern Yes No N
annotation	documentation Use track (static heading is relative to track)? Y=Yes N=No.

element **anpHeloProfile/headingTakeoffGround**

diagram	 headingTakeoffGround Takeoff ground heading. Valid values: -180 through 360. (decimal degrees)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Takeoff ground heading. Valid values: -180 through 360. (decimal degrees)

element **anpHeloProfile/headingTakeoffHover**

diagram	
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	<p>headingTakeoffHover</p> <p>Takeoff hover heading. Valid values: -180 through 360. (decimal degrees)</p>
type	xs:double
properties	content simple
annotation	documentation Takeoff hover heading. Valid values: -180 through 360. (decimal degrees)

element **anpHeloProfile/headingLandGround**

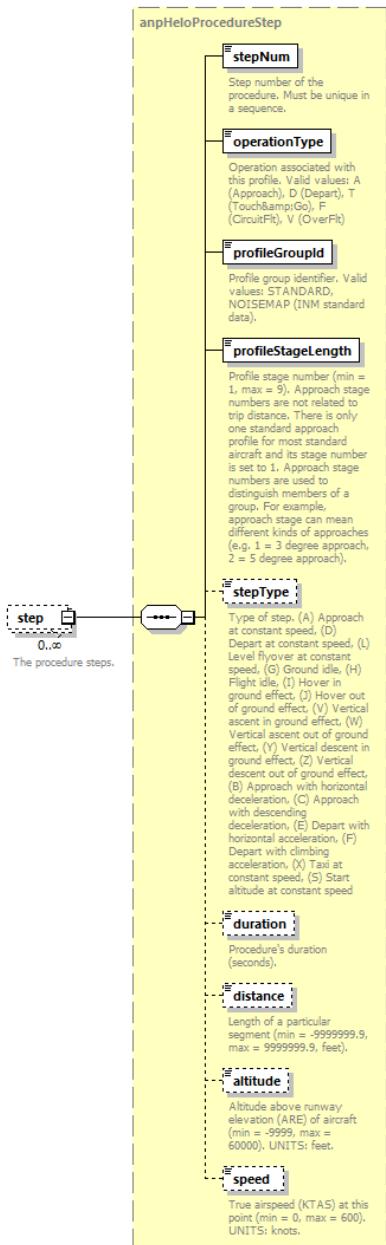
diagram	<p>headingLandGround</p> <p>Landing ground heading. Valid values: -180 through 360. (decimal degrees)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Landing ground heading. Valid values: -180 through 360. (decimal degrees)

element **anpHeloProfile/headingLandHover**

diagram	<p>headingLandHover</p> <p>Landing hover heading. Valid values: -180 through 360. (decimal degrees)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Landing hover heading. Valid values: -180 through 360. (decimal degrees)

element **anpHeloProfile/step**

diagram	
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type	anpHeloProcedureStep
properties	minOcc 0 maxOcc unbounded content complex
children	stepNum operationType profileGroupId profileStageLength stepType duration distance altitude speed
annotation	documentation The procedure steps.

complexType	anpHeloProfileSet
diagram	<p>anpHeloProfileSet</p> <ul style="list-style-type: none"> anpHeloProfileSet: A profile set for an ANP helicopter. anpHelicopterId: The anp helicopter id. profile: One or more ANP profiles.
children	anpHelicopterId profile
used by	element fleet/anpHeloProfileSet
annotation	documentation A profile set for an ANP helicopter.

element [anpHeloProfileSet/anpHelicopterId](#)

diagram	<p>anpHelicopterId</p> <p>The anp helicopter id.</p>
type	anpHeloid

properties	content simple						
facets	<table border="1"> <tr> <td>Kind</td> <td>Value Annotation</td> </tr> <tr> <td>minLength</td> <td>0</td> </tr> <tr> <td>maxLength</td> <td>255</td> </tr> </table>	Kind	Value Annotation	minLength	0	maxLength	255
Kind	Value Annotation						
minLength	0						
maxLength	255						
annotation	documentation The anp helicopter id.						

element **anpHeloProfileSet/profile**

diagram	<pre> classDiagram class anpHeloProfile { operationType profileGroupId profileStageLength weight useDirectivity useTrack headingTakeoffGround headingTakeoffHover headingLandGround headingLandHover step } profile "1..∞" --> anpHeloProfile </pre>
type	anpHeloProfile
properties	minOcc 1 maxOcc unbounded content complex
children	operationType profileGroupId profileStageLength weight useDirectivity useTrack headingTakeoffGround headingTakeoffHover headingLandGround headingLandHover step
annotation	documentation One or more ANP profiles.

complexType **anpNoiseGroup**

diagram	
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	<pre> classDiagram class anpNoiseGroup { noiseld spectralClassApproach spectralClassDeparture spectralClassAfterburner thrustSetType modelType npdCurves } anpNoiseGroup < --> npdCurves </pre>
children	noiseld spectralClassApproach spectralClassDeparture spectralClassAfterburner thrustSetType modelType npdCurves
used by	element fleet/anpNoiseGroup
annotation	<p>documentation</p> <p>This element contains the three spectral class references for a given aircraft Noise group with the corresponding thrust setting type and model type.</p>

element anpNoiseGroup/noiseld

diagram	<p>Noise group's ID.</p>									
type	anpNoiseld									
properties	content simple									
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>255</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	minLength	0		maxLength	255	
Kind	Value	Annotation								
minLength	0									
maxLength	255									
annotation	<p>documentation</p> <p>Noise group's ID.</p>									

element anpNoiseGroup/spectralClassApproach

diagram	<p>Spectral class number for approach (min = 0, max = 30000).</p>						
type	xs:short						
properties	<table> <thead> <tr> <th>minOcc</th> <th>0</th> </tr> </thead> <tbody> <tr> <th>maxOcc</th> <th>1</th> </tr> <tr> <td>content</td> <td>simple</td> </tr> </tbody> </table>	minOcc	0	maxOcc	1	content	simple
minOcc	0						
maxOcc	1						
content	simple						
annotation	<p>documentation</p> <p>Spectral class number for approach (min = 0, max = 30000).</p>						

element anpNoiseGroup/spectralClassDeparture

diagram	<p>Spectral class number for departure (min = 0, max = 30000).</p>						
type	xs:short						
properties	<table> <thead> <tr> <th>minOcc</th> <th>0</th> </tr> </thead> <tbody> <tr> <th>maxOcc</th> <th>1</th> </tr> <tr> <td>content</td> <td>simple</td> </tr> </tbody> </table>	minOcc	0	maxOcc	1	content	simple
minOcc	0						
maxOcc	1						
content	simple						
annotation	<p>documentation</p> <p>Spectral class number for departure (min = 0, max = 30000).</p>						

element anpNoiseGroup/spectralClassAfterburner

diagram	
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	<p>spectralClassAfterburner</p> <p>Spectral class number for afterburner (min = 0, max = 30000).</p>
type	xs:short
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Spectral class number for afterburner (min = 0, max = 30000).

element **anpNoiseGroup/thrustSetType**

diagram	<p>thrustSetType</p> <p>Type of thrust setting. Valid values: L (pounds), P (percent), X (other). The following are typically used for military airplane: A (Power Lever Angle), B (Pounds Thrust), C (Turbine Inlet Temperature (Deg C)), E (Engine Pressure Ratio), F (Fan Speed), H (Equivalent Shaft Power), I (Manifold Pressure (Inches Mercury)), M (Propeller or Compressor RPM), N (Percent Corrected Rotor Speed), O (Percent Low Pressure Compressor Speed), R (Percent Propeller or Compressor RPM), S (Pounds per Hour of Fuel Flow), V (Percent Fan Speed).</p>
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of thrust setting. Valid values: L (pounds), P (percent), X (other). The following are typically used for military airplane: A (Power Lever Angle), B (Pounds Thrust), C (Turbine Inlet Temperature (Deg C)), E (Engine Pressure Ratio), F (Fan Speed), H (Equivalent Shaft Power), I (Manifold Pressure (Inches Mercury)), M (Propeller or Compressor RPM), N (Percent Corrected Rotor Speed), O (Percent Low Pressure Compressor Speed), R (Percent Propeller or Compressor RPM), S (Pounds per Hour of Fuel Flow), V (Percent Fan Speed).

element **anpNoiseGroup/modelType**

diagram	<p>modelType</p> <p>Type of distance-duration model. Valid values: I (INM), N (NoiseMap).</p>
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of distance-duration model. Valid values: I (INM), N (NoiseMap).

element **anpNoiseGroup/npdCurves**

diagram	<p>npdCurves</p> <p>The set of noise curves for ANP aircraft.</p> <p>anpNPDCurves</p> <p>npdCurve</p> <p>1..∞</p> <p>Base noise data interpolated/extrapolated upon according to slant range distance and thrust setting for aircraft.</p>
type	anpNPDCurves
properties	content complex
children	npdCurve
annotation	documentation The set of noise curves for ANP aircraft.

complexType **anpNPDCurve**

diagram	
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	<pre> graph TD anpNPDCurve[anpNPDCurve] --- noiseType[noiseType] anpNPDCurve --- opMode[opMode] anpNPDCurve --- netThrustPerEngine[netThrustPerEngine] anpNPDCurve --- L200[L_200] anpNPDCurve --- L400[L_400] anpNPDCurve --- L630[L_630] anpNPDCurve --- L1000[L_1000] anpNPDCurve --- L2000[L_2000] anpNPDCurve --- L4000[L_4000] anpNPDCurve --- L6300[L_6300] anpNPDCurve --- L10000[L_10000] anpNPDCurve --- L16000[L_16000] anpNPDCurve --- L25000[L_25000] </pre> <p>The Noise Power Distance curve table for a specified noise ID, noise type, operation mode, and thrust setting.</p>
children	noiseType opMode netThrustPerEngine L_200 L_400 L_630 L_1000 L_2000 L_4000 L_6300 L_10000 L_16000 L_25000
used by	element anpNPDCurves/npdCurve
annotation	documentation The Noise Power Distance curve table for a specified noise ID, noise type, operation mode, and thrust setting.

element anpNPDCurve/noiseType

diagram	
	<p>Type of noise described by this curve. Valid values: S (SEL), M (LAMAX), E (EPNL), P (PNLTM).</p>
type	anpNpdNoiseType
properties	content simple

element anpNPDCurve/opMode

diagram	
	<p>Engine operation mode. Valid values: A (Approach), D (Depart), X (Afterburner)</p>
type	anpNpdOpMode
properties	content simple

element **anpNPDCurve/netThrustPerEngine**

diagram	 netThrustPerEngine Net thrust per engine (min = 0.10, max = 99999.00, lbs. or percentage depending on parent noise group THRUST_SET_TYPE value).
type	xs:double
properties	content simple
annotation	documentation Net thrust per engine (min = 0.10, max = 99999.00, lbs. or percentage depending on parent noise group THRUST_SET_TYPE value).

element **anpNPDCurve/L_200**

diagram	 L_200 Decibel level at 200 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	content simple
annotation	documentation Decibel level at 200 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpNPDCurve/L_400**

diagram	 L_400 Decibel level at 400 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	content simple
annotation	documentation Decibel level at 400 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpNPDCurve/L_630**

diagram	 L_630 Decibel level at 630 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	content simple
annotation	documentation Decibel level at 630 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpNPDCurve/L_1000**

diagram	 L_1000 Decibel level at 1000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	content simple
annotation	documentation Decibel level at 1000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpNPDCurve/L_2000**

diagram	 L_2000 Decibel level at 2000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	content simple
annotation	documentation Decibel level at 2000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpNPDCurve/L_4000**

diagram	 L_4000 Decibel level at 4000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	content simple
annotation	documentation Decibel level at 4000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpNPDCurve/L_6300**

diagram	 L_6300 Decibel level at 6300 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	content simple
annotation	documentation Decibel level at 6300 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpNPDCurve/L_10000**

diagram	 L_10000 Decibel level at 10000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	content simple
annotation	documentation Decibel level at 10000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

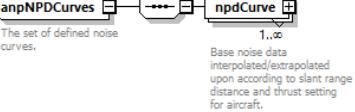
element **anpNPDCurve/L_16000**

diagram	 L_16000 Decibel level at 16000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	content simple
annotation	documentation Decibel level at 16000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpNPDCurve/L_25000**

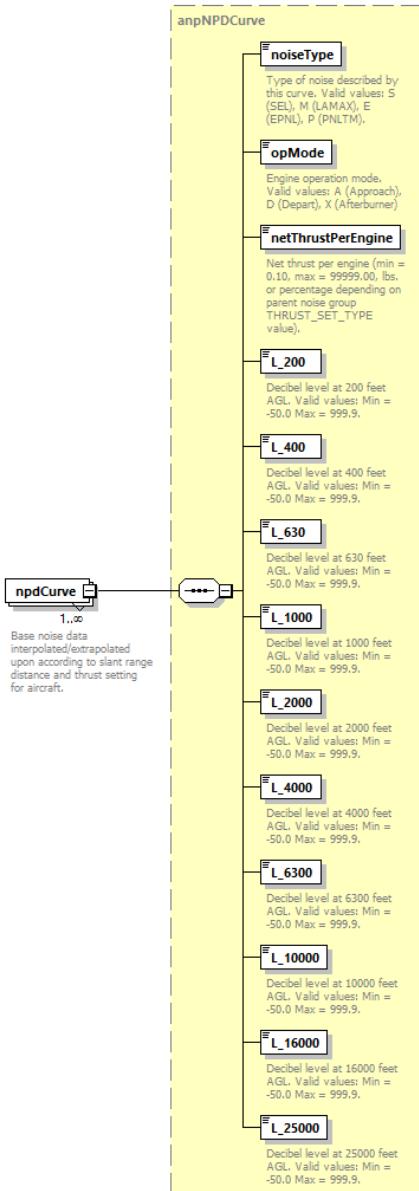
diagram	 L_25000 Decibel level at 25000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	content simple
annotation	documentation Decibel level at 25000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

complexType **anpNPDCurves**

diagram	 The set of defined noise curves. 1..∞ Base noise data interpolated/extrapolated upon according to slant range distance and thrust setting for aircraft.
children	npdCurve
used by	element anpNoiseGroup/npdCurves
annotation	documentation The set of defined noise curves.

element **anpNPDCurves/npdCurve**

diagram	
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	type	anpNPDCurve
properties	minOcc	1
	maxOcc	unbounded
	content	complex
children	noiseType opMode netThrustPerEngine L_200 L_400 L_630 L_1000 L_2000 L_4000 L_6300 L_10000 L_16000 L_25000	
annotation	documentation Base noise data interpolated/extrapolated upon according to slant range distance and thrust setting for aircraft.	

complexType **anpProcedureStep**

diagram

	<p>anpProcedureStep</p> <p>A single procedure step datum for the profile.</p> <p>stepNum</p> <p>Step number of the procedure. Must be unique in a sequence.</p> <p>flapId</p> <p>Flap-setting identifier.</p> <p>stepType</p> <p>Type of step. (T) Takeoff, (C) Climb, (M) Cruise-Climb, (A) Accelerate, (P) Accel-Percent, (V) Level, (U) Level-Decel, (W) Level-Idle, (S) Level-Stretch, (D) Descend, (E) Descend-Decel, (F) Descend-Idle, (L) Land, (B) Decelerate</p> <p>thrustType</p> <p>Type of thrust. (T) MaxTakeoff, (C) MaxClimb, (N) MaxContinuous, (H) ReduceTakeoff, (Q) ReduceClimb, (S) MaxTakeoffHTemp, (B) MaxClimbHTemp, (M) MaxContinuousHTemp, (G) ReduceClimbHTemp, (P) ReduceClimbEmp, (I) IdleApproach, (J) IdleApproachHTemp, (R) MinimumThrust, (K) UserOutback, (U) UserValue</p> <p>param1</p> <p>Parameter particular for this step type (min = 9999.0, max = 60000.0).</p> <p>param2</p> <p>Parameter particular for this step type (min = 0, max = 600.0).</p> <p>param3</p> <p>Parameter particular for this step type (min = 0.0, max = 9999999.9).</p>
children	stepNum flapId stepType thrustType param1 param2 param3
used by	element anpProcedureSteps/step
annotation	documentation A single procedure step datum for the profile.

element anpProcedureStep/stepNum

diagram	<p>stepNum</p> <p>Step number of the procedure. Must be unique in a sequence.</p>
type	xs:int
properties	content simple
annotation	documentation Step number of the procedure. Must be unique in a sequence.

element anpProcedureStep/flapId

diagram	<p>flapId</p> <p>Flap-setting identifier.</p>
type	anpFlapId
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 6
annotation	documentation Flap-setting identifier.

element anpProcedureStep/stepType

diagram	<p>stepType</p> <p>Type of step. (T) Takeoff, (C) Climb, (M) Cruise-Climb, (A) Accelerate, (P) Accel-Percent, (V) Level, (U) Level-Decel, (W) Level-Idle, (S) Level-Stretch, (D) Descend, (E) Descend-Decel, (F) Descend-Idle, (L) Land, (B) Decelerate</p>
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1

annotation	documentation Type of step. (T) Takeoff, (C) Climb, (M) Cruise-Climb, (A) Accelerate, (P) Accel-Percent, (V) Level, (U) Level-Decel, (W) Level-Idle, (S) Level-Stretch, (D) Descend, (E) Descend-Decel, (F) Descend-Idle, (L) Land, (B) Decelerate
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element anpProcedureStep/thrustType

diagram	 Type of thrust. (T) MaxTakeoff, (C) MaxClimb, (N) MaxContinuous, (H) ReduceTakeoff, (Q) ReduceClimb, (S) MaxTakeoffHiTemp, (B) MaxClimbHiTemp, (M) MaxContinuousHiTemp, (G) ReduceClimbHiTemp, (P) ReduceClimbHiTemp, (I) IdleApproach, (J) IdleApproachHiTemp, (R) MinimumThrust, (K) UserCutback, (U) UserValue
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of thrust. (T) MaxTakeoff, (C) MaxClimb, (N) MaxContinuous, (H) ReduceTakeoff, (Q) ReduceClimb, (S) MaxTakeoffHiTemp, (B) MaxClimbHiTemp, (M) MaxContinuousHiTemp, (G) ReduceClimbHiTemp, (P) ReduceClimbHiTemp, (I) IdleApproach, (J) IdleApproachHiTemp, (R) MinimumThrust, (K) UserCutback, (U) UserValue

element anpProcedureStep/param1

diagram	 Parameter particular for this step type (min = 9999.0, max = 60000.0).
type	xs:double
properties	content simple
annotation	documentation Parameter particular for this step type (min = 9999.0, max = 60000.0).

element anpProcedureStep/param2

diagram	 Parameter particular for this step type (min = 0, max = 600.0).
type	xs:double
properties	content simple
annotation	documentation Parameter particular for this step type (min = 0, max = 600.0).

element anpProcedureStep/param3

diagram	 Parameter particular for this step type (min = 0.0, max = 9999999.9).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Parameter particular for this step type (min = 0.0, max = 9999999.9).

complexType anpProcedureSteps

diagram	 A set of procedure steps for the profile. 1.. An ANP procedure step.
children	step
used by	element anpProfile/procedureSteps
annotation	documentation A set of procedure steps for the profile.

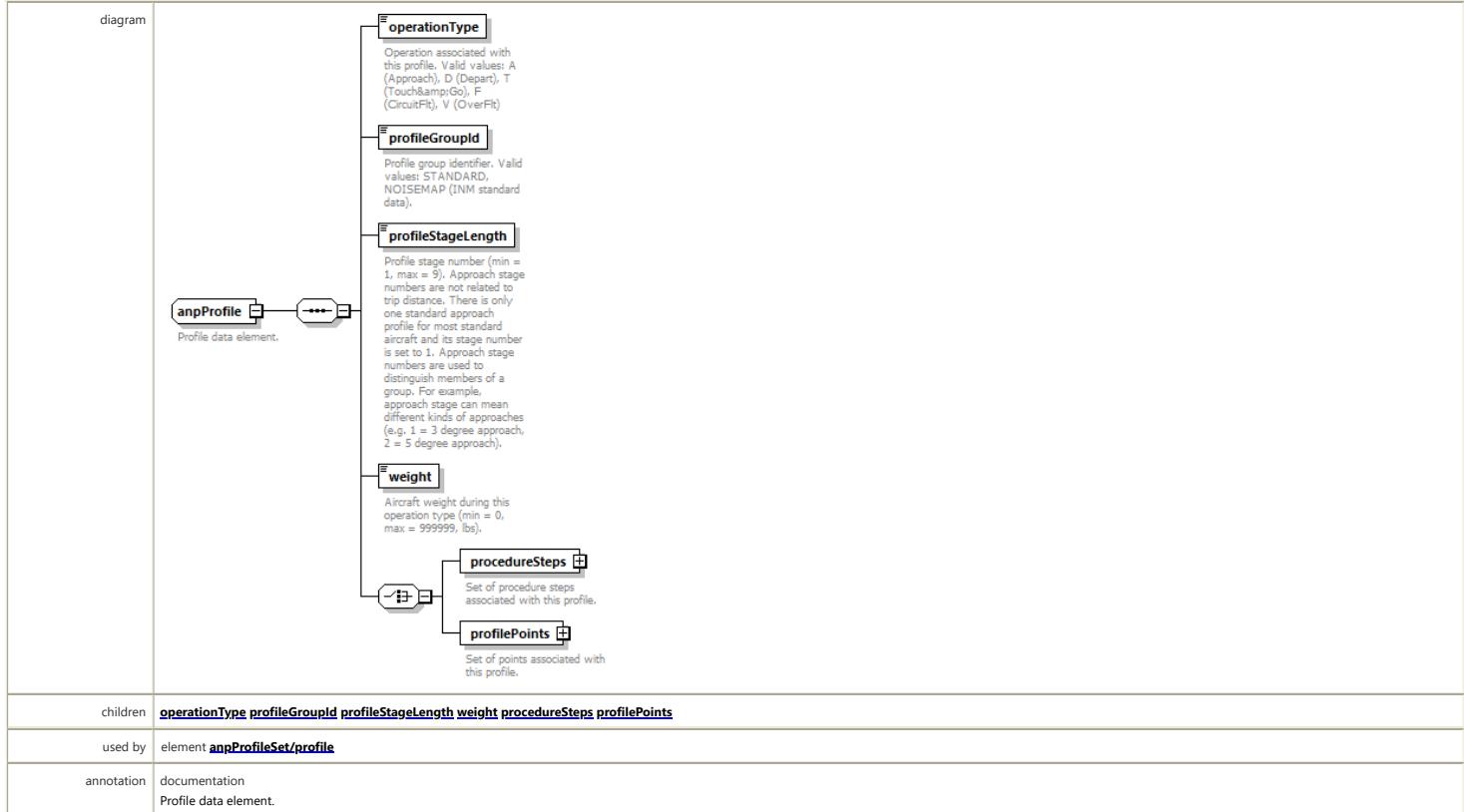
element anpProcedureSteps/step

diagram	
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type	anpProcedureStep
properties	minOcc 1 maxOcc unbounded content complex
children	stepNum flapId stepType thrustType param1 param2 param3
annotation	documentation An ANP procedure step.

complexType anpProfile



children [operationType](#) [profileGroupId](#) [profileStageLength](#) [weight](#) [procedureSteps](#) [profilePoints](#)

used by element [anpProfileSet/profile](#)

annotation documentation
Profile data element.

element anpProfile/operationType

diagram	 operationType Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFlt), V (OverFlt)
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFlt), V (OverFlt)

element anpProfile/profileGroupId

diagram	 profileGroupId Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).

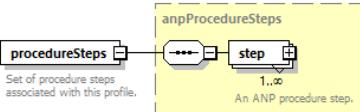
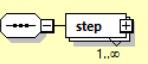
element anpProfile/profileStageLength

diagram	 profileStageLength Profile stage number (min = 1, max = 9). Approach stage numbers are not related to trip distance. There is only one standard approach profile for most standard aircraft and its stage number is set to 1. Approach stage numbers are used to distinguish members of a group. For example, approach stage can mean different kinds of approaches (e.g. 1 = 3 degree approach, 2 = 5 degree approach).
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Profile stage number (min = 1, max = 9). Approach stage numbers are not related to trip distance. There is only one standard approach profile for most standard aircraft and its stage number is set to 1. Approach stage numbers are used to distinguish members of a group. For example, approach stage can mean different kinds of approaches (e.g. 1 = 3 degree approach, 2 = 5 degree approach).

element anpProfile/weight

diagram	 weight Aircraft weight during this operation type (min = 0, max = 999999, lbs).
type	xs:int
properties	content simple
annotation	documentation Aircraft weight during this operation type (min = 0, max = 999999, lbs).

element anpProfile/procedureSteps

diagram	 anpProcedureSteps Set of procedure steps associated with this profile. procedureSteps  An ANP procedure steps. step  An ANP procedure step.
type	anpProcedureSteps
properties	content complex
children	step
annotation	documentation Set of procedure steps associated with this profile.

element anpProfile/profilePoints

diagram	
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	<p>profilePoints Set of points associated with this profile.</p>
type	anpProfilePoints
properties	content complex
children	point
annotation	documentation Set of points associated with this profile.

complexType **anpProfilePoint**

diagram	<p>anpProfilePoint A single profile point data element.</p> <ul style="list-style-type: none"> - pointNum Point index number. Must be sequential and unique, starting at 1. - distance Distance along the ground relative to start (min = -9999999.9, max = 9999999.9, feet). - altitude Altitude AFE of aircraft (min = -9999, max = 60000, feet). - speed True air speed (TAS) at this point (min = 0, max = 600, knots). - thrustSet Corrected net thrust per engine at the point (min = 0.1, max = 99999, lbs or % max thrust). - opMode Operational mode. Valid values: A (Approach), D (Departure), X (Overflight).
children	pointNum distance altitude speed thrustSet opMode
used by	element anpProfilePoints/point
annotation	documentation A single profile point data element.

element **anpProfilePoint/pointNum**

diagram	<p>pointNum Point index number. Must be sequential and unique, starting at 1.</p>
type	xs:short
properties	content simple
annotation	documentation Point index number. Must be sequential and unique, starting at 1.

element **anpProfilePoint/distance**

diagram	<p>distance Distance along the ground relative to start (min = -9999999.9, max = 9999999.9, feet).</p>
type	xs:double
properties	content simple
annotation	documentation Distance along the ground relative to start (min = -9999999.9, max = 9999999.9, feet).

element **anpProfilePoint/altitude**

diagram	<p>altitude Altitude AFE of aircraft (min = -9999, max = 60000, feet).</p>
type	xs:double
properties	content simple
annotation	documentation Altitude AFE of aircraft (min = -9999, max = 60000, feet).

element **anpProfilePoint/speed**

diagram	<p>speed True air speed (TAS) at this point (min = 0, max = 600, knots).</p>
---------	---

type	xs:double
properties	content simple
annotation	documentation True air speed (TAS) at this point (min = 0, max = 600, knots).

element **anpProfilePoint/thrustSet**

diagram	 Corrected net thrust per engine at this point (min = 0.1, max = 99999, lbs or % max thrust).
type	xs:double
properties	content simple
annotation	documentation Corrected net thrust per engine at this point (min = 0.1, max = 99999, lbs or % max thrust).

element **anpProfilePoint/opMode**

diagram	 Operational mode. Valid values: A (Approach), D (Departure), X (Overflight).
type	string
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Operational mode. Valid values: A (Approach), D (Departure), X (Overflight).

complexType **anpProfilePoints**

diagram	 A set of point profile data.
children	point
used by	element anpProfile/profilePoints
annotation	documentation A set of point profile data.

