



U.S. Department
of Transportation
**Federal Aviation
Administration**

Aviation Environmental Design Tool (AEDT)

Version 2d

AEDT Standard Input File (ASIF)

Reference Guide

September 2017



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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 update existing AEDT studies.

This guide provides a description of the ASIF format for the ASIF schema version 1.2.13. It also provides an overview of ASIF usage and annotated sample studies. The guide 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 guide. 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

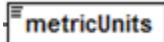
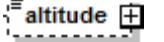
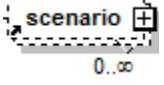
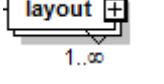
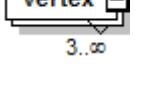
The ASIF schema (.xsd) files are located under *C:\Program Files\FAA\AEDT\Examples* directory.

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

The ASIF schema documentation, [AsifMerge.html](#), is located under the *C:\Program Files\FAA\AEDT\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 Guide 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 file 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. There are twelve data types that can compose a partial ASIF:

- 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="1.2.13"
           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 ASIF Files

Sample ASIF files, including full study files and partial ASIF files, are located in *C:\Program Files\FAA\AEDT\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

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 develop an ASIF for a simple study:

1. Create an empty study file.
2. Populate the airport section.
3. Create receptor set.
4. Create 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.

Step 1: Create empty study file

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

```
<AsifXml version="1.2.13" 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>

  <!-- Optional - Set the boundaries of the study area -->
  <boundary>
    <polygon>
      <vertex>
        <latitude>40.636993970695244</latitude>
        <longitude>-89.21758333055047</longitude>
      </vertex>
      <vertex>
        <latitude>40.636993970695244</latitude>
        <longitude>-86.59119444944956</longitude>
      </vertex>
      <vertex>
        <latitude>43.3047921364604</latitude>
```

```
<longitude>-86.53522348936178</longitude>
</vertex>
<vertex>
  <latitude>43.3047921364604</latitude>
  <longitude>-89.27355429063823</longitude>
</vertex>
</polygon>
</boundary>

<!-- Add airport layouts here -->

<!-- Add receptors here -->

<!-- Add scenarios here -->

</study>
</AsifXml>
```

Step 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, KORD is defined using system runways, and KMDW is defined using user-defined runways.

```
<airportLayoutSet>

  <airportLayout>
    <!-- Airport with no runway tags will import runways from the AEDT system
    data. -->
    <airportCode type="ICAO">KORD</airportCode>
  </airportLayout>

  <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 -->
        </runwayEnd>
      </runway>
    </runwaySet>
  </airportLayout>
```

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

Step 3: Create receptor set

If the study includes noise or dispersion analysis, then one or more **receptorSet** elements must be created. 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>
```

Step 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_1990</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>
    <scenarioAirportLayout>
      <airportLayoutName>KORD</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>PlanB</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>
```

Step 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>DJM04R_EON.10803</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>

      <!-- 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 -->
    <flightNumber>CKE545</flightNumber>

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

    <!-- user-defined parameter data -->
    <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>
```

Step 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 scenario annualalization name -->
  <name>Alternative.config</name>

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

    <!-- Define rollout weight for this group -->
    <weight>2.0</weight>

    <annualizationGroup>
      <weight>0.7</weight>

      <!-- Associate scenario case with this annualization group -->
      <annualizationCase>

        <!-- Specify case name to include -->
        <name>PlanB</name>

        <!-- Define rollout weight for this case -->
        <weight>1.0</weight>

      </annualizationCase>
    </annualizationGroup>
  </annualizationGroup>
</annualization>
```

Step 7: Full ASIF

The full study ASIF is as follows:

```
<AsifXml version="1.2.13" 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>
```

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

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

<!-- Optional - Set the boundaries of the study area -->
<boundary>
  <polygon>
    <vertex>
      <latitude>40.636993970695244</latitude>
      <longitude>-89.21758333055047</longitude>
    </vertex>
    <vertex>
      <latitude>40.636993970695244</latitude>
      <longitude>-86.59119444944956</longitude>
    </vertex>
    <vertex>
      <latitude>43.3047921364604</latitude>
      <longitude>-86.53522348936178</longitude>
    </vertex>
    <vertex>
      <latitude>43.3047921364604</latitude>
      <longitude>-89.27355429063823</longitude>
    </vertex>
  </polygon>
</boundary>

<airportLayoutSet>
  <airportLayout>
    <!-- Airport with no runway tags will import runways from the AEDT system
data. -->
    <airportCode type="ICAO">KORD</airportCode>
  </airportLayout>

  <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>
        </runwayEnd>
      </runway>
    </runwaySet>
  </airportLayout>
</airportLayoutSet>
```

```
<!-- 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>
<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_1990</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>A sample scenario</description>

<!-- List of airports to use for the scenario -->
<scenarioAirportLayoutSet>
  <scenarioAirportLayout>
    <airportLayoutName>KMDW</airportLayoutName>
  </scenarioAirportLayout>
  <scenarioAirportLayout>
    <airportLayoutName>KORD</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>PlanB</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>DJM04R_EON.10803</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 -->
        <flightNumber>CKE545</flightNumber>

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

```
<!-- user-defined parameter data -->
<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 scenario annualization name -->
<name>Alternative.config</name>

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

    <!-- Define rollout weight for this group -->
    <weight>2.0</weight>

    <annualizationGroup>
        <weight>0.7</weight>

    <!-- Associate scenario case with this annualization group -->
    <annualizationCase>

        <!-- Specify case name to include -->
        <name>PlanB</name>

        <!-- Define rollout weight for this case -->
        <weight>1.0</weight>

    </annualizationCase>
    </annualizationGroup>
</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, it requires data on stationary sources and airport features.

1. Create an empty study file.
2. Populate the airport section.
 - a. Basic airport layout
 - 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
5. Create annualization.

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

Step 1: Create empty study file

```
<?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="1.2.13"
  content="study">

<study>
  <name>emissions_sample_asif_short</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>
```

Step 2: Populate airport layouts section

AEDT requires all airports in the study area to be declared. In addition to runways, declare stationary sources of emissions, such as generators, training fires, or boilers in this section. Also declare gates, terminals, and taxiways.

This sample demonstrates a simple case similar to the STUDY_PVD study included with AEDT installation. This sample uses simplified taxiway definitions, a single runway, and a single aircraft type.

Step 2a: Declare basic airport layout

The basic airport information and surrounding buildings can be defined according to the following example.

```
<airportLayoutSet>
  <airportLayout>
    <name>Baseline-Theodore Francis Green State-2004</name>
    <airportCode type="ICAO">KPVD</airportCode>
    <!-- Start date of the study-->
    <startDate>2004-01-01</startDate>
    <!--Elevation of the airport above MSL in feet-->
    <elevation>55</elevation>
    <latitude>41.723999</latitude>
    <longitude>-71.428221</longitude>
    <buildingSet>
      <building>
        <!--Name of the building-->
        <name>Terminal</name>
        <!--Elevation of the building in meters-->
        <elevation>16.764</elevation>
        <!--Height of building in meters-->
        <height>0</height>
        <polygonCoords>
          <vertex>
            <latitude>41.74214308945087</latitude>
            <longitude>-71.413044097333525</longitude>
          </vertex>
          <vertex>
            <latitude>41.7418685788759</latitude>
            <longitude>-71.4124212593739</longitude>
          </vertex>
          <vertex>
            <latitude>41.742856388006238</latitude>
            <longitude>-71.411523291021965</longitude>
          </vertex>
          <vertex>
            <latitude>41.743130903444673</latitude>
            <longitude>-71.4121461346995</longitude>
          </vertex>
        </polygonCoords>
      </building>
    </buildingSet>
```

Step 2b: Create 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 gives the declaration for a simple emergency generator.

```
<stationarySourceSet>
  <stationarySource>
    <!-- Name of the stationary source -->
    <name>Emergency Generator-Baseline-KPVD-2004</name>
    <pointStationarySource>
      <pointCoord>
```

```
<!-- Lat/lon coordinates-->
<latitude>41.743248909982285</latitude>
<longitude>-71.41216809054572</longitude>
</pointCoord>
<!--Elevation in meters-->
<baseElevation>16.764</baseElevation>
<!-- Release height in meters-->
<releaseHeight>12.192</releaseHeight>
<!-- Velocity of release gas in meters/sec-->
<gasVelocity>15</gasVelocity>
<!-- Diameter of stack where gas escapes the source in meters-->
<stackDiameter>0.100584</stackDiameter>
<!-- Temperature at point in Fahrenheit-->
<temperature>400</temperature>
</pointStationarySource>
<categoryGenerator>
<!-- Type code of object-->
<typeCode>2</typeCode>
<!-- Horsepower rating-->
<powerRatingHorsepower>1340</powerRatingHorsepower>
<!-- Emissions factors-->
<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>
<!-- Percent of emissions removed by pollution control measures-->
<pollutionControlFactorTOC>0</pollutionControlFactorTOC>
<pollutionControlFactorCO>0</pollutionControlFactorCO>
<pollutionControlFactorNOx>0</pollutionControlFactorNOx>
<pollutionControlFactorSOx>0</pollutionControlFactorSOx>
<pollutionControlFactorPM10>0</pollutionControlFactorPM10>
<pm25ToPm10Ratio>1</pm25ToPm10Ratio>
</categoryGenerator>
</stationarySource>
</stationarySourceSet>
```

Step 2c: 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. This example declares a terminal which is defined by a set of latitude and longitude coordinates.

```
<gateSet>
<gate>
<name>AC</name>
<!-- Elevation of the gate in meters-->
<elevation>16.76</elevation>
<releaseHeight>1.499616</releaseHeight>
<!-- Horizontal dispersion parameter-->
<sigmaY>0.1</sigmaY>
<!-- Vertical dispersion parameter-->
<sigmaZ>0.1</sigmaZ>
<polygonCoords>
<!-- Coordinates of gate vertices-->
<vertex>
<latitude>41.745139411257995</latitude>
```

```
<longitude>-71.41015590887973</longitude>
</vertex>
<vertex>
<latitude>41.744540948170368</latitude>
<longitude>-71.408847926936545</longitude>
</vertex>
<vertex>
<latitude>41.739914698948347</latitude>
<longitude>-71.412700203804789</longitude>
</vertex>
<vertex>
<latitude>41.740535077331714</latitude>
<longitude>-71.414048427453068</longitude>
</vertex>
<vertex>
<latitude>41.74214308945087</latitude>
<longitude>-71.413044097333525</longitude>
</vertex>
<vertex>
<latitude>41.741863092355707</latitude>
<longitude>-71.4124359172483</longitude>
</vertex>
<vertex>
<latitude>41.743155492229967</latitude>
<longitude>-71.411380309528937</longitude>
</vertex>
<vertex>
<latitude>41.743501289605305</latitude>
<longitude>-71.411515795554152</longitude>
</vertex>
</polygonCoords>
</gate>
</gateSet>
```

Step 2d: Declare 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.

```
<taxiwaySet>
<taxiway>
<name>AC to 23</name>
<!-- Width of emmission dispersion around taxiway in meters-->
<dispersionWidth>20</dispersionWidth>
<taxiNodeSet>
<taxiNode>
<latitude>41.742510605080867</latitude>
<longitude>-71.411486738878608</longitude>
<!-- Elevation in meters)-->
<elevation>16.76</elevation>
<!-- Speed of aircraft at node in meters/sec-->
<speed>17.26</speed>
</taxiNode>
<taxiNode>
<latitude>41.746840990965104</latitude>
```

```
<longitude>-71.397780701297123</longitude>
<elevation>16.76</elevation>
<speed>17.26</speed>
</taxiNode>
</taxiNodeSet>
</taxiway>
<taxiway>
<name>AC to 5</name>
<dispersionWidth>20</dispersionWidth>
<taxiNodeSet>
<taxiNode>
<latitude>41.742510605080867</latitude>
<longitude>-71.411486738878608</longitude>
<elevation>16.76</elevation>
<speed>17.26</speed>
</taxiNode>
<taxiNode>
<latitude>41.730402908060768</latitude>
<longitude>-71.411541169494924</longitude>
<elevation>16.76</elevation>
<speed>17.26</speed>
</taxiNode>
</taxiNodeSet>
</taxiway>
</taxiwaySet>
```

Step 2e: Create runways

Runways are used by departing and arriving aircraft, and are linked by taxiways. A runway in AEDT is defined using two runway ends.

```
<runwaySet>
<runway>
<!-- Length of runway in feet--&gt;
&lt;length&gt;7069&lt;/length&gt;
<!-- Width of runway in feet--&gt;
&lt;width&gt;150&lt;/width&gt;
&lt;runwayEnd&gt;
&lt;name&gt;05&lt;/name&gt;
&lt;latitude&gt;41.730402908060768&lt;/latitude&gt;
&lt;longitude&gt;-71.411541169494924&lt;/longitude&gt;
<!-- Elevation of the runway in feet--&gt;
&lt;elevation&gt;54.986875960838894&lt;/elevation&gt;
<!-- Glide slope for runway's endpoint in degrees--&gt;
&lt;glideSlope&gt;3&lt;/glideSlope&gt;
&lt;/runwayEnd&gt;
&lt;runwayEnd&gt;
&lt;name&gt;23&lt;/name&gt;
&lt;latitude&gt;41.746840990965104&lt;/latitude&gt;
&lt;longitude&gt;-71.397780701297123&lt;/longitude&gt;
&lt;elevation&gt;54.986875960838894&lt;/elevation&gt;
&lt;glideSlope&gt;3&lt;/glideSlope&gt;
&lt;/runwayEnd&gt;
&lt;/runway&gt;
&lt;/runwaySet&gt;</pre>
```

Step 2f: Assemble taxipaths

Taxipaths are a series of taxiways that guide an aircraft from a gate to a runway. In this example, simple two-point taxiways are used to connect the gate and the runway. In other studies, taxipaths can be composed of multiple taxiway line segments, and separate taxipaths may share taxiways in common as paths across the airport.

```
<taxipathSet>
  <taxipath>
    <!-- Name of the gate associated with the path-->
    <gateName>AC</gateName>
    <!-- Name of the runway associated with the path-->
    <runwayName>05</runwayName>
    <!-- Traffic direction-->
    <direction>Outbound</direction>
    <!-- Name of the taxiways in the path-->
    <taxiwayName>AC to 5</taxiwayName>
  </taxipath>
  <taxipath>
    <gateName>AC</gateName>
    <runwayName>05</runwayName>
    <direction>Inbound</direction>
    <taxiwayName>AC to 5</taxiwayName>
  </taxipath>
  <taxipath>
    <gateName>AC</gateName>
    <runwayName>23</runwayName>
    <direction>Outbound</direction>
    <taxiwayName>AC to 23</taxiwayName>
  </taxipath>
  <taxipath>
    <gateName>AC</gateName>
    <runwayName>23</runwayName>
    <direction>Inbound</direction>
    <taxiwayName>AC to 23</taxiwayName>
  </taxipath>
</taxipathSet>
```

Step 2g: 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). Each track is made up of nodes and defined for a runway. The following example provides the structure for one track – a full study must have at least one track defined for each operation type, runway, and wing type of aircraft in the study.