element **anpProfilePoints/point**

diagram	 anpProfilePoint pointNum distance altitude speed thrustSet opMode
type	anpProfilePoint
properties	minOcc 1 maxOcc unbounded content complex
children	pointNum distance altitude speed thrustSet opMode

complexType **anpProfileSet**

diagram	
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	<p>anpProfileSet A profile set for an ANP airplane.</p> <p>anpAirplaneId Airplane's ANP ID.</p> <p>profile 1..∞ One or more ANP profiles.</p>
children	anpAirplaneId profile
used by	element fleet/anpProfileSet
annotation	documentation A profile set for an ANP airplane.

element anpProfileSet/anpAirplaneId

diagram	<p>anpAirplaneId Airplane's ANP ID.</p>
type	anpAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's ANP ID.

element anpProfileSet/profile

diagram	<p>profile 1..∞ One or more ANP profiles.</p> <p>operationType Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFlt), V (OverFlt)</p> <p>profileGroupId Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).</p> <p>profileStageLength Profile stage number (min = 1, max = 9). Approach stage numbers are not related to trip distance. There is only one standard approach profile for most standard aircraft and its stage number is set to 1. Approach stage numbers are used to distinguish members of a group. For example, approach stage can mean different kinds of approaches (e.g. 1 = 3 degree approach, 2 = 5 degree approach).</p> <p>weight Aircraft weight during this operation type (min = 0, max = 999999, lbs).</p> <p>procedureSteps Set of procedure steps associated with this profile.</p> <p>profilePoints Set of points associated with this profile.</p>
type	anpProfile
properties	minOcc 1 maxOcc unbounded content complex
children	operationType profileGroupId profileStageLength weight procedureSteps profilePoints
annotation	documentation One or more ANP profiles.

complexType anpThrustGeneral

diagram	
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	<pre> graph TD anpThrustGeneral[anpThrustGeneral] --> coeffE[coeff_E] anpThrustGeneral --> coeffF[coeff_F] anpThrustGeneral --> coeffGA[coeff_GA] anpThrustGeneral --> coeffGB[coeff_GB] anpThrustGeneral --> coeffH[coeff_H] anpThrustGeneral --> coeffK1[coeff_K1] anpThrustGeneral --> coeffK2[coeff_K2] </pre> <p>anpThrustGeneral General thrust data for an ANP aircraft.</p> <p>thrustType</p> <ul style="list-style-type: none"> coeff_E Corrected net thrust per engine coefficient. Valid values: -199999.9 through 99999.9. (lb). coeff_F Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F) coeff_GA Altitude adjustment coefficient at MSL. (lb/ft) coeff_GB Altitude-squared adjustment coefficient at MSL. (lb/ft²) coeff_H Temperature adjustment coefficient. (lb°C) coeff_K1 EPR or N1/sqr(theta) adjustment coefficient. (lb/EPR) coeff_K2 EPR- or N1/sqr(theta)-squared adjustment coefficient. (lb/EPR²)
children	thrustType coeff_E coeff_F coeff_GA coeff_GB coeff_H coeff_K1 coeff_K2
used by	element anpThrustSet/thrustGeneral
annotation	documentation General thrust data for an ANP aircraft.

element anpThrustGeneral/thrustType

diagram	<p>thrustType The type of generalized thrust-setting.</p>
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation The type of generalized thrust-setting.

element anpThrustGeneral/coeff_E

diagram	<p>coeff_E Corrected net thrust per engine coefficient. Valid values: -199999.9 through 99999.9. (lb).</p>
type	xs:double
properties	content simple
annotation	documentation Corrected net thrust per engine coefficient. Valid values: -199999.9 through 99999.9. (lb).

element anpThrustGeneral/coeff_F

diagram	<p>coeff_F Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F)</p>
type	xs:double
properties	content simple
annotation	documentation Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F)

element anpThrustGeneral/coeff_GA

diagram	<p>coeff_GA Altitude adjustment coefficient at MSL. (lb/ft)</p>
type	xs:double
properties	content simple
annotation	documentation

Altitude adjustment coefficient at MSL. (lb/ft)

element anpThrustGeneral/coeff_GB

diagram	coeff_GB Altitude-squared adjustment coefficient at MSL. (lb/ft^2)
type	xs:double
properties	content simple
annotation	documentation Altitude-squared adjustment coefficient at MSL. (lb/ft^2)

element anpThrustGeneral/coeff_H

diagram	coeff_H Temperature adjustment coefficient. (lb/^oC)
type	xs:double
properties	content simple
annotation	documentation Temperature adjustment coefficient. (lb/^oC)

element anpThrustGeneral/coeff_K1

diagram	coeff_K1 EPR or N1/sqrt(theta) adjustment coefficient. (lb/EPR)
type	xs:double
properties	content simple
annotation	documentation EPR or N1/sqrt(theta) adjustment coefficient. (lb/EPR)

element anpThrustGeneral/coeff_K2

diagram	coeff_K2 EPR- or N1/sqrt(theta)-squared adjustment coefficient. (lb/EPR2)
type	xs:double
properties	content simple
annotation	documentation EPR- or N1/sqrt(theta)-squared adjustment coefficient. (lb/EPR2)

complexType anpThrustJet

diagram	anpThrustJet Jet thrust data for an ANP aircraft. thrustType Type of thrust. Primary key UNITS: T = Max Takeoff, S = High Temp Takeoff, C = Max Climb, B = High Temp Climb, N = Max Continuous, M = High Temp Continuous coeff_E Corrected net thrust per engine coefficient. Valid values: 0.0 through 500000.0. (lb) coeff_F Speed (TAS) adjustment coefficient. Valid values: -200,00000 through 1000,00000. (lb/knot TAS at sea level and 59°F) coeff_GA Altitude adjustment coefficient at MSL. (lb/ft) coeff_GB Altitude-squared adjustment coefficient at MSL. (lb/ft^2) coeff_H Temperature adjustment coefficient. (lb/^oC)
children	thrustType coeff_E coeff_F coeff_GA coeff_GB coeff_H
used by	element anpThrustSet/thrustJet
annotation	documentation Jet thrust data for an ANP aircraft.

element anpThrustJet/thrustType

diagram	
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	<p>thrustType</p> <p>Type of thrust. Primary key UNITS: T = Max Takeoff, S = High Temp Takeoff, C = Max Climb, B = High Temp Climb, N = Max Continuous, M = High Temp Continuous</p>
type	string
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of thrust. Primary key UNITS: T = Max Takeoff, S = High Temp Takeoff, C = Max Climb, B = High Temp Climb, N = Max Continuous, M = High Temp Continuous

element **anpThrustJet/coeff_E**

diagram	<p>coeff_E</p> <p>Corrected net thrust per engine coefficient. Valid values: 0.0 through 5000000.0. (lb)</p>
type	xs:double
properties	content simple
annotation	documentation Corrected net thrust per engine coefficient. Valid values: 0.0 through 5000000.0. (lb)

element **anpThrustJet/coeff_F**

diagram	<p>coeff_F</p> <p>Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F)</p>
type	xs:double
properties	content simple
annotation	documentation Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F)

element **anpThrustJet/coeff_GA**

diagram	<p>coeff_GA</p> <p>Altitude adjustment coefficient at MSL. (lb/ft)</p>
type	xs:double
properties	content simple
annotation	documentation Altitude adjustment coefficient at MSL. (lb/ft)

element **anpThrustJet/coeff_GB**

diagram	<p>coeff_GB</p> <p>Altitude-squared adjustment coefficient at MSL. (lb/ft^2)</p>
type	xs:double
properties	content simple
annotation	documentation Altitude-squared adjustment coefficient at MSL. (lb/ft^2)

element **anpThrustJet/coeff_H**

diagram	<p>coeff_H</p> <p>Temperature adjustment coefficient. (lb/^C)</p>
type	xs:double
properties	content simple
annotation	documentation Temperature adjustment coefficient. (lb/^C)

complexType **anpThrustProp**

diagram	<p>anpThrustProp</p> <p>Prop thrust data for an ANP aircraft.</p> <p>thrustType Type of thrust.</p> <p>efficiency The propeller efficiency ratio. Valid values: 0.50 to 1.00.</p> <p>power Net propulsive power per engine (HP). Valid values: 0 to 9999.9.</p>
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children	thrustType efficiency power
used by	element anpThrustSet/thrustProp
annotation	documentation Prop thrust data for an ANP aircraft.

element **anpThrustProp/thrustType**

diagram	 Type of thrust.
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of thrust.

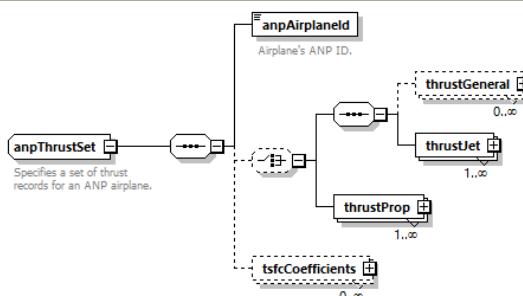
element **anpThrustProp/efficiency**

diagram	 The propeller efficiency ratio. Valid values: 0.50 to 1.00.
type	xs:double
properties	content simple
annotation	documentation The propeller efficiency ratio. Valid values: 0.50 to 1.00.

element **anpThrustProp/power**

diagram	 Net propulsive power per engine (HP). Valid values: 0 to 9999.9.
type	xs:double
properties	content simple
annotation	documentation Net propulsive power per engine (HP). Valid values: 0 to 9999.9.

complexType **anpThrustSet**

diagram	
children	anpAirplaneId thrustGeneral thrustJet thrustProp tsfcCoefficients
used by	element fleet/anpThrustSet
annotation	documentation Specifies a set of thrust records for an ANP airplane.

element **anpThrustSet/anpAirplaneId**

diagram	 Airplane's ANP ID.
type	anpAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's ANP ID.

element **anpThrustSet/thrustGeneral**

diagram	
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	<pre> graph TD anpThrustGeneral[anpThrustGeneral] --> thrustType[thrustType] thrustType --- coeff_E[coeff_E] thrustType --- coeff_F[coeff_F] thrustType --- coeff_GA[coeff_GA] thrustType --- coeff_GB[coeff_GB] thrustType --- coeff_H[coeff_H] thrustType --- coeff_K1[coeff_K1] thrustType --- coeff_K2[coeff_K2] </pre> <p>anpThrustGeneral</p> <ul style="list-style-type: none"> thrustType: The type of generalized thrust-setting. coeff_E: Corrected net thrust per engine coefficient. Valid values: -199999.9 through 99999.9. (lb). coeff_F: Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F) coeff_GA: Altitude adjustment coefficient at MSL. (lb/ft) coeff_GB: Altitude-squared adjustment coefficient at MSL. (lb/ft^2) coeff_H: Temperature adjustment coefficient. (lb/°C) coeff_K1: EPR or N1/sqrt(theta) adjustment coefficient. (lb/EPR) coeff_K2: EPR- or N1/sqrt(theta)-squared adjustment coefficient. (lb/EPR2)
type	anpThrustGeneral
properties	minOcc 0 maxOcc unbounded content complex
children	thrustType coeff_E coeff_F coeff_GA coeff_GB coeff_H coeff_K1 coeff_K2

element anpThrustSet/thrustJet	<pre> graph TD anpThrustSet[anpThrustSet] --> thrustJet[thrustJet] thrustJet --> thrustType[thrustType] thrustType --- coeff_E[coeff_E] thrustType --- coeff_F[coeff_F] thrustType --- coeff_GA[coeff_GA] thrustType --- coeff_GB[coeff_GB] thrustType --- coeff_H[coeff_H] </pre> <p>anpThrustSet</p> <p>thrustJet</p> <ul style="list-style-type: none"> thrustType: Type of thrust. Primary key UNITS: T = Max Takeoff, S = High Temp Takeoff, C = Max Climb, B = High Temp Climb, N = Max Continuous, M = High Temp Continuous coeff_E: Corrected net thrust per engine coefficient. Valid values: 0.0 through 500000.0. (lb) coeff_F: Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F) coeff_GA: Altitude adjustment coefficient at MSL. (lb/ft) coeff_GB: Altitude-squared adjustment coefficient at MSL. (lb/ft^2) coeff_H: Temperature adjustment coefficient. (lb/°C)
type	anpThrustJet
properties	minOcc 1 maxOcc unbounded content complex
children	thrustType coeff_E coeff_F coeff_GA coeff_GB coeff_H

element anpThrustSet/thrustProp	<pre> graph TD anpThrustSet[anpThrustSet] --> thrustProp[thrustProp] </pre> <p>anpThrustSet</p> <p>thrustProp</p>
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	<p>anpThrustProp</p>
type	anpThrustProp
properties	minOcc 1 maxOcc unbounded content complex
children	thrustType efficiency power

element **anpThrustSet/tsfcCoefficients**

diagram	
type	anpTsfcCoefficients
properties	minOcc 0 maxOcc unbounded content complex
children	mode k1 k2 k3 k4 beta1 beta2 beta3 alpha

complexType **anpTsfcCoefficients**

diagram	
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	<pre> graph LR anpTsfcCoefficients[anpTsfcCoefficients] --> mode(mode) mode --- k1[k1] mode --- k2[k2] mode --- k3[k3] mode --- k4[k4] mode --- beta1[beta1] mode --- beta2[beta2] mode --- beta3[beta3] mode --- alpha[alpha] </pre> <p>anpTsfcCoefficients TSFC coefficient data for an ANP aircraft.</p>
children	mode k1 k2 k3 k4 beta1 beta2 beta3 alpha
used by	element anpThrustSet/tsfcCoefficients
annotation	documentation TSFC coefficient data for an ANP aircraft.

element anpTsfcCoefficients mode

diagram	<p>Arrival or departure mode.</p>
type	string
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Arrival or departure mode.

element anpTsfcCoefficients/k1

diagram	<p>Departure thrust specific fuel consumption constant coefficient.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Departure thrust specific fuel consumption constant coefficient.

element anpTsfcCoefficients/k2

diagram	<p>Departure thrust specific fuel consumption Mach number coefficient.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Departure thrust specific fuel consumption Mach number coefficient.

element anpTsfcCoefficients/k3

diagram	<p>Departure thrust specific fuel consumption altitude coefficient.</p>
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	<p>type xs:double</p> <p>properties minOcc 0 maxOcc 1 content simple</p> <p>annotation documentation Departure thrust specific fuel consumption altitude coefficient.</p>
--	---

element anpTsfcCoefficients/k4

<p>diagram</p> <p>k4</p> <p>Departure thrust specific fuel consumption thrust coefficient.</p>	
	<p>type xs:double</p>
<p>properties minOcc 0 maxOcc 1 content simple</p>	
<p>annotation documentation Departure thrust specific fuel consumption thrust coefficient.</p>	

element anpTsfcCoefficients/beta1

<p>diagram</p> <p>beta1</p> <p>Arrival thrust specific fuel consumption Mach number coefficient.</p>	
	<p>type xs:double</p>
<p>properties minOcc 0 maxOcc 1 content simple</p>	
<p>annotation documentation Arrival thrust specific fuel consumption Mach number coefficient.</p>	

element anpTsfcCoefficients/beta2

<p>diagram</p> <p>beta2</p> <p>Arrival thrust specific fuel consumption altitude coefficient.</p>	
	<p>type xs:double</p>
<p>properties minOcc 0 maxOcc 1 content simple</p>	
<p>annotation documentation Arrival thrust specific fuel consumption altitude coefficient.</p>	

element anpTsfcCoefficients/beta3

<p>diagram</p> <p>beta3</p> <p>Arrival thrust specific fuel consumption thrust coefficient.</p>	
	<p>type xs:double</p>
<p>properties minOcc 0 maxOcc 1 content simple</p>	
<p>annotation documentation Arrival thrust specific fuel consumption thrust coefficient.</p>	

element anpTsfcCoefficients/alpha

<p>diagram</p> <p>alpha</p> <p>Arrival thrust specific fuel consumption constant coefficient.</p>	
	<p>type xs:double</p>
<p>properties minOcc 0 maxOcc 1 content simple</p>	
<p>annotation documentation Arrival thrust specific fuel consumption constant coefficient.</p>	

complexType auxiliaryPowerUnit

<p>diagram</p>	
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	<p>auxiliaryPowerUnit</p> <p>This element supports the definition of custom auxiliary power units. These are most often on-board generators that provide electrical power to the aircraft while its engines are shut down.</p>
children	name baseAuxiliaryPowerUnit defaultTimeArrivals defaultTimeDepartures CO HC NOx SOx PM
used by	element: fleet/auxiliaryPowerUnit
annotation	<p>documentation</p> <p>This element supports the definition of custom auxiliary power units. These are most often on-board generators that provide electrical power to the aircraft while its engines are shut down.</p>

element auxiliaryPowerUnit/name

diagram	<p>name</p> <p>Identifying name of APU.</p>						
type	apuName						
properties	content simple						
facets	<table> <tr> <td>Kind</td> <td>Value Annotation</td> </tr> <tr> <td>minLength</td> <td>0</td> </tr> <tr> <td>maxLength</td> <td>30</td> </tr> </table>	Kind	Value Annotation	minLength	0	maxLength	30
Kind	Value Annotation						
minLength	0						
maxLength	30						
annotation	<p>documentation</p> <p>Identifying name of APU.</p>						

element auxiliaryPowerUnit/baseAuxiliaryPowerUnit

diagram	<p>baseAuxiliaryPowerUnit</p> <p>Base reference name, typically a system name.</p>						
type	apuName						
properties	<table> <tr> <td>minOcc</td> <td>0</td> </tr> <tr> <td>maxOcc</td> <td>1</td> </tr> <tr> <td>content</td> <td>simple</td> </tr> </table>	minOcc	0	maxOcc	1	content	simple
minOcc	0						
maxOcc	1						
content	simple						
facets	<table> <tr> <td>Kind</td> <td>Value Annotation</td> </tr> <tr> <td>minLength</td> <td>0</td> </tr> <tr> <td>maxLength</td> <td>30</td> </tr> </table>	Kind	Value Annotation	minLength	0	maxLength	30
Kind	Value Annotation						
minLength	0						
maxLength	30						
annotation	<p>documentation</p> <p>Base reference name, typically a system name.</p>						

element auxiliaryPowerUnit/defaultTimeArrivals

diagram	<p>defaultTimeArrivals</p> <p>Default length of time APU used for powering arrival aircraft (minutes). Valid values: Nonnegative.</p>								
type	xs:double								
properties	<table> <tr> <td>minOcc</td> <td>0</td> </tr> <tr> <td>maxOcc</td> <td>1</td> </tr> <tr> <td>content</td> <td>simple</td> </tr> <tr> <td>default</td> <td>0</td> </tr> </table>	minOcc	0	maxOcc	1	content	simple	default	0
minOcc	0								
maxOcc	1								
content	simple								
default	0								
annotation	<p>documentation</p> <p>Default length of time APU used for powering arrival aircraft (minutes). Valid values: Nonnegative.</p>								

element auxiliaryPowerUnit/defaultTimeDepartures

diagram	 Default length of time APU used for powering departure aircraft (minutes). Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Default length of time APU used for powering departure aircraft (minutes). Valid values: Nonnegative.

element auxiliaryPowerUnit/CO

diagram	 Amount of carbon monoxide emitted (kg/hour). Valid values [0..#8230;1,000].
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of carbon monoxide emitted (kg/hour). Valid values [0..#8230;1,000].

element auxiliaryPowerUnit/HC

diagram	 Amount of hydrocarbons emitted (kg/hour). Valid values [0..#8230;1,000].
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of hydrocarbons emitted (kg/hour). Valid values [0..#8230;1,000].

element auxiliaryPowerUnit/NOx

diagram	 Amount of nitrous oxide emitted (kg/hour). Valid values [0..#8230;1,000].
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of nitrous oxide emitted (kg/hour). Valid values [0..#8230;1,000].

element auxiliaryPowerUnit/SOx

diagram	 Amount of sulfur oxide emitted (kg/hour). Valid values [0..#8230;1,000].
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of sulfur oxide emitted (kg/hour). Valid values [0..#8230;1,000].

element auxiliaryPowerUnit/PM

diagram	 Amount of particulate matter emitted (kg/hour). Valid values [0..#8230;1,000].
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of particulate matter emitted (kg/hour). Valid values [0..#8230;1,000].

complexType bada4ProcedureStep

diagram	
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	<p>stepNumber</p> <p>Step number of the procedure. Must be unique in a sequence.</p> <p>configId</p> <p>AFCM configuration ID.</p> <p>anpAirplaneId</p> <p>Airplane's ANP ID.</p> <p>anpFlapId</p> <p>Flap-setting identifier.</p> <p>stepType</p> <p>Step type: (L) Level, (D) Descend, (L) Land, (B) Landing decelerate, (T) Takeoff, (C) Climb, (A) Accelerate, (M) Cruise climb, (S) Fit-to-track distance, (U) Level decelerate (U), (W) Level idle, (E) Descend decelerate, (F) Descend idle, (P) Percent accelerate.</p> <p>thrustType</p> <p>Thrust type: (T) MaxTakeoff, (S) MaxTakeoffHiTemp, (F) MaxTakeoffReduce, (E) MaxTakeoffReduce05HiTemp, (X) MaxTakeoffReduce10, (W) MaxTakeoffReduce10HiTemp, (Z) MaxTakeoffReduce15, (Y) MaxTakeoffReduce15HiTemp, (C) MaxClimb, (B) MaxClimbHiTemp, (D) MaxClimbReduce10, (A) MaxClimbReduce10HiTemp, (N) MaxCont, (M) MaxContHiTemp, (H) ReducedTakeoff, (G) ReducedTakeoffHiTemp, (Q) ReducedClimb, (P) ReducedClimbHiTemp, (R) MinimumThrust, (K) UserCutoff, (U) UserValue, (V) ReversedThrust, (L) NormalThrust, (I) IdleApproach, (J) IdleApproachHiTemp, (O) UnknownThrust.</p> <p>bada4ProcedureStep</p> <p>A single procedure step for the BADA 4 profile.</p> <p>altitude</p> <p>Altitude above runway elevation (ARE) for the procedure step. UNITS: feet.</p> <p>calibratedAirspeed</p> <p>Calibrated airspeed (KCAS). UNITS: knots.</p> <p>mach</p> <p>Mach number for procedure step. Min= 0.0 Max= 10.0 UNITS: Dimensionless.</p> <p>thrust</p> <p>Thrust in pounds.</p> <p>angle</p> <p>Climb or descend angle in degrees. Valid values: 0.00 to 180.00. UNITS: decimal degrees.</p> <p>climbRate</p> <p>Climb rate in feet per minute.</p> <p>distance</p> <p>Flight segment length in feet.</p> <p>percent</p> <p>Defines how much energy is spent on acceleration.</p> <p>gearDown</p> <p>Flag representing if the landing gear is down(1) or not down(0).</p>
children	stepNumber configId anpAirplaneId anpFlapId stepType thrustType altitude calibratedAirspeed mach thrust angle climbRate distance percent gearDown
used by	element bada4ProcedureSteps/step
annotation	documentation A single procedure step for the BADA 4 profile.

element **bada4ProcedureStep/stepNumber**

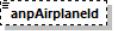
diagram	<p>stepNumber</p> <p>Step number of the procedure. Must be unique in a sequence.</p>
type	xs:int
properties	content simple
annotation	documentation

Step number of the procedure. Must be unique in a sequence.

element bada4ProcedureStep/configId

diagram	 AFCM configuration ID.
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation AFCM configuration ID.

element bada4ProcedureStep/anpAirplaneId

diagram	 Airplane's ANP ID.
type	anpAirplaneId
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's ANP ID.

element bada4ProcedureStep/anpFlapId

diagram	 Flap-setting identifier.
type	anpFlapId
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 6
annotation	documentation Flap-setting identifier.

element bada4ProcedureStep/stepType

diagram	 Step type: (L) Level, (D) Descend, (L) Land, (B) Landing decelerate, (T) Takeoff, (C) Climb, (A) Accelerate, (M) Cruise climb, (S) Fit-to-track distance, (U) Level decelerate (U), (W) Level idle, (E) Descend decelerate, (F) Descend idle, (P) Percent accelerate.
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Step type: (L) Level, (D) Descend, (L) Land, (B) Landing decelerate, (T) Takeoff, (C) Climb, (A) Accelerate, (M) Cruise climb, (S) Fit-to-track distance, (U) Level decelerate (U), (W) Level idle, (E) Descend decelerate, (F) Descend idle, (P) Percent accelerate.

element bada4ProcedureStep/thrustType

diagram	
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	<pre> thrustType Thrust type: (T) MaxTakeoff, (S) MaxTakeoffHiTemp, (F) MaxTakeoffReduce05, (E) MaxTakeoffReduce05HiTemp p, (X) MaxTakeoffReduce10, (W) MaxTakeoffReduce10HiTemp p, (Z) MaxTakeoffReduce15, (Y) MaxTakeoffReduce15HiTemp p, (Q) MaxClimb, (B) MaxClimbHiTemp, (D) MaxClimbReduce10, (A) MaxClimbReduce10HiTemp, (N) MaxCont, (M) MaxContHiTemp, (H) ReducedTakeoff, (G) ReducedTakeoffHiTemp, (Q) ReducedClimb, (P) ReducedClimbHiTemp, (R) MinimumThrust, (K) UserCutback, (U) UserValue, (V) ReversedThrust, (L) NormalThrust, (I) IdleApproach, (J) IdleApproachHiTemp, (") UnknownThrust. </pre>
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Thrust type: (T) MaxTakeoff, (S) MaxTakeoffHiTemp, (F) MaxTakeoffReduce05, (E) MaxTakeoffReduce05HiTemp, (X) MaxTakeoffReduce10, (W) MaxTakeoffReduce10HiTemp, (Z) MaxTakeoffReduce15, (Y) MaxTakeoffReduce15HiTemp, (C) MaxClimb, (B) MaxClimbHiTemp, (D) MaxClimbReduce10, (A) MaxClimbReduce10HiTemp, (N) MaxCont, (M) MaxContHiTemp, (H) ReducedTakeoff, (G) ReducedTakeoffHiTemp, (Q) ReducedClimb, (P) ReducedClimbHiTemp, (R) MinimumThrust, (K) UserCutback, (U) UserValue, (V) ReversedThrust, (L) NormalThrust, (I) IdleApproach, (J) IdleApproachHiTemp, (" UnknownThrust.

element bada4ProcedureStep/altitude

diagram	<p>Altitude above runway elevation (ARE) for the procedure step. UNITS: feet.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Altitude above runway elevation (ARE) for the procedure step. UNITS: feet.

element bada4ProcedureStep/calibratedAirspeed

diagram	<p>Calibrated airspeed (KCAS). UNITS: knots.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Calibrated airspeed (KCAS). UNITS: knots.

element bada4ProcedureStep/mach

diagram	<p>Mach number for procedure step. Min= 0.0 Max= 10.0 UNITS: Dimensionless.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Mach number for procedure step. Min= 0.0 Max= 10.0 UNITS: Dimensionless.

element bada4ProcedureStep/thrust

diagram	<p>Thrust in pounds.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Thrust in pounds.

element bada4ProcedureStep/angle

diagram	
	angle Climb or descend angle in degrees. Valid values: 0.00 to 180.00. UNITS: decimal degrees.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Climb or descend angle in degrees. Valid values: 0.00 to 180.00. UNITS: decimal degrees.

element bada4ProcedureStep/climbRate

diagram	
	climbRate Climb rate in feet per minute.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Climb rate in feet per minute.

element bada4ProcedureStep/distance

diagram	
	distance Flight segment length in feet.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Flight segment length in feet.

element bada4ProcedureStep/percent

diagram	
	percent Defines how much energy is spent on acceleration.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Defines how much energy is spent on acceleration.