```
<trackSet>
  <track>
    <name>05_A_FixedWing</name>
    <!-- Operation type for the track; arrival (A), departure (D), or touch
    & go (T)-->
    <optype>A</optype>
    <!-- Wing type; fixed (F) or rotary (R)-->
    <wingtype>F</wingtype>
    <airport type="ICAO">KPVD</airport>
    <runway>05</runway>
    <subtrack>
```

```
<!-- ID of the subtrack-->
<id>0</id>
<!-- Dispersion of traffic across this subtrack-->
<dispersionWeight>1</dispersionWeight>
<trackNodes>
    <!-- Nodes that make up this track-->
    <trackNode>
        <latitude>40.328096427261926</latitude>
        <longitude>-72.555207007324171</longitude>
    </trackNode>
    <trackNode>
        <latitude>41.730402908060768</latitude>
        <longitude>-71.411541169494924</longitude>
    </trackNode>
    <trackNode>
        <latitude>41.746840990965104</latitude>
        <longitude>-71.397780701297123</longitude>
    </trackNode>
</trackNodes>
</subtrack>
</track>
```

Step 2h: Create airport configurations

Airport configurations give the number of arrivals and departures per hour, and the distribution of flights across associated runways. A single configuration is used in the following example, but multiple configurations could be used in a study.

```
<airportConfigSet>
    <airportConfig>
        <configurationName>Configuration</configurationName>
        <!-- Flag to use an operation distribution-->
        <useDistribution>false</useDistribution>
        <airportCapacity>
            <!-- Pareto curve points for airport operations-->
            <capacityPoint>
                <arrivalsPerHour>27</arrivalsPerHour>
                <departuresPerHour>52</departuresPerHour>
            </capacityPoint>
            <capacityPoint>
                <arrivalsPerHour>52</arrivalsPerHour>
                <departuresPerHour>27</departuresPerHour>
            </capacityPoint>
        </airportCapacity>
        <runwayAssignmentSet>
            <runwayAssignment>
                <!-- Aircraft size for assignments; small (S), large (L),
                or heavy (H)-->
                <aircraftSize>S</aircraftSize>
                <runway>23</runway>
                <!-- Percent of arrival operations on runway; all arrival
                percentages must sum to 100%-->
                <arrivalPercentage>60</arrivalPercentage>
                <!-- Percent of departure operations on runway; all departure
                percentages must sum to 100%-->
```

```
<departurePercentage>60</departurePercentage>
<!-- Percent of touch & go operations on runway; all touch & go
percentages must sum to 100%-->
<tgoPercentage>60</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
<aircraftSize>S</aircraftSize>
<runway>05</runway>
<arrivalPercentage>40</arrivalPercentage>
<departurePercentage>40</departurePercentage>
<tgoPercentage>40</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
<aircraftSize>L</aircraftSize>
<runway>23</runway>
<arrivalPercentage>60</arrivalPercentage>
<departurePercentage>60</departurePercentage>
<tgoPercentage>60</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
<aircraftSize>L</aircraftSize>
<runway>05</runway>
<arrivalPercentage>40</arrivalPercentage>
<departurePercentage>40</departurePercentage>
<tgoPercentage>40</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
<aircraftSize>H</aircraftSize>
<runway>23</runway>
<arrivalPercentage>60</arrivalPercentage>
<departurePercentage>60</departurePercentage>
<tgoPercentage>60</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
<aircraftSize>H</aircraftSize>
<runway>05</runway>
<arrivalPercentage>40</arrivalPercentage>
<departurePercentage>40</departurePercentage>
<tgoPercentage>40</tgoPercentage>
</runwayAssignment>
</runwayAssignmentSet>
</airportConfig>
</airportConfigSet>
```

Step 2i: Declare operational profiles

Three profiles are required when using operational profiles in AEDT – quarter-hourly, daily, and monthly. These profiles provide a weighting factor that determines how often activity occurs during the time period. Aircraft, stationary sources, and ground vehicles can all be assigned operational profiles. For this example, the same three profiles are being used for all vehicles, but in practice profiles will differ for GSEs, aircraft, and 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>Example Quarter-Hour-Baseline-KPVD</profileName>
    <!-- Weighting of operations at this time bin-->
    <temporalFactor startHour="0" startMinutes="0">0.1777</temporalFactor>
    <temporalFactor startHour="0" startMinutes="15">0.1777</temporalFactor>
    <temporalFactor startHour="0" startMinutes="30">0.1777</temporalFactor>
    <temporalFactor startHour="0" startMinutes="45">0.1777</temporalFactor>
    <temporalFactor startHour="1" startMinutes="0">0.0967</temporalFactor>

  ...
  </quarterHourlyProfile>
</quarterHourlyProfileSet>

<dailyProfileSet>
  <dailyProfile>
    <profileName>Example Daily-Baseline-KPVD</profileName>
    <temporalFactorSunday>0.7939</temporalFactorSunday>
    <temporalFactorMonday>0.9916</temporalFactorMonday>
    <temporalFactorTuesday>0.9867</temporalFactorTuesday>
    <temporalFactorWednesday>1</temporalFactorWednesday>
    <temporalFactorThursday>0.9245</temporalFactorThursday>
    <temporalFactorFriday>0.8743</temporalFactorFriday>
    <temporalFactorSaturday>0.7887</temporalFactorSaturday>
  </dailyProfile>
</dailyProfileSet>

<monthlyProfileSet>
  <monthlyProfile>
    <profileName>Example Monthly-Baseline-KPVD</profileName>
    <temporalFactorJanuary>0.6265</temporalFactorJanuary>
    <temporalFactorFebruary>0.6791</temporalFactorFebruary>
    <temporalFactorMarch>0.775</temporalFactorMarch>
    <temporalFactorApril>0.8322</temporalFactorApril>
    <temporalFactorMay>0.8741</temporalFactorMay>
    <temporalFactorJune>0.9033</temporalFactorJune>
    <temporalFactorJuly>1</temporalFactorJuly>
    <temporalFactorAugust>0.9876</temporalFactorAugust>
    <temporalFactorSeptember>0.7994</temporalFactorSeptember>
    <temporalFactorOctober>0.9428</temporalFactorOctober>
    <temporalFactorNovember>0.8522</temporalFactorNovember>
    <temporalFactorDecember>0.7806</temporalFactorDecember>
  </monthlyProfile>
</monthlyProfileSet>

<activityProfileSet>
  <activityProfile name="ActivityProfile-Baseline-KPVD-6-5-6">
    <quarterHourlyProfile>Example Quarter-Hour-Baseline-
    KPVD</quarterHourlyProfile>
    <dailyProfile>Example Daily-Baseline-KPVD</dailyProfile>
    <monthlyProfile>Example Monthly-Baseline-KPVD</monthlyProfile>
  </activityProfile>
</activityProfileSet>
```

Step 3: Create receptor set

The receptor set defines a set of points or a grid in which noise or emission concentrations will be modeled. One or more **receptorSet** is required in order to generate emissions dispersion results.

```
<receptorSet>
  <name>CartesianReceptors-Baseline-KPVD</name>
  <pointReceptor>
    <name>01</name>
    <latitude>41.75569223042968</latitude>
    <longitude>-71.401734633637048</longitude>
    <!-- Elevation above MSL in feet-->
    <elevation>54.986875960838894</elevation>
    <!-- Height of the receptor above ground in feet-->
    <receptorHeight>5.9099999269584984</receptorHeight>
  </pointReceptor>
  <pointReceptor>
    <name>01D</name>
    <latitude>41.732126660490067</latitude>
    <longitude>-71.4141821642798</longitude>
    <elevation>54.986875960838894</elevation>
    <receptorHeight>5.9099999269584984</receptorHeight>
  </pointReceptor>
  <pointReceptor>
    <name>01S</name>
    <latitude>41.762630555759486</latitude>
    <longitude>-71.386077230440634</longitude>
    <elevation>54.986875960838894</elevation>
    <receptorHeight>5.9099999269584984</receptorHeight>
  </pointReceptor>
</receptorSet>
```

Step 4: Create scenario and case hierarchy

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

Step 4a: Define airport scenario properties

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

```
<scenario>
  <name>2004-Baseline</name>
  <!-- Scenario start time-->
  <startTime>2004-01-01T00:00:00</startTime>
  <!-- Scenario duration in hours-->
  <duration>8760</duration>
  <!-- Taxi model type for scenario-->
  <taxiModel>Sequencing</taxiModel>
  <!-- Time in mode; either Performance or ICAO-->
  <timeInModeBasis>Performance</timeInModeBasis>
  <!-- Aircraft performance model-->
  <acftPerfModel>SAE1845</acftPerfModel>
  <!-- Flag to include bank angle calculations-->
  <bankAngle>false</bankAngle>
  <!-- Portion of fuel that becomes sulfuric acid when combusted-->
  <sulfurConversionRate>0.005</sulfurConversionRate>
```

```
<description>A sample emissions study scenario</description>
<scenarioAirportLayoutSet>
  <scenarioAirportLayout>
    <airportLayoutName>Baseline-Theodore Francis Green State-2004
    </airportLayoutName>
    <!-- Height where vigorous mixing of gases takes place, in feet-->
    <mixingHeight>2226</mixingHeight>
    <!-- Flag to use hourly meteorological data, rather than
    annual averages-->
    <useHourlyMetData>true</useHourlyMetData>
    <!-- Average temperature in Fahrenheit-->
    <averageTemperature>50.4</averageTemperature>
    <!-- Average daily high temperature in Fahrenheit-->
    <dailyHighTemperature>69.35</dailyHighTemperature>
    <!-- Average daily low temperature in Fahrenheit-->
    <dailyLowTemperature>48.65</dailyLowTemperature>
    <!-- Average barometric pressure in inches Hg.-->
    <pressure>29.92</pressure>
    <!-- Average barometric pressure at MSL in inches Hg.-->
    <pressureMSL>29.92</pressureMSL>
    <!-- Relative humidity percentage-->
    <humidity>60</humidity>
    <!--Wind speed at surface-->
    <windSpeed>8</windSpeed>
    <!-- Wind direction in degrees-->
    <windDirection>0</windDirection>
    <!--Ceiling in feet-->
    <ceiling>99999.99</ceiling>
    <!--Visibility in miles-->
    <visibility>50</visibility>
  </scenarioAirportLayout>
</scenarioAirportLayoutSet>
```

Step 4b: Define the case for non-aircraft operations

This study contains two cases. The first case contains non-aircraft operations (i.e., stationary source operations and GSE populations). The second case contains aircraft operations and GSEs specifically 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.

```
<case>
  <caseId>-1623425151</caseId>
  <name>2004_Baseline_Theodore Francis Green State_NonAircraft</name>
  <startTime>2004-01-01T00:00:00</startTime>
  <duration>8760</duration>
  <stationarySourceOperationSet>
    <stationarySourceOperation>
      <refName>Emergency Generator-Baseline-KPVD-2004</refName>
      <emissionsUsage>
        <!--Annualized amount of emissions-->
        <yearlyValue>500</yearlyValue>
        <activityProfile>ActivityProfile-Baseline-KPVD-6-5-6
      </activityProfile>
    </stationarySourceOperation>
  </stationarySourceOperationSet>
</case>
```

```
</emissionsUsage>
</stationarySourceOperation>
</stationarySourceOperationSet>
<groundSupportEquipmentPopulationOperationSet>
  <groundSupportEquipmentPopulationOperation>
    <!--ID for GSE type-->
    <gseID>30</gseID>
    <!--Fuel used by the GSE-->
    <fuelType>Diesel</fuelType>
    <!--GSE type-->
    <gseType>Generator</gseType>
    <!--Number of GSEs-->
    <numUnits>1</numUnits>
    <!--Operation time, yearly, in hours-->
    <annualOpTime>1630</annualOpTime>
    <!--Profile of activity to use-->
    <activityProfile>ActivityProfile-Baseline-KPVD-6-5-6</activityProfile>
    <!--Horsepower of GSE-->
    <horsepower>158</horsepower>
    <!--User nonroad flag-->
    <useNonRoad>false</useNonRoad>
  <groundSupportEquipmentGateAssignmentSet>
    <groundSupportEquipmentGateAssignment>
      <!--Gate the GSE is assigned to-->
      <gate>AC</gate>
      <!--Fraction of GSE assigned to gate-->
      <fractionAssigned>1</fractionAssigned>
    </groundSupportEquipmentGateAssignment>
  </groundSupportEquipmentGateAssignmentSet>
  </groundSupportEquipmentPopulationOperation>
</groundSupportEquipmentPopulationOperationSet>
</case>
```

Step 4c: Define the case for aircraft operations

This case defines aircraft operations, as well as GSEs assigned specifically 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_Theodore Francis Green State_Operations</name>
  <startTime>2004-01-01T00:00:00</startTime>
  <duration>8760</duration>
  <operation>
    <id>D_1</id>
    <aircraftType>
      <!--Aircraft type-->
      <airframeModel>Airbus A319-100 Series</airframeModel>
      <!--Engine type-->
      <engineCode>3CM028</engineCode>
      <!--APU type-->
      <apuName>APU GTCP 36-300 (80HP)</apuName>
      <!--GSEs assigned to the aircraft-->
    <groundSupportEquipmentLTOOperationSet>
```

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```
<groundSupportEquipmentLTOOperation>
  <gseID>13</gseID>
  <fuelType>Gasoline</fuelType>
  <horsepower>107</horsepower>
  <!-- Loading of the GSE-->
  <loadFactor>0.55</loadFactor>
  <!--Operation time for a departure-->
  <departureOpTime>38</departureOpTime>
  <!--Operation time for an arrival-->
  <arrivalOpTime>37</arrivalOpTime>
</groundSupportEquipmentLTOOperation>
<groundSupportEquipmentLTOOperation>
  <gseID>14</gseID>
  <fuelType>Gasoline</fuelType>
  <horsepower>107</horsepower>
  <loadFactor>0.5</loadFactor>
  <departureOpTime>24</departureOpTime>
  <arrivalOpTime>24</arrivalOpTime>
</groundSupportEquipmentLTOOperation>
</groundSupportEquipmentLTOOperationSet>
</aircraftType>
<!--Number of operations-->
<numOperations>5</numOperations>
<!--Type of operation; A, D, or T-->
<opType>D</opType>
<departureAirport type="ICAO">KPVD</departureAirport>
<departureGate>AC</departureGate>
<!--Operation time for APU for departure in minutes-->
<departureApuTime>3.5</departureApuTime>
<!--Taxi-out duration in minutes-->
<taxiOutDuration>10.72</taxiOutDuration>
<!--Taxi-in duration in minutes-->
<taxiInDuration>6.24</taxiInDuration>
<!--Activity profile to use-->
<activityProfile>ActivityProfile-Baseline-KPVD-6-5-6</activityProfile>
<!--Aircraft's weight in pounds-->
<actypeWeight>146100</actypeWeight>
<!--Sulfur content of the fuel used in this operation in percentage-->
<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>
    <groundSupportEquipmentLTOOperationSet>
      <groundSupportEquipmentLTOOperation>
        <gseID>13</gseID>
        <fuelType>Gasoline</fuelType>
        <horsepower>107</horsepower>
        <loadFactor>0.55</loadFactor>
        <departureOpTime>38</departureOpTime>
        <arrivalOpTime>37</arrivalOpTime>
      </groundSupportEquipmentLTOOperation>
      <groundSupportEquipmentLTOOperation>
```

```
<gseID>14</gseID>
<fuelType>Gasoline</fuelType>
<horsepower>107</horsepower>
<loadFactor>0.5</loadFactor>
<departureOpTime>24</departureOpTime>
<arrivalOpTime>24</arrivalOpTime>
</groundSupportEquipmentLTOOperation>
</groundSupportEquipmentLTOOperationSet>
</aircraftType>
<numOperations>5</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-6-5-6</activityProfile>
<actypeWeight>137800</actypeWeight>
<fuelSulfurContent>0.00068</fuelSulfurContent>
</operation>
</case>
```