element bada4ProcedureStep/gearDown

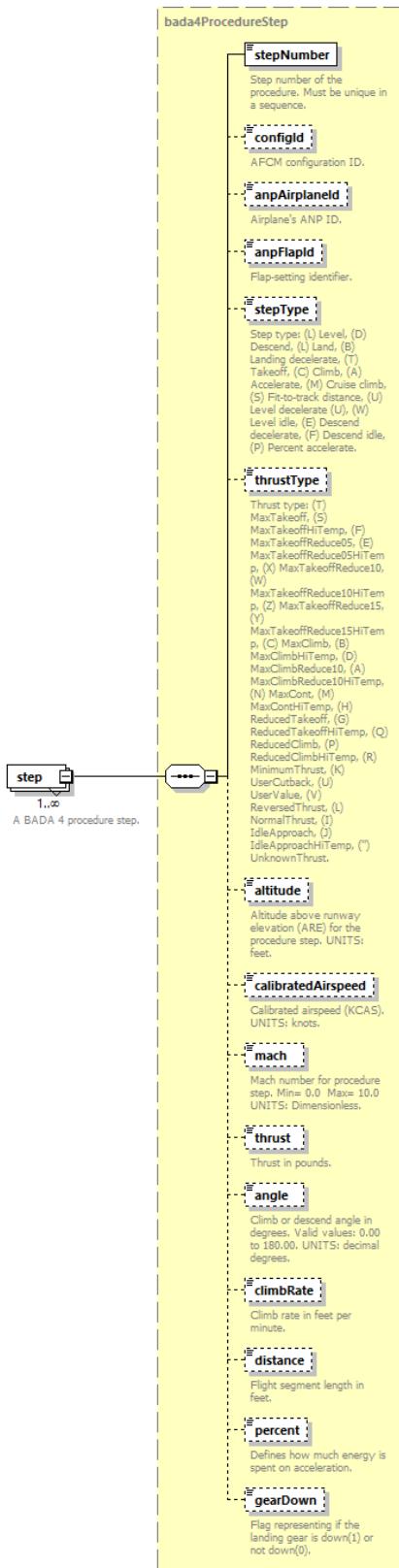
diagram	
	gearDown Flag representing if the landing gear is down(1) or not down(0).
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Flag representing if the landing gear is down(1) or not down(0).

complexType bada4ProcedureSteps

diagram	
	bada4ProcedureSteps Set of procedure steps associated with this BADA 4 profile.
children	step
used by	element bada4Profile/bada4ProcedureSteps
annotation	documentation Set of procedure steps associated with this BADA 4 profile.

element bada4ProcedureSteps/step

diagram	
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type	bada4ProcedureStep
properties	minOcc 1 maxOcc unbounded content complex
children	stepNumber configId anpAirplaneId anpFlapId stepType thrustType altitude calibratedAirspeed mach thrust angle climbRate distance percent gearDown
annotation	documentation A BADA 4 procedure step.

complexType **bada4Profile**

diagram	
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	<p>bada4Profile BADA 4 profile data element.</p> <p>operationType Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&amp;Go), F (CircuitFlt), V (OverFlt)</p> <p>flightProcedure Flight procedure identifier. Typically STANDARD, ICAO A, ICAO B or user defined.</p> <p>weightClass Formerly known as STAGE LENGTH.</p> <p>weight Weight in pounds.</p> <p>bada4ProcedureSteps Set of procedure steps associated with this BADA 4 profile.</p>
children	operationType flightProcedure weightClass weight bada4ProcedureSteps
used by	element bada4ProfileSet/bada4profile
annotation	documentation BADA 4 profile data element.

element bada4Profile/operationType

diagram	<p>operationType Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&amp;Go), F (CircuitFlt), V (OverFlt)</p>
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFlt), V (OverFlt)

element bada4Profile/flightProcedure

diagram	<p>flightProcedure Flight procedure identifier. Typically STANDARD, ICAO A, ICAO B or user defined.</p>
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Flight procedure identifier. Typically STANDARD, ICAO A, ICAO B or user defined.

element bada4Profile/weightClass

diagram	<p>weightClass Formerly known as STAGE LENGTH.</p>
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Formerly known as STAGE LENGTH.

element bada4Profile/weight

diagram	<p>weight Weight in pounds.</p>
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Weight in pounds.

element bada4Profile/bada4ProcedureSteps

diagram	<p>bada4ProcedureSteps</p> <p>Set of procedure steps associated with this BADA 4 profile.</p> <p>step</p> <p>1..[∞]</p> <p>A BADA 4 procedure step.</p>
type	bada4ProcedureSteps
properties	content complex
children	step
annotation	documentation Set of procedure steps associated with this BADA 4 profile.

complexType **bada4ProfileSet**

diagram	<p>bada4ProfileSet</p> <p>A profile set for an BADA4 airplane.</p> <p>bada4profile</p> <p>1..[∞]</p> <p>One or more BADA 4 profiles.</p>
children	anpAirplaneId bada4AirplaneModel bada4Engine bada4Suffix bada4profile
used by	element fleet/bada4ProfileSet
annotation	documentation A profile set for an BADA4 airplane.

element **bada4ProfileSet/anpAirplaneId**

diagram	<p>anpAirplaneId</p> <p>Airplane's ANP ID.</p>
type	anpAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's ANP ID.

element **bada4ProfileSet/bada4AirplaneModel**

diagram	<p>bada4AirplaneModel</p> <p>Airplane's BADA 4 model.</p>
type	bada4AirplaneModel
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's BADA 4 model.

element **bada4ProfileSet/bada4Engine**

diagram	<p>bada4Engine</p> <p>Airplane's BADA 4 engine.</p>
type	bada4Engine
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's BADA 4 engine.

element **bada4ProfileSet/bada4Suffix**

diagram	<p>bada4Suffix</p> <p>User-defined BADA 4 model suffix.</p>
type	bada4Suffix
properties	minOcc 0

	maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation User-defined BADA 4 model suffix.

element **bada4ProfileSet/bada4profile**

diagram	<pre> classDiagram class bada4Profile { operationType flightProcedure weightClass weight bada4ProcedureSteps } bada4profile "1..∞" --> bada4Profile </pre>
type	bada4Profile
properties	minOcc 1 maxOcc unbounded content complex
children	operationType flightProcedure weightClass weight bada4ProcedureSteps
annotation	documentation One or more BADA 4 profiles.

complexType **badaAirplane**

diagram	
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	<p>badaAirplaneId</p> <p>ID of a BADA airplane model. Must be unique.</p> <p>mfgDescription</p> <p>Manufacturer description.</p> <p>numEngines</p> <p>The number of engines.</p> <p>engineTypeCode</p> <p>The engine type code: J/T/P.</p> <p>wakeCategory</p> <p>The wake category.</p> <p>referenceAircraftMass</p> <p>Minimum aircraft mass (min = 0.0, max = 455.0, metric ton).</p> <p>minAircraftMass</p> <p>Minimum aircraft mass (min = 0.0, max = 455.0, metric ton).</p> <p>maxAircraftMass</p> <p>Maximum aircraft mass (min = 0.0, max = 455.0, metric ton).</p> <p>maxPayloadMass</p> <p>Maximum payload mass (min = 0.0, max = 455.0, (metric ton)).</p> <p>weightGradient</p> <p>Weight gradient on maximum altitude (min = 0.0, max = 10.0, feet/kg).</p> <p>maxOperatingSpeed</p> <p>Maximum operating speed (KCAS) (min = 0.0, max = 600.0, UNITS: knots).</p> <p>maxOperatingMachNumber</p> <p>Maximum operating Mach number (min = 0.0, max = 10.0, UNITS: dimensionless).</p> <p>maxOperatingAltitude</p> <p>Maximum operating altitude (min = -9999.0, max = 60000.0, UNITS: feet, pressure altitude).</p> <p>maxAltitudeAtMaxTakeoffWeight</p> <p>Maximum altitude at maximum takeoff weight and ISA (Min = -9999.0, Max = 60000.0, UNITS: feet, pressure altitude).</p> <p>temperatureGradientOnMaximum...</p> <p>Temperature gradient on maximum altitude.</p> <p>wingSurfaceArea</p> <p>Wing surface area (min = 0.0, max = 1000.0, square meters).</p> <p>buffetOnsetLiftCoeff</p> <p>Buffet onset lift coefficient (jet only) (min = 0.0, max = 10.0).</p> <p>buffetingGradient</p> <p>Buffeting gradient (jet only).</p> <p>machDragCoeff</p> <p>Mach drag coefficient (min = 0.0, max = 10.0).</p>
children	badaAirplaneId mfgDescription numEngines engineTypeCode wakeCategory referenceAircraftMass minAircraftMass maxAircraftMass maxPayloadMass weightGradient maxOperatingSpeed maxOperatingMachNumber maxOperatingAltitude maxAltitudeAtMaxTakeoffWeight temperatureGradientOnMaximumAltitude wingSurfaceArea buffetOnsetLiftCoeff buffetingGradient machDragCoeff
used by	element fleet/badaAirplane
annotation	documentation Block used to create a user defined BADA airplane.

element badaAirplane/badaAirplaneId

diagram	<p>badaAirplaneId</p> <p>ID of a BADA airplane model. Must be unique.</p>
type	badaAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation ID of a BADA airplane model. Must be unique.

element **badaAirplane/mfgDescription**

diagram	 mfgDescription Manufacturer description.
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Manufacturer description.

element **badaAirplane/numEngines**

diagram	 numEngines The number of engines.
type	xs:int
properties	content simple
annotation	documentation The number of engines.

element **badaAirplane/engineTypeCode**

diagram	 engineTypeCode The engine type code: J/T/P.
type	engineType
properties	content simple
facets	Kind Value Annotation pattern Jet Turbo Turboprop T Prop Piston P
annotation	documentation The engine type code: J/T/P.

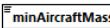
element **badaAirplane/wakeCategory**

diagram	 wakeCategory The wake category.
type	badaWakeType
properties	content simple
facets	Kind Value Annotation pattern Heavy Light Medium M SuperHeavy J
annotation	documentation The wake category.

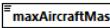
element **badaAirplane/referenceAircraftMass**

diagram	 referenceAircraftMass Minimum aircraft mass (min = 0.0, max = 455.0, metric ton).
type	xs:double
properties	content simple
annotation	documentation Minimum aircraft mass (min = 0.0, max = 455.0, metric ton).

element **badaAirplane/minAircraftMass**

diagram	 minAircraftMass Minimum aircraft mass (min = 0.0, max = 455.0, metric ton).
type	xs:double
properties	content simple
annotation	documentation Minimum aircraft mass (min = 0.0, max = 455.0, metric ton).

element **badaAirplane/maxAircraftMass**

diagram	 maxAircraftMass Maximum aircraft mass (min = 0.0, max = 455.0, metric ton).
type	xs:double
properties	content simple
annotation	documentation Maximum aircraft mass (min = 0.0, max = 455.0, metric ton).

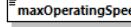
element badaAirplane/maxPayloadMass

diagram	 Maximum payload mass (min = 0.0, max = 455.0, (metric ton)).
type	xs:double
properties	content simple
annotation	documentation Maximum payload mass (min = 0.0, max = 455.0, (metric ton)).

element badaAirplane/weightGradient

diagram	 Weight gradient on maximum altitude (min = 0.0, max = 10.0, feet/kg).
type	xs:double
properties	content simple
annotation	documentation Weight gradient on maximum altitude (min = 0.0, max = 10.0, feet/kg).

element badaAirplane/maxOperatingSpeed

diagram	 Maximum operating speed (KCAS) (min = 0.0, max = 600.0, UNITS: knots).
type	xs:double
properties	content simple
annotation	documentation Maximum operating speed (KCAS) (min = 0.0, max = 600.0, UNITS: knots).

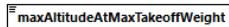
element badaAirplane/maxOperatingMachNumber

diagram	 Maximum operating Mach number (min = 0.0, max = 10.0, UNITS: dimensionless).
type	xs:double
properties	content simple
annotation	documentation Maximum operating Mach number (min = 0.0, max = 10.0, UNITS: dimensionless).

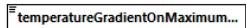
element badaAirplane/maxOperatingAltitude

diagram	 Maximum operating altitude (min = -9999.0, max = 60000.0, UNITS: feet, pressure altitude).
type	xs:double
properties	content simple
annotation	documentation Maximum operating altitude (min = -9999.0, max = 60000.0, UNITS: feet, pressure altitude).

element badaAirplane/maxAltitudeAtMaxTakeoffWeight

diagram	 Maximum altitude at maximum takeoff weight and ISA (Min = -9999.0, Max = 60000.0, UNITS: feet, pressure altitude).
type	xs:double
properties	content simple
annotation	documentation Maximum altitude at maximum takeoff weight and ISA (Min = -9999.0, Max = 60000.0, UNITS: feet, pressure altitude).

element badaAirplane/temperatureGradientOnMaximumAltitude

diagram	 Temperature gradient on maximum altitude.
type	xs:double
properties	content simple
annotation	documentation Temperature gradient on maximum altitude.

element badaAirplane/wingSurfaceArea

diagram	
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	<p>wingSurfaceArea</p> <p>Wing surface area (min = 0.0, max = 1000.0, square meters).</p>
type	xs:double
properties	content simple
annotation	documentation Wing surface area (min = 0.0, max = 1000.0, square meters).

element **badaAirplane/buffetOnsetLiftCoeff**

diagram	<p>buffetOnsetLiftCoeff</p> <p>Buffet onset lift coefficient (jet only) (min = 0.0, max = 10.0).</p>
type	xs:double
properties	content simple
annotation	documentation Buffet onset lift coefficient (jet only) (min = 0.0, max = 10.0).

element **badaAirplane/buffetingGradient**

diagram	<p>buffetingGradient</p> <p>Buffeting gradient (jet only).</p>
type	xs:double
properties	content simple
annotation	documentation Buffeting gradient (jet only).

element **badaAirplane/machDragCoeff**

diagram	<p>machDragCoeff</p> <p>Mach drag coefficient (min = 0.0, max = 10.0).</p>
type	xs:double
properties	content simple
annotation	documentation Mach drag coefficient (min = 0.0, max = 10.0).

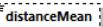
complexType **badaAltitudeDistribution**

diagram	<p>badaAltitudeDistribution</p> <p>BADA altitude distribution data.</p> <ul style="list-style-type: none"> altitudeCount: Flight counts for a selected altitude. distanceMean: Mean distance for a selected altitude. (nMi). distanceStddev: Standard deviation for the distance of a selected altitude. (nMi). distanceLow: Min distance for a selected altitude. (nMi). distanceHigh: Maximum distance for a selected altitude. (nMi). altitude: The selected cruise altitude MSL. UNITS: feet.
children	altitudeCount distanceMean distanceStddev distanceLow distanceHigh altitude
used by	element badaAltitudeDistributionSet/altitudeDistribution
annotation	documentation BADA altitude distribution data.

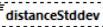
element **badaAltitudeDistribution/altitudeCount**

diagram	<p>altitudeCount</p> <p>Flight counts for a selected altitude.</p>
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Flight counts for a selected altitude.

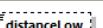
element **badaAltitudeDistribution/distanceMean**

diagram	 distanceMean Mean distance for a selected altitude. (nMi).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Mean distance for a selected altitude. (nMi).

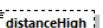
element badaAltitudeDistribution/distanceStddev

diagram	 distanceStddev Standard deviation for the distance of a selected altitude. (nMi).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Standard deviation for the distance of a selected altitude. (nMi).

element badaAltitudeDistribution/distanceLow

diagram	 distanceLow Min distance for a selected altitude. (nMi).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Min distance for a selected altitude. (nMi).

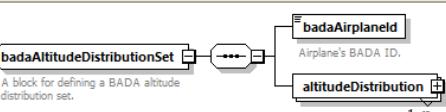
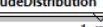
element badaAltitudeDistribution/distanceHigh

diagram	 distanceHigh Maximum distance for a selected altitude. (nMi).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Maximum distance for a selected altitude. (nMi).

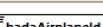
element badaAltitudeDistribution/altitude

diagram	 altitude The selected cruise altitude MSL. UNITS: feet.
type	xs:int
properties	content simple
annotation	documentation The selected cruise altitude MSL. UNITS: feet.

complexType badaAltitudeDistributionSet

diagram	 A block for defining a BADA altitude distribution set. badaAltitudeDistributionSet  badaAirplaneId Airplane's BADA ID. altitudeDistribution  1..∞
children	badaAirplaneId altitudeDistribution
used by	elements fleet/badaAltitudeDistributionSet fleet/badaDefaultAltitudeDistributionSet
annotation	documentation A block for defining a BADA altitude distribution set.

element badaAltitudeDistributionSet/badaAirplaneId

diagram	 badaAirplaneId Airplane's BADA ID.
type	badaAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255

annotation	documentation Airplane's BADA ID.
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element **badaAltitudeDistributionSet/altitudeDistribution**

diagram	<pre> classDiagram class altitudeDistribution { <<Flight counts for a selected altitude.>> <<Mean distance for a selected altitude. (nM).>> <<Standard deviation for the distance of a selected altitude. (nM).>> <<Min distance for a selected altitude. (nM).>> <<Maximum distance for a selected altitude. (nMi).>> <<The selected cruise altitude MSL. UNITS: feet.>> } class badaAltitudeDistribution { <<Flight counts for a selected altitude.>> <<Mean distance for a selected altitude. (nM).>> <<Standard deviation for the distance of a selected altitude. (nM).>> <<Min distance for a selected altitude. (nM).>> <<Maximum distance for a selected altitude. (nMi).>> <<The selected cruise altitude MSL. UNITS: feet.>> } altitudeDistribution "1..∞" --> "1" badaAltitudeDistribution </pre>
type	badaAltitudeDistribution
properties	minOcc 1 maxOcc unbounded content complex
children	altitudeCount distanceMean distanceStddev distanceLow distanceHigh altitude

complexType **badaConfig**

diagram	<pre> classDiagram class badaConfig { << BADA Configuration Coefficient data. >> } class phase { <<The phase of flight. (IC=initial climb, TO=take-off, AP=approach, LD=landing).>> <<The configuration identifier.>> <<Stall speed, CAS. Valid values: 0.0 through 600.0. UNITS: knots.>> <<The parasitic drag coefficient. Valid values: 0.0 through 10.0.>> <<The induced drag coefficient. Valid values: 0.0 through 10.0.>> } badaConfig "1..∞" --> "1" phase </pre>
children	phase configName stallSpeed parasiticDrag inducedDrag
used by	element badaConfigSet/badaConfig
annotation	documentation BADA Configuration Coefficient data.

element **badaConfig/phase**

diagram	<pre> classDiagram class phase { <<The phase of flight. (IC=initial climb, TO=take-off, AP=approach, LD=landing).>> <<The configuration identifier.>> <<Stall speed, CAS. Valid values: 0.0 through 600.0. UNITS: knots.>> <<The parasitic drag coefficient. Valid values: 0.0 through 10.0.>> <<The induced drag coefficient. Valid values: 0.0 through 10.0.>> } </pre>
type	badaPhaseType
properties	content simple
facets	Kind Value Annotation pattern InitialClimb IC Takeoff TO Approach AP Landing LD Cruise CR
annotation	documentation .The phase of flight (IC=initial climb, TO=take-off, AP=approach, LD=landing).

element **badaConfig/configName**

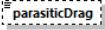
diagram	<pre> classDiagram class phase { <<The phase of flight. (IC=initial climb, TO=take-off, AP=approach, LD=landing).>> <<The configuration identifier.>> } </pre>
type	string10
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation

	minLength 0 maxLength 10
annotation	documentation The configuration identifier.

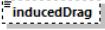
element **badaConfig/stallSpeed**

diagram	 Stall speed, CAS. Valid values: 0.0 through 600.0. UNITS: knots.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Stall speed, CAS. Valid values: 0.0 through 600.0. UNITS: knots.

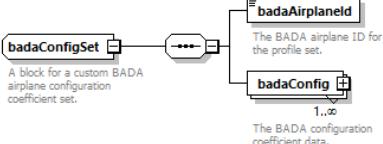
element **badaConfig/parasiticDrag**

diagram	 The parasitic drag coefficient. Valid values: 0.0 through 10.0.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The parasitic drag coefficient. Valid values: 0.0 through 10.0.

element **badaConfig/inducedDrag**

diagram	 The induced drag coefficient. Valid values: 0.0 through 10.0.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The induced drag coefficient. Valid values: 0.0 through 10.0.

complexType **badaConfigSet**

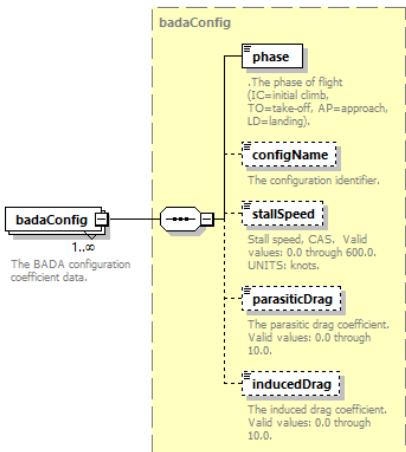
diagram	 A block for a custom BADA airplane configuration coefficient set.
children	badaAirplaneId badaConfig
used by	element fleet/badaConfigSet
annotation	documentation A block for a custom BADA airplane configuration coefficient set.

element **badaConfigSet/badaAirplaneId**

diagram	 The BADA airplane ID for the profile set.
type	badaAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The BADA airplane ID for the profile set.

element **badaConfigSet/badaConfig**

diagram	
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	type	badaConfig
properties	minOcc	1
	maxOcc	unbounded
	content complex	
children	phase configName stallSpeed parasiticDrag inducedDrag	
annotation	documentation The BADA configuration coefficient data.	

complexType `badaFuel`

diagram	<pre> classDiagram class badaFuel { badaAirplaneId coeff_CF1 coeff_CF2 coeff_CF3 coeff_CF4 coeff_CR } badaFuel < -- badaFuel badaFuel "1..>" badaAirplaneId badaFuel "1..>" coeff_CF1 badaFuel "1..>" coeff_CF2 badaFuel "1..>" coeff_CF3 badaFuel "1..>" coeff_CF4 badaFuel "1..>" coeff_CR </pre> <p>The diagram shows the <code>badaFuel</code> class with five attributes: <code>badaAirplaneId</code>, <code>coeff_CF1</code>, <code>coeff_CF2</code>, <code>coeff_CF3</code>, and <code>coeff_CF4</code>. The <code>badaAirplaneId</code> attribute is annotated with the description 'The BADA aircraft ID'. The other four attributes have their own detailed descriptions and valid value ranges.</p>
children	badaAirplaneId coeff_CF1 coeff_CF2 coeff_CF3 coeff_CF4 coeff_CR
used by	element fleet/badaFuel
annotation	documentation A BADA Fuel data record.

element `badaFuel/badaAirplaneId`

diagram	<pre> classDiagram class badaAirplaneId badaAirplaneId "1..>" badaFuel </pre> <p>The diagram shows the <code>badaAirplaneId</code> class with no attributes. It is annotated with the description 'The BADA aircraft ID'.</p>
type	badaAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The BADA aircraft ID

element `badaFuel/coeff_CF1`

diagram	<pre> classDiagram class coeff_CF1 coeff_CF1 "1..>" badaFuel </pre> <p>The diagram shows the <code>coeff_CF1</code> class with no attributes. It is annotated with the description '1st thrust specific fuel consumption coefficient. Valid values: 0.0 through 10.0. Variable units: (kg/(min*kN)) (jet); kg/(min*kN*knot); (turboprop); kg/min (piston)'.</p>
type	xs:double

properties	content simple
annotation	1st thrust specific fuel consumption coefficient. Valid values: 0.0 through 10.0. Variable units. (kg/(min•kN) (jet); kg/(min•kN•knot); (turboprop); kg/min (piston))

element **badaFuel/coeff_CF2**

diagram	 2nd thrust specific fuel consumption coefficient. Valid values: 0.0 through 1. UNITS: knots.
type	xs:double
properties	content simple
annotation	2nd thrust specific fuel consumption coefficient. Valid values: 0.0 through 1. UNITS: knots.

element **badaFuel/coeff_CF3**

diagram	 1st descent fuel flow coefficient. Min= Valid values: 0.0 through 100.0.(kg/min)
type	xs:double
properties	content simple
annotation	1st descent fuel flow coefficient. Min= Valid values: 0.0 through 100.0.(kg/min)

element **badaFuel/coeff_CF4**

diagram	 2nd descent fuel flow coefficient. Valid values: 0.0 through 1. (feet)
type	xs:double
properties	content simple
annotation	2nd descent fuel flow coefficient. Valid values: 0.0 through 1. (feet)

element **badaFuel/coeff_CR**

diagram	 Cruise fuel flow correction coefficient. Valid values: 0.0 through 10.0.
type	xs:double
properties	content simple
annotation	Cruise fuel flow correction coefficient. Valid values: 0.0 through 10.0.

complexType **badaProfile**

diagram	
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	<p>badaProfile A BADA profile APF (airline procedures file) record.</p>
children	massRangeValue companyCode1 companyCode2 companyName aircraftVersion engine climbSpeedBelowTransitionAltitude climbSpeedAboveTransitionAltitude climbMachNumber cruiseSpeedBelowTransitionAltitude cruiseSpeedAboveTransitionAltitude cruiseMachNumber descentSpeedUnderTransitionAltitude descentSpeedOverTransitionAltitude descentMachNumber
used by	element badaProfileSet/profile
annotation	documentation A BADA profile APF (airline procedures file) record.

element badaProfile/massRangeValue

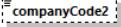
diagram	
	<p>Mass range. Valid values: LO (low range), AV (average range), HI (high range).</p>
type	string2
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 2
annotation	documentation Mass range. Valid values: LO (low range), AV (average range), HI (high range).

element badaProfile/companyCode1

diagram	
	<p>Three-letter company code.</p>
type	string3
properties	minOcc 0

	maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 3
annotation	documentation Three-letter company code.

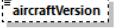
element **badaProfile/companyCode2**

diagram	 Two-letter company code.
type	string2
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 2
annotation	documentation Two-letter company code.

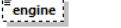
element **badaProfile/companyName**

diagram	 Name of airline that uses this procedure.
type	string15
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 15
annotation	documentation Name of airline that uses this procedure.

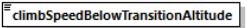
element **badaProfile/aircraftVersion**

diagram	 Aircraft version to which this procedure applies.
type	string12
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 12
annotation	documentation Aircraft version to which this procedure applies.

element **badaProfile/engine**

diagram	 Engine identifier.
type	string12
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 12
annotation	documentation Engine identifier.

element **badaProfile/climbSpeedBelowTransitionAltitude**

diagram	 Standard climb calibrated speed (KCAS) between 1,500 / 6,000 and 10,000 ft (MSL). Min= 0.0 Max= 600.0: UNITS: knots.
type	xs:short
properties	content simple
annotation	documentation Standard climb calibrated speed (KCAS) between 1,500 / 6,000 and 10,000 ft (MSL). Min= 0.0 Max= 600.0: UNITS: knots.

element **badaProfile/climbSpeedAboveTransitionAltitude**

diagram	 climbSpeedAboveTransitionAltitude Standard climb speed (KCAS) between 10,000 ft (MSL) and Mach transition altitude. Min= 0.0 Max= 600.0: UNITS: knots.
type	xs:short
properties	content simple
annotation	documentation Standard climb speed (KCAS) between 10,000 ft (MSL) and Mach transition altitude. Min= 0.0 Max= 600.0: UNITS: knots.

element badaProfile/climbMachNumber

diagram	 climbMachNumber Standard climb Mach number above Mach transition altitude (MSL). Min= 0.0 Max= 10.0, UNITS: Dimensionless.
type	xs:double
properties	content simple
annotation	documentation Standard climb Mach number above Mach transition altitude (MSL). Min= 0.0 Max= 10.0. UNITS: Dimensionless.

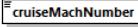
element badaProfile/cruiseSpeedBelowTransitionAltitude

diagram	 cruiseSpeedBelowTransitionAltitude Standard cruise speed (KCAS) between 3,000 and 10,000 ft (MSL). Min= 0.0 Max= 600.0: UNITS: knots.
type	xs:short
properties	content simple
annotation	documentation Standard cruise speed (KCAS) between 3,000 and 10,000 ft (MSL). Min= 0.0 Max= 600.0: UNITS: knots.

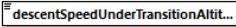
element badaProfile/cruiseSpeedAboveTransitionAltitude

diagram	 cruiseSpeedAboveTransitionAltitude Standard cruise speed (KCAS) above 10,000 ft (MSL) until Mach transition altitude. Min= 0.0 Max= 600.0: UNITS: knots.
type	xs:short
properties	content simple
annotation	documentation Standard cruise speed (KCAS) above 10,000 ft (MSL) until Mach transition altitude. Min= 0.0 Max= 600.0: UNITS: knots.

element badaProfile/cruiseMachNumber

diagram	 cruiseMachNumber Standard cruise Mach number above transition altitude (MSL). Min= 0.0 Max= 10.0 UNITS: Dimensionless.
type	xs:double
properties	content simple
annotation	documentation Standard cruise Mach number above transition altitude (MSL). Min= 0.0 Max= 10.0 UNITS: Dimensionless.

element badaProfile/descentSpeedUnderTransitionAltitude

diagram	 descentSpeedUnderTransitionAltitude Standard descent speed (KCAS) between 3,000 / 6,000 and 10,000 ft (MSL). Min= 0.0 Max= 600.0. UNITS: knots.
type	xs:short
properties	content simple
annotation	documentation Standard descent speed (KCAS) between 3,000 / 6,000 and 10,000 ft (MSL). Min= 0.0 Max= 600.0. UNITS: knots.

element badaProfile/descentSpeedOverTransitionAltitude

diagram	 descentSpeedOverTransitionAltitude Standard descent speed (KCAS) above 10,000 ft (MSL) until Mach transition. Min= 0.0 Max= 600.0. UNITS: knots.
type	xs:short
properties	content simple
annotation	documentation Standard descent speed (KCAS) above 10,000 ft (MSL) until Mach transition. Min= 0.0 Max= 600.0. UNITS: knots.

element badaProfile/descentMachNumber

diagram	
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	<p>descentMachNumber</p> <p>Standard descent Mach number above transition altitude (MSL). Min= 0.0 Max= 10.0 UNITS: Dimensionless.</p>
type	xs:double
properties	content simple
annotation	documentation Standard descent Mach number above transition altitude (MSL). Min= 0.0 Max= 10.0 UNITS: Dimensionless.

complexType **badaProfileSet**

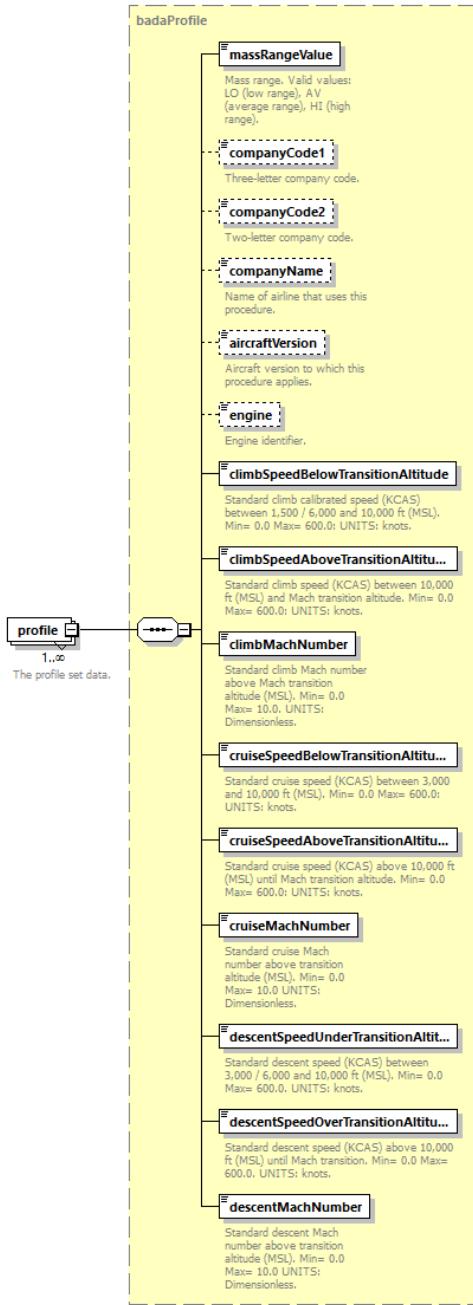
diagram	<pre> classDiagram class badaProfileSet { <<A block used to define a custom BADA profile set.>> } class badaAirplaneId { <<The BADA airplane ID for the profile set.>> } class profile { <<The profile set data.>> } badaProfileSet "1..∞" --> badaAirplaneId badaAirplaneId "1..∞" --> profile </pre>
children	badaAirplaneId profile
used by	element fleet/badaProfileSet
annotation	documentation A block used to define a custom BADA profile set.

element **badaProfileSet/badaAirplaneId**

diagram	<p>badaAirplaneId</p> <p>The BADA airplane ID for the profile set.</p>									
type	badaAirplaneId									
properties	content simple									
facets	<table> <tr> <td>Kind</td> <td>Value</td> <td>Annotation</td> </tr> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>255</td> <td></td> </tr> </table>	Kind	Value	Annotation	minLength	0		maxLength	255	
Kind	Value	Annotation								
minLength	0									
maxLength	255									
annotation	documentation The BADA airplane ID for the profile set.									

element **badaProfileSet/profile**

diagram	
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type	badaProfile
properties	minOcc 1 maxOcc unbounded content complex
children	massRangeValue companyCode1 companyCode2 companyName aircraftVersion engine climbSpeedBelowTransitionAltitude climbSpeedAboveTransitionAltitude climbMachNumber cruiseSpeedBelowTransitionAltitude cruiseSpeedAboveTransitionAltitude cruiseMachNumber descentSpeedUnderTransitionAltitude descentSpeedOverTransitionAltitude descentMachNumber
annotation	documentation The profile set data.

complexType **badaThrust**

diagram	
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	<pre> classDiagram class badaAirplaneId { coeff_TC1 coeff_TC2 coeff_TC3 coeff_TC4 coeff_TC5 coeff_TDL coeff_TDH coeff_APP coeff_LD descentAlt descentSpeed descentMach notes } class badaThrust { <>----> badaAirplaneId : A custom BADA thrust data record. } </pre>
children	badaAirplaneId coeff_TC1 coeff_TC2 coeff_TC3 coeff_TC4 coeff_TC5 coeff_TDL coeff_TDH coeff_APP coeff_LD descentAlt descentSpeed descentMach notes
used by	element fleet/badaThrust
annotation	documentation A custom BADA thrust data record.

element badaThrust/badaAirplaneId

diagram	<pre> graph LR A[badaThrust] --> B[badaAirplaneId] B --- Note["The BADA airplane ID."] </pre>
type	badaAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The BADA airplane ID.

element badaThrust/coeff_TC1

diagram	<pre> classDiagram class coeff_TC1 </pre>
type	xs:double
properties	content simple
annotation	documentation 1st max climb thrust coefficient. Valid values: 0.0 through 1.

element **badaThrust/coeff_TC2**

diagram	 coeff_TC2 2nd max climb thrust coefficient. Valid values: 0.0 through 1e9. (feet)
type	xs:double
properties	content simple
annotation	documentation 2nd max climb thrust coefficient. Valid values: 0.0 through 1e9. (feet)

element **badaThrust/coeff_TC3**

diagram	 coeff_TC3 3rd max climb thrust coefficient. Valid values: -1034000 to 665880. Variable units: (1/feet^2 (jet); Newton (turboprop); knot-Newton (piston))
type	xs:double
properties	content simple
annotation	documentation 3rd max climb thrust coefficient. Valid values: -1034000 to 665880. Variable units: (1/feet^2 (jet); Newton (turboprop); knot-Newton (piston))

element **badaThrust/coeff_TC4**

diagram	 coeff_TC4 1st thrust temperature coefficient. Valid values: -45 through 50. (K)
type	xs:double
properties	content simple
annotation	documentation 1st thrust temperature coefficient. Valid values: -45 through 50. (K)

element **badaThrust/coeff_TC5**

diagram	 coeff_TC5 2nd thrust temperature coefficient. Valid values: 0.0 through 10.0. (1/K)
type	xs:double
properties	content simple
annotation	documentation 2nd thrust temperature coefficient. Valid values: 0.0 through 10.0. (1/K)

element **badaThrust/coeff_TDL**

diagram	 coeff_TDL Low altitude descent thrust coefficient. Valid values: 0.0 through 10.0
type	xs:double
properties	content simple
annotation	documentation Low altitude descent thrust coefficient. Valid values: 0.0 through 10.0

element **badaThrust/coeff_TDH**

diagram	 coeff_TDH High altitude descent thrust coefficient. Valid values: 0.0 through 10.0
type	xs:double
properties	content simple
annotation	documentation High altitude descent thrust coefficient. Valid values: 0.0 through 10.0

element **badaThrust/coeff_APP**

diagram	 coeff_APP Approach thrust coefficient. Valid values: 0.0 through 10.0.
type	xs:double
properties	content simple
annotation	documentation Approach thrust coefficient. Valid values: 0.0 through 10.0.

element **badaThrust/coeff_LD**

diagram	 coeff_LD Landing thrust coefficient. Valid values: 0.0 through 10.0.
type	xs:double
properties	content simple
annotation	documentation Landing thrust coefficient. Valid values: 0.0 through 10.0.

element **badaThrust/descentAlt**

diagram	 descentAlt Transition altitude for calculation of descent thrust. Min= -9999.0 Max= 60000. UNITS: Feet, pressure altitude
type	xs:double
properties	content simple
annotation	documentation Transition altitude for calculation of descent thrust. Min= -9999.0 Max= 60000.0 UNITS: Feet, pressure altitude

element **badaThrust/descentSpeed**

diagram	 descentSpeed Reference descent speed (KCAS). Min= 0.0 Max= 600.0. UNITS: knots.
type	xs:double
properties	content simple
annotation	documentation Reference descent speed (KCAS). Min= 0.0 Max= 600.0. UNITS: knots.

element **badaThrust/descentMach**

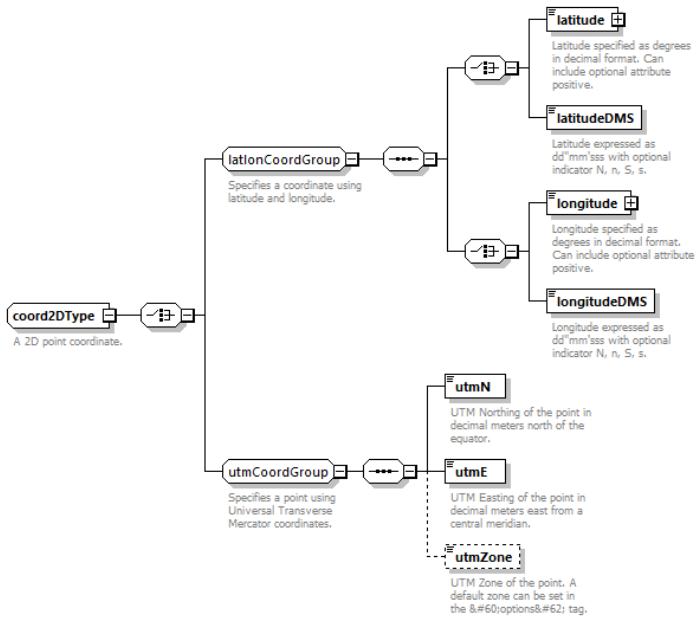
diagram	 descentMach Reference descent Mach number. Valid values: 0.0 through 10.0. UNITS: dimensionless.
type	xs:float
properties	content simple
annotation	documentation Reference descent Mach number. Valid values: 0.0 through 10.0, UNITS: dimensionless.

element **badaThrust/notes**

diagram	 notes User notes.
type	string255
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation User notes.

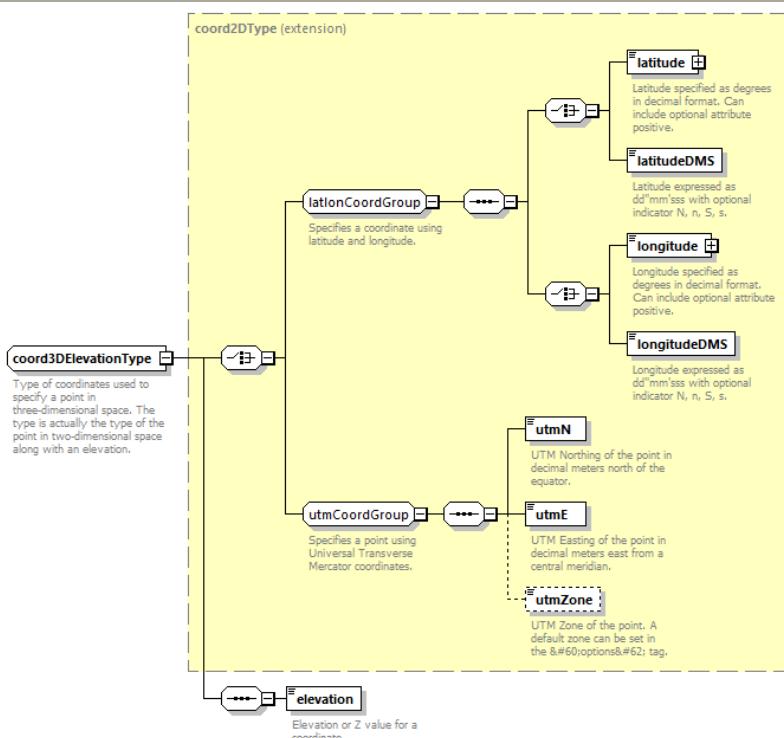
complexType **coord2DType**

diagram	
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children	<code>latitude</code> <code>latitudeDMS</code> <code>longitude</code> <code>longitudeDMS</code> <code>utmN</code> <code>utmE</code> <code>utmZone</code>
used by	elements <code>stationarySourceOperation/pointCoord</code> <code>pointStationarySource/pointCoord</code> <code>volumeStationarySource/pointCoord</code> <code>oneOrThreeCoords2DGroupSet/pointCoord</code> <code>polygon2DType/vertex</code> complexType <code>coord3DElevationType</code>
annotation	documentation A 2D point coordinate.

complexType coord3DElevationType



type	extension of <code>coord2DType</code>
properties	base <code>coord2DType</code>
children	<code>latitude</code> <code>latitudeDMS</code> <code>longitude</code> <code>longitudeDMS</code> <code>utmN</code> <code>utmE</code> <code>utmZone</code> <code>elevation</code>
used by	elements <code>roadway/coordinates/vertex</code> <code>polygon3DElevationType/vertex</code>
annotation	documentation Type of coordinates used to specify a point in three-dimensional space. The type is actually the type of the point in two-dimensional space along with an elevation.

element coord3DElevationType/elevation

type	<code>xs:float</code>
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properties	content simple
annotation	documentation Elevation or Z value for a coordinate.

complexType dispersionWeight1Type

diagram	<p>Abstract type used to specify the dispersion weight for the backbone subtrack. This type is intended only to be a base class and will not be used in ASIF files directly.</p>
children	backbone
used by	element dispersionWeight/dispersionWeight1 complexType dispersionWeight3Type
annotation	documentation Abstract type used to specify the dispersion weight for the backbone subtrack. This type is intended only to be a base class and will not be used in ASIF files directly.

element dispersionWeight1Type/backbone

diagram	<p>Represents the centerline of a set of dispersed tracks.</p>
type	<code>xs:double</code>
properties	content simple
used by	element track
annotation	documentation Represents the centerline of a set of dispersed tracks.

complexType dispersionWeight3Type

diagram	<p>Specify the dispersion weight for a backbone with 2 subtracks..</p> <p>dispersionWeight1Type (extension)</p> <p>Represents the centerline of a set of dispersed tracks.</p> <p>weightl1</p> <p>Specify the dispersion weight for the first left subtrack.</p> <p>weightr1</p> <p>Specify the dispersion weight for the first right subtrack.</p>
type	extension of dispersionWeight1Type
properties	base dispersionWeight1Type
children	backbone weightl1 weightr1
used by	element dispersionWeight/dispersionWeight3 complexType dispersionWeight5Type
annotation	documentation Specify the dispersion weight for a backbone with 2 subtracks..

element dispersionWeight3Type/weightl1

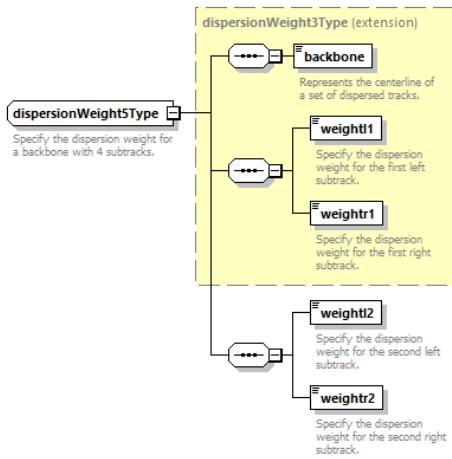
diagram	<p>Specify the dispersion weight for the first left subtrack.</p>
type	<code>xs:double</code>
properties	content simple
annotation	documentation Specify the dispersion weight for the first left subtrack.

element dispersionWeight3Type/weightr1

diagram	<p>Specify the dispersion weight for the first right subtrack.</p>
type	<code>xs:double</code>
properties	content simple
annotation	documentation Specify the dispersion weight for the first right subtrack.

complexType dispersionWeight5Type

diagram	
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	<p>type extension of dispersionWeight3Type</p> <p>properties base dispersionWeight3Type</p> <p>children backbone weight1 weightr1 weightl2 weightr2</p> <p>used by element dispersionWeight/dispersionWeight5 complexType dispersionWeight7Type</p> <p>annotation documentation Specify the dispersion weight for a backbone with 4 subtracks.</p>
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element **dispersionWeight5Type/weightl2**

diagram	<p>weightl2 Specify the dispersion weight for the second left subtrack.</p>
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the second left subtrack.

element **dispersionWeight5Type/weightr2**

diagram	<p>weightr2 Specify the dispersion weight for the second right subtrack.</p>
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the second right subtrack.

complexType **dispersionWeight7Type**

diagram	<pre> classDiagram dispersionWeight5Type < -- dispersionWeight7Type dispersionWeight7Type { <<dispersion weight for a backbone with 6 subtracks>> backbone weight1 weightr1 weightl2 weightr2 weightl3 weightr3 } backbone { <<Represents the centerline of a set of dispersed tracks.>> } weight1 { <<Specify the dispersion weight for the first left subtrack.>> } weightr1 { <<Specify the dispersion weight for the first right subtrack.>> } weightl2 { <<Specify the dispersion weight for the second left subtrack.>> } weightr2 { <<Specify the dispersion weight for the second right subtrack.>> } weightl3 { <<Specify the dispersion weight for the third left subtrack.>> } weightr3 { <<Specify the dispersion weight for the third right subtrack.>> } </pre>
type	extension of dispersionWeight5Type

properties	base dispersionWeight5Type
children	backbone weight1 weight1 weight2 weight2 weight3 weight3
used by	element dispersionWeight/dispersionWeight7 complexType dispersionWeight9Type
annotation	documentation Specify the dispersion weight for a backbone with 6 subtracks.

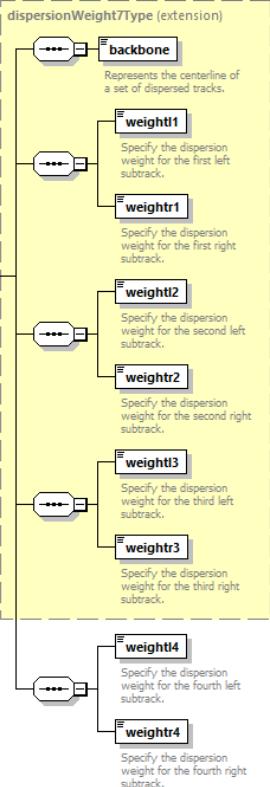
element **dispersionWeight7Type/weight1**

diagram	
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the third left subtrack.

element **dispersionWeight7Type/weight3**

diagram	
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the third right subtrack.

complexType **dispersionWeight9Type**

diagram	
type	extension of dispersionWeight7Type
properties	base dispersionWeight7Type
children	backbone weight1 weight1 weight2 weight2 weight3 weight3 weight4 weight4
used by	element dispersionWeight/dispersionWeight9
annotation	documentation Specify the dispersion weight for a backbone with 8 subtracks.

element **dispersionWeight9Type/weight1**

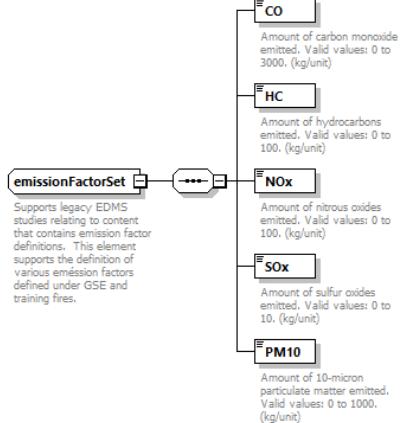
diagram	
type	xs:double

properties	content simple
annotation	documentation Specify the dispersion weight for the fourth left subtrack.

element dispersionWeight9Type/weightr4

diagram	
	Specify the dispersion weight for the fourth right subtrack.
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the fourth right subtrack.

complexType emissionFactorSet

diagram	
	emissionFactorSet Supports legacy EDMS studies relating to content that contains emission factor definitions. This element supports the definition of various émission factors defined under GSE and training fires.
children	CO HC NOx SOx PM10
used by	elements userGroundSupportEquipment/userEmissionFactors/emissionFactorsCNG userGroundSupportEquipment/userEmissionFactors/emissionFactorsDiesel userGroundSupportEquipment/userEmissionFactors/emissionFactorsGas userGroundSupportEquipment/userEmissionFactors/emissionFactorsLPG
annotation	documentation Supports legacy EDMS studies relating to content that contains emission factor definitions. This element supports the definition of various émission factors defined under GSE and training fires.

element emissionFactorSet/CO

diagram	
	Amount of carbon monoxide emitted. Valid values: 0 to 3000. (kg/unit)
type	xs:double
properties	content simple
annotation	documentation Amount of carbon monoxide emitted. Valid values: 0 to 3000. (kg/unit)

element emissionFactorSet/HC

diagram	
	Amount of hydrocarbons emitted. Valid values: 0 to 100. (kg/unit)
type	xs:double
properties	content simple
annotation	documentation Amount of hydrocarbons emitted. Valid values: 0 to 100. (kg/unit)

element emissionFactorSet/NOx

diagram	
	Amount of nitrous oxides emitted. Valid values: 0 to 100. (kg/unit)
type	xs:double
properties	content simple
annotation	documentation Amount of nitrous oxides emitted. Valid values: 0 to 100. (kg/unit)

element emissionFactorSet/SOx

diagram	
	Amount of sulfur oxides emitted. Valid values: 0 to 10. (kg/unit)

type	xs:double
properties	content simple
annotation	documentation Amount of sulfur oxides emitted. Valid values: 0 to 10. (kg/unit)

element **emissionFactorSet/PM10**

diagram	<p>PM10 Amount of 10-micron particulate matter emitted. Valid values: 0 to 1000. (kg/unit)</p>
type	xs:double
properties	content simple

annotation
Amount of 10-micron particulate matter emitted. Valid values: 0 to 1000. (kg/unit)

complexType **energyShare**

diagram	<p>energyShare A custom BADA energy share.</p> <p>anpAirplaneId The ANP airplane ID.</p> <p>badaAirplaneId The BADA airplane ID.</p> <p>transEnergyShare The proportion of available energy used for acceleration compared to altitude change in the ANP to BADA transition region.</p>
children	anpAirplaneId badaAirplaneId transEnergyShare
used by	element fleet/energyShare
annotation	documentation A custom BADA energy share.

element **energyShare/anpAirplaneId**

diagram	<p>anpAirplaneId The ANP airplane ID.</p>
type	anpAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The ANP airplane ID.

element **energyShare/badaAirplaneId**

diagram	<p>badaAirplaneId The BADA airplane ID.</p>
type	badaAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The BADA airplane ID.

element **energyShare/transEnergyShare**

diagram	<p>transEnergyShare The proportion of available energy used for acceleration compared to altitude change in the ANP to BADA transition region.</p>
type	xs:double
properties	content simple
annotation	documentation The proportion of available energy used for acceleration compared to altitude change in the ANP to BADA transition region.

complexType **engineModeEmissions**

diagram	
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	<p>engineModeEmissions</p> <p>Describes custom emission factors user-defined aircraft engines.</p>
children	time fuel CO HC NOx SOx SN PM
used by	elements aircraftEngine/approachEmissionFactors aircraftEngine/climbEmissionFactors aircraftEngine/takeOffEmissionFactors aircraftEngine/taxiIdleEmissionFactors
annotation	documentation Describes custom emission factors user-defined aircraft engines.

element **engineModeEmissions/time**

diagram	<p>time</p> <p>Time engine operates in a given mode (minutes). Valid values: Nonnegative.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Time engine operates in a given mode (minutes). Valid values: Nonnegative.

element **engineModeEmissions/fuel**

diagram	<p>fuel</p> <p>Fuel emission factor (g/kg). Valid values: Nonnegative.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Fuel emission factor (g/kg). Valid values: Nonnegative.

element **engineModeEmissions/CO**

diagram	<p>CO</p> <p>Amount of carbon monoxide emitted (g/kg). Valid values: Nonnegative.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Amount of carbon monoxide emitted (g/kg). Valid values: Nonnegative.

element **engineModeEmissions/HC**

diagram	<p>HC</p> <p>Amount of hydrocarbons emitted (g/kg). Valid values: Nonnegative.</p>
type	xs:double

properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Amount of hydrocarbons emitted (g/kg). Valid values: Nonnegative.

element **engineModeEmissions/NOx**

diagram	 NOx Amount of nitrous oxide emitted (g/kg). Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Amount of nitrous oxide emitted (g/kg). Valid values: Nonnegative.

element **engineModeEmissions/SOx**

diagram	 SOx Amount of sulfur oxide emitted (g/kg). Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Amount of sulfur oxide emitted (g/kg). Valid values: Nonnegative.

element **engineModeEmissions/SN**

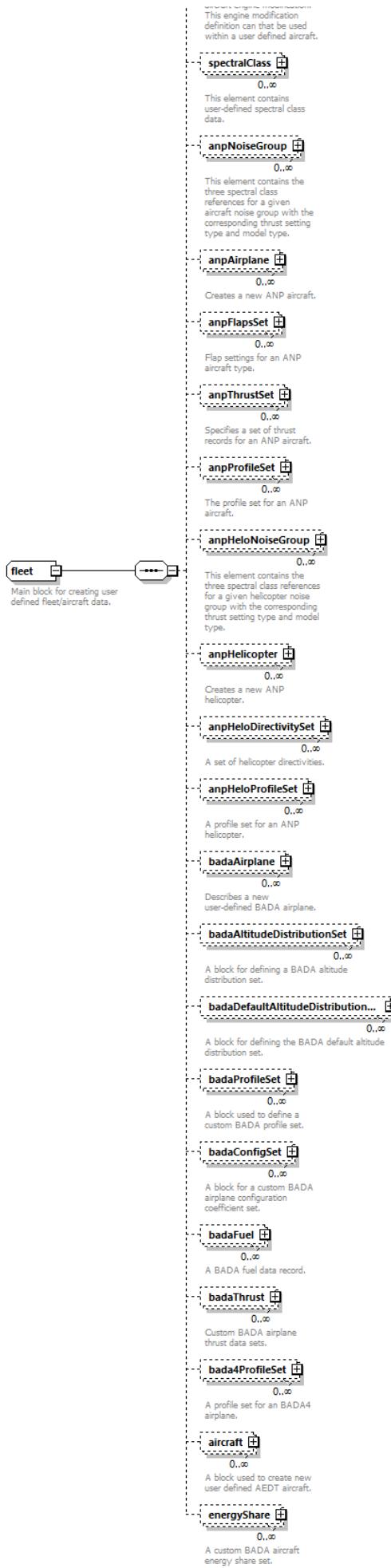
diagram	 SN Smoke number for the engine mode (g/kg). Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Smoke number for the engine mode (g/kg). Valid values: Nonnegative.

element **engineModeEmissions/PM**

diagram	 PM Amount of particulate matter emitted (g/kg). Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of particulate matter emitted (g/kg). Valid values: Nonnegative.

complexType **fleet**

diagram	 auxiliaryPowerUnit 0..∞ Describes a custom auxiliary power unit (APU). These are typically on-board generators providing power to a parked aircraft.
	 airframe 0..∞ Supports the definition of custom airframes.
	 engine 0..∞ User defined engine information containing custom parameters that reflect an aircraft engine. This engine definition can then be used within a user-defined aircraft.
	 engineMod 0..∞ User defined engine modification information containing custom parameters that reflect an aircraft engine modification.