Step 5: Create annualization

Like the noise study (Section 3.1), the emissions results must be annualized in order to create results that represent emissions over a time period of interest.

```
<annualization>
  <!-- user-defined scenario annualization name -->
  <name>Sample Annualization</name>

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

    <!-- Define rollout weight for this group -->
    <weight>1.0</weight>

    <annualizationGroup>
      <weight>1.0</weight>

      <!-- Associate scenario case with this annualization group -->
      <annualizationCase>

        <!-- Specify case name to include -->
        <name>2004_Baseline_Theodore Francis Green State_Operations</name>

        <!-- Define rollout weight for this case -->
        <weight>1.0</weight>

      </annualizationCase>
    </annualizationGroup>
  </annualizationGroup>
</annualization>
```

Step 6: Full ASIF

The full emissions dispersion sample ASIF is as follows:

```
<?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="1.2.13"
  content="study">

  <study>
    <name>emissions_sample_asif_short</name>
    <studyType>Dispersion</studyType>
    <emissionsUnits>Kilograms</emissionsUnits>
    <description>A sample emissions study</description>
    <airportLayoutSet>
      <airportLayout>
        <name>Baseline-Theodore Francis Green State-2004</name>
        <airportCode type="ICAO">KPVD</airportCode>
        <!-- Start date of the study-->
        <startDate>2004-01-01</startDate>
        <!--Elevation of the airport above MSL in feet-->
        <elevation>55</elevation>
        <latitude>41.723999</latitude>
        <longitude>-71.428221</longitude>
      </buildingSet>
      <building>
        <!--Name of the building-->
        <name>Terminal</name>
        <!--Elevation of the building in meters-->
        <elevation>16.764</elevation>
        <!--Height of building in meters-->
        <height>0</height>
        <polygonCoords>
          <vertex>
            <latitude>41.74214308945087</latitude>
            <longitude>-71.413044097333525</longitude>
          </vertex>
          <vertex>
            <latitude>41.7418685788759</latitude>
            <longitude>-71.4124212593739</longitude>
          </vertex>
          <vertex>
            <latitude>41.742856388006238</latitude>
            <longitude>-71.411523291021965</longitude>
          </vertex>
          <vertex>
            <latitude>41.743130903444673</latitude>
            <longitude>-71.4121461346995</longitude>
          </vertex>
        </polygonCoords>
      </building>
    </buildingSet>
    <stationarySourceSet>
      <stationarySource>
        <!-- Name of the stationary source -->
        <name>Emergency Generator-Baseline-KPVD-2004</name>
        <pointStationarySource>
          <pointCoord>
            <!-- Lat/lon coordinates-->
            <latitude>41.743248909982285</latitude>
```

```
<longitude>-71.41216809054572</longitude>
</pointCoord>
<!--Elevation in meters-->
<baseElevation>16.764</baseElevation>
<!-- Release height in meters-->
<releaseHeight>12.192</releaseHeight>
<!-- Velocity of release gas in meters/sec-->
<gasVelocity>15</gasVelocity>
<!-- Diameter of stack where gas escapes the source in meters-->
<stackDiameter>0.100584</stackDiameter>
<!-- Temperature at point in Fahrenheit-->
<temperature>400</temperature>
</pointStationarySource>
<categoryGenerator>
  <!-- Type code of object-->
  <typeCode>2</typeCode>
  <!-- Horsepower rating-->
  <powerRatingHorsepower>1340</powerRatingHorsepower>
  <!-- Weighting factors for emissions elements-->
  <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>
  <!-- Percent of emissions removed by pollution control measures-->
  <pollutionControlFactorTOC>0</pollutionControlFactorTOC>
  <pollutionControlFactorCO>0</pollutionControlFactorCO>
  <pollutionControlFactorNOx>0</pollutionControlFactorNOx>
  <pollutionControlFactorSOx>0</pollutionControlFactorSOx>
  <pollutionControlFactorPM10>0</pollutionControlFactorPM10>
  <pm25ToPm10Ratio>1</pm25ToPm10Ratio>
</categoryGenerator>
</stationarySource>
</stationarySourceSet>
<gateSet>
  <gate>
    <name>AC</name>
    <!-- Elevation of the gate in meters-->
    <elevation>16.76</elevation>
    <releaseHeight>1.499616</releaseHeight>
    <!-- Horizontal dispersion parameter-->
    <sigmaY>0.1</sigmaY>
    <!-- Vertical dispersion parameter-->
    <sigmaZ>0.1</sigmaZ>
    <polygonCoords>
      <!-- Coordinates of gate vertices-->
      <vertex>
        <latitude>41.745139411257995</latitude>
        <longitude>-71.41015590887973</longitude>
      </vertex>
      <vertex>
        <latitude>41.744540948170368</latitude>
        <longitude>-71.408847926936545</longitude>
      </vertex>
      <vertex>
        <latitude>41.739914698948347</latitude>
```

```
<longitude>-71.412700203804789</longitude>
</vertex>
<vertex>
<latitude>41.740535077331714</latitude>
<longitude>-71.414048427453068</longitude>
</vertex>
<vertex>
<latitude>41.74214308945087</latitude>
<longitude>-71.413044097333525</longitude>
</vertex>
<vertex>
<latitude>41.741863092355707</latitude>
<longitude>-71.4124359172483</longitude>
</vertex>
<vertex>
<latitude>41.743155492229967</latitude>
<longitude>-71.411380309528937</longitude>
</vertex>
<vertex>
<latitude>41.743501289605305</latitude>
<longitude>-71.411515795554152</longitude>
</vertex>
</polygonCoords>
</gate>
</gateSet>
<taxiwaySet>
<taxiway>
<name>AC to 23</name>
<!-- Width of emmission dispersion around taxiway in meters-->
<dispersionWidth>20</dispersionWidth>
<taxiNodeSet>
<taxiNode>
<latitude>41.742510605080867</latitude>
<longitude>-71.411486738878608</longitude>
<!-- Elevation in meters)-->
<elevation>16.76</elevation>
<!-- Speed of aircraft at node in meters/sec-->
<speed>17.26</speed>
</taxiNode>
<taxiNode>
<latitude>41.746840990965104</latitude>
<longitude>-71.397780701297123</longitude>
<elevation>16.76</elevation>
<speed>17.26</speed>
</taxiNode>
</taxiNodeSet>
</taxiway>
<taxiway>
<name>AC to 5</name>
<dispersionWidth>20</dispersionWidth>
<taxiNodeSet>
<taxiNode>
<latitude>41.742510605080867</latitude>
<longitude>-71.411486738878608</longitude>
<elevation>16.76</elevation>
<speed>17.26</speed>
```

```
</taxiNode>
<taxiNode>
  <latitude>41.730402908060768</latitude>
  <longitude>-71.411541169494924</longitude>
  <elevation>16.76</elevation>
  <speed>17.26</speed>
</taxiNode>
</taxiNodeSet>
</taxiway>
</taxiwaySet>
<runwaySet>
<runway>
  <!-- Length of runway in feet-->
  <length>7069</length>
  <!-- Width of runway in feet-->
  <width>150</width>
  <runwayEnd>
    <name>05</name>
    <latitude>41.730402908060768</latitude>
    <longitude>-71.411541169494924</longitude>
    <!--Elevation of the runway in feet-->
    <elevation>54.986875960838894</elevation>
    <!-- Glide slope for runway's endpoint in degrees-->
    <glideSlope>3</glideSlope>
  </runwayEnd>
  <runwayEnd>
    <name>23</name>
    <latitude>41.746840990965104</latitude>
    <longitude>-71.397780701297123</longitude>
    <elevation>54.986875960838894</elevation>
    <glideSlope>3</glideSlope>
  </runwayEnd>
</runway>
</runwaySet>
<taxipathSet>
<taxipath>
  <!-- Name of the gate associated with the path-->
  <gateName>AC</gateName>
  <!-- Name of the runway associated with the path-->
  <runwayName>05</runwayName>
  <!-- Traffic direction-->
  <direction>Outbound</direction>
  <!-- Name of the taxiways in the path-->
  <taxiwayName>AC to 5</taxiwayName>
</taxipath>
<taxipath>
  <gateName>AC</gateName>
  <runwayName>05</runwayName>
  <direction>Inbound</direction>
  <taxiwayName>AC to 5</taxiwayName>
</taxipath>
<taxipath>
  <gateName>AC</gateName>
  <runwayName>23</runwayName>
  <direction>Outbound</direction>
  <taxiwayName>AC to 23</taxiwayName>
```

```
</taxipath>
<taxipath>
  <gateName>AC</gateName>
  <runwayName>23</runwayName>
  <direction>Inbound</direction>
  <taxiwayName>AC to 23</taxiwayName>
</taxipath>
</taxipathSet>
<trackSet>
  <track>
    <name>05_A_FixedWing</name>
    <!-- Operation type for the track; arrival (A), departure (D), or touch
& go (T)-->
    <optype>A</optype>
    <!-- Wing type; fixed (F) or rotary (R)-->
    <wingtype>F</wingtype>
    <airport type="ICAO">KPVD</airport>
    <runway>05</runway>
    <subtrack>
      <!-- ID of the subtrack-->
      <id>0</id>
      <!-- Dispersion of traffic across this subtrack-->
      <dispersionWeight>1</dispersionWeight>
      <trackNodes>
        <!-- Nodes that make up this track-->
        <trackNode>
          <latitude>40.328096427261926</latitude>
          <longitude>-72.555207007324171</longitude>
        </trackNode>
        <trackNode>
          <latitude>41.730402908060768</latitude>
          <longitude>-71.411541169494924</longitude>
        </trackNode>
        <trackNode>
          <latitude>41.746840990965104</latitude>
          <longitude>-71.397780701297123</longitude>
        </trackNode>
      </trackNodes>
    </subtrack>
  </track>
  <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>41.730402908060768</latitude>
          <longitude>-71.411541169494924</longitude>
        </trackNode>
        <trackNode>
          <latitude>41.746840990965104</latitude>
```

```
<longitude>-71.397780701297123</longitude>
</trackNode>
<trackNode>
  <latitude>43.13711787619534</latitude>
  <longitude>-70.202867639680548</longitude>
</trackNode>
</trackNodes>
</subtrack>
</track>
<track>
  <name>05_T_FixedWing</name>
  <optype>T</optype>
  <wingtype>F</wingtype>
  <airport type="ICAO">KPVD</airport>
  <runway>05</runway>
  <subtrack>
    <id>0</id>
    <dispersionWeight>1</dispersionWeight>
    <trackVectors>
      <trackVector>
        <type>S</type>
        <distance>60761.15234375</distance>
      </trackVector>
      <trackVector>
        <type>R</type>
        <angle>180</angle>
        <radius>18228.345703125</radius>
      </trackVector>
      <trackVector>
        <type>S</type>
        <distance>121522.3046875</distance>
      </trackVector>
      <trackVector>
        <type>R</type>
        <angle>180</angle>
        <radius>18228.345703125</radius>
      </trackVector>
      <trackVector>
        <type>S</type>
        <distance>60761.15234375</distance>
      </trackVector>
    </trackVectors>
  </subtrack>
</track>
<track>
  <name>23_A_FixedWing</name>
  <optype>A</optype>
  <wingtype>F</wingtype>
  <airport type="ICAO">KPVD</airport>
  <runway>23</runway>
  <subtrack>
    <id>0</id>
    <dispersionWeight>1</dispersionWeight>
    <trackNodes>
      <trackNode>
        <latitude>43.13711787619534</latitude>
```

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```
<longitude>-70.202867639680548</longitude>
</trackNode>
<trackNode>
  <latitude>41.746840990965104</latitude>
  <longitude>-71.397780701297123</longitude>
</trackNode>
<trackNode>
  <latitude>41.730402908060768</latitude>
  <longitude>-71.411541169494924</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>41.746840990965104</latitude>
        <longitude>-71.397780701297123</longitude>
      </trackNode>
      <trackNode>
        <latitude>41.730402908060768</latitude>
        <longitude>-71.411541169494924</longitude>
      </trackNode>
      <trackNode>
        <latitude>40.328096427261926</latitude>
        <longitude>-72.555207007324171</longitude>
      </trackNode>
    </trackNodes>
  </subtrack>
</track>
<track>
  <name>23_T_FixedWing</name>
  <optype>T</optype>
  <wingtype>F</wingtype>
  <airport type="ICAO">KPVD</airport>
  <runway>23</runway>
  <subtrack>
    <id>0</id>
    <dispersionWeight>1</dispersionWeight>
    <trackVectors>
      <trackVector>
        <type>S</type>
        <distance>60761.15234375</distance>
      </trackVector>
      <trackVector>
        <type>R</type>
        <angle>180</angle>
        <radius>18228.345703125</radius>
      </trackVector>
    </trackVectors>
  </subtrack>
</track>
```

```
</trackVector>
<trackVector>
  <type>S</type>
  <distance>121522.3046875</distance>
</trackVector>
<trackVector>
  <type>R</type>
  <angle>180</angle>
  <radius>18228.345703125</radius>
</trackVector>
<trackVector>
  <type>S</type>
  <distance>60761.15234375</distance>
</trackVector>
</trackVectors>
</subtrack>
</track>
</trackSet>
<airportConfigSet>
  <airportConfig>
    <configurationName>Configuration</configurationName>
    <!-- Flag to use an operation distribution-->
    <useDistribution>false</useDistribution>
    <airportCapacity>
      <!-- Pareto curve points for airport operations-->
      <capacityPoint>
        <arrivalsPerHour>27</arrivalsPerHour>
        <departuresPerHour>52</departuresPerHour>
      </capacityPoint>
      <capacityPoint>
        <arrivalsPerHour>52</arrivalsPerHour>
        <departuresPerHour>27</departuresPerHour>
      </capacityPoint>
    </airportCapacity>
    <runwayAssignmentSet>
      <runwayAssignment>
        <!-- Aircraft size for assignments; small (S), large (L), or heavy
(H)-->
        <aircraftSize>S</aircraftSize>
        <runway>23</runway>
        <!-- Percent of arrival operations on runway; all arrival
percentages must sum to 100%-->
        <arrivalPercentage>60</arrivalPercentage>
        <!-- Percent of departure operations on runway; all departure
percentages must sum to 100%-->
        <departurePercentage>60</departurePercentage>
        <!-- Percent of touch & go operations on runway; all touch & go
percentages must sum to 100%-->
        <tgoPercentage>60</tgoPercentage>
      </runwayAssignment>
      <runwayAssignment>
        <aircraftSize>S</aircraftSize>
        <runway>05</runway>
        <arrivalPercentage>40</arrivalPercentage>
        <departurePercentage>40</departurePercentage>
        <tgoPercentage>40</tgoPercentage>
```