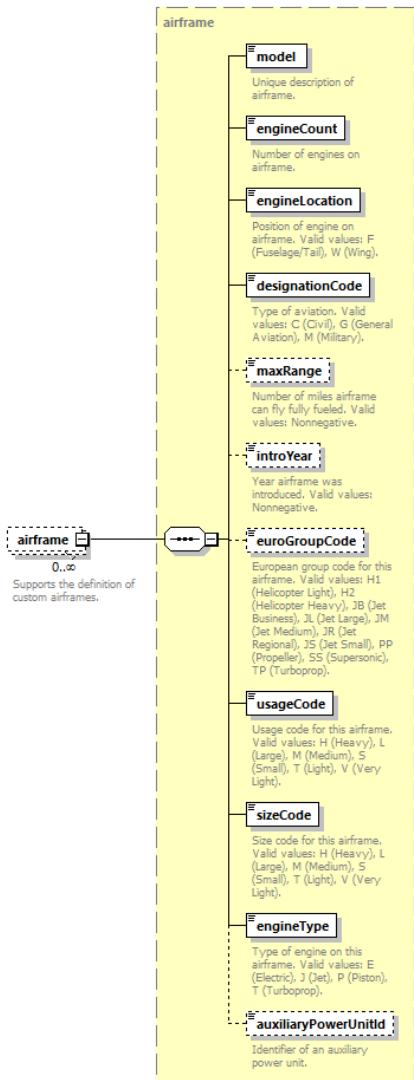
children	auxiliaryPowerUnit airframe engine engineMod spectralClass anpNoiseGroup anpAirplane anpFlapsSet anpThrustSet anpProfileSet anpHeloNoiseGroup anpHeliicopter anpHeloDirectivitySet anpHeloProfileSet badaAirplane badaAltitudeDistributionSet badaDefaultAltitudeDistributionSet badaProfileSet badaConfigSet badaFuel badaThrust bada4ProfileSet aircraft energyShare
used by	elements AsifXml/fleet study/fleet
annotation	documentation Main block for creating user defined fleet/aircraft data.

element fleet/auxiliaryPowerUnit

diagram	<pre> classDiagram class auxiliaryPowerUnit { <<Identifying name of APU.>> baseAuxiliaryPowerUnit <<Default length of time APU used for powering arrival aircraft (minutes). Valid values: Nonnegative.>> <<Default length of time APU used for powering departure aircraft (minutes). Valid values: Nonnegative.>> CO HC NOx SOx PM } auxiliaryPowerUnit "0..∞" -- "1..1" baseAuxiliaryPowerUnit </pre> <p>Describes a custom auxiliary power unit (APU). These are typically on-board generators providing power to a parked aircraft.</p>
type	auxiliaryPowerUnit
properties	minOcc 0 maxOcc unbounded content complex
children	name baseAuxiliaryPowerUnit defaultTimeArrivals defaultTimeDepartures CO HC NOx SOx PM
annotation	documentation Describes a custom auxiliary power unit (APU). These are typically on-board generators providing power to a parked aircraft.

element fleet/airframe

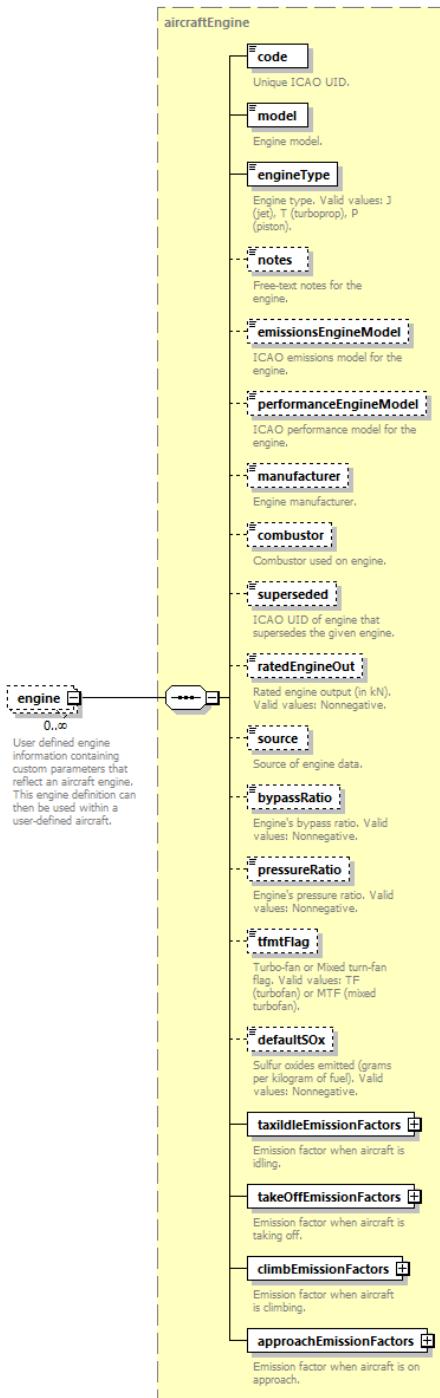
diagram	
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	type	airframe
properties	minOcc 0 maxOcc unbounded content complex	
children	model engineCount engineLocation designationCode maxRange introYear euroGroupCode usageCode sizeCode engineType auxiliaryPowerUnitId	
annotation	documentation Supports the definition of custom airframes.	

element fleet/engine

diagram	
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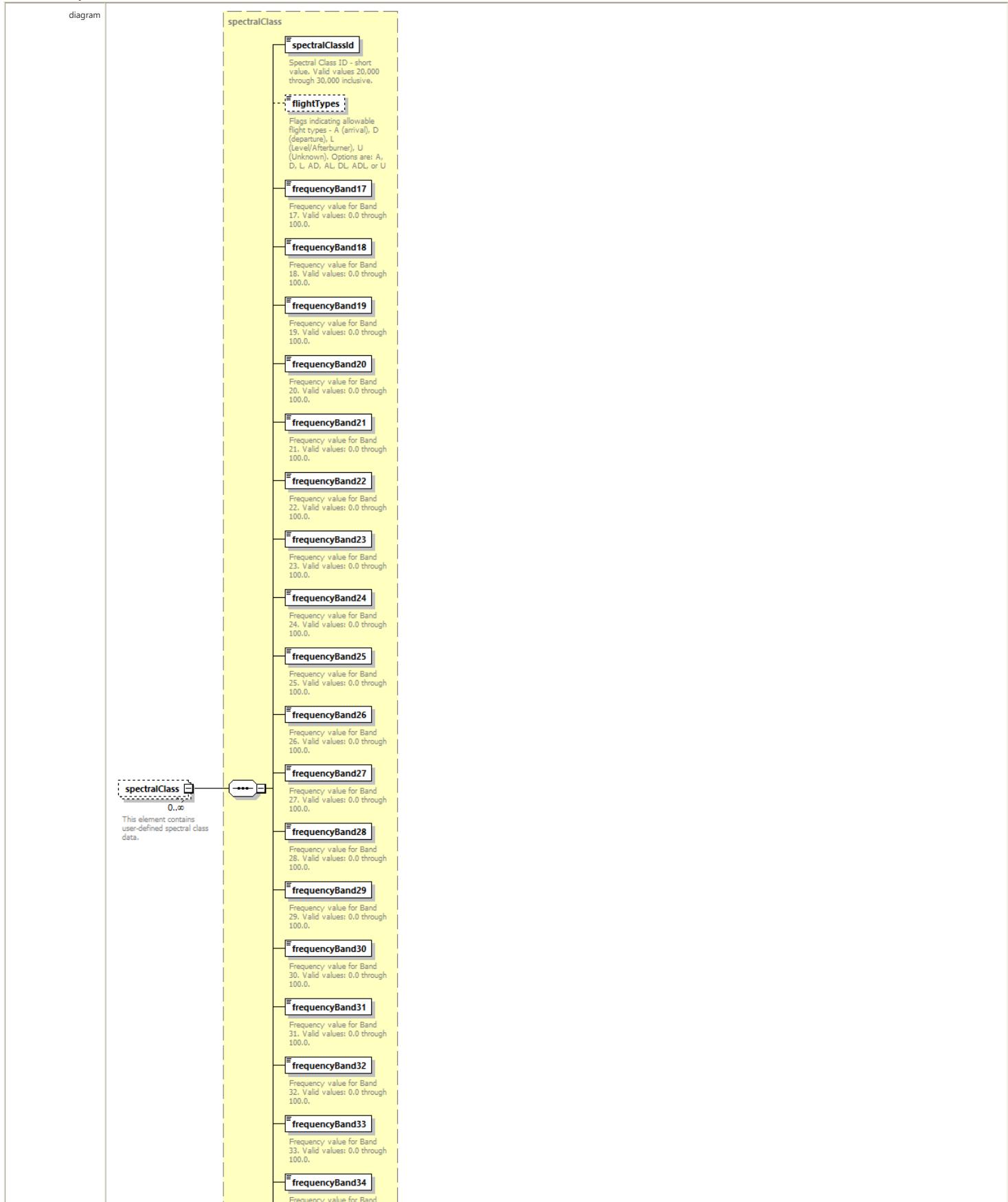
type	aircraftEngine
properties	minOcc 0 maxOcc unbounded content complex
children	code model engineType notes emissionsEngineModel performanceEngineModel manufacturer combustor superseded ratedEngineOut source bypassRatio pressureRatio tfmtFlag defaultSOx taxidleEmissionFactors takeOffEmissionFactors climbEmissionFactors approachEmissionFactors
annotation	documentation User defined engine information containing custom parameters that reflect an aircraft engine. This engine definition can then be used within a user-defined aircraft.

element fleet/engineMod

diagram	<pre> classDiagram class aircraftEngineMod { code description } engineMod "0..∞" --> aircraftEngineMod </pre> <p>engineMod <i>0..∞</i> User defined engine modification information containing custom parameters that reflect an aircraft engine modification. This engine modification definition can that be used within a user defined aircraft.</p>
type	aircraftEngineMod

properties	minOcc 0 maxOcc unbounded content complex
children	code description
annotation	documentation User defined engine modification information containing custom parameters that reflect an aircraft engine modification. This engine modification definition can that be used within a user defined aircraft.

element **fleet/spectralClass**



	<p>34. Valid values: 0.0 through 100.0.</p> <p>frequencyBand35 Frequency value for Band 35. Valid values: 0.0 through 100.0.</p> <p>frequencyBand36 Frequency value for Band 36. Valid values: 0.0 through 100.0.</p> <p>frequencyBand37 Frequency value for Band 37. Valid values: 0.0 through 100.0.</p> <p>frequencyBand38 Frequency value for Band 38. Valid values: 0.0 through 100.0.</p> <p>frequencyBand39 Frequency value for Band 39. Valid values: 0.0 through 100.0.</p> <p>frequencyBand40 Frequency value for Band 40. Valid values: 0.0 through 100.0.</p>
type	spectralClass
properties	minOcc 0 maxOcc unbounded content complex
children	spectralClassId flightTypes frequencyBand17 frequencyBand18 frequencyBand19 frequencyBand20 frequencyBand21 frequencyBand22 frequencyBand23 frequencyBand24 frequencyBand25 frequencyBand26 frequencyBand27 frequencyBand28 frequencyBand29 frequencyBand30 frequencyBand31 frequencyBand32 frequencyBand33 frequencyBand34 frequencyBand35 frequencyBand36 frequencyBand37 frequencyBand38 frequencyBand39 frequencyBand40
annotation	documentation This element contains user-defined spectral class data.

element fleet/anpNoiseGroup

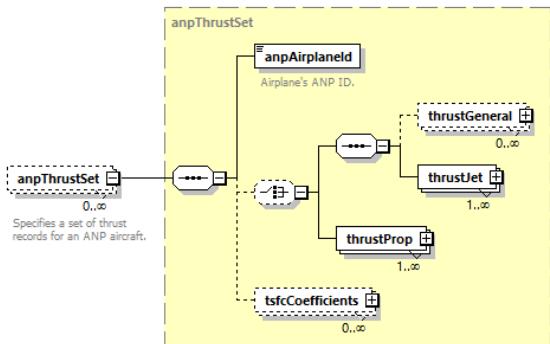
diagram	<pre> graph TD ANP[anpNoiseGroup] --> noiseld["noiseld
Noise group's ID."] ANP --> SCApproach["spectralClassApproach
Spectral class number for approach (min = 0, max = 30000)."] ANP --> SCDeparture["spectralClassDeparture
Spectral class number for departure (min = 0, max = 30000)."] ANP --> SCAfterburner["spectralClassAfterburner
Spectral class number for afterburner (min = 0, max = 30000)."] ANP --> ThrustType["thrustSetType
Type of thrust setting. Valid values: L (pounds), P (percent), X (other). The following are typically used for military aircraft: A (Power Lever Angle), B (Pounds Thrust), C (Turbine Inlet Temperature (Deg C)), E (Enginer Pressure Ratio), F (Fan Speed), H (Equivalent Shaft Power), I (Manifold Pressure (Inches Mercury)), M (Propeller or Compressor RPM), N (Percent Corrected Rotor Speed), O (Percent Low Pressure Compressor Speed), R (Percent Propeller or Compressor RPM), S (Pounds per Hour of Fuel Flow), V (Percent Fan Speed)."] ANP --> ModelType["modelType
Type of distance-duration model. Valid values: I (INM), N (NoiseMap)."] ANP --> NPDCurves["npdCurves
The set of noise curves for ANP aircraft."] subgraph "anpNoiseGroup" noiseld SCApproach SCDeparture SCAfterburner ThrustType ModelType NPDCurves end </pre> <p>This element contains the three spectral class references for a given aircraft noise group with the corresponding thrust setting type and model type.</p>
type	anpNoiseGroup
properties	minOcc 0 maxOcc unbounded content complex
children	noiseld spectralClassApproach spectralClassDeparture spectralClassAfterburner thrustSetType modelType npdCurves
annotation	documentation This element contains the three spectral class references for a given aircraft noise group with the corresponding thrust setting type and model type.

element fleet/anpAirplane

diagram	<pre> classDiagram class anpAirplane { anpAirplaneld description sizeCode owner engineTypeCode numberEngines maxGrossWeightTakeoff maxGrossWeightLand maxDsStop depThrustCoeffType thrustStatic thrustRestore noiseld noiseCategory minBurn } anpAirplane "0..∞" --> "0..∞" anpFlapsSet : anpFlapsSet "0..∞" --> "1..∞" anpAirplaneld : Flap settings for an ANP aircraft type. </pre> <p>anpAirplane</p> <ul style="list-style-type: none"> anpAirplaneld: ID of ANP airplane. Must be a new, unique value. description: Description of ANP airplane. sizeCode: Size code for this airframe. Valid values: H (Heavy), L (Large), M (Medium), S (Small), T (Light), V (Very Light). owner: The owner category: commercial, general aviation, military. engineTypeCode: The engine type code: prop, jet, turbo. numberEngines: Number of engines on this airplane. Valid values: 1 through 8. maxGrossWeightTakeoff: Maximum gross weight on takeoff (min = 0, max = 999999, lbs). maxGrossWeightLand: Maximum gross weight on landing (min = 0, max = 999999, lbs). maxDsStop: FAR landing field length at maximum landing weight (min = 0, max = 20000, feet). depThrustCoeffType: Type of thrust coefficients: J=jet, P=prop. thrustStatic: Static rated thrust or 100% thrust (lb, min = 0, max = 200000). thrustRestore: Flag indicating aircraft has automated thrust restoration system. noiseld: ID of a Noise Group. noiseCategory: The noise category stage number. minBurn: Minimum fuel burn rate. (kg/sec)
type	anpAirplane
properties	minOcc 0 maxOcc unbounded content complex
children	anpAirplaneld description sizeCode owner engineTypeCode numberEngines maxGrossWeightTakeoff maxGrossWeightLand maxDsStop depThrustCoeffType thrustStatic thrustRestore noiseld noiseCategory minBurn
annotation	Creates a new ANP aircraft.

element fleet/anpFlapsSet	<pre> classDiagram class anpFlapsSet { anpAirplaneld flaps } anpFlapsSet "0..∞" --> "1..∞" anpAirplaneld : Flap settings for an ANP aircraft type. </pre> <p>anpFlapsSet</p> <ul style="list-style-type: none"> anpAirplaneld: Airplane's ANP ID. flaps: Flap settings for an ANP aircraft type.
type	anpFlapsSet
properties	minOcc 0 maxOcc unbounded content complex
children	anpAirplaneld flaps
annotation	Flap settings for an ANP aircraft type.

element fleet/anpThrustSet	<pre> classDiagram class anpThrustSet </pre>
diagram	



	<p>type anpThrustSet</p> <p>properties minOcc 0 maxOcc unbounded content complex</p> <p>children anpAirplaneld thrustGeneral thrustJet thrustProp tsfcCoefficients</p> <p>annotation documentation Specifies a set of thrust records for an ANP aircraft.</p>
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element fleet/anpProfileSet

	<p>diagram</p> <pre> classDiagram class anpProfileSet { anpAirplaneld *--> profile +--> anpProfileSet } </pre>
	<p>type anpProfileSet</p> <p>properties minOcc 0 maxOcc unbounded content complex</p> <p>children anpAirplaneld profile</p> <p>annotation documentation The profile set for an ANP aircraft.</p>
	<p>type anpProfileSet</p> <p>properties minOcc 0 maxOcc unbounded content complex</p> <p>children anpAirplaneld profile</p> <p>annotation documentation The profile set for an ANP aircraft.</p>

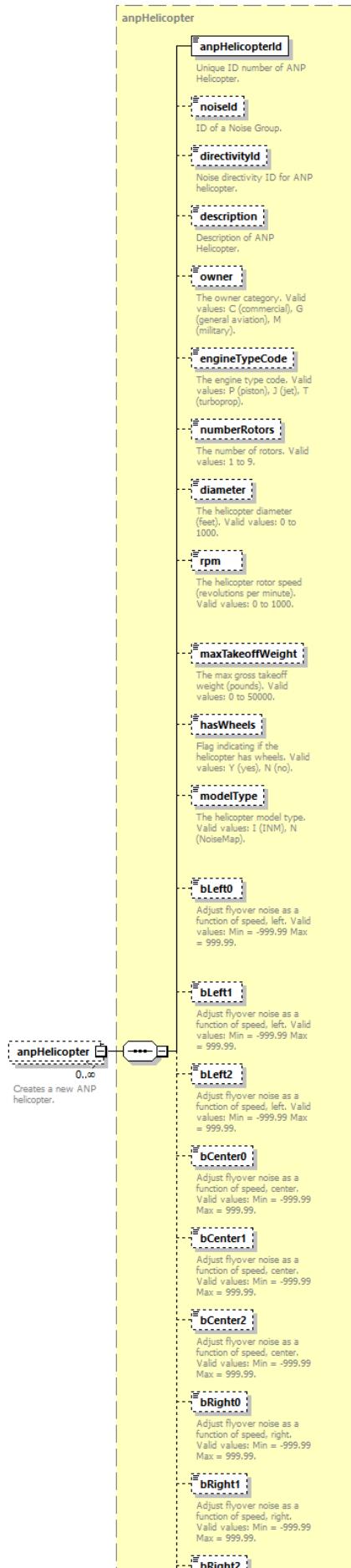
element fleet/anpHeloNoiseGroup

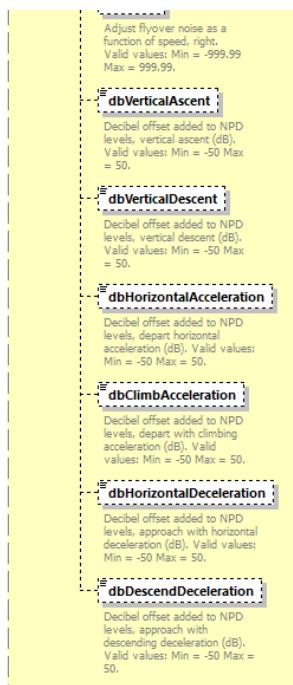
	<p>diagram</p> <pre> classDiagram class anpHeloNoiseGroup { noiseld *--> anpHeloNoiseGroup spectralClassApproach *--> anpHeloNoiseGroup spectralClassDeparture *--> anpHeloNoiseGroup spectralClassFlyover *--> anpHeloNoiseGroup speedApproach *--> anpHeloNoiseGroup speedDeparture *--> anpHeloNoiseGroup speedFlyover *--> anpHeloNoiseGroup npdCurves *--> anpHeloNoiseGroup } </pre>
	<p>type anpHeloNoiseGroup</p> <p>properties minOcc 0 maxOcc unbounded content complex</p> <p>children noiseld spectralClassApproach spectralClassDeparture spectralClassFlyover speedApproach speedDeparture speedFlyover npdCurves</p> <p>annotation documentation</p>

This element contains the three spectral class references for a given helicopter noise group with the corresponding thrust setting type and model type.

element fleet/anpHelicopter

diagram





	type anpHelicopter
properties	minOcc 0 maxOcc unbounded content complex
children	anpHelicopterId noiseId directivityId description owner engineTypeCode numberRotors diameter rpm maxTakeoffWeight hasWheels modelType bLeft0 bLeft1 bLeft2 bCenter0 bCenter1 bCenter2 bRight0 bRight1 bRight2 dbVerticalAscent dbVerticalDescent dbHorizontalAcceleration dbClimbAcceleration dbHorizontalDeceleration dbDescendDeceleration
annotation	documentation Creates a new ANP helicopter.

element fleet/anpHeloDirectivitySet

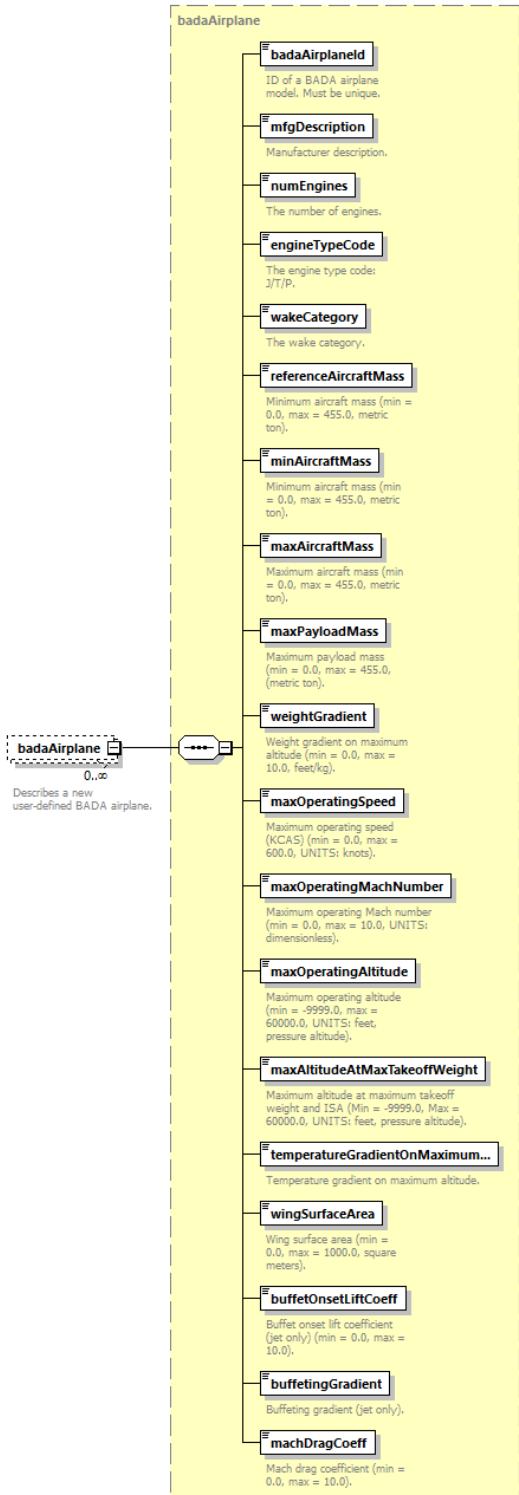
diagram	<pre> classDiagram class anpHeloDirectivitySet { <<A set of helicopter directivities.>> } class anpHelicopterId { <<Unique ID for ANP helicopters.>> } class anpHeloDirectivity { <<ANP Helicopter directivity.>> } anpHeloDirectivitySet "0..∞" -- "1..∞" anpHelicopterId : anpHeloDirectivitySet "0..∞" -- "1..∞" anpHeloDirectivity : </pre>
type	anpHeloDirectivitySet
properties	minOcc 0 maxOcc unbounded content complex
children	anpHelicopterId anpHeloDirectivity
annotation	documentation A set of helicopter directivities.

element fleet/anpHeloProfileSet

diagram	<pre> classDiagram class anpHeloProfileSet { <<A profile set for an ANP helicopter.>> } class anpHelicopterId { <<The anp helicopter id.>> } class profile { <<One or more ANP profiles.>> } anpHeloProfileSet "0..∞" -- "1..∞" anpHelicopterId : anpHeloProfileSet "0..∞" -- "1..∞" profile : </pre>
type	anpHeloProfileSet
properties	minOcc 0 maxOcc unbounded content complex
children	anpHelicopterId profile
annotation	documentation A profile set for an ANP helicopter.

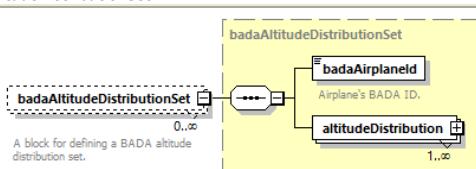
element fleet/badaAirplane

diagram	
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type	badaAirplane
properties	minOcc 0 maxOcc unbounded content complex
children	badaAirplaneld mfgDescription numEngines engineTypeCode wakeCategory referenceAircraftMass minAircraftMass maxAircraftMass maxPayloadMass weightGradient maxOperatingSpeed maxOperatingMachNumber maxOperatingAltitude maxAltitudeAtMaxTakeoffWeight temperatureGradientOnMaximumAltitude wingSurfaceArea buffetOnsetLiftCoeff buffetingGradient machDragCoeff
annotation	documentation Describes a new user-defined BADA airplane.

element fleet/badaAltitudeDistributionSet



	<p>type badaAltitudeDistributionSet</p>
properties	minOcc 0 maxOcc unbounded content complex
children	badaAirplaneId altitudeDistribution
annotation	documentation A block for defining a BADA altitude distribution set.

element fleet/badaDefaultAltitudeDistributionSet

diagram	<pre> graph LR A["badaDefaultAltitudeDistributionSet"] --> B["badaAirplaneId"] A --> C["altitudeDistribution"] </pre> <p>A block for defining the BADA default altitude distribution set.</p>
type	badaAltitudeDistributionSet
properties	minOcc 0 maxOcc unbounded content complex
children	badaAirplaneId altitudeDistribution
annotation	documentation A block for defining the BADA default altitude distribution set.

element fleet/badaProfileSet

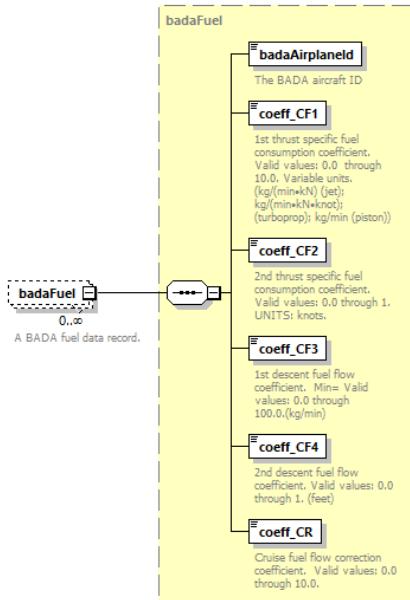
diagram	<pre> graph LR A["badaProfileSet"] --> B["badaAirplaneId"] A --> C["profile"] </pre> <p>A block used to define a custom BADA profile set.</p>
type	badaProfileSet
properties	minOcc 0 maxOcc unbounded content complex
children	badaAirplaneId profile
annotation	documentation A block used to define a custom BADA profile set.

element fleet/badaConfigSet

diagram	<pre> graph LR A["badaConfigSet"] --> B["badaAirplaneId"] A --> C["badaConfig"] </pre> <p>A block for a custom BADA airplane configuration coefficient set.</p>
type	badaConfigSet
properties	minOcc 0 maxOcc unbounded content complex
children	badaAirplaneId badaConfig
annotation	documentation A block for a custom BADA airplane configuration coefficient set.

element fleet/badaFuel

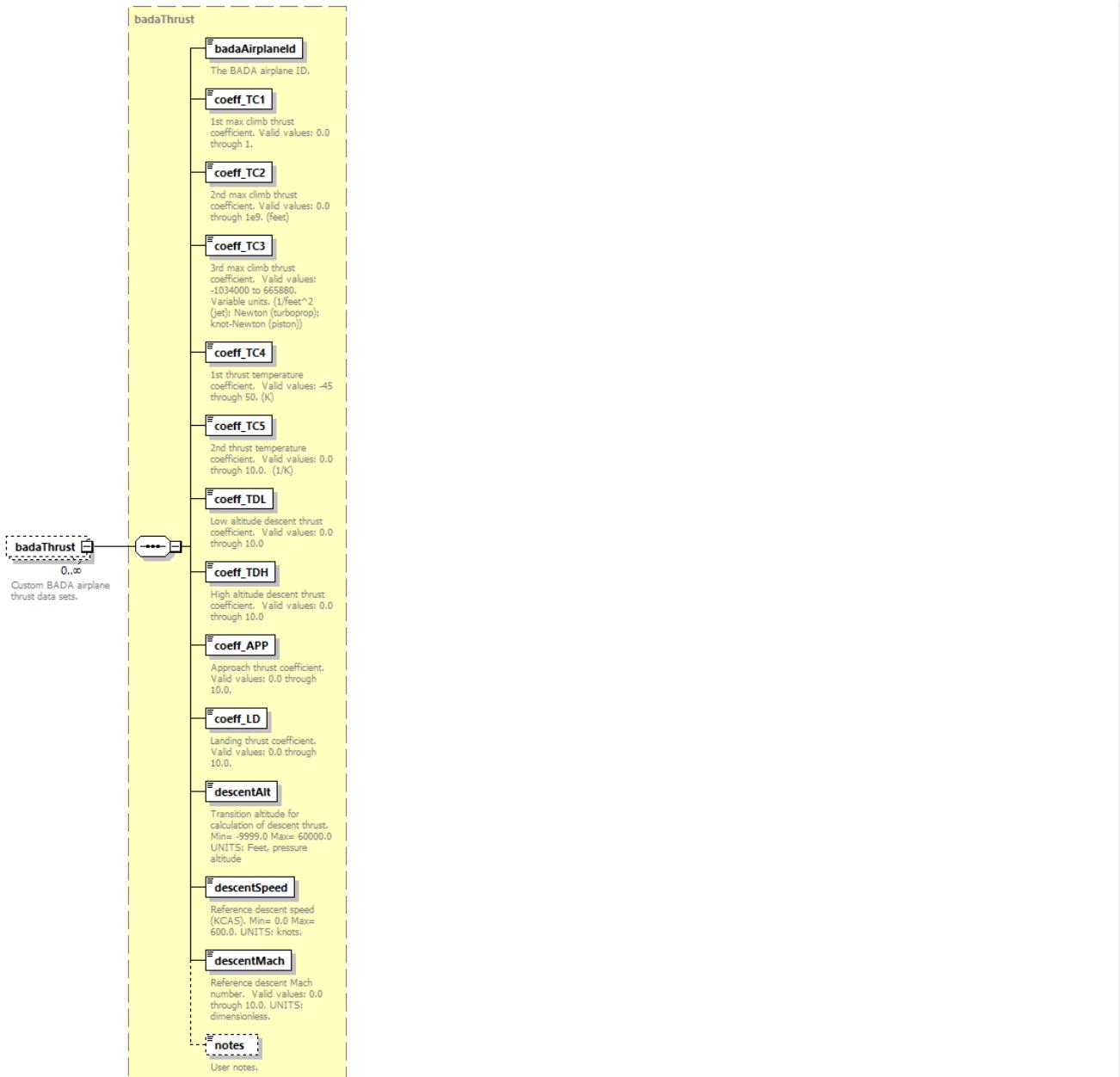
diagram	
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	type	badaFuel
properties		minOcc 0 maxOcc unbounded content complex
children		badaAirplaneId coeff_CF1 coeff_CF2 coeff_CF3 coeff_CF4 coeff_CR
annotation		documentation A BADA fuel data record.

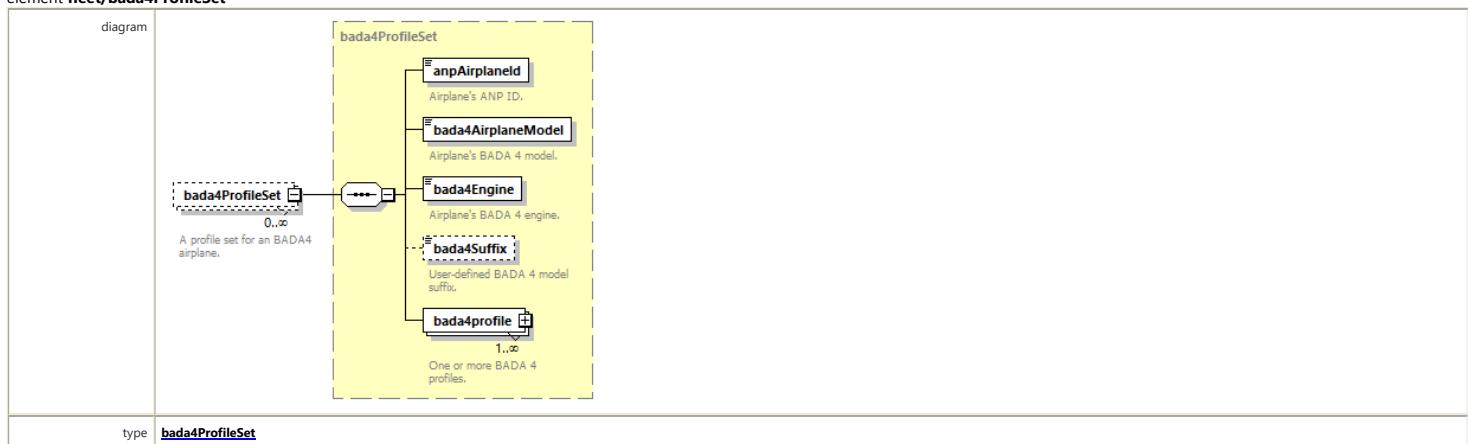
element `fleet/badaThrust`

diagram	
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type	badaThrust
properties	minOcc 0 maxOcc unbounded content complex
children	badaAirplaneId coeff_TC1 coeff_TC2 coeff_TC3 coeff_TC4 coeff_TC5 coeff_TDL coeff_TDH coeff_APP coeff_LD descentAlt descentSpeed descentMach notes
annotation	documentation Custom BADA airplane thrust data sets.

element fleet/bada4ProfileSet



properties	minOcc 0 maxOcc unbounded content complex
children	anpAirplaneId bada4AirplaneModel bada4Engine bada4Suffix bada4profile
annotation	documentation A profile set for an BADA4 airplane.

element fleet/aircraft

diagram	<pre> graph LR aircraft[aircraft] -- "aircraft 0..∞" --> airframeModel[airframeModel] aircraft --- engineCode[engineCode] aircraft --- engineModCode[engineModCode] aircraft --- anpAirplaneId[anpAirplaneId] aircraft --- badaAirplaneId[badaAirplaneId] aircraft --- anpHelicopterId[anpHelicopterId] aircraft --- bada4AirplaneModel[bada4AirplaneModel] aircraft --- bada4Engine[bada4Engine] aircraft --- bada4Suffix[bada4Suffix] aircraft --- bada4FlapsMapSourceAnpId[bada4FlapsMapSourceAnpId] anpAirplaneId --- anpAirplaneId </pre>
---------	---

type	aircraft
properties	minOcc 0 maxOcc unbounded content complex
children	description airframeModel engineCode engineModCode anpAirplaneId badaAirplaneId anpHelicopterId bada4AirplaneModel bada4Engine bada4Suffix bada4FlapsMapSourceAnpId
annotation	documentation A block used to create new user defined AEDT aircraft.

element fleet/energyShare

diagram	<pre> graph LR energyShare[energyShare] -- "energyShare 0..∞" --> anpAirplaneId[anpAirplaneId] energyShare --- badaAirplaneId[badaAirplaneId] energyShare --- transEnergyShare[transEnergyShare] anpAirplaneId --- anpAirplaneId </pre>
type	energyShare
properties	minOcc 0 maxOcc unbounded content complex
children	anpAirplaneId badaAirplaneId transEnergyShare
annotation	documentation A custom BADA aircraft energy share set.

complexType latitudeDecimalType

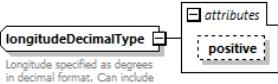
diagram	<pre> graph LR latitudeDecimalType[latitudeDecimalType] --- positive[positive] </pre>
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type	extension of xs:double					
properties	base xs:double					
used by	element latlonCoordGroup/latitude					
attributes	Name positive	Type derived by: xs:string	Use optional	Default N	Fixed	Annotation
annotation	documentation Latitude specified as degrees in decimal format. Can include optional attribute positive. (decimal degrees)					

attribute **latitudeDecimalType/@positive**

type	restriction of xs:string
properties	use optional default N
facets	Kind Value Annotation pattern N n S s

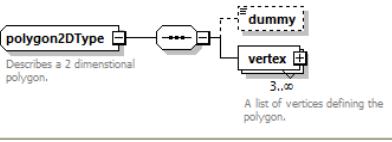
complexType **longitudeDecimalType**

diagram						
	Longitude specified as degrees in decimal format. Can include optional attribute positive. (decimal degrees)					
type	extension of xs:double					
properties	base xs:double					
used by	element latlonCoordGroup/longitude					
attributes	Name positive	Type derived by: xs:string	Use optional	Default E	Fixed	Annotation
annotation	documentation Longitude specified as degrees in decimal format. Can include optional attribute positive. (decimal degrees)					

attribute **longitudeDecimalType/@positive**

type	restriction of xs:string
properties	use optional default E
facets	Kind Value Annotation pattern E e W w

complexType **polygon2DType**

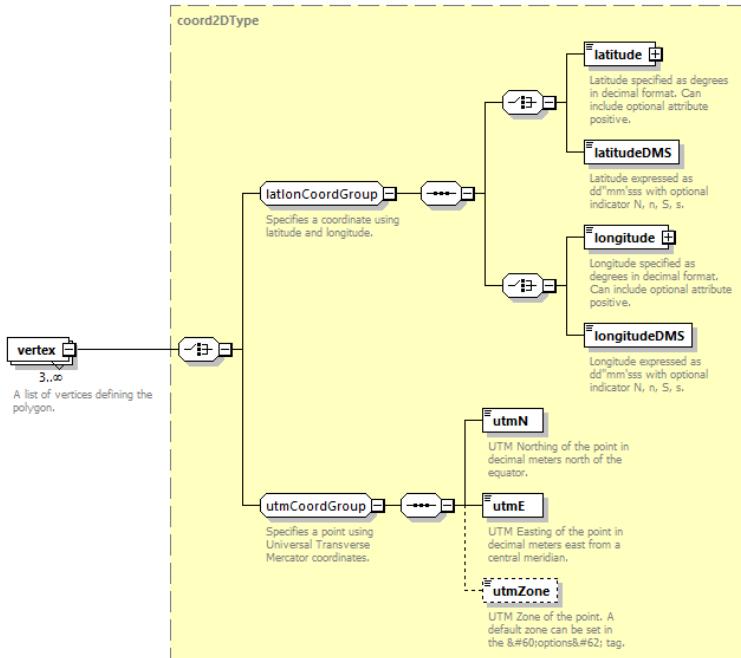
diagram		
	Describes a 2 dimensional polygon.	
children	dummy vertex	
used by	elements boundary/polygon_oneOrThreeCoords2DGroupSet/polygonCoords	
annotation	documentation Describes a 2 dimensional polygon.	

element **polygon2DType/dummy**

diagram	
type	xs:int
properties	minOcc 0 maxOcc 1 content simple

element **polygon2DType/vertex**

diagram	
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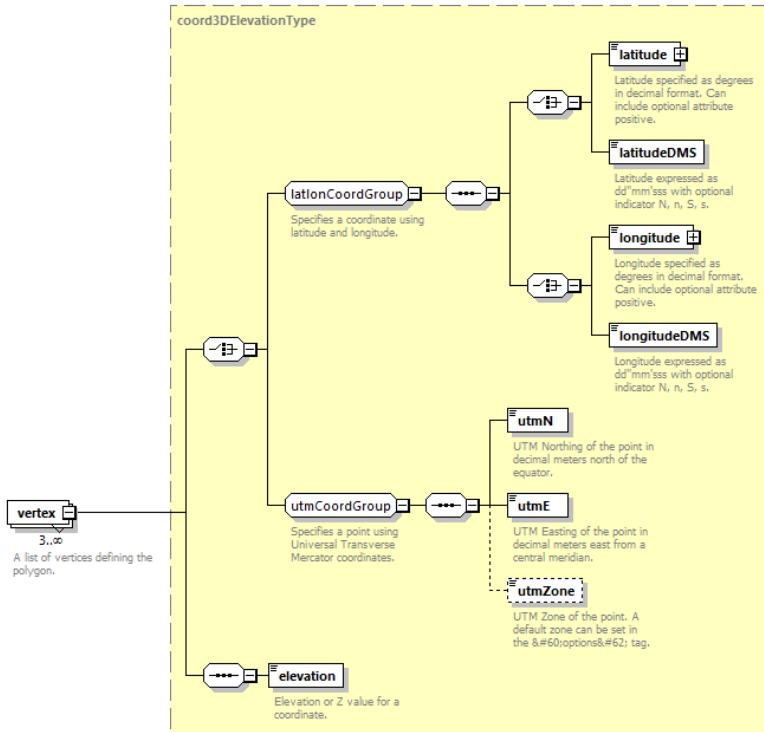


	type coord2DType
properties	minOcc 3 maxOcc unbounded content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone
annotation	documentation A list of vertices defining the polygon.

	complexType polygon3DElevationType
diagram	<pre> classDiagram polygon3DElevationType < -- polygon3DElevationType polygon3DElevationType < -- vertex polygon3DElevationType --> "3..∞" : vertex </pre>
children	dummy vertex
annotation	documentation The elevation or Z value for a polygon.

	element polygon3DElevationType/dummy
diagram	<pre> classDiagram dummy </pre>
type	<code>xs:int</code>

	element polygon3DElevationType/vertex
diagram	



	type	coord3DElevationType
properties	minOcc	3
	maxOcc	unbounded
	content	complex
children		latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation
annotation		documentation A list of vertices defining the polygon.

complexType profiles

diagram	
children	departureProfile arrivalProfile
used by	elements operation/badaProfiles operation/saeProfiles
annotation	documentation Contains an arrival and departure profile.

element profiles/departureProfile

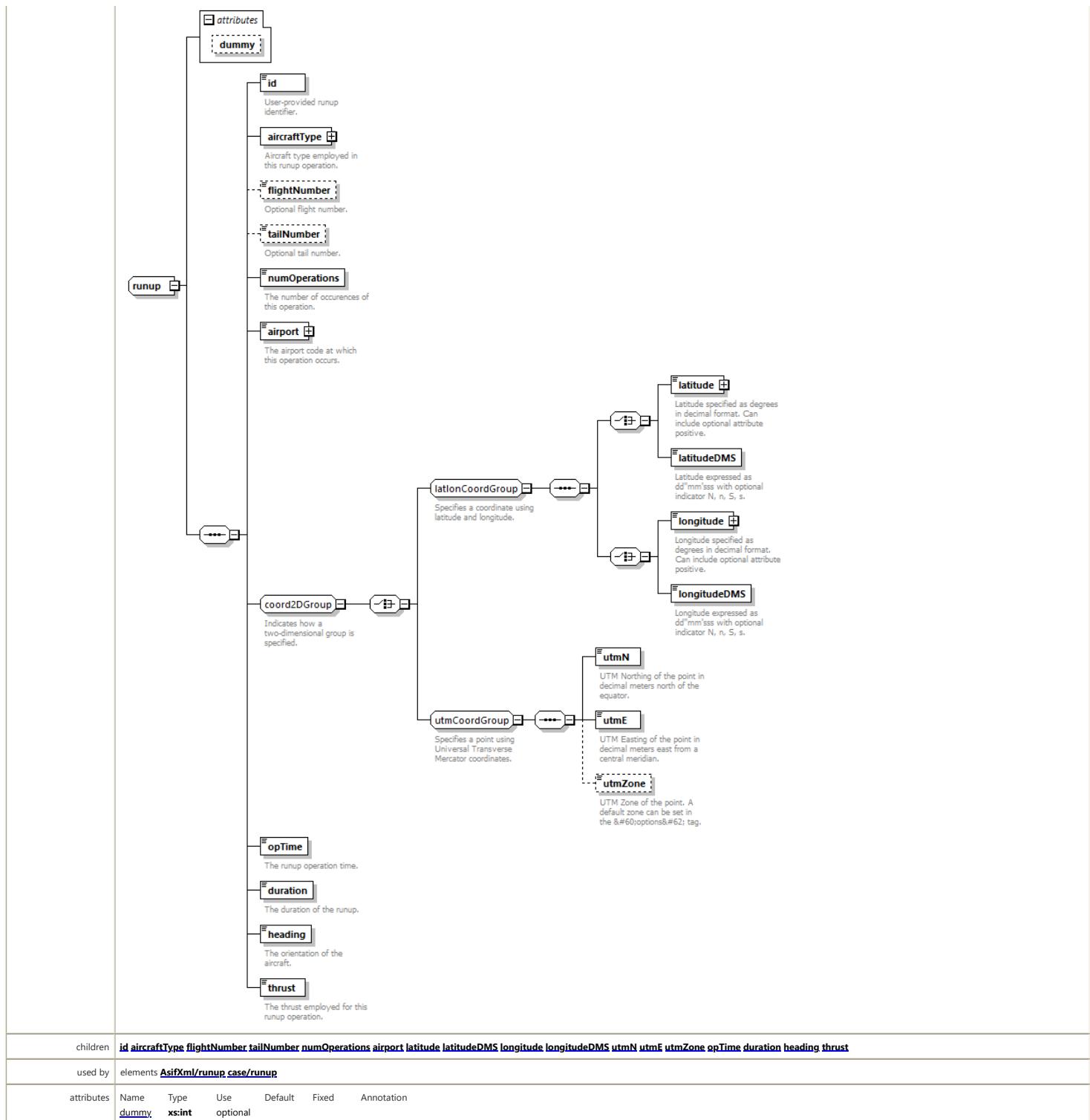
diagram	
type	profileType
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation A flight's departure profile.

element profiles/arrivalProfile

diagram	
type	profileType
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation A flight's arrival profile.

complexType runup

diagram	
---------	--



attribute runup/@dummy

type	xs:int
properties	use optional

element runup/id

diagram	<p>id User-provided runup identifier.</p>									
type	string16									
properties	content simple									
facets	<table border="1"> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>16</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	minLength	0		maxLength	16	
Kind	Value	Annotation								
minLength	0									
maxLength	16									
annotation	documentation User-provided runup identifier.									

element runup/aircraftType

diagram	<pre> classDiagram class aircraftType { anpAircraftId airframeModel engineCode engineModCode apuName groundSupportEquipmentLTOOp... assignDefaultGse } aircraftType < -- aircraftType </pre> <p>Aircraft type employed in this runup operation.</p>
type	<code>aircraftType</code>
properties	content complex
children	anpAircraftId airframeModel engineCode engineModCode apuName groundSupportEquipmentLTOOp... assignDefaultGse
annotation	<p>documentation</p> <p>Aircraft type employed in this runup operation.</p>

element runup/flightNumber

diagram	<pre> classDiagram class flightNumber { <<Optional flight number.>> } </pre>						
type	<code>string16</code>						
properties	<p>minOcc 0</p> <p>maxOcc 1</p> <p>content simple</p>						
facets	<table> <thead> <tr> <th>Kind</th> <th>Value Annotation</th> </tr> </thead> <tbody> <tr> <td>minLength</td> <td>0</td> </tr> <tr> <td>maxLength</td> <td>16</td> </tr> </tbody> </table>	Kind	Value Annotation	minLength	0	maxLength	16
Kind	Value Annotation						
minLength	0						
maxLength	16						
annotation	<p>documentation</p> <p>Optional flight number.</p>						

element runup/tailNumber

diagram	<pre> classDiagram class tailNumber { <<Optional tail number.>> } </pre>						
type	<code>string8</code>						
properties	<p>minOcc 0</p> <p>maxOcc 1</p> <p>content simple</p>						
facets	<table> <thead> <tr> <th>Kind</th> <th>Value Annotation</th> </tr> </thead> <tbody> <tr> <td>minLength</td> <td>0</td> </tr> <tr> <td>maxLength</td> <td>8</td> </tr> </tbody> </table>	Kind	Value Annotation	minLength	0	maxLength	8
Kind	Value Annotation						
minLength	0						
maxLength	8						
annotation	<p>documentation</p> <p>Optional tail number.</p>						

element runup/numOperations

diagram	<pre> classDiagram class numOperations { <<The number of occurrences of this operation.>> } </pre>
type	<code>xs:double</code>
properties	content simple
annotation	<p>documentation</p> <p>The number of occurrences of this operation.</p>

element runup/airport

diagram	
---------	--

	<pre> graph TD airport[airport] --> type["type
country"] style type fill:#ffffcc style country fill:#ffffcc </pre>																		
type	airportCode																		
properties	content complex																		
facets	<table> <tr> <td>Kind</td><td>Value</td><td>Annotation</td></tr> <tr> <td>minLength</td><td>0</td><td></td></tr> <tr> <td>maxLength</td><td>4</td><td></td></tr> </table>	Kind	Value	Annotation	minLength	0		maxLength	4										
Kind	Value	Annotation																	
minLength	0																		
maxLength	4																		
attributes	<table> <thead> <tr> <th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr> </thead> <tbody> <tr> <td>type</td><td>airportCodeType</td><td>optional</td><td>ANY</td><td></td><td></td></tr> <tr> <td>country</td><td>string3</td><td>optional</td><td>ANY</td><td></td><td></td></tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	type	airportCodeType	optional	ANY			country	string3	optional	ANY		
Name	Type	Use	Default	Fixed	Annotation														
type	airportCodeType	optional	ANY																
country	string3	optional	ANY																
annotation	<p>documentation</p> <p>The airport code at which this operation occurs.</p>																		

element runup/opTime

diagram	<pre> graph TD opTime[opTime] </pre>
	<p>The runup operation time.</p>
type	xs:dateTime
properties	content simple
annotation	<p>documentation</p> <p>The runup operation time.</p>

element runup/duration

diagram	<pre> graph TD duration[duration] </pre>
	<p>The duration of the runup.</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>The duration of the runup.</p>

element runup/heading

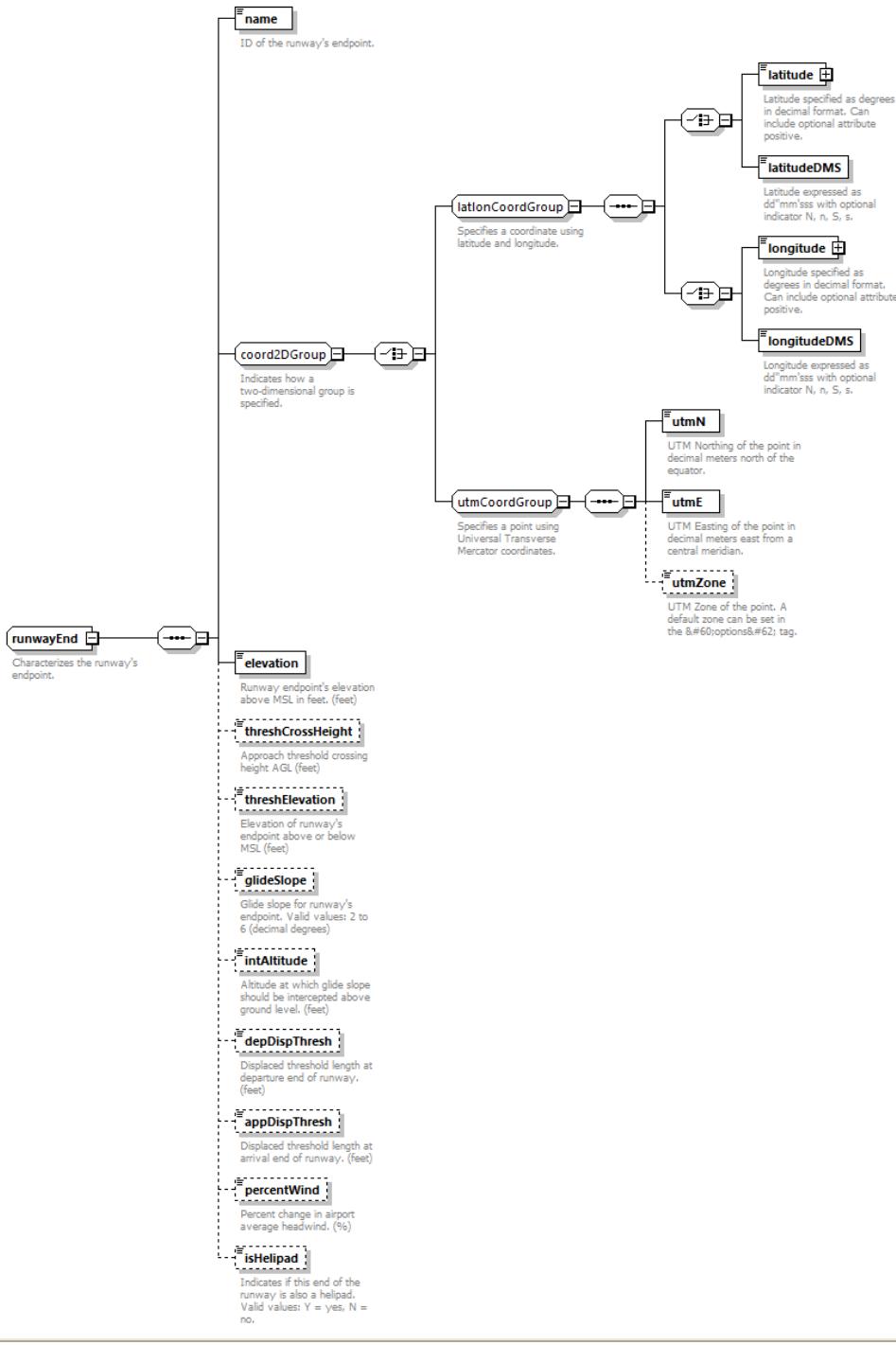
diagram	<pre> graph TD heading[heading] </pre>
	<p>The orientation of the aircraft.</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>The orientation of the aircraft.</p>

element runup/thrust

diagram	<pre> graph TD thrust[thrust] </pre>
	<p>The thrust employed for this runup operation.</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>The thrust employed for this runup operation.</p>

complexType runwayEnd

diagram	
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children `name latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation threshCrossHeight threshElevation glideSlope intAltitude depDispThresh appDispThresh percentWind isHelpad`

used by element `runway/runwayEnd`

annotation documentation
Characterizes the runway's endpoint.