```
</runwayAssignment>
<runwayAssignment>
  <aircraftSize>L</aircraftSize>
  <runway>23</runway>
  <arrivalPercentage>60</arrivalPercentage>
  <departurePercentage>60</departurePercentage>
  <tgoPercentage>60</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
  <aircraftSize>L</aircraftSize>
  <runway>05</runway>
  <arrivalPercentage>40</arrivalPercentage>
  <departurePercentage>40</departurePercentage>
  <tgoPercentage>40</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
  <aircraftSize>H</aircraftSize>
  <runway>23</runway>
  <arrivalPercentage>60</arrivalPercentage>
  <departurePercentage>60</departurePercentage>
  <tgoPercentage>60</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
  <aircraftSize>H</aircraftSize>
  <runway>05</runway>
  <arrivalPercentage>40</arrivalPercentage>
  <departurePercentage>40</departurePercentage>
  <tgoPercentage>40</tgoPercentage>
</runwayAssignment>
</runwayAssignmentSet>
</airportConfig>
</airportConfigSet>
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<quarterHourlyProfile>
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  <!-- Weighting of operations at this time bin-->
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  <temporalFactor startHour="0" startMinutes="15">0.1777</temporalFactor>
  <temporalFactor startHour="0" startMinutes="30">0.1777</temporalFactor>
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AEDT Standard Input File

ASIF Reference Guide: 2d

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AEDT Standard Input File ASIF Reference Guide: 2d

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</quarterHourlyProfile>
</quarterHourlyProfileSet>
<dailyProfileSet>
  <dailyProfile>
    <profileName>Example Daily-Baseline-KPVD</profileName>
    <temporalFactorSunday>0.7939</temporalFactorSunday>
    <temporalFactorMonday>0.9916</temporalFactorMonday>
    <temporalFactorTuesday>0.9867</temporalFactorTuesday>
    <temporalFactorWednesday>1</temporalFactorWednesday>
    <temporalFactorThursday>0.9245</temporalFactorThursday>
    <temporalFactorFriday>0.8743</temporalFactorFriday>
    <temporalFactorSaturday>0.7887</temporalFactorSaturday>
  </dailyProfile>
</dailyProfileSet>
<monthlyProfileSet>
  <monthlyProfile>
    <profileName>Example Monthly-Baseline-KPVD</profileName>
    <temporalFactorJanuary>0.6265</temporalFactorJanuary>
    <temporalFactorFebruary>0.6791</temporalFactorFebruary>
    <temporalFactorMarch>0.775</temporalFactorMarch>
    <temporalFactorApril>0.8322</temporalFactorApril>
    <temporalFactorMay>0.8741</temporalFactorMay>
    <temporalFactorJune>0.9033</temporalFactorJune>
    <temporalFactorJuly>1</temporalFactorJuly>
    <temporalFactorAugust>0.9876</temporalFactorAugust>
    <temporalFactorSeptember>0.7994</temporalFactorSeptember>
    <temporalFactorOctober>0.9428</temporalFactorOctober>
    <temporalFactorNovember>0.8522</temporalFactorNovember>
    <temporalFactorDecember>0.7806</temporalFactorDecember>
  </monthlyProfile>
</monthlyProfileSet>
<activityProfileSet>
  <activityProfile name="ActivityProfile-Baseline-KPVD-6-5-6">
    <quarterHourlyProfile>Example Quarter-Hour-Baseline-
KPVD</quarterHourlyProfile>
    <dailyProfile>Example Daily-Baseline-KPVD</dailyProfile>
    <monthlyProfile>Example Monthly-Baseline-KPVD</monthlyProfile>
  </activityProfile>
</activityProfileSet>
</airportLayout>
</airportLayoutSet>
<receptorSet>
  <name>CartesianReceptors-Baseline-KPVD</name>
  <pointReceptor>
    <name>01</name>
    <latitude>41.75569223042968</latitude>
    <longitude>-71.401734633637048</longitude>
    <!-- Elevation above MSL in feet-->
    <elevation>54.986875960838894</elevation>
    <!-- Height of the receptor above ground in feet-->
    <receptorHeight>5.9099999269584984</receptorHeight>
  </pointReceptor>
  <pointReceptor>
    <name>01D</name>
    <latitude>41.732126660490067</latitude>
    <longitude>-71.4141821642798</longitude>
  </pointReceptor>
</receptorSet>
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AEDT Standard Input File ASIF Reference Guide: 2d

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<elevation>54.986875960838894</elevation>
<receptorHeight>5.9099999269584984</receptorHeight>
</pointReceptor>
<pointReceptor>
<name>01S</name>
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<longitude>-71.386077230440634</longitude>
<elevation>54.986875960838894</elevation>
<receptorHeight>5.9099999269584984</receptorHeight>
</pointReceptor>
</receptorSet>
<scenario>
<name>2004-Baseline</name>
<!-- Scenario start time-->
<startTime>2004-01-01T00:00:00</startTime>
<!-- Scenario duration in hours-->
<duration>8760</duration>
<!-- Taxi model type for scenario-->
<taxiModel>Sequencing</taxiModel>
<!-- Time in mode; either Performance or ICAO-->
<timeInModeBasis>Performance</timeInModeBasis>
<!-- Aircraft performance model-->
<acftPerfModel>SAE1845</acftPerfModel>
<!-- Flag to include bank angle calculations-->
<bankAngle>false</bankAngle>
<!-- Portion of fuel that becomes sulfuric acid when combusted-->
<sulfurConversionRate>0.005</sulfurConversionRate>
<description>A sample emissions study scenario</description>
<scenarioAirportLayoutSet>
<scenarioAirportLayout>
<airportLayoutName>Baseline-Theodore Francis Green State-
2004</airportLayoutName>
<!-- Height where vigorous mixing of gases takes place, in feet-->
<mixingHeight>2226</mixingHeight>
<!-- Flag to use hourly meteorological data, rather than annual
averages-->
<useHourlyMetData>true</useHourlyMetData>
<!-- Average temperature in Fahrenheit-->
<averageTemperature>50.4</averageTemperature>
<!-- Average daily high temperature in Fahrenheit-->
<dailyHighTemperature>69.35</dailyHighTemperature>
<!-- Average daily low temperature in Fahrenheit-->
<dailyLowTemperature>48.65</dailyLowTemperature>
<!-- Average barometric pressure in inches Hg.-->
<pressure>29.92</pressure>
<!-- Average barometric pressure at MSL in inches Hg.-->
<pressureMSL>29.92</pressureMSL>
<!-- Relative humidity percentage-->
<humidity>60</humidity>
<!-- Wind speed at surface-->
<windSpeed>8</windSpeed>
<!-- Wind direction in degrees-->
<windDirection>0</windDirection>
<!-- Ceiling in feet-->
<ceiling>99999.99</ceiling>
<!-- Visibility in miles-->
```

AEDT Standard Input File ASIF Reference Guide: 2d

```
<visibility>50</visibility>
</scenarioAirportLayout>
</scenarioAirportLayoutSet>
<caseSet>
<case>
<caseId>-1623425151</caseId>
<name>2004_Baseline_Theodore Francis Green State_NonAircraft</name>
<startTime>2004-01-01T00:00:00</startTime>
<duration>8760</duration>
<stationarySourceOperationSet>
<stationarySourceOperation>
<refName>Emergency Generator-Baseline-KPVD-2004</refName>
<emissionsUsage>
<!--Annualized amount of emissions-->
<yearlyValue>500</yearlyValue>
<activityProfile>ActivityProfile-Baseline-KPVD-6-5-
6</activityProfile>
</emissionsUsage>
</stationarySourceOperation>
</stationarySourceOperationSet>
<groundSupportEquipmentPopulationOperationSet>
<groundSupportEquipmentPopulationOperation>
<!--ID for GSE type-->
<gseID>30</gseID>
<!--Fuel used by the GSE-->
<fuelType>Diesel</fuelType>
<!--GSE type-->
<gseType>Generator</gseType>
<!--Number of GSEs-->
<numUnits>1</numUnits>
<!--Operation time, yearly, in hours-->
<annualOpTime>1630</annualOpTime>
<!--Profile of activity to use-->
<activityProfile>ActivityProfile-Baseline-KPVD-6-5-6</activityProfile>
<!--Horsepower of GSE-->
<horsepower>158</horsepower>
<!--User nonroad flag-->
<useNonRoad>false</useNonRoad>
<groundSupportEquipmentGateAssignmentSet>
<groundSupportEquipmentGateAssignment>
<!--Gate the GSE is assigned to-->
<gate>AC</gate>
<!--Fraction of GSE assigned to gate-->
<fractionAssigned>1</fractionAssigned>
</groundSupportEquipmentGateAssignment>
</groundSupportEquipmentGateAssignmentSet>
</groundSupportEquipmentPopulationOperation>
</groundSupportEquipmentPopulationOperationSet>
</case>
<case>
<caseId>466140608</caseId>
<name>2004_Baseline_Theodore Francis Green State_Operations</name>
<startTime>2004-01-01T00:00:00</startTime>
<duration>8760</duration>
<operation>
<id>D_1</id>
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AEDT Standard Input File ASIF Reference Guide: 2d

```
<aircraftType>
  <!--Aircraft type-->
  <airframeModel>Airbus A319-100 Series</airframeModel>
  <!--Engine type-->
  <engineCode>3CM028</engineCode>
  <!--APU type-->
  <apuName>APU GTCP 36-300 (80HP)</apuName>
  <!--GSEs assigned to the aircraft-->
  <groundSupportEquipmentLTOOperationSet>
    <groundSupportEquipmentLTOOperation>
      <gseID>13</gseID>
      <fuelType>Gasoline</fuelType>
      <horsepower>107</horsepower>
      <!-- Loading of the GSE-->
      <loadFactor>0.55</loadFactor>
      <!--Operation time for a departure-->
      <departureOpTime>38</departureOpTime>
      <!--Operation time for an arrival-->
      <arrivalOpTime>37</arrivalOpTime>
    </groundSupportEquipmentLTOOperation>
    <groundSupportEquipmentLTOOperation>
      <gseID>14</gseID>
      <fuelType>Gasoline</fuelType>
      <horsepower>107</horsepower>
      <loadFactor>0.5</loadFactor>
      <departureOpTime>24</departureOpTime>
      <arrivalOpTime>24</arrivalOpTime>
    </groundSupportEquipmentLTOOperation>
  </groundSupportEquipmentLTOOperationSet>
</aircraftType>
<!--Number of operations-->
<numOperations>5</numOperations>
<!--Type of operation; A, D, or T-->
<opType>D</opType>
<departureAirport type="ICAO">KPVD</departureAirport>
<departureGate>AC</departureGate>
<!--Operation time for APU for departure in minutes-->
<departureApuTime>3.5</departureApuTime>
<!--Taxi-out duration in minutes-->
<taxiOutDuration>10.72</taxiOutDuration>
<!--Taxi-in duration in minutes-->
<taxiInDuration>6.24</taxiInDuration>
<!--Activity profile to use-->
<activityProfile>ActivityProfile-Baseline-KPVD-6-5-6</activityProfile>
<!--Aircraft's weight in pounds-->
<actypeWeight>146100</actypeWeight>
<!--Sulfur content of the fuel used in this operation in percentage-->
<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>
    <groundSupportEquipmentLTOOperationSet>
```

```
<groundSupportEquipmentLTOOperation>
  <gseID>13</gseID>
  <fuelType>Gasoline</fuelType>
  <horsepower>107</horsepower>
  <loadFactor>0.55</loadFactor>
  <departureOpTime>38</departureOpTime>
  <arrivalOpTime>37</arrivalOpTime>
</groundSupportEquipmentLTOOperation>
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  <fuelType>Gasoline</fuelType>
  <horsepower>107</horsepower>
  <loadFactor>0.5</loadFactor>
  <departureOpTime>24</departureOpTime>
  <arrivalOpTime>24</arrivalOpTime>
</groundSupportEquipmentLTOOperation>
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</aircraftType>
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<opType>A</opType>
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<arrivalGate>AC</arrivalGate>
<arrivalApuTime>3.5</arrivalApuTime>
<taxiOutDuration>10.72</taxiOutDuration>
<taxiInDuration>6.24</taxiInDuration>
<activityProfile>ActivityProfile-Baseline-KPVD-6-5-6</activityProfile>
<actypeWeight>137800</actypeWeight>
<fuelSulfurContent>0.00068</fuelSulfurContent>
</operation>
</case>
</caseSet>
<annualization>
  <!-- user-defined scenario annualization name -->
  <name>Sample Annualization</name>
  <!-- Define one or more groups of cases and groups -->
  <annualizationGroup>
    <!-- Define rollout weight for this group -->
    <weight>1.0</weight>
    <annualizationGroup>
      <weight>1.0</weight>
      <!-- Associate scenario case with this annualization group -->
      <annualizationCase>
        <!-- Specify case name to include -->
        <name>2004_Baseline_Theodore Francis Green State_Operations</name>
        <!-- Define rollout weight for this case -->
        <weight>1.0</weight>
      </annualizationCase>
    </annualizationGroup>
  </annualizationGroup>
</annualization>
</scenario>
</study>
</AsifXml>
```

4 ASIF Design Consideration

4.1 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.

4.2 Number of Operations in a Case and Results Reuse

AEDT has the ability to reuse previously calculated results when running a new job. The smallest unit of results that can be reused is a set of air operations in a case. Run time can be optimized by designing the ASIF with this capability in mind.

4.3 Control Codes in AEDT

The ***nodeControlType*** in ASIF schema specifies the control code definition. AEDT will fly AtOrBelow control codes as close to the specified altitude as possible, which differs from the legacy tool NIRS that accepts any altitude at or below the specified altitude. Similarly, AEDT will fly AtOrAbove control codes as close to the specified altitude as possible while NIRS accepts any altitude at or above the specified altitude.

AEDT will not use control codes below 500 ft. AFE. Since NIRS does not use control codes below 3000 ft. AFE, any NIRS control codes that are converted to ASIF that are at or below 3000 feet should be changed to the AEDT AtOrBelow control code.

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.

AEDT will fly the length of ground tracks without requiring altitude control codes at the beginning and end of the tracks.

5 Procedural Profiles

This section describes procedural profiles for civil aircraft and helicopters. Military aircraft utilize fixed point profiles. For more information on how to set up an ANP profile in the ASIF, see the *anpProfile* element in the ASIF schema documentation.