element `runwayEnd/name`

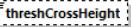
diagram	<p>ID of the runway's endpoint.</p>
type	<code>string8</code>
properties	content simple
facets	Kind Value Annotation <code>minLength 0</code> <code>maxLength 8</code>
annotation	documentation ID of the runway's endpoint.

element `runwayEnd/elevation`

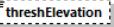
diagram	
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	 <p>Runway endpoint's elevation above MSL in feet. (feet)</p>
type	xs:double
properties	content simple
annotation	documentation Runway endpoint's elevation above MSL in feet. (feet)

element runwayEnd/threshCrossHeight

 <p>Approach threshold crossing height AGL (feet)</p>	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Approach threshold crossing height AGL (feet)

element runwayEnd/threshElevation

 <p>Elevation of runway's endpoint above or below MSL (feet)</p>	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Elevation of runway's endpoint above or below MSL (feet)

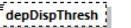
element runwayEnd/glideSlope

 <p>Glide slope for runway's endpoint. Valid values: 2 to 6 (decimal degrees)</p>	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Glide slope for runway's endpoint. Valid values: 2 to 6 (decimal degrees)

element runwayEnd/intAltitude

 <p>Altitude at which glide slope should be intercepted above ground level. (feet)</p>	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Altitude at which glide slope should be intercepted above ground level. (feet)

element runwayEnd/depDispThresh

 <p>Displaced threshold length at departure end of runway. (feet)</p>	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Displaced threshold length at departure end of runway. (feet)

element runwayEnd/appDispThresh

 <p>Displaced threshold length at arrival end of runway. (feet)</p>	
type	xs:double
properties	minOcc 0 maxOcc 1

	content simple
annotation	documentation Displaced threshold length at arrival end of runway. (feet)

element runwayEnd/percentWind

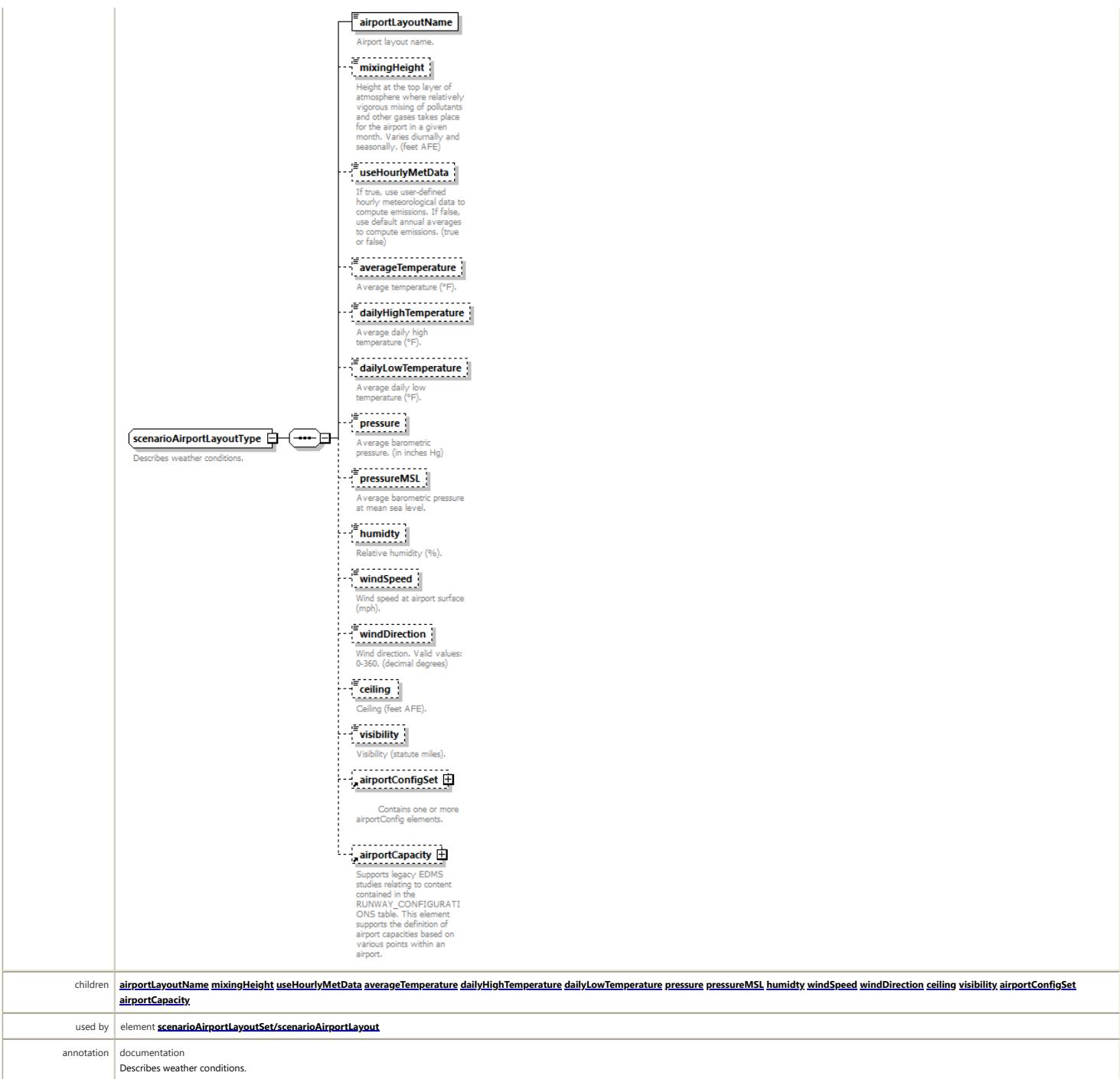
diagram	percentWind Percent change in airport average headwind. (%)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Percent change in airport average headwind. (%)

element runwayEnd/isHelipad

diagram	isHelipad Indicates if this end of the runway is also a helipad. Valid values: Y = yes, N = no.
type	xs:string
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Indicates if this end of the runway is also a helipad. Valid values: Y = yes, N = no.

complexType scenarioAirportLayoutType

diagram	
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element `scenarioAirportLayoutType/airportLayoutName`

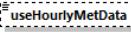
diagram	<p>Airport layout name.</p>
type	<code>string255</code>
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airport layout name.

element `scenarioAirportLayoutType/mixingHeight`

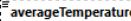
diagram	<p>Height at the top layer of atmosphere where relatively vigorous mixing of pollutants and other gases takes place for the airport in a given month. Varies diurnally and seasonally. (feet AFE)</p>
type	<code>xs:double</code>

properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Height at the top layer of atmosphere where relatively vigorous mixing of pollutants and other gases takes place for the airport in a given month. Varies diurnally and seasonally. (feet AFE)

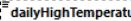
element **scenarioAirportLayoutType/useHourlyMetData**

diagram	 <p>If true, use user-defined hourly meteorological data to compute emissions. If false, use default annual averages to compute emissions. (true or false)</p>
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation If true, use user-defined hourly meteorological data to compute emissions. If false, use default annual averages to compute emissions. (true or false)

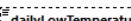
element **scenarioAirportLayoutType/averageTemperature**

diagram	 <p>Average temperature (°F).</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Average temperature (°F).

element **scenarioAirportLayoutType/dailyHighTemperature**

diagram	 <p>Average daily high temperature (°F).</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Average daily high temperature (°F).

element **scenarioAirportLayoutType/dailyLowTemperature**

diagram	 <p>Average daily low temperature (°F).</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Average daily low temperature (°F).

element **scenarioAirportLayoutType/pressure**

diagram	 <p>Average barometric pressure. (in inches Hg)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Average barometric pressure. (in inches Hg)

element **scenarioAirportLayoutType/pressureMSL**

diagram	 <p>Average barometric pressure at mean sea level.</p>
type	xs:double
properties	minOcc 0

	maxOcc 1 content simple default 0
annotation	documentation Average barometric pressure at mean sea level.

element **scenarioAirportLayoutType/humidity**

diagram	 Relative humidity (%).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Relative humidity (%).

element **scenarioAirportLayoutType/windSpeed**

diagram	 Wind speed at airport surface (mph).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Wind speed at airport surface (mph).

element **scenarioAirportLayoutType/windDirection**

diagram	 Wind direction. Valid values: 0-360. (decimal degrees)
type	int0to360
properties	minOcc 0 maxOcc 1 content simple default 1
facets	Kind Value Annotation minInclusive 0 maxExclusive 360
annotation	documentation Wind direction. Valid values: 0-360. (decimal degrees)

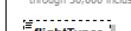
element **scenarioAirportLayoutType/ceiling**

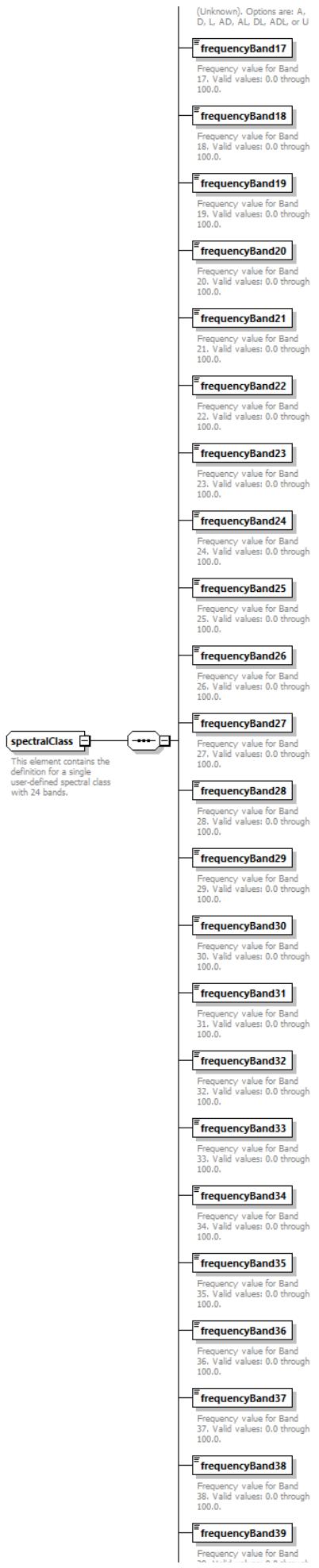
diagram	 Ceiling (feet AFE).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Ceiling (feet AFE).

element **scenarioAirportLayoutType/visibility**

diagram	 Visibility (statute miles).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Visibility (statute miles).

complexType **spectralClass**

diagram	 Spectral Class ID - short value. Valid values 20,000 through 30,000 inclusive.  Flags indicating allowable flight types - A (arrival), D (departure), L (Level/Afterburner), U
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	<p>39. Valid values: U:0 through 100.0.</p> <p>frequencyBand40</p> <p>Frequency value for Band 40. Valid values: 0.0 through 100.0.</p>
children	spectralClassId flightTypes frequencyBand17 frequencyBand18 frequencyBand19 frequencyBand20 frequencyBand21 frequencyBand22 frequencyBand23 frequencyBand24 frequencyBand25 frequencyBand26 frequencyBand27 frequencyBand28 frequencyBand29 frequencyBand30 frequencyBand31 frequencyBand32 frequencyBand33 frequencyBand34 frequencyBand35 frequencyBand36 frequencyBand37 frequencyBand38 frequencyBand39 frequencyBand40
used by	element fleet / spectralClass
annotation	documentation This element contains the definition for a single user-defined spectral class with 24 bands.

element [spectralClass](#)/[spectralClassId](#)

diagram	<p>spectralClassId</p> <p>Spectral Class ID - short value. Valid values 20,000 through 30,000 inclusive.</p>
type	spectralClassId
properties	content simple
facets	Kind Value Annotation minInclusive 20000 maxInclusive 30000
annotation	documentation Spectral Class ID - short value. Valid values 20,000 through 30,000 inclusive.

element [spectralClass](#)/[flightTypes](#)

diagram	<p>flightTypes</p> <p>Flags indicating allowable flight types - A (arrival), D (departure), L (Level/Afterburner), U (Unknown). Options are: A, D, L, AD, AL, DL, ADL, or U</p>
type	spectralFlightType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern A D L AD AL DL ADL U
annotation	documentation Flags indicating allowable flight types - A (arrival), D (departure), L (Level/Afterburner), U (Unknown). Options are: A, D, L, AD, AL, DL, ADL, or U

element [spectralClass](#)/[frequencyBand17](#)

diagram	<p>frequencyBand17</p> <p>Frequency value for Band 17. Valid values: 0.0 through 100.0.</p>
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 17. Valid values: 0.0 through 100.0.

element [spectralClass](#)/[frequencyBand18](#)

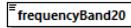
diagram	<p>frequencyBand18</p> <p>Frequency value for Band 18. Valid values: 0.0 through 100.0.</p>
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 18. Valid values: 0.0 through 100.0.

element [spectralClass](#)/[frequencyBand19](#)

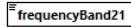
diagram	<p>frequencyBand19</p> <p>Frequency value for Band 19. Valid values: 0.0 through 100.0.</p>
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation

	minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 19. Valid values: 0.0 through 100.0.

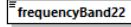
element **spectralClass/frequencyBand20**

diagram	 Frequency value for Band 20. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 20. Valid values: 0.0 through 100.0.

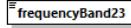
element **spectralClass/frequencyBand21**

diagram	 Frequency value for Band 21. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 21. Valid values: 0.0 through 100.0.

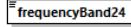
element **spectralClass/frequencyBand22**

diagram	 Frequency value for Band 22. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 22. Valid values: 0.0 through 100.0.

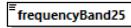
element **spectralClass/frequencyBand23**

diagram	 Frequency value for Band 23. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 23. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand24**

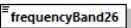
diagram	 Frequency value for Band 24. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 24. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand25**

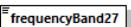
diagram	 Frequency value for Band 25. Valid values: 0.0 through 100.0.
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type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 25. Valid values: 0.0 through 100.0.

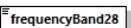
element **spectralClass/frequencyBand26**

diagram	 Frequency value for Band 26. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 26. Valid values: 0.0 through 100.0.

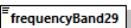
element **spectralClass/frequencyBand27**

diagram	 Frequency value for Band 27. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 27. Valid values: 0.0 through 100.0.

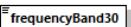
element **spectralClass/frequencyBand28**

diagram	 Frequency value for Band 28. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 28. Valid values: 0.0 through 100.0.

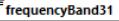
element **spectralClass/frequencyBand29**

diagram	 Frequency value for Band 29. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 29. Valid values: 0.0 through 100.0.

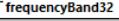
element **spectralClass/frequencyBand30**

diagram	 Frequency value for Band 30. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 30. Valid values: 0.0 through 100.0.

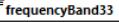
element **spectralClass/frequencyBand31**

diagram	 Frequency value for Band 31. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 31. Valid values: 0.0 through 100.0.

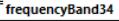
element **spectralClass/frequencyBand32**

diagram	 Frequency value for Band 32. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 32. Valid values: 0.0 through 100.0.

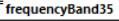
element **spectralClass/frequencyBand33**

diagram	 Frequency value for Band 33. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 33. Valid values: 0.0 through 100.0.

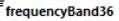
element **spectralClass/frequencyBand34**

diagram	 Frequency value for Band 34. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 34. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand35**

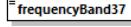
diagram	 Frequency value for Band 35. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 35. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand36**

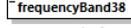
diagram	 Frequency value for Band 36. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100

annotation	documentation Frequency value for Band 36. Valid values: 0.0 through 100.0.
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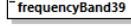
element **spectralClass/frequencyBand37**

diagram	 Frequency value for Band 37. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 37. Valid values: 0.0 through 100.0.

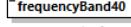
element **spectralClass/frequencyBand38**

diagram	 Frequency value for Band 38. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 38. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand39**

diagram	 Frequency value for Band 39. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 39. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand40**

diagram	 Frequency value for Band 40. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 40. Valid values: 0.0 through 100.0.

simpleType **aircraftPerformanceModelType**

type	restriction of xs:string
properties	base xs:string
used by	element scenario/acftPerfModel
facets	Kind Value Annotation enumeration ICAO enumeration SAE1845
annotation	documentation Type of aircraft performance model. Valid values: ICAO, SAE1845.

simpleType **AircraftSizeType**

type	restriction of xs:string
properties	base xs:string
used by	element runwayAssignment/aircraftSize
facets	Kind Value Annotation enumeration S enumeration L enumeration H

annotation	documentation Aircraft size.
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simpleType **airframeModel**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraft/airframeModel airframe/model
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Refers to an existing airframe model.

simpleType **airportCodeType**

type	restriction of xs:string
properties	base xs:string
used by	attribute airportCode/@type
facets	Kind Value Annotation enumeration ICAO enumeration IATA enumeration FAA enumeration OTHER enumeration ANY
annotation	documentation The type of an airport code.

simpleType **anpAirplaneId**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraftType/anpAircraftId aircraft/anpAirplaneId anpAirplane/anpAirplaneId anpThrustSet/anpAirplaneId anpFlapsSet/anpAirplaneId anpProfileSet/anpAirplaneId energyShare/anpAirplaneId bada4ProfileSet/anpAirplaneId bada4ProcedureStep/anpAirplaneId aircraft/bada4FlapsMapSourceAnpId
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation ID of ANP airplane. Must be a new, unique value.

simpleType **anpCoeffType**

type	restriction of xs:string
properties	base xs:string
used by	element anpAirplane/depThrustCoeffType
facets	Kind Value Annotation pattern Jet Prop P

simpleType **anpFlapId**

type	restriction of xs:string
properties	base xs:string
used by	elements bada4ProcedureStep/anpFlapId anpFlaps/flapId anpProcedureStep/flapId
facets	Kind Value Annotation minLength 0 maxLength 6

simpleType **anpHeloDirectId**

type	restriction of xs:string
properties	base xs:string
used by	element anpHeloDirectivitySet/anpHelicopterId
facets	Kind Value Annotation minLength 0 maxLength 12

simpleType **anpHeloDirectivityId**

type	restriction of xs:string
properties	base xs:string
used by	element anpHelicopter/directivityId
facets	Kind Value Annotation minLength 0 maxLength 12

simpleType **anpHeloGroundType**

type	restriction of xs:string
properties	base xs:string

used by	element anpHeloDirectivity/groundType	
facets	Kind	Value Annotation pattern Hard H Software S File F None N

simpleType **anpHeloId**

type	restriction of xs:string	
properties	base xs:string	
used by	elements aircraft/anpHelicopterId anpHelicopter/anpHelicopterId anpHeloProfileSet/anpHelicopterId	
facets	Kind	Value Annotation minLength 0 maxLength 255
annotation	documentation ID of the helicopter.	

simpleType **anpHeloNoiseld**

type	restriction of xs:string	
properties	base xs:string	
used by	elements anpHelicopter/noiseld anpHeloNoiseGroup/noiseld	
facets	Kind	Value Annotation minLength 0 maxLength 255

simpleType **anpHeloSideType**

type	restriction of xs:string	
properties	base xs:string	
used by	element anpHeloNPDCurve/sideType	
facets	Kind	Value Annotation pattern Left L Center C Right R Static S

simpleType **anpNoiseld**

type	restriction of xs:string	
properties	base xs:string	
used by	elements anpNoiseGroup/noiseld anpAirplane/noiseld	
facets	Kind	Value Annotation minLength 0 maxLength 255

simpleType **anpNpdNoiseType**

type	restriction of xs:string	
properties	base xs:string	
used by	elements anpNPDCurve/noiseType anpHeloNPDCurve/noiseType	
facets	Kind	Value Annotation pattern S M E P

simpleType **anpNpdOpMode**

type	restriction of xs:string	
properties	base xs:string	
used by	elements anpNPDCurve/opMode anpHeloNPDCurve/opMode	
facets	Kind	Value Annotation pattern A D L G H I J V W Y Z B C E F X S

simpleType **anpOwnerType**

type	restriction of xs:string	
properties	base xs:string	
used by	elements anpHelicopter/owner anpAirplane/owner	
facets	Kind	Value Annotation pattern Commercial C Military M General G

simpleType **anpSizeCode**

type	restriction of xs:string	
properties	base xs:string	
used by	element anpAirplane/sizeCode	
facets	Kind	Value Annotation pattern Heavy H Large L Small S

simpleType **apuName**

type	restriction of xs:string	
properties	base xs:string	
used by	elements airframe/auxiliaryPowerUnitId auxiliaryPowerUnit/baseAuxiliaryPowerUnit auxiliaryPowerUnit/name	

	facets	Kind Value Annotation minLength 0 maxLength 30
	annotation	documentation Name of the auxiliary power unit.

simpleType [bada4AirplaneModel](#)

	type	restriction of xs:string
	properties	base xs:string
	used by	elements aircraft/bada4AirplaneModel bada4ProfileSet/bada4AirplaneModel
	facets	Kind Value Annotation minLength 0 maxLength 255
	annotation	documentation Model of BADA 4 airplane.

simpleType [bada4Engine](#)

	type	restriction of xs:string
	properties	base xs:string
	used by	elements aircraft/bada4Engine bada4ProfileSet/bada4Engine
	facets	Kind Value Annotation minLength 0 maxLength 255
	annotation	documentation Airplane BADA 4 engine.

simpleType [bada4Suffix](#)

	type	restriction of xs:string
	properties	base xs:string
	used by	elements aircraft/bada4Suffix bada4ProfileSet/bada4Suffix
	facets	Kind Value Annotation minLength 0 maxLength 255
	annotation	documentation User-defined BADA 4 model suffix.

simpleType [badaAirplaneId](#)

	type	restriction of xs:string
	properties	base xs:string
	used by	elements aircraft/badaAirplaneId badaAirplane/badaAirplaneId badaAltitudeDistributionSet/badaAirplaneId badaProfileSet/badaAirplaneId badaConfigSet/badaAirplaneId badaFuel/badaAirplaneId badaThrust/badaAirplaneId energyShare/badaAirplaneId
	facets	Kind Value Annotation minLength 0 maxLength 255
	annotation	documentation ID of a BADA airplane model. Must be unique.

simpleType [badaPhaseType](#)

	type	restriction of xs:string
	properties	base xs:string
	used by	element badaConfig/phase
	facets	Kind Value Annotation pattern InitialClimb C Takeoff TO Approach AP Landing LD Cruise CR

simpleType [badaWakeType](#)

	type	restriction of xs:string
	properties	base xs:string
	used by	element badaAirplane/wakeCategory
	facets	Kind Value Annotation pattern Heavy H Light L Medium M SuperHeavy J

simpleType [directionType](#)

	type	restriction of xs:string
	properties	base xs:string
	used by	element taxipath/direction
	facets	Kind Value Annotation pattern A Arrival D Departure I Inbound O Outbound
	annotation	documentation Supports the direction type of a taxi path. Direction type can be either arrival, departure, inbound, or outbound.

simpleType doubleExclusive0Inclusive10

type	restriction of xs:double
properties	base xs:double
used by	element pointStationarySource/stackDiameter
facets	Kind Value Annotation maxInclusive 10 minExclusive 0
annotation	documentation A double value in the range (0,10).

simpleType doubleExclusive10

type	restriction of xs:double
properties	base xs:double
facets	Kind Value Annotation minInclusive 0 maxExclusive 10
annotation	documentation A double value in the range [0,10).

simpleType doubleExclusive100

type	restriction of xs:double
properties	base xs:double
used by	elements taxisway/dispersionWidth categorySandSaltPile/fastestMileOfWind categorySandSaltPile/frictionVelocity categoryBoilerHeater/fuelAshContent categoryBoilerHeater/fuelAshContent categoryBoilerHeater/fuelSulfurContent categoryGenerator/fuelSulfurContent airportConfig/maxWindSpeed categoryFuelTank/verticalOrFloatingTank/meanWindSpeed categorySandSaltPile/meanWindSpeed airportConfig/minWindSpeed categoryDeicingArea/solutionConcentrationPercent
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation A double value in the range [0,100).

simpleType doubleExclusive1000

type	restriction of xs:double
properties	base xs:double
used by	elements categoryFuelTank/verticalOrFloatingTank/averageSolutionLevel categorySandSaltPile/massDisturbedPerDisturbance categoryFuelTank/verticalOrFloatingTank/maximumSolutionLevel categoryFuelTank/tankDiameter categoryFuelTank/verticalOrFloatingTank/tankHeight categoryFuelTank/horizontalFixedRoofTank/tankLength categoryAircraftEngine/timePercentPower100 categoryAircraftEngine/timePercentPower30 categoryAircraftEngine/timePercentPower7 categoryAircraftEngine/timePercentPower85
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation A double value in the range [0,1000).

simpleType doubleExclusive10000

type	restriction of xs:double
properties	base xs:double
used by	element categorySandSaltPile/erodedSurfaceArea
facets	Kind Value Annotation minInclusive 0 maxExclusive 10000
annotation	documentation A double value in the range [0,10000).

simpleType doubleExclusive2000

type	restriction of xs:double
properties	base xs:double
used by	elements categoryDeicingArea/ethyleneGlycolDensity categoryDeicingArea/propyleneGlycolDensity categorySolventDegreaser/solutionDensity
facets	Kind Value Annotation minInclusive 0 maxExclusive 2000
annotation	documentation A double value in the range [0,2000).

simpleType doubleExclusiveRange100

type	restriction of xs:double
properties	base xs:double
used by	elements categorySandSaltPile/moistureContent categorySandSaltPile/surfaceRoughness
facets	Kind Value Annotation minExclusive 0 maxExclusive 100
annotation	documentation

A double value in the range (0,100).

simpleType doubleInclusive1

type	restriction of xs:double
properties	base xs:double
used by	elements userGroundSupportEquipment/defaultLoadFactor groundSupportEquipmentGateAssignment/fractionAssigned categoryBoilerHeater/pm25ToPm10Ratio categoryGenerator/pm25ToPm10Ratio categoryIncinerator/pm25ToPm10Ratio categoryOther/pm25ToPm10Ratio categoryFuelTank/verticalOrFloatingTank/verticalFixedRoofTank/coneRoof/roofSlope categorySandSaltPile/surfaceWindSpeedFraction
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation A double value in the range [0,1].

simpleType doubleInclusive100

type	restriction of xs:double
properties	base xs:double
used by	elements runwayAssignment/arrivalPercentage runwayAssignment/departurePercentage categorySolventDegreaser/pollutionControlFactor categoryBoilerHeater/pollutionControlFactorCO categoryGenerator/pollutionControlFactorCO categoryIncinerator/pollutionControlFactorCO categoryOther/pollutionControlFactorCO categoryBoilerHeater/pollutionControlFactorHC categoryGenerator/pollutionControlFactorHC categoryOther/pollutionControlFactorHC categoryBoilerHeater/pollutionControlFactorNOx categoryGenerator/pollutionControlFactorNOx categoryIncinerator/pollutionControlFactorNOx categoryOther/pollutionControlFactorNOx categoryBoilerHeater/pollutionControlFactorPM10 categoryGenerator/pollutionControlFactorPM10 categoryIncinerator/pollutionControlFactorPM10 categoryOther/pollutionControlFactorPM10 categoryBoilerHeater/pollutionControlFactorSOx categoryGenerator/pollutionControlFactorSOx categoryIncinerator/pollutionControlFactorSOx categoryOther/pollutionControlFactorSOx categoryBoilerHeater/pollutionControlFactorTNMOC categoryGenerator/pollutionControlFactorTOC categoryIncinerator/pollutionControlFactorTOC categoryOther/pollutionControlFactorTOC categoryGenerator/pollutionControlFactorVOC categoryIncinerator/pollutionControlFactorVOC categorySurfaceCoatingPainting/pollutionControlFactorVOC vocElGroup/pollutionControlFactorVOC pointStationarySource/releaseHeight areaStationarySource/releaseHeight volumeStationarySource/releaseHeight runwayAssignment/tgoPercentage
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation A double value in the range [0,100].