5.1 Civil Airplane Procedures

The following sections describe civil aircraft procedure steps and how they are combined into procedural profiles. Flap identifiers referred to in this section are created using the *anpFlaps* element. The recommended naming conventions for flap identifiers is as follows:

- Include a number in the flaps identifier to indicate the number of degrees that the flaps are extended.
- For approach identifiers, use the prefix “U”, to indicate that the gear is up during descent and the prefix “D” to indicate that the gear is down.
- Use “ZERO” to indicate that flaps are retracted. ZERO is often used in both departure and approach procedures, even though it is categorized as a departure identifier.

5.1.1 Aircraft Profile Operation Types

There are five types of flight operations for aircraft. The valid ASIF identifier is listed in the Operation Type column.

Operation Type	Full Name
A	Approach
D	Departure
T	Touch and go
F	Circuit flight
V	Overflight

5.1.2 Aircraft Procedure Step Types

The procedure step types available in AEDT are listed in the table below. The valid ASIF identifier is listed in the Step Type column.

Step Type	Full Name	Description
T	Takeoff	Start-roll to takeoff rotation, or touch-and-go power-on point to takeoff rotation
C	Climb	Departure climb to final altitude at constant calibrated airspeed
M	Cruise-Climb	Climb at constant angle to final altitude and speed
A	Accelerate	Departure climb and accelerate to final speed

Step Type	Full Name	Description
P	Accel-Percent	Departure climb and accelerate using a constant energy split between acceleration and climbing
V	Level	Maintain altitude and speed
U	Level-Decel	Maintain altitude and reduce speed
W	Level-Idle	Maintain altitude over a given distance with engines at idle
S	Level-Stretch	Special step used to designate where to stretch a circuit flight profile to fit a touch-and-go track
D	Descend	Descend at constant angle to final altitude
E	Descend-Decel	Descend while reducing airspeed
F	Decend-Idle	Decend at a constant angle with engines at idle
L	Land	Land and roll a given distance
B	Decelerate	Used on approach after touchdown, brake with starting thrust for a given distance

5.1.2.1 Takeoff Step

For a takeoff step, input a flaps identifier and a thrust type. The flaps identifier should not have a U or D prefix because these coefficients are appropriate for descending flight paths.

MaxTakeoff thrust is typically used for takeoff, but other thrust types are available:

- MaxClimb thrust means that an airplane takes off using reduced thrust, thus requiring a longer runway.
- UserValue thrust means that the user supplies the takeoff thrust value. The thrust value is the corrected net thrust per engine in pounds or in percent of static thrust. AEDT uses the input value at both the start-roll point and at the rotation point.

For MaxTakeoff and MaxClimb thrust, AEDT uses jet or prop coefficients and SAE-AIR-1845 equations to compute thrust values. For jets, the start-roll thrust is computed at 0 knots, and the rotation thrust is computed using the takeoff speed, which comes from another SAE equation. For jets, the thrust is larger at start-roll than at rotation. For props, the thrust is the same at both points and equal to the thrust computed at the rotation point.

5.1.2.2 Climb Step

For a Climb step, enter a flaps identifier, thrust type, and input the final altitude (the "climb-to" altitude). The final altitude must be higher than the initial altitude. The calibrated air speed on a climb segment is constant, and it is equal to the final speed used on the previous step.

AEDT computes the climb angle and the ground distance based on the airplane weight and average thrust that can be generated for the given conditions. If the computed climb gradient is too small (1%), AEDT processing will stop and log it in the log file.

Typically, MaxTakeoff thrust is used for initial climb segments and MaxClimb thrust for later climb segments, but other thrust types are available:

- UserValue thrust can be assigned to the final climb-to point. AEDT does not adjust this input value for airport elevation, temperature, and pressure.
- UserCutback thrust can be assigned to the whole segment. The difference between UserValue and UserCutback is that AEDT applies the user-value-thrust to a point, whereas user-cutback-thrust is applied to a segment. For the cutback case, AEDT reduces the thrust over a 1000-foot segment, keeps it constant at the user-cutback value over the climb distance (less 1000 feet), and then returns it to normal thrust over a second 1000-foot segment. The input thrust is corrected net thrust per engine. AEDT does not correct for airport conditions.

5.1.2.3 Accelerate Step

For an Accelerate step, input a flaps identifier, thrust type, climb rate, and final speed (the "accelerate-to" speed). The final speed must be larger than the initial speed.

AEDT uses these input parameters and the SAE-AIR-1845 equations to compute the change in altitude and the distance flown.

The climb rate should be consistent with a sea-level standard-day profile. If necessary, AEDT adjusts the climb rate to account for the actual airport elevation, temperature, and pressure.

Zero climb rate is a valid input. AEDT computes a zero change in altitude, and the thrust is used to accelerate the airplane more quickly.

The five climb thrust types discussed above for the Climb step are also available for an acceleration segment.

5.1.2.4 Accel-Percent Step

For an Accel-Percent step, input a flaps identifier, thrust type, energy-share percentage, and final airspeed.

Energy-share comes from the notion that all available thrust is divided between acceleration and climbing. Unlike steps that maintain a constant airspeed while climbing, this step holds the energy-share constant for a given amount of thrust. For the energy-share percentage, enter the percent thrust dedicated to acceleration. An input of 70, for example, would result in 70% of thrust going to acceleration and the remaining 30% of thrust going to climbing.

5.1.2.5 Cruise-Climb Step

For a Cruise-Climb step, input a flaps identifier (usually ZERO), final altitude, climb speed, and the climb angle for the segment.

AEDT calculates the distance flown based on the change in altitude and the climb angle. AEDT calculates the corrected net thrust per engine by using the SAE-AIR- 1845 descent equation with a positive angle, rather than a negative angle.

The difference between Climb and Cruise-Climb is that thrust for Climb is user-defined, whereas AEDT calculates thrust for Cruise-Climb based on the input climb angle. Climb thrust is larger than Cruise-Climb thrust. Climb steps are used after takeoff when near-maximum thrust is applied. During cruise, less thrust is used in climbing from one altitude to another.

5.1.2.6 Level-Stretch Step

For a Level-Stretch step, input a flaps identifier. A Level-Stretch step is used to create circuit flight profiles. Its purpose is to define where to put a variable length segment so that a CIR profile fits on top of a TGO track.

- There can be only one Level-Stretch step in a CIR profile.
- A Level-Stretch step must have a Level step before it and after it. This pair of Level steps should have the same altitude and speed values.

5.1.2.7 Level Step

For a Level step, input a flaps identifier, altitude, speed, and distance flown along the segment. The flaps identifier should be ZERO, or perhaps one with a U prefix (indicating that the landing gear is up).

Input the altitude and speed parameters logically:

- A previous Climb final altitude must equal the Level altitude.
- Also, the Level altitude must equal the next Descend start altitude.
- AEDT computes the amount of thrust needed to maintain level flight at constant speed for the given flaps configuration.

The difference between a Level step and a zero-climb Accelerate step is that the Level step uses a constant speed on the segment, and it uses a smaller value of thrust (and thus, lower noise level) than the Accelerate step. If speed changes during level flight, use a zero-climb Accelerate step.

5.1.2.8 Level-Decel Step

For a Level-Decel step, input a flaps identifier, altitude, initial airspeed, and distance flown along the segment. Unlike the Level step, airspeed is not held constant but allowed to decrease over the segment. AEDT computes the amount of thrust needed to maintain level flight while decelerating.

The Level-Decel step is subject to the same airspeed and altitude considerations as the Level step, e.g. a preceding climb segment has to end at the same altitude as the Level-Decel step.

5.1.2.9 Level-Idle Step

For a Level-Idle step, input the altitude, initial airspeed, and distance flown along the segment. Airspeed is allowed to decrease over the segment. Unlike Level and Level-Decel steps, thrust is calculated using idle thrust coefficients rather than a force balance.

The Level-Idle step is subject to the same airspeed and altitude considerations as the Level step, e.g. a preceding climb segment has to end at the same altitude as the Level-Idle step.

5.1.2.10 Descend Step

For a Descend step, input a flaps identifier, the starting altitude, starting speed, and the descent angle for the segment.

If a Level or Descend step follows the Descend step, it must have a lower altitude. The following step can have the same or a different speed.

5.1.2.11 Descend-Decel Step

For a Descend-Decel step, input a flaps identifier, the starting altitude, starting speed, and the descent angle for the segment. The Descend-Decel step differs from the Descend step in that it more explicitly accounts for deceleration effects during thrust calculations.

If a Level or Descend step follows the Descend-Decel step, it must have a lower altitude. The following step can have the same or a different speed.

5.1.2.12 Descend-Idle Step

For a Descend-Idle step, input the initial airspeed, initial altitude, and descent angle. The Descend-Idle step does not require that a flap setting be specified. The other Descend steps that require flap settings utilize a force balance equation to calculate thrust, but this step calculates the aircraft idle thrust directly from engine idle thrust coefficients.

5.1.2.13 Land Step

For the Land step, select a flaps identifier and input the touchdown rolling distance, which is the distance that the airplane moves before reversing thrust and/or braking.

The last Descend step and the Land step must both use a flaps identifier that has a D prefix (meaning that the landing gear is down).

AEDT computes the touchdown speed by using a SAE-AIR-1845 equation.

5.1.2.14 Decelerate Step

For a Decelerate step, input the segment distance, the starting speed, and the percent of static thrust at the start of the segment. When applicable, the percent of static thrust at the start of the segment represents the level of reverse thrust.

AEDT uses the percent value and the airplane static thrust to compute a thrust setting value for accessing the NPD curves. For those airplanes that use percent type noise, the percent value is used to access the NPD curves.

5.1.3 Aircraft Thrust Types and Parameters

The thrust types available in AEDT are listed in the table below. The valid ASIF identifier is listed in the Thrust Type column.

Thrust Type	Full Name
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

The following table shows the remaining parameters needed to create a procedural profile. These fields are called PARAM1, PARAM2, and PARAM3. They take on a different meaning for each combination of operation type, procedure type, and thrust type, see the two tables below.

PARAM	Full Name
THR	Thrust (lbs)
ALT	Altitude (ft AFE)
SPD	Speed (kts)
DIST	Distance (ft)
ANG	Angle (deg)
PCT	Percent
CLM	Climb Rate (ft/min)

Op Type	Step Type	Flap ID	Thrust Type	PARAM1	PARAM2	PARAM3
A,D,T,F,V	V	ID		ALT	SPD	DIST
A,T,F,V	D	ID		ALT	SPD	ANG
A,T,F,	L	ID	T,C,H,Q	DIST	0	0
A,F	B		U	DIST	SPD	PCT
D,F	T	ID	T,C,H,Q	0	0	0
D,F	T	ID	U	0	0	THR
T	T	ID	T,C,H,Q,R	0	SPD	0
T	T	ID	K,U	0	SPD	THR
D,T,F	C	ID	T,C,H,Q,R	ALT	0	0
D,T,F	C	ID	K,U	ALT	0	THR
D,T,F	A	ID		CLM	SPD	0
D,T,F	A	ID		CLM	SPD	THR
A,D,F,V	M	ID		ALT	SPD	ANG
F	S	ID		0	0	0
A	U	ID		ALT	SPD	DIST
A	W			ALT	SPD	DIST
A	E	ID		ALT	SPD	ANG
A	F			ALT	SPD	ANG
D,T,F	P		T,C,H,Q,R	PCT	SPD	0
D,T,F	P		K,U	PCT	SPD	THR

5.1.4 How to Build an Approach Profile

Standard approach procedures generally have four Descend steps, a Land step, and two Decelerate steps, as follows:

- The four Descend steps start at 6000, 3000, 1500, and 1000 feet AFE. They bring an airplane from zero-flaps configuration, terminal-area entrance speed, down to landing-gear/flaps configuration, final-approach speed.
- For most AEDT airplanes, a 3-degree descent angle is used to model IFR approaches. For single-engine piston airplanes and for BEC58P, a 5-degree descent angle is used to model VFR approaches.
- For the Land step, the touchdown-roll distance is 10% of the total rollout distance. For those airplanes using 3-degree approaches, the relationship between the total roll-out distance and the max landing distance is:

(Roll-out distance) = 0.9 (Max landing distance) - 954

- For those airplanes using 5-degree approaches, the 954-foot value is replaced with 572 feet (the angle is steeper, so the in-air portion of the flight path after crossing the end of the runway is shorter).
- The first Decelerate distance is 90% of the total roll-out distance. The starting speed is less than the touchdown speed. The starting percentage thrust is 40% for narrow-body jets, 10% for wide-body jets, and 40% for props. The first deceleration segment represents reverse thrust action.
- The second Decelerate distance is zero, indicating the end of the profile. The starting speed is 30 knots, representing taxi speed. The starting percentage thrust is 10% of static thrust, representing taxi thrust.

5.1.5 How to Build a Departure Profile

AEDT standard departure procedures for civil jet airplanes tend to follow a pattern (but there are exceptions). A typical civil jet departure profile consists of the following procedure steps:

1. Takeoff using MaxTakeoff thrust and extended flaps.
2. Climb to 1000 feet using MaxTakeoff thrust and takeoff flaps.
3. Accelerate 10-20 knots using MaxTakeoff thrust, takeoff flaps, and 2/3 of the initial climb rate.
4. Accelerate 15-30 knots using MaxTakeoff thrust, reduced flaps, and ½ of the initial climb rate.
5. Accelerate to Vzf (zero-flaps minimum safe maneuvering speed) using MaxClimb thrust, minimal flaps, and 1000-fpm climb rate.
6. Climb to 3000 feet using MaxClimb thrust and zero flaps.
7. Accelerate to 250 knots using MaxClimb thrust, zero flaps, and 1000-fpm climb rate.
8. Climb to 5500 feet using MaxClimb thrust and zero flaps.
9. Climb to 7500 feet using MaxClimb thrust and zero flaps.
10. Climb to 10000 feet using MaxClimb thrust and zero flaps.

A standard departure profile for propeller-driven civil airplanes also tends to follow a pattern of procedure steps:

1. Takeoff using MaxTakeoff thrust and takeoff flaps.
2. Accelerate 10-15 knots using MaxTakeoff thrust, takeoff flaps, and a standard rate of climb.
3. Climb to 1000 feet using MaxTakeoff thrust and takeoff flaps.
4. Accelerate to Vzf using MaxTakeoff thrust, takeoff flaps, and a standard climb rate.

5. Climb to 3000 feet using MaxClimb thrust and zero flaps.
6. Climb to 5500 feet using MaxClimb thrust and zero flaps.
7. Climb to 7500 feet using MaxClimb thrust and zero flaps.
8. Climb to 10000 feet using MaxClimb thrust and zero flaps.

An AEDT standard airplane usually has more than one departure profile. AEDT profiles are distinguished by profile stage numbers from 1 to 9. Departure procedure steps are almost the same for all profile stages. Usually, the change is in the Accelerate step where the final speed value increases for heavier airplanes and the climb rate decreases for heavier airplanes.

5.1.6 How to Build an Overflight Profile

An overflight profile can be built with one procedure step. For example: Level using ZERO flaps, at 5000-foot altitude, at 250 knots, for a distance of 300,000 feet (about 50 nmi).

5.1.7 How to Build a Touch and Go Profile

A user-defined touch-and-go profile consists of the following steps:

1. Start in level flight at airport pattern altitude.
2. Descend.
3. Touch down on the runway.
4. Roll out.
5. Take off.
6. Climb.
7. End after leveling off at pattern altitude.

After associating a touch-and-go profile with a touch-and-go track, but before calculating flight path points, AEDT reorders and modifies the set of profile points so that the profile starts and ends at the touchdown point. While reordering the points, AEDT inserts an extra level segment in the downwind portion of the profile (between the last departure point and first approach point), so that the profile distance is the same as the track distance. Also, a final touchdown point is added at the end. When finished, the new profile starts at touchdown, ends at touchdown, and has horizontal coordinate distance equal to the touch-and-go ground track distance.

5.1.8 How to Build a Circuit Profile

A user-defined circuit profile consists of the following steps:

1. Start on the runway as a standard departure.

2. Take off.
3. Climb to pattern altitude.
4. Level out.
5. Descend from pattern altitude.
6. Land.
7. Decelerate to taxi speed.

After associating a circuit profile with a touch-and-go track (there are no circuit tracks in AEDT), AEDT inserts an extra level segment in the downwind portion of the profile, so that the profile distance is the same as the track distance. The place where the extra segment is inserted is determined by the “Level-Stretch” procedure step, which is provided by the user. After modifying a touch-and-go or circuit profile, AEDT merges the new profile points and the ground track points to compute a three-dimensional flight path.

5.1.9 Airplane Procedure Step Transitions

Procedure steps are combined in prescribed sequences. Certain sequences are not allowed. For example, a climb step may not be followed by a descend step. Procedures must comply with the step transition diagrams provided here.

The step transition diagrams use a simple convention to represent procedures:

- Ellipses represent procedure steps.
- Arrows represent a valid transition from one step to another.
- Arrows point in the direction of the allowed transition – e.g. Land to Decelerate is accepted, but Decelerate to Land is not.
- A double sided arrow means that the transition is valid in both directions.
- An arrow looping back to a step indicates that the step can be repeated.
- A box surrounding two or more steps is used to simplify the diagram.
- Arrows connected to the box apply to each step within.
- Each step within the box can transition to any other within the box.

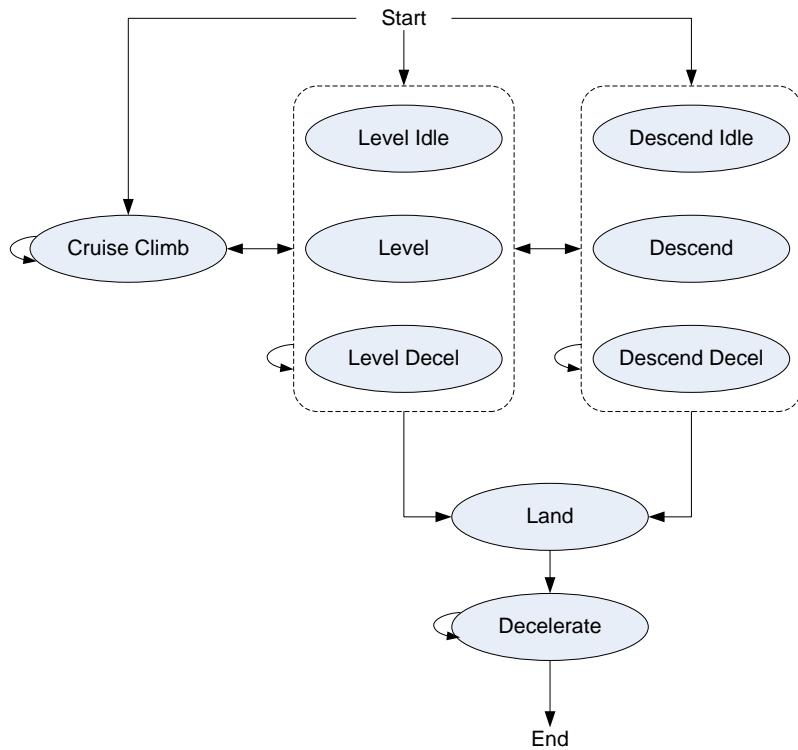


Figure 1: Airplane Approach Step Transition Diagram

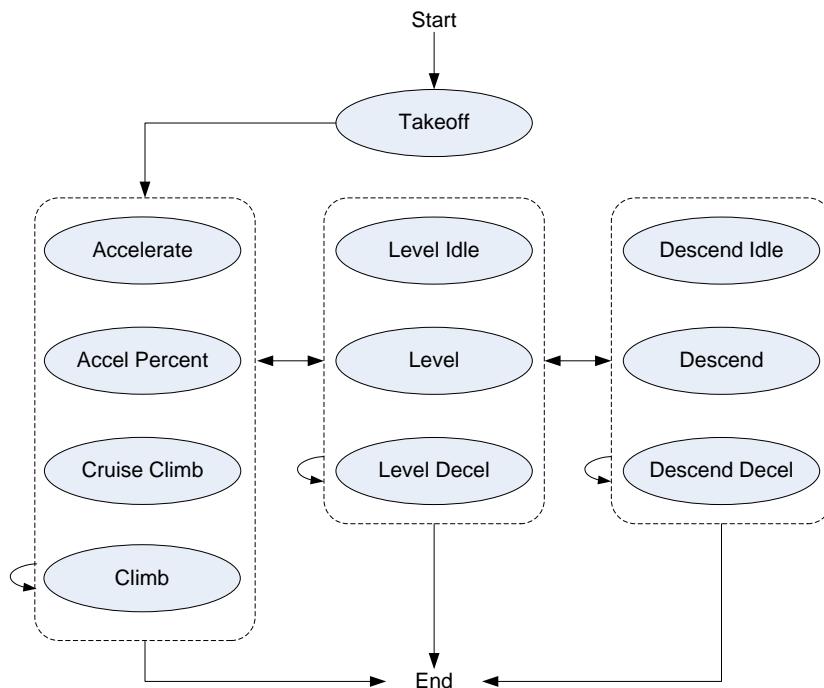


Figure 2: Airplane Departure Step Transition Diagram

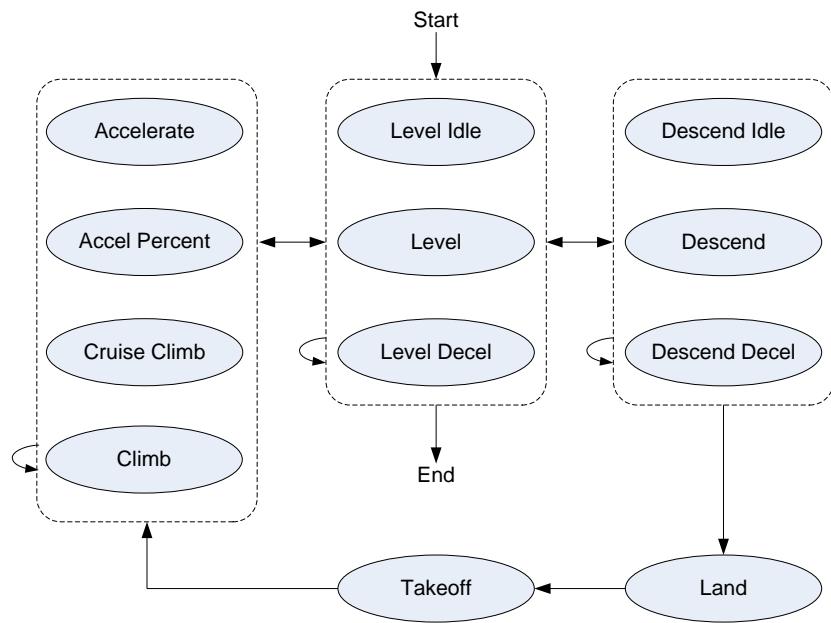


Figure 3: Airplane Touch and Go Step Transition Diagram

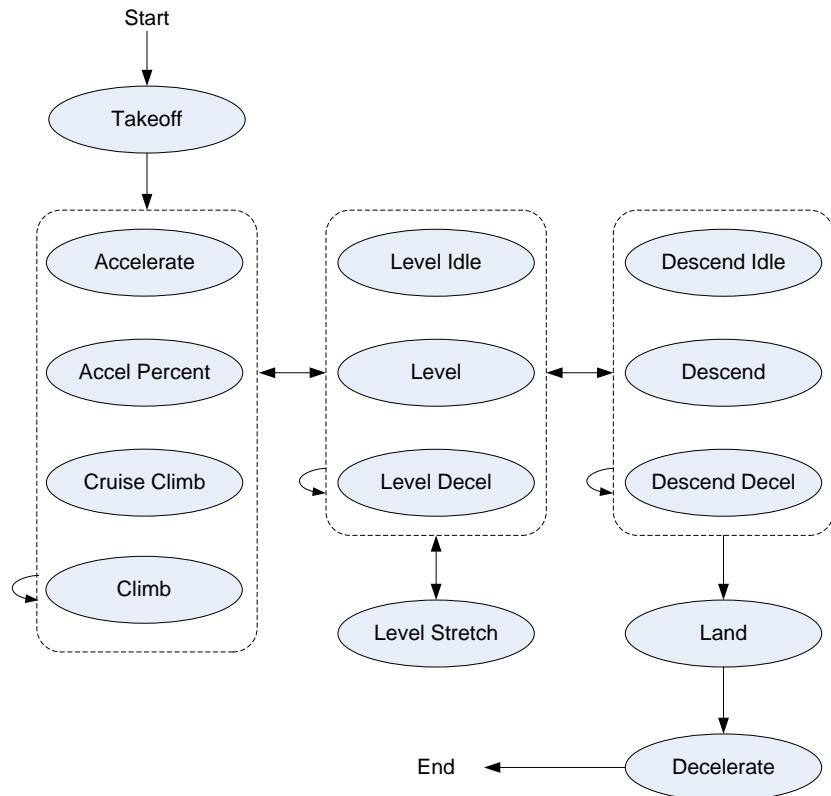


Figure 4: Airplane Circuit Step Transition Diagram

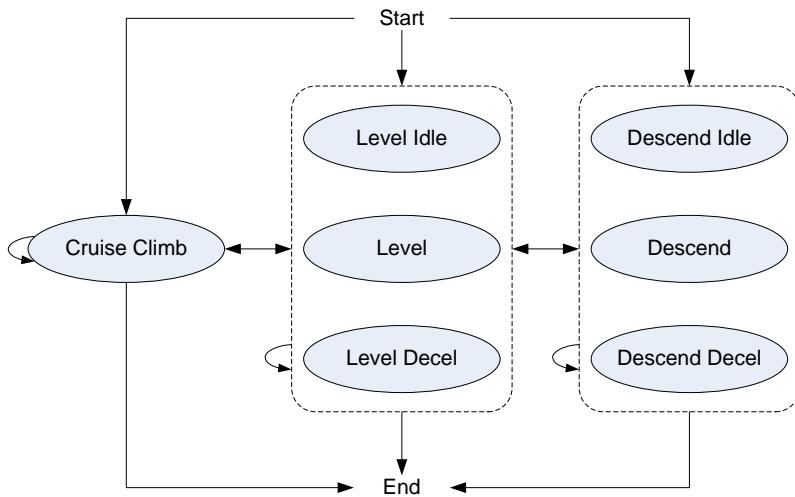


Figure 5: Airplane Overflight Step Transition Diagram

5.2 Helicopter Procedures

The following sections describe helicopter procedure steps and how they are combined into procedural profiles.

5.2.1 Helicopter Profile Operation Types

There are four types of flight operations for helicopters:

Abbreviation	Single-Letter Identifier	Description	Begin	End
APP	A	Approach	In Air	Helipad
DEP	D	Departure	Helipad	In Air
TAX	T	Taxi	Helipad	Helipad
OVF	V	Overflight	In Air	In Air

5.2.2 Helicopter Procedure Step Types

The following table describes the procedure steps that are used to define helicopter profiles. The first seven types are the primary NPD operating modes. The next nine are secondary NPD operating modes which can be derived from the primary modes or defined as separate curves. The last step (start altitude) facilitates profile creating as is not associated with an NPD operating mode.

Step Type	Description	State	Parameters
A	Approach at constant speed	Move	Dist Alt
D	Depart at constant speed	Move	Dist Alt
X	Level flyover at constant speed	Move	Dist
G	Ground idle	Static	Dur
H	Flight idle	Static	Dur
I	Hover in ground effect	Static	Dur
J	Hover out of ground effect	Static	Dur
V	Vertical ascent in ground effect	Static	Dur Alt
W	Vertical ascent out of ground effect	Static	Dur Alt
Y	Vertical descent in ground effect	Static	Dur Alt
Z	Vertical descent out of ground effect	Static	Dur Alt
B	Approach with horizontal deceleration	Move	Dist Spd
C	Approach with descending deceleration	Move	Dist Alt Spd
E	Depart with horizontal acceleration	Move	Dist Spd
F	Depart with climbing acceleration	Move	Dist Alt Spd
T	Taxi at constant speed	Move	Spd
S	Start altitude at constant speed	--	Alt spd

Parameter values are defined as below:

PARAM	Full Name
Dist	Distance (ft)
Dur	Duration (s)
Alt	Altitude (ft AFE)
Spd	Airspeed (kts)

5.2.2.1 Additional Helicopter Step Type Information

Step Type	Description
Start Altitude	This step is used to start a profile at a given altitude and speed. Input the starting altitude and speed.
Level Fly	This step is used to maintain altitude and speed for a given distance. Input the track distance covered by the step. Altitude and speed are defined by the previous step.
App Const Speed	This step is used to descend at constant speed to a given altitude over a given distance. Input the track distance covered by the step and the final altitude. The initial altitude and speed are defined by the previous step.
App Desc Decel	This step is used to descend and decelerate to a final altitude and speed over a given distance. Input the track distance covered by the step, the final altitude, and the final speed. The initial altitude and speed are defined by the previous step.
App Horiz Decel	This step is used to decelerate to a final speed at constant altitude over a given distance. Input the track distance covered by the step and the final speed. The altitude and initial speed are defined by the previous step.
App Vertical	This step is used to maintain horizontal position while descending to a final altitude over a given duration. Input the duration of the step and the final altitude. The horizontal position of the step is calculated from the previous step and the horizontal speed is zero.
Hover	This step is used to maintain altitude and horizontal position for a given duration. Input the duration of the step. The altitude is defined by the previous step, the horizontal position of the step is calculated from the previous step, and the horizontal speed is zero.
Ground Idle	This step is used to maintain ground idle for a given duration. Input the duration of the step. The altitude is zero, the horizontal position of the step is calculated from the previous step, and the horizontal speed is zero.
Flight Idle	This step is used to maintain flight idle for a given duration. Input the duration of the step. The altitude is zero, the horizontal position of the step is calculated from the previous step, and the horizontal speed is zero.
Dep Vertical	This step is used to maintain horizontal position while ascending to a final altitude over a given duration. Input the duration of the step and the final altitude. The horizontal position of the step is calculated from the previous step and the horizontal speed is zero.
Dep Horiz Accel	This step is used to accelerate to a final speed over a given distance. Input the track distance covered by the step and the final speed. The altitude and initial speed are defined by the previous step.
Dep Climb Accel	This step is used to climb and accelerate to a final altitude and speed over a given distance. Input the track distance covered by the step, the final altitude, and the final speed. The initial altitude and speed are defined by the previous step.