simpleType doubleInclusive1000

type	restriction of xs:double
properties	base xs:double
used by	elements categoryGenerator/CO_EF categoryBoilerHeater/CO_EI categoryGenerator/CO_EI categoryIncinerator/CO_EI categoryOther/CO_EI pm10TermGroup/constantTermPm10 categoryGenerator/NOx_EF categoryBoilerHeater/NOx_EI categoryGenerator/NOx_EI categoryIncinerator/NOx_EI categoryOther/NOx_EI categoryGenerator/PM10_EF categoryBoilerHeater/PM10_EI categoryGenerator/PM10_EI categoryIncinerator/PM10_EI categoryOther/PM10_EI categoryGenerator/SOx_EF categoryGenerator/SOx_EI categoryIncinerator/SOx_EI categoryOther/SOx_EI pm10TermGroup/sulfurTermPm10 categoryBoilerHeater/sulfurTermSOx categoryOther/THC_EI thcElGroup/TNMOC_EI categoryGenerator/TOC_EF tocElGroup/TOC_EI categoryGenerator/VOC_EI categoryIncinerator/VOC_EI categorySurfaceCoatingPainting/VOC_EI categoryDeicingArea/VOC_EI vocElGroup/VOC_EI
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation A double value in the range [0,1000].

simpleType doubleInclusive10000

type	restriction of xs:double
properties	base xs:double
used by	element categoryGenerator/powerRatingHorsepower
facets	Kind Value Annotation minInclusive 0 maxInclusive 10000
annotation	documentation A double value in the range [0,10000].

simpleType doubleInclusive2000

type	restriction of xs:double
properties	base xs:double
facets	Kind Value Annotation minInclusive 0 maxInclusive 2000
annotation	documentation A double value in the range [0,2000].

simpleType doubleInclusive24

type	restriction of xs:double
properties	base xs:double
used by	elements airportConfig/endHour airportConfig/startHour
facets	Kind Value Annotation minInclusive 0 maxInclusive 24
annotation	documentation A double value in the range [0,24].

simpleType doubleInclusive4000

type	restriction of xs:double
properties	base xs:double
used by	element roadwayOperation/roundTripDistance
facets	Kind Value Annotation minInclusive 0 maxInclusive 4000
annotation	documentation A double value in the range [0,4000].

simpleType **doubleInclusive500**

type	restriction of xs:double
properties	base xs:double
used by	element categoryFuelTank/verticalOrFloatingTank/verticalFixedRoofTank/domeRoof/domeRadius
facets	Kind Value Annotation minInclusive 0 maxInclusive 500
annotation	documentation A double value in the range [0,500].

simpleType **doubleInclusiveRange0to600**

type	restriction of xs:double
properties	base xs:double
facets	Kind Value Annotation minInclusive 0 maxInclusive 600
annotation	documentation A double value in the range [0,600].

simpleType **doubleInclusiveRange1to30**

type	restriction of xs:double
properties	base xs:double
facets	Kind Value Annotation minInclusive 1 maxInclusive 30
annotation	documentation A double value in the range [1,30].

simpleType **doubleMin0**

type	restriction of xs:double
properties	base xs:double
used by	elements categoryFuelTank/horizontalFixedRoofTank/annualIncreaseInLiquidLevel categoryFuelTank/verticalOrFloatingTank/verticalFixedRoofTank/annualIncreaseInLiquidLevel quarterHourlyProfile/temporalFactor/monthlyProfile/temporalFactorApril monthlyProfile/temporalFactorAugust monthlyProfile/temporalFactorDecember monthlyProfile/temporalFactorFebruary dailyProfile/temporalFactorFriday monthlyProfile/temporalFactorJanuary monthlyProfile/temporalFactorJuly monthlyProfile/temporalFactorJune monthlyProfile/temporalFactorMarch monthlyProfile/temporalFactorMay dailyProfile/temporalFactorMonday monthlyProfile/temporalFactorNovember monthlyProfile/temporalFactorOctober dailyProfile/temporalFactorSaturday monthlyProfile/temporalFactorSeptember dailyProfile/temporalFactorSunday dailyProfile/temporalFactorThursday dailyProfile/temporalFactorTuesday dailyProfile/temporalFactorWednesday
facets	Kind Value Annotation minInclusive 0
annotation	documentation A double value with a lower inclusive bound of 0.

simpleType **emissionsSourceType**

type	restriction of xs:string
properties	base xs:string
used by	element case/source
facets	Kind Value Annotation enumeration Container enumeration Aircraft enumeration GSE Population enumeration Parking Facilities enumeration Roadways enumeration Stationary Sources
annotation	documentation Source of emissions.

simpleType **emissionsUnitsType**

type	restriction of xs:string
properties	base xs:string
used by	element study/emissionsUnits
facets	Kind Value Annotation enumeration MetricTonnes enumeration Kilograms enumeration Grams enumeration ImperialTons enumeration Pounds

annotation	documentation Unit of measure for a given emission.
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simpleType empty-string

type	restriction of xs:string
properties	base xs:string
facets	Kind Value Annotation enumeration

simpleType engineCode

type	restriction of xs:string
properties	base xs:string
used by	elements aircraftEngine/code aircraft/engineCode
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Code for an airframe's engine.

simpleType engineModCode

type	restriction of xs:string
properties	base xs:string
used by	elements aircraftEngineMod/code aircraftType/engineModCode aircraft/engineModCode
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation Airplane's engine modification code.

simpleType engineModel

type	restriction of xs:string
properties	base xs:string
used by	element aircraftEngine/model
facets	Kind Value Annotation minLength 0 maxLength 255

simpleType engineType

type	restriction of xs:string
properties	base xs:string
used by	elements aircraftEngine/engineType anpHelicopter/engineTypeCode anpAirplane/engineTypeCode badaAirplane/engineTypeCode
facets	Kind Value Annotation pattern Jet J Turbo Turboprop T Prop Piston P
annotation	documentation Type of engine on this airframe. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop).

simpleType floatExclusive0Inclusive10

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation maxInclusive 10 minExclusive 0
annotation	documentation A real number in the range (0,10].

simpleType floatExclusive10

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxExclusive 10
annotation	documentation A real number in the range [0,10].

simpleType floatExclusive100

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation

A real number in the range [0,100].

simpleType floatExclusive1000

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation A real number in the range [0,1,000].

simpleType floatExclusive10000

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxExclusive 10000
annotation	documentation A real number in the range [0,10,000].

simpleType floatExclusive2000

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxExclusive 2000
annotation	documentation A real number in the range [0,2,000].

simpleType floatExclusiveRange100

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minExclusive 0 maxExclusive 100
annotation	documentation A real number in the range (0,100).

simpleType floatInclusive1

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation A real number in the range [0,1].

simpleType floatInclusive100

type	restriction of xs:float
properties	base xs:float
used by	elements spectralClass/frequencyBand17 spectralClass/frequencyBand18 spectralClass/frequencyBand19 spectralClass/frequencyBand20 spectralClass/frequencyBand21 spectralClass/frequencyBand22 spectralClass/frequencyBand23 spectralClass/frequencyBand24 spectralClass/frequencyBand25 spectralClass/frequencyBand26 spectralClass/frequencyBand27 spectralClass/frequencyBand28 spectralClass/frequencyBand29 spectralClass/frequencyBand30 spectralClass/frequencyBand31 spectralClass/frequencyBand32 spectralClass/frequencyBand33 spectralClass/frequencyBand34 spectralClass/frequencyBand35 spectralClass/frequencyBand36 spectralClass/frequencyBand37 spectralClass/frequencyBand38 spectralClass/frequencyBand39 spectralClass/frequencyBand40
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation A real number in the range [0,100].

simpleType floatInclusive1000

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation A real number in the range [0,1,000].

simpleType floatInclusive10000

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation

	minInclusive 0 maxInclusive 10000
annotation	documentation A real number in the range [0,10,000].

simpleType **floatInclusive2000**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxInclusive 2000
annotation	documentation A real number in the range [0,2,000].

simpleType **floatInclusive24**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxInclusive 24
annotation	documentation A real number in the range [0,24].

simpleType **floatInclusive4000**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxInclusive 4000
annotation	documentation A real number in the range [0,4,000].

simpleType **floatInclusiveRange1to30**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 1 maxInclusive 30
annotation	documentation A real number in the range [1,30].

simpleType **floatInclusiveRange32to600**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 32 maxInclusive 600
annotation	documentation A real number in the range [32,600].

simpleType **fuelType**

type	restriction of xs:string
properties	base xs:string
used by	elements <u>parkingFacilityOperation/fuelType</u> <u>roadwayOperation/fuelType</u> <u>groundSupportEquipmentPopulationOperation/fuelType</u> <u>groundSupportEquipmentLTOOperation/fuelType</u>
facets	Kind Value Annotation pattern G Gasoline D Diesel C Compressed Natural Gas L Liquefied Petroleum Gas E Electric
annotation	documentation Supports legacy EDMS studies relating to content that contains different types of fuel use. Fuel types can be based on either gasoline, diesel, compressed natural gas, liquid propane gas, or electric based.

simpleType **groundVehicleType**

type	restriction of xs:string
properties	base xs:string
used by	elements <u>parkingFacilityOperation/vehicleType</u> <u>roadwayOperation/vehicleType</u>
facets	Kind Value Annotation pattern 0 Default Fleet Mix 1 Passenger Cars 2 Light Trucks 1 3 Light Trucks 2 4 Light Trucks 3 5 Light Trucks 4 6 Class 2b Heavy Trucks 7 Class 3 Heavy Trucks 8 Class 4 Heavy Trucks 9 Class 5 Heavy Trucks 10 Class 6 Heavy Trucks 11 Class 7 Heavy Trucks 12 Class 8a Heavy Trucks 13 Class 8b Heavy Trucks 14 School Busses 15 Transit and Urban Busses 16 Motorcycle
annotation	documentation Supports legacy EDMS studies relating to the use of ground vehicles.Ground vehicle types can range from fleet mixes, passenger cars, and various light or heavy trucks.

simpleType **int0to23**

type	restriction of xs:int
properties	base xs:int

used by	attribute quarterHourlyProfile/temporalFactor/@startHour
facets	Kind Value Annotation minInclusive 0 maxInclusive 23
annotation	documentation An integer in the range [0,23].

simpleType int0to360

type	restriction of xs:int
properties	base xs:int
used by	elements airportConfig/endWindAngle airportConfig/startWindAngle scenarioAirportLayoutType/windDirection
facets	Kind Value Annotation minInclusive 0 maxExclusive 360
annotation	documentation An integer in the range [0,360].

simpleType int0to5

type	restriction of xs:int
properties	base xs:int
used by	element categoryOther/fuelUnits
facets	Kind Value Annotation minInclusive 0 maxInclusive 5
annotation	documentation An integer in the range [0,5].

simpleType int0to87

type	restriction of xs:int
properties	base xs:int
facets	Kind Value Annotation minInclusive 0 maxInclusive 87
annotation	documentation An integer in the range [0,87].

simpleType int1to13

type	restriction of xs:int
properties	base xs:int
used by	element categorySolventDegreaser/typeCode
facets	Kind Value Annotation minInclusive 1 maxInclusive 13
annotation	documentation An integer in the range [1,13].

simpleType int1to15

type	restriction of xs:int
properties	base xs:int
facets	Kind Value Annotation minInclusive 1 maxInclusive 15
annotation	documentation An integer in the range [1,15].

simpleType int1to2

type	restriction of xs:int
properties	base xs:int
used by	element categoryIncinerator/typeCode
facets	Kind Value Annotation minInclusive 1 maxInclusive 2
annotation	documentation An integer in the range [1,2].

simpleType int1to25

type	restriction of xs:int
properties	base xs:int
used by	element categoryFuelTank/typeCode
facets	Kind Value Annotation minInclusive 1

	maxInclusive 25
annotation	documentation An integer in the range [1,25].

simpleType **int1to4**

type	restriction of xs:int
properties	base xs:int
used by	element categoryDeicingArea/typeCode
facets	Kind Value Annotation minInclusive 1 maxInclusive 4
annotation	documentation An integer in the range [1,4].

simpleType **int1to5**

type	restriction of xs:int
properties	base xs:int
used by	elements categorySandSaltPile/typeCode categoryTrainingFire/typeCode
facets	Kind Value Annotation minInclusive 1 maxInclusive 5
annotation	documentation An integer in the range [1,5].

simpleType **int1to8**

type	restriction of xs:int
properties	base xs:int
used by	elements categoryGenerator/typeCode categorySurfaceCoatingPainting/typeCode
facets	Kind Value Annotation minInclusive 1 maxInclusive 8
annotation	documentation An integer in the range [1,8].

simpleType **int1to93**

type	restriction of xs:int
properties	base xs:int
facets	Kind Value Annotation minInclusive 1 maxInclusive 93
annotation	documentation An integer in the range [1,93].

simpleType **int5to15**

type	restriction of xs:int
properties	base xs:int
used by	element categoryFuelTank/reidVaporPressure
facets	Kind Value Annotation minInclusive 5 maxInclusive 15
annotation	documentation An integer in the range [5,15].

simpleType **int5to65**

type	restriction of xs:int
properties	base xs:int
used by	element roadwayOperation/speed
facets	Kind Value Annotation minInclusive 5 maxInclusive 65
annotation	documentation An integer in the range [5,65].

simpleType **int6to13**

type	restriction of xs:int
properties	base xs:int
facets	Kind Value Annotation minInclusive 6 maxInclusive 13
annotation	documentation An integer in the range [6,13].

simpleType int89to148

type	restriction of xs:int
properties	base xs:int
facets	Kind Value Annotation minInclusive 89 maxInclusive 148
annotation	documentation An integer in the range [89,148].

simpleType latitudeDMSType

type	restriction of xs:string
properties	base xs:string
used by	element latlonCoordGroup/latitudeDMS
facets	Kind Value Annotation pattern [0-9]{2}(\. - ")0-9){2}(\. - ')0-9){2}(\. - >){3})?[N n S s]
annotation	documentation Latitude expressed as dd"mm'sss with optional indicator N, n, S, s. (degrees)

simpleType longitudeDMSType

type	restriction of xs:string
properties	base xs:string
used by	element latlonCoordGroup/longitudeDMS
facets	Kind Value Annotation pattern [0-9]{2}(\. - ")0-9){2}(\. - ')0-9){2}(\. - >){3})?[E e]W w]
annotation	documentation Longitude expressed as dd"mm'sss with optional indicator N, n, S, s. (degrees)

simpleType nodeControlType

type	restriction of xs:string
properties	base xs:string
used by	attributes trackNode/altitude/@control trackNode/speed/@control
facets	Kind Value Annotation pattern 0 None 1 AtOrBelow 2 Match 3 AtOrAbove
annotation	documentation Type of altitude clearance at this point.

simpleType opType

type	restriction of xs:string
properties	base xs:string
used by	element operation/opType
facets	Kind Value Annotation pattern A Arrival D Departure V Overflight F Circuit T TouchAndGo R Runup W RunwayToRunway L LTO LandingTakoff X Taxi
annotation	documentation Type of operation.

simpleType originSourceType

type	restriction of xs:string
properties	base xs:string
used by	elements polarGrid/originSource polarReceptor/originSource
facets	Kind Value Annotation pattern Gate Parking Facility Roadway Runway Stationary Source Taxiway Training Fire
annotation	documentation Supports the polarReceptor source type. Original source type can be either gate, parking facility, roadway, runway, stationary source, taxiway, and training fire.

simpleType profileType

type	string255
properties	base string255
used by	elements profiles/arrivalProfile operation/badaProfile profiles/departureProfile operation/saeProfile
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation An aircraft's flight profile.

simpleType quarterHourMinutes

type	restriction of xs:int
properties	base xs:int
used by	attribute quarterHourlyProfile/temporalFactor/@startMinutes

	facets	Kind Value Annotation enumeration 0 enumeration 15 enumeration 30 enumeration 45
	annotation	documentation Either 0, 15, 30, or 45.

simpleType **spectralClassId**

	type	restriction of xs:short
	properties	base xs:short
	used by	element spectralClass/spectralClassId
	facets	Kind Value Annotation minInclusive 20000 maxInclusive 30000
	annotation	documentation User-defined Spectral Class ID in the range 20,000 to 30,000 - inclusive.

simpleType **spectralFlightType**

	type	restriction of xs:string
	properties	base xs:string
	used by	element spectralClass/flightTypes
	facets	Kind Value Annotation pattern A D L AD AL DL ADL U
	annotation	documentation Flags indicating allowable flight types - A (arrival), D (departure), L (Level/Afterburner), U (Unknown).

simpleType **string1**

	type	restriction of xs:string
	properties	base xs:string
	used by	elements operation/arrivalStageLength operation/departureStageLength airframe/designationCode airframe/engineLocation airframe/engineType anpTscCoefficients/mode anpNoiseGroup/modelType anpHelicopter/modelType anpHeloProfile/operationType anpHeloProcedureStep/operationType anpFlaps/operationType anpProfile/operationType bada4Profile/operationType anpHeloDirectivity/opMode anpProfilePoint/opMode anpHeloProfile/profileStageLength anpHeloProcedureStep/profileStageLength anpProfile/profileStageLength airframe/sizeCode operation/stageLength anpHeloProcedureStep/stepType anpProcedureStep/stepType bada4ProcedureStep/stepType anpNoiseGroup/thrustSetType anpThrustGeneral/thrustType anpThrustJet/thrustType anpThrustProp/thrustType anpProcedureStep/thrustType bada4ProcedureStep/thrustType airframe/usageCode bada4Profile/weightClass
	facets	Kind Value Annotation minLength 0 maxLength 1
	annotation	documentation A string up to one character long.

simpleType **string10**

	type	restriction of xs:string
	properties	base xs:string
	used by	elements badaConfig/configName aircraftEngine/superseded
	facets	Kind Value Annotation minLength 0 maxLength 10
	annotation	documentation A string up to 10 characters long.

simpleType **string100**

	type	restriction of xs:string
	properties	base xs:string
	used by	elements operation/activityProfile airportConfig/configurationName activityProfile/dailyProfile aircraftEngine/manufacturer activityProfile/monthlyProfile airport/name quarterHourlyProfile/profileName dailyProfile/profileName monthlyProfile/profileName activityProfile/quarterHourlyProfile aircraftEngine/source airport/zone attribute activityProfile/@name
	facets	Kind Value Annotation minLength 0 maxLength 100
	annotation	documentation A string up to 100 characters long.

simpleType **string11**

	type	restriction of xs:string
	properties	base xs:string
	used by	elements windRoseStation/calmCriteria windRoseStation/endDayMonth windRoseStation/userString
	facets	Kind Value Annotation minLength 0 maxLength 11

simpleType **string12**

	type	restriction of xs:string
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properties	base xs:string
used by	elements badaProfile/aircraftVersion windRoseStation/beginDayMonth badaProfile/engine_operation/userType
facets	Kind Value Annotation minLength 0 maxLength 12
annotation	documentation A string up to 12 characters long.

simpleType string14

type	restriction of xs:string
properties	base xs:string
used by	element windRoseData/directionRange
facets	Kind Value Annotation minLength 0 maxLength 14

simpleType string15

type	restriction of xs:string
properties	base xs:string
used by	elements badaProfile/companyName airport/faald
facets	Kind Value Annotation minLength 0 maxLength 15
annotation	documentation A string up to 15 characters long.

simpleType string16

type	restriction of xs:string
properties	base xs:string
used by	elements nodeIdGroup/description operation/flightNumber runup/flightNumber case/hourlyWxMD5 operation/id runup/id nodeIdGroup/id operation/userParam attribute AsifXml/@version
facets	Kind Value Annotation minLength 0 maxLength 16
annotation	documentation A string up to 16 characters long.

simpleType string2

type	restriction of xs:string
properties	base xs:string
used by	elements badaProfile/companyCode2 airframe/euroGroupCode badaProfile/massRangeValue
facets	Kind Value Annotation minLength 0 maxLength 2
annotation	documentation A string up to two characters long.

simpleType string20

type	restriction of xs:string
properties	base xs:string
used by	elements groundSupportEquipmentGateAssignment/gate taxiway/name taxipath/taxiwayName
facets	Kind Value Annotation minLength 0 maxLength 20
annotation	documentation A string up to 20 characters long.

simpleType string200

type	restriction of xs:string
properties	base xs:string
used by	element aircraftEngine/notes
facets	Kind Value Annotation minLength 0 maxLength 200
annotation	documentation A string up to 200 characters long.

simpleType string25

type	restriction of xs:string
properties	base xs:string
used by	elements aircraftEngine/emissionsEngineModel airport/facilityType aircraftEngine/performanceEngineModel airportWeatherStation/weatherStationName

facets	Kind Value Annotation minLength 0 maxLength 25
annotation	documentation A string up to 25 characters long.

simpleType **string255**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraftType/airframeModel trackref/airportLayoutName scenarioAirportLayoutType/airportLayoutName study/description scenario/description anpAirplane/description anpHelicopter/description case/description aircraftEngineMod/description aircraft/description categoryAircraftEngine/engineCode aircraftType/engineCode bada4Profile/flightProcedure case/hourlyWxFile badaAirplane/mfgDescription building/name study/name scenario/name receptorSet/name pointReceptor/name airportLayoutType/name annualizationCase/name annualization/name case/name badaThrust/notes anpHeloProfile/profileGroupId anpHeloProcedureStep/profileGroupId anpProfile/profileGroupId case/reference/refCase case/reference/refScenario sensorNode/source study/terrainFiles trackref/trackName simpleType profileType
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation A string up to 255 characters long.

simpleType **string3**

type	restriction of xs:string
properties	base xs:string
used by	element badaProfile/companyCode1 attribute airportCode/@country
facets	Kind Value Annotation minLength 0 maxLength 3
annotation	documentation A string up to three characters long.

simpleType **string30**

type	restriction of xs:string
properties	base xs:string
facets	Kind Value Annotation minLength 0 maxLength 30
annotation	documentation A string up to 30 characters long.

simpleType **string32**

type	restriction of xs:string
properties	base xs:string
used by	element windRoseStation/windRoseDataSource
facets	Kind Value Annotation minLength 0 maxLength 32
annotation	documentation

simpleType **string4**

type	restriction of xs:string
properties	base xs:string
used by	element operation/carrier complexType airportCode
facets	Kind Value Annotation minLength 0 maxLength 4
annotation	documentation A string up to four characters long.

simpleType **string40**

type	restriction of xs:string
properties	base xs:string
used by	elements groundSupportEquipmentPopulationOperation/activityProfile emissionsUsage/activityProfile operation/arrivalGate operation/departureGate taxiPath/gateName userGroundSupportEquipment/gseName gate/name stationarySource/name parkingFacility/name roadway/name polarGrid/originName polarReceptor/originName stationarySourceOperation/refName parkingFacilityOperation/refName roadwayOperation/refName
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation A string up to 40 characters long.

simpleType **string42**

type	restriction of xs:string
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properties	base xs:string
used by	element windRoseStation/windRoseStationDescription
facets	Kind Value Annotation minLength 0 maxLength 42

simpleType **string5**

type	restriction of xs:string
properties	base xs:string
used by	elements airportWeatherStation/wbanId airportWeatherStation/weatherStationCode windRose/windRoseStationId windRoseStation/windRoseStationId
facets	Kind Value Annotation minLength 0 maxLength 5

simpleType **string50**

type	restriction of xs:string
properties	base xs:string
used by	elements airport/cityName aircraftEngine/combustor airport/state aircraftEngine/tfmtFlag
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation A string up to 50 characters long.

simpleType **string6**

type	restriction of xs:string
properties	base xs:string
used by	elements centroid/bnald airportWeatherStation/cooperativeld taxiTime/source
facets	Kind Value Annotation minLength 0 maxLength 6
annotation	documentation A string up to six characters long.

simpleType **string64**

type	restriction of xs:string
properties	base xs:string
used by	element track/name
facets	Kind Value Annotation minLength 0 maxLength 64
annotation	documentation A string up to 64 characters long.

simpleType **string66**

type	restriction of xs:string
properties	base xs:string
used by	element windRoseStation/windRoseDataSet
facets	Kind Value Annotation minLength 0 maxLength 66

simpleType **string7**

type	restriction of xs:string
properties	base xs:string
used by	element airport/dafifId
facets	Kind Value Annotation minLength 0 maxLength 7

simpleType **string8**

type	restriction of xs:string
properties	base xs:string
used by	elements operation/arrivalRunway case/climateId operation/departureRunway climate/identifier runwayEnd/name track/runway runwayAssignment/runway trackref/runway taxiPath/runwayName operation/tailNumber/runup/tailNumber
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation A string up to eight characters long.

simpleType string9

type	restriction of xs:string
properties	base xs:string
used by	element windRoseStation/directionUnit
facets	Kind Value Annotation minLength 0 maxLength 9

simpleType studyType

type	restriction of xs:string
properties	base xs:string
used by	element study/studyType
facets	Kind Value Annotation enumeration Emissions enumeration Dispersion enumeration Noise and Emissions enumeration Noise and Dispersion
annotation	documentation Type of study. NOTE: AEDT only supports the Noise and Emissions value.

simpleType taxiModelType

type	restriction of xs:string
properties	base xs:string
used by	element scenario/taxiModel
facets	Kind Value Annotation enumeration UserSpecified enumeration Delayed enumeration Sequencing
annotation	documentation Type of taxi modeling.

simpleType timeInModeBasisType

type	restriction of xs:string
properties	base xs:string
used by	element scenario/timeInModeBasis
facets	Kind Value Annotation enumeration Performance enumeration ICAO
annotation	documentation Time in mode can either be based on ICAO or performance.

simpleType trackType

type	restriction of xs:string
properties	base xs:string
used by	elements track/optype trackref/optype
facets	Kind Value Annotation pattern A Arrival D Departure V Overflight T TouchAndGo X ArrivalHeliTaxi O DepartureHeliTaxi
annotation	documentation Type of track.

simpleType trainingFireFuelType

type	restriction of xs:string
properties	base xs:string
facets	Kind Value Annotation pattern JP-4 JP-5 JP-8 Propane Tekflame
annotation	documentation Supports legacy EDMS studies relating to training fire content. Training fire fuel types can be either JP-4, JP-5, JP-8, propane, or tekflame.

simpleType vectorTrackType

type	restriction of xs:string
properties	base xs:string
used by	element trackVector/type
facets	Kind Value Annotation pattern S Straight L LeftTurn R RightTurn
annotation	documentation Type of vector.

simpleType weatherDataYear

type	union of (restriction of xs:int , restriction of xs:string)
used by	element weatherData/year

annotation documentation

There are expected to be 11 records for weather data - one each for the preceding 10 years and one AVG record for the Average of the ten years.

simpleType wingType

type	restriction of xs:string
properties	base xs:string
used by	element track/wingtype
facets	Kind Value Annotation pattern F FixedWing R RotaryWing
annotation	documentation Type of wing. If not specified, AEDT attempts to determine the wing type based on the optype.

simpleType yesNoType

type	restriction of xs:string
properties	base xs:string
used by	elements anpHelicopter/hasWheels anpAirplane/thrustRestore anpHeloProfile/useDirectivity anpHeloProfile/useTrack
facets	Kind Value Annotation pattern Yes Y No N

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