Step Type	Description
Dep Const Speed	This step is used to climb at constant speed to a given altitude over a given distance. Input the track distance covered by the step and the final altitude. The initial altitude and speed are defined by the previous step.
Taxi	This step is used to taxi at a given speed. Input the speed. The track distance is calculated based on the assigned taxi ground track, and the altitude is defined by the previous step. Helicopters defined as not having wheels must taxi at an altitude greater than zero.

Helicopter procedure steps explicitly define a helicopter's flight path. There are no thrust calculations for helicopter flight paths as there are for fixed-wing aircraft. Rather, each procedure step correlates with a helicopter flight operational mode and each mode has its own set of NPD data.

Some helicopter procedure steps correlate with different helicopter flight operational modes (and therefore different NPD and directivity data) depending on their altitude. When constructing flight paths with the Hover, DepVertical, and App Vertical procedure steps, AEDT calculates a ground effect altitude as follows:

$$\text{Ground Effect Altitude} = 1.5 \times \text{Main Rotor Diameter}$$

If the procedure step stays below the ground effect altitude, the procedure step correlates with the corresponding In Ground Effect flight operational mode. If the step stays at or above the ground effect altitude the procedure correlates with the corresponding Out of Ground Effect flight operational mode. If a given Dep Vertical or App Vertical procedure step crosses the ground effect altitude, AEDT automatically divides the step into two at the ground effect altitude and assigns flight operational modes to the two steps as appropriate.

5.2.3 How to Build a Helicopter Approach Profile

Helicopter approach profiles can be much more dynamic than fixed-wing airplane approach profiles. There are many more ways to operate a helicopter than there are to operate an airplane. AEDT provides a standard approach profile for each helicopter in the database, however these standard profiles may not be appropriate for all helicopter modeling. Additionally, general guidelines are not as appropriate for helicopter approach operations as they are for fixed-wing airplanes. It is strongly recommended to evaluate the helicopter flight operations being modeled to determine if using the standard AEDT helicopter procedures is appropriate. In most cases consulting with helicopter operators to design helicopter profiles that are appropriate for your study is needed. All helicopter approach profiles must start with a Start Altitude step.

For reference, AEDT standard helicopter approach procedures consist of the following procedure steps:

1. Start Altitude, with altitude set to 1000 feet AFE and speed set equal to the helicopter's level reference speed.
2. Level Fly, with distance set to 87250.0 ft (approximately 14 nautical miles).

3. App Horiz Decel, maintaining an altitude of 1000 ft while decelerating to the helicopter's approach reference speed over a distance of 5000 ft.
4. App Const Speed, maintaining the helicopter's approach reference speed while descending to an altitude of 500 feet AFE over a track distance of 4800 feet.
5. App Desc Decel, descending to an altitude of 15 feet AFE while decelerating to a speed of 0 knots over a distance of 2850 feet.
6. App Vertical, maintaining horizontal position while descending to 0 feet AFE over a duration of 3 seconds.
7. Flight Idle for a duration of 30 seconds.
8. Ground Idle for a duration of 30 seconds.

5.2.4 How to Build a Helicopter Departure Profile

Helicopter approach profiles can be much more dynamic than fixed-wing airplane approach profiles. There are many more ways to operate a helicopter than there are to operate an airplane. AEDT provides a standard approach profile for each helicopter in the database, however these standard profiles may not be appropriate for all helicopter modeling. Additionally, general guidelines are not as appropriate for helicopter approach operations as they are for fixed-wing airplanes. It is strongly recommended to evaluate the helicopter flight operations being modeled to determine if using the standard AEDT helicopter procedures is appropriate. In most cases consulting with helicopter operators to design helicopter profiles that are appropriate for your study is needed.

For reference, AEDT standard helicopter departure procedures consist of the following procedure steps:

1. Ground Idle for a duration of 30 seconds.
2. Flight Idle for a duration of 30 seconds.
3. Dep Vertical, maintaining horizontal position while ascending to an altitude of 15 ft AFE over a duration of 3 seconds.
4. Dep Horiz Accel, maintaining altitude while accelerating to a speed of 30 knots over a distance of 100 feet.
5. Dep Climb Accel, climbing to an altitude of 30 feet AFE while accelerating to the helicopter's depart reference speed over a distance of 500 feet.
6. Dep Const Speed, maintaining speed while climbing to an altitude of 1000 feet AFE over a track distance of 3500 feet.
7. Dep Horizontal Accel, maintaining altitude while accelerating to the helicopter's level reference speed over a track distance of 2800 feet.
8. Level Fly, with distance set to 93100 feet (approximately 15 nautical miles).

5.2.5 How to Build a Helicopter Overflight Profile

A typical helicopter overflight profile begins in the air at the start of an overflight track, follows the track, and ends in the air. Overflight profiles may include any of the steps defined in section 6.2.2 except for the Taxi step, and it must start with a Start Altitude step.

5.2.6 How to Build a Helicopter Taxi Profile

A typical helicopter taxi profile consists of the following steps:

1. Start with Ground Idle
2. Flight Idle
3. Departure Vertical
4. Taxi
5. Approach Vertical
6. Flight Idle
7. Ground Idle

5.2.7 Helicopter Procedure Step Transitions

Procedure steps are combined in prescribed sequences. However, certain sequences are not allowed. For example, an approach profile cannot use an ascent step. Procedures must comply with the step transition diagrams provided here.

The step transition diagrams use a simple convention to represent procedures:

- Ellipses represent procedure steps.
- Arrows represent a valid transition from one step to another.
- Arrows point in the direction of the allowed transition – e.g. you can go from Flight, Idle to Ground, Idle on an approach, but not back.
- A double sided arrow means that the transition is valid in both directions.
- An arrow looping back to a step indicates that the step can be repeated.
- A box surrounding two or more steps is used to simplify the diagram.
- Arrows connected to the box apply to each step within.
- Each step within the box can transition to any other within the box. However, speeds and altitudes must be compatible. For example, on an approach a transition from an App.Horiz.Decel step to a Hover step is valid only when the App.Horiz.Decel step has a speed of 0 knots.

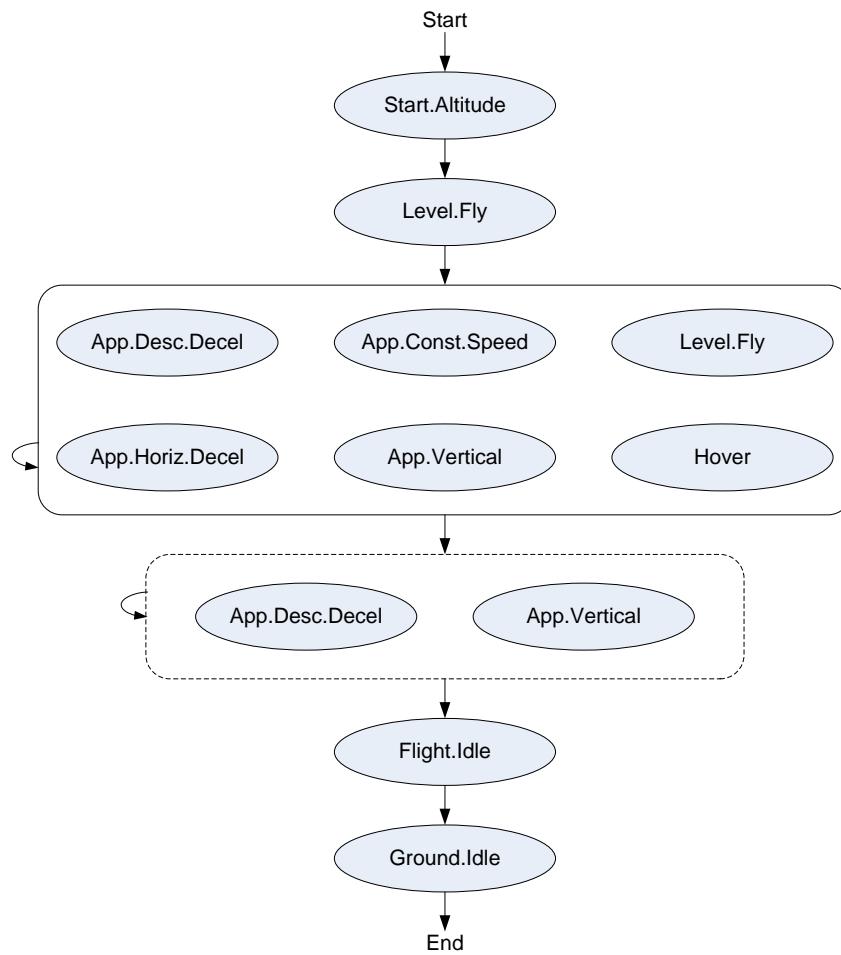


Figure 6: Helicopter Approach Step Transition Diagram

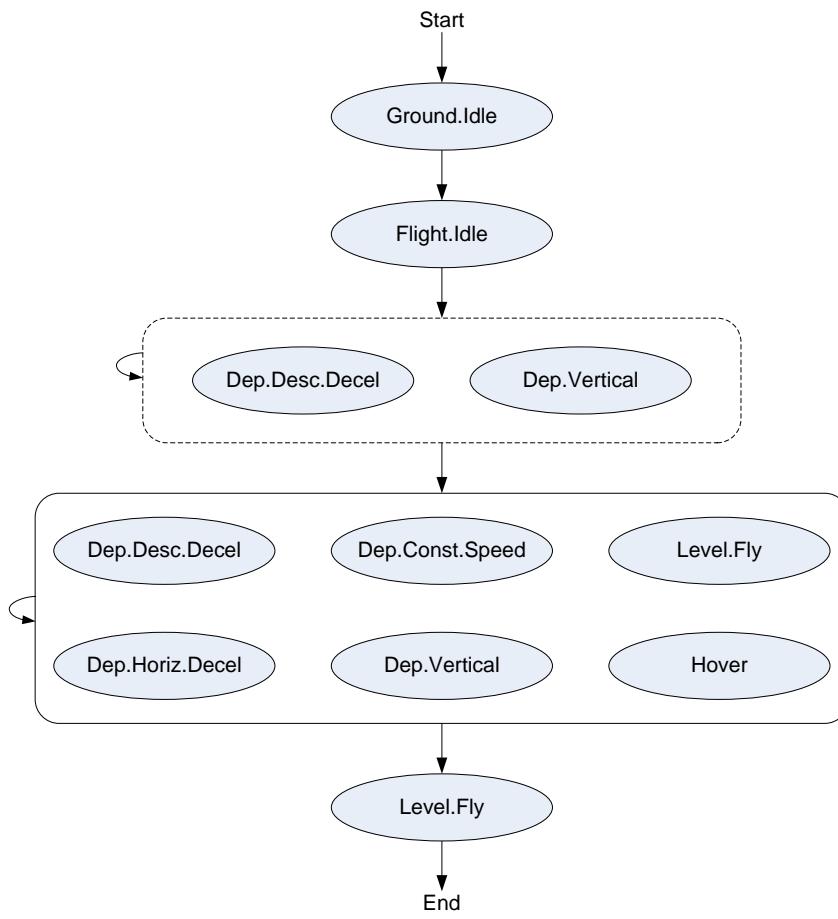


Figure 7: Helicopter Departure Step Transition Diagram

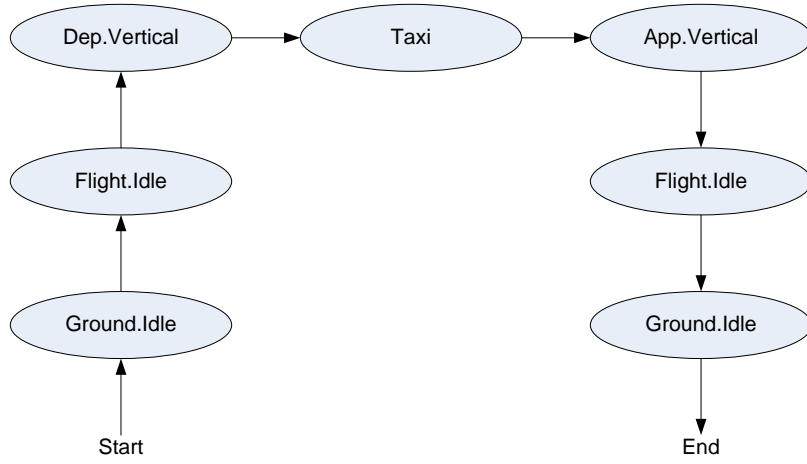


Figure 8: Helicopter Taxi Transition Diagram

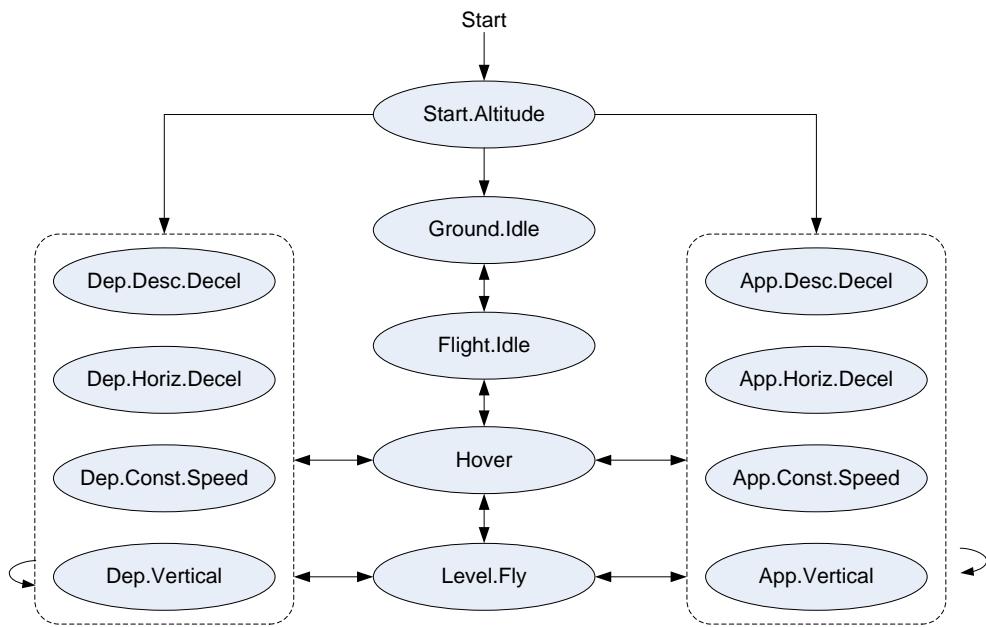


Figure 9: Helicopter Overflight Step Transition Diagram

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: [..\\XmlSpyXsd\\AsifMerge.xsd](#)

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elementFormDefault: qualified

Elements

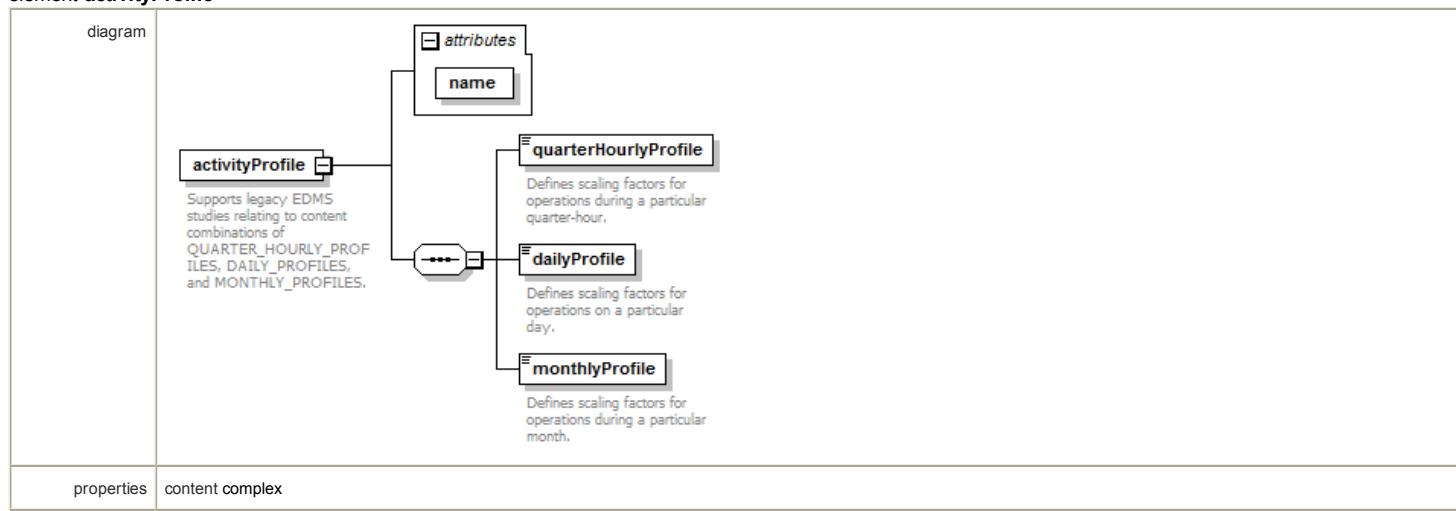
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Groups

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receptorSet	int0to87
recordCode	int1to13
roadway	int1to15
roadwayOperation	int1to2
roadwayOperationSet	int1to25
roadwaySet	int1to4
runway	int1to5
runwayAssignment	int1to8
runwayAssignmentSet	int1to93
runwaySet	int5to65
scenario	int6to13
scenarioAirportLayoutSet	int89to148
sensorNode	latitudeDMSType
sensorPath	longitudeDMSType
stationarySource	nodeControlType
stationarySourceOperation	opType
stationarySourceOperationSet	originSourceType
stationarySourceSet	profileType
study	quarterHourMinutes
subtract	string1
taxiNode	string10
taxiNodeSet	string100
taxipath	string11
taxipathSet	string12
taxiTime	string14
taxiway	string15
taxiwaySet	string16
track	string2
trackNode	string20
trackNodes	string200
trackOpSet	string25
trackref	string255
trackSet	string3
trackVector	string30
trackVectors	string32
userDefinedAirportSet	string4
userGroundSupportEquipment	string40
userGroundSupportEquipmentSet	string42
vehicleEmissionFactors	string5
volumeStationarySource	string50
weatherData	string6
windRose	string64
windRoseData	string66
windRoseStation	string7
	string8
	string9
	studyType
	taxiModelType
	timeInModeBasisType
	trainingFireFuelType
	vectorTrackType
	wingType
	yesNoType

element activityProfile



children	quarterHourlyProfile dailyProfile monthlyProfile
used by	element activityProfileSet
attributes	Name Type Use Default Fixed Annotation <u>name</u> string100 required
annotation	documentation Supports legacy EDMS studies relating to content combinations of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES.

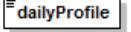
attribute activityProfile/@name

type	string100
properties	use required
facets	Kind Value Annotation minLength 0 maxLength 100

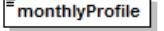
element activityProfile/quarterHourlyProfile

diagram	 quarterHourlyProfile Defines scaling factors for operations during a particular quarter-hour.
type	string100
properties	content simple
used by	element quarterHourlyProfileSet
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Defines scaling factors for operations during a particular quarter-hour.

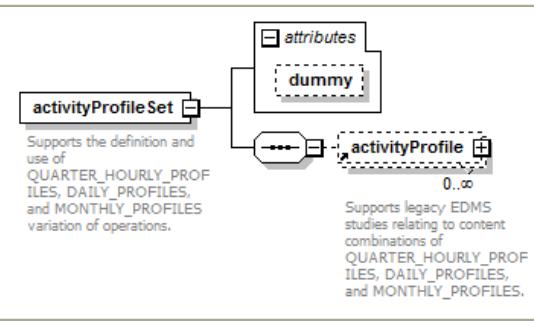
element activityProfile/dailyProfile

diagram	 dailyProfile Defines scaling factors for operations on a particular day.
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	 monthlyProfile Defines scaling factors for operations during a particular month.
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.

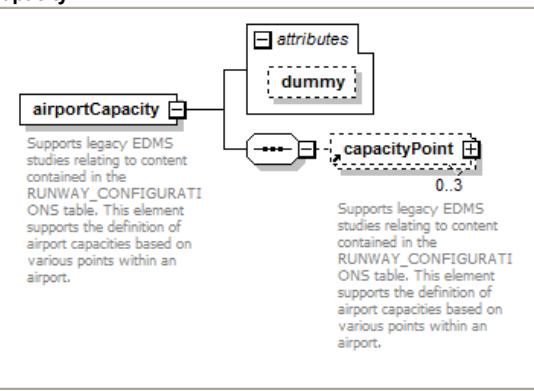
element activityProfileSet

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> <p>dummy xs:int optional</p>												
properties	content complex												
children	activityProfile												
used by	<p>element operationalProfileSet complexType airportLayoutType</p>												
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>Supports the definition and use of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES variation of operations.</p>												

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> <p>dummy xs:int optional</p>												
properties	content complex												
children	capacityPoint												
used by	<p>element airportConfig complexTypes airportLayoutType scenarioAirportLayoutType</p>												
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>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 airportCapacity/@dummy

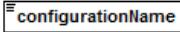
type	xs:int
properties	use optional

element airportConfig

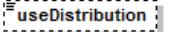
diagram	
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	<p>configurationName</p> <p>Runway configuration name.</p> <p>useDistribution</p> <p>Flag to use a distribution for the configuration.</p> <p>weight</p> <p>Runway configuration weight factor.</p> <p>startWindAngle</p> <p>Start wind angle. Valid values: 0.00 to 359.00. (degrees)</p> <p>endWindAngle</p> <p>End wind angle. Valid values: 0.00 to 359.00. (degrees)</p> <p>minWindSpeed</p> <p>Minimum wind speed. Valid values: 0.00 to 100.00. (kts)</p> <p>maxWindSpeed</p> <p>Maximum wind speed. Valid values: 0.00 to 100.00. (kts)</p> <p>startHour</p> <p>Start hour. Valid values: 0.00 to 23.00.</p> <p>endHour</p> <p>End hour. Valid values: 0.00 to 23.00.</p> <p>minCeiling</p> <p>Minimum ceiling. Valid values: 0.00 to 100000.00. (ft)</p> <p>maxCeiling</p> <p>Maximum ceiling. Valid values: 0.00 to 100000.00. (ft)</p> <p>minVisibility</p> <p>Minimum visibility. Valid values: 0.00 to 100.00. (mi)</p> <p>maxVisibility</p> <p>Maximum visibility. Valid values: 0.00 to 100.00. (mi)</p> <p>minTemperature</p> <p>Minimum temperature. Valid values: -100.00 to 150.00. (°F)</p> <p>maxTemperature</p> <p>Maximum temperature. Valid values: -100.00 to 150.00. (°F)</p> <p>airportCapacity</p> <p>Airport runway capacity points.</p> <p>runwayAssignmentSet</p> <p>The runway assignments.</p>
properties	content complex
children	configurationName useDistribution weight startWindAngle endWindAngle minWindSpeed maxWindSpeed startHour endHour minCeiling maxCeiling minVisibility maxVisibility minTemperature maxTemperature airportCapacity runwayAssignmentSet
used by	element airportConfigSet
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 airportConfig/configurationName

diagram	 Runway configuration name.
type	string100
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Runway configuration name.

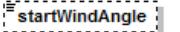
element airportConfig/useDistribution

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.

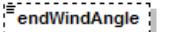
element airportConfig/weight

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. (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. (degrees)

element airportConfig/endWindAngle

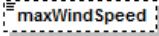
diagram	 End wind angle. Valid values: 0.00 to 359.00. (degrees)
type	int0to360
properties	minOcc 0 maxOcc 1

	content simple
facets	Kind Value Annotation minInclusive 0 maxExclusive 360
annotation	documentation End wind angle. Valid values: 0.00 to 359.00. (degrees)

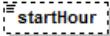
element airportConfig/minWindSpeed

diagram	 minWindSpeed Minimum wind speed. Valid values: 0.00 to 100.00. (kts)
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. (kts)

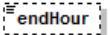
element airportConfig/maxWindSpeed

diagram	 maxWindSpeed Maximum wind speed. Valid values: 0.00 to 100.00. (kts)
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. (kts)

element airportConfig/startHour

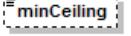
diagram	 startHour Start hour. Valid values: 0.00 to 23.00.
type	doubleInclusive24
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 24
annotation	documentation Start hour. Valid values: 0.00 to 23.00.

element airportConfig/endHour

diagram	 endHour End hour. Valid values: 0.00 to 23.00.
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.

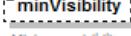
element airportConfig/minCeiling

diagram	 minCeiling Minimum ceiling. Valid values: 0.00 to 100000.00. (ft)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Minimum ceiling. Valid values: 0.00 to 100000.00. (ft)

element airportConfig/maxCeiling

diagram	 maxCeiling Maximum ceiling. Valid values: 0.00 to 100000.00. (ft)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Maximum ceiling. Valid values: 0.00 to 100000.00. (ft)

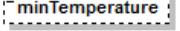
element airportConfig/minVisibility

diagram	 minVisibility Minimum visibility. Valid values: 0.00 to 100.00. (mi)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Minimum visibility. Valid values: 0.00 to 100.00. (mi)

element airportConfig/maxVisibility

diagram	 maxVisibility Maximum visibility. Valid values: 0.00 to 100.00. (mi)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Maximum visibility. Valid values: 0.00 to 100.00. (mi)

element airportConfig/minTemperature

diagram	 minTemperature Minimum temperature. Valid values: -100.00 to 150.00. (°F)
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	<p>Contains one or more airportConfig elements.</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>
properties	content complex
children	airportConfig
used by	complexTypes airportLayoutType scenarioAirportLayoutType
annotation	documentation Contains one or more airportConfig elements.

element airportLayoutSet

diagram	<p>Contains layouts for ASIF partial import into an existing study.</p> <p>Contains information about the available layout of each airport in the study.</p>
properties	content complex
children	airportLayout
used by	elements AsifXml study
attributes	Name Type Use Default Fixed Annotation <u>dummy</u> xs:int optional
annotation	documentation Contains layouts for ASIF partial import into an existing study.

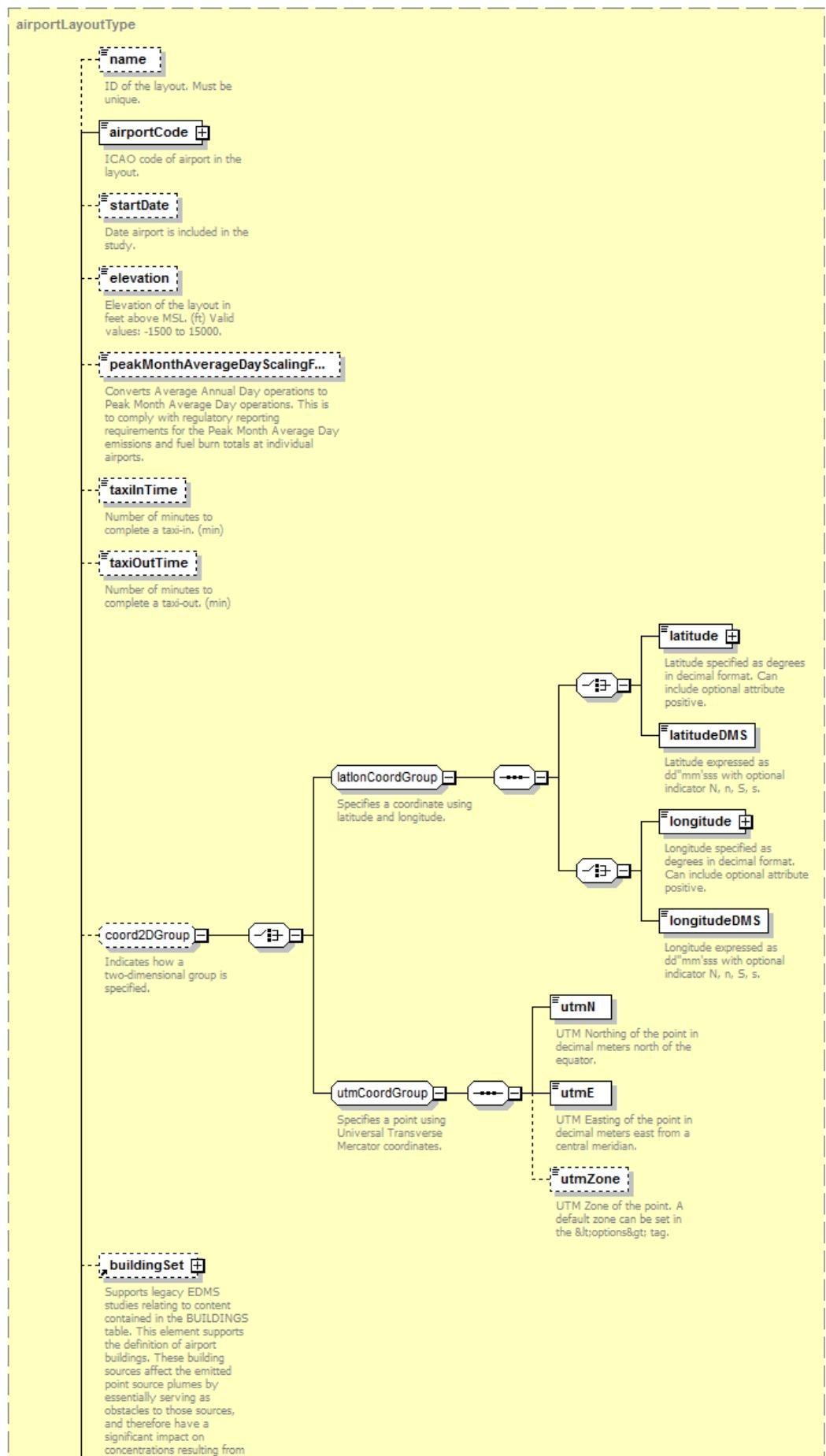
attribute airportLayoutSet@dummy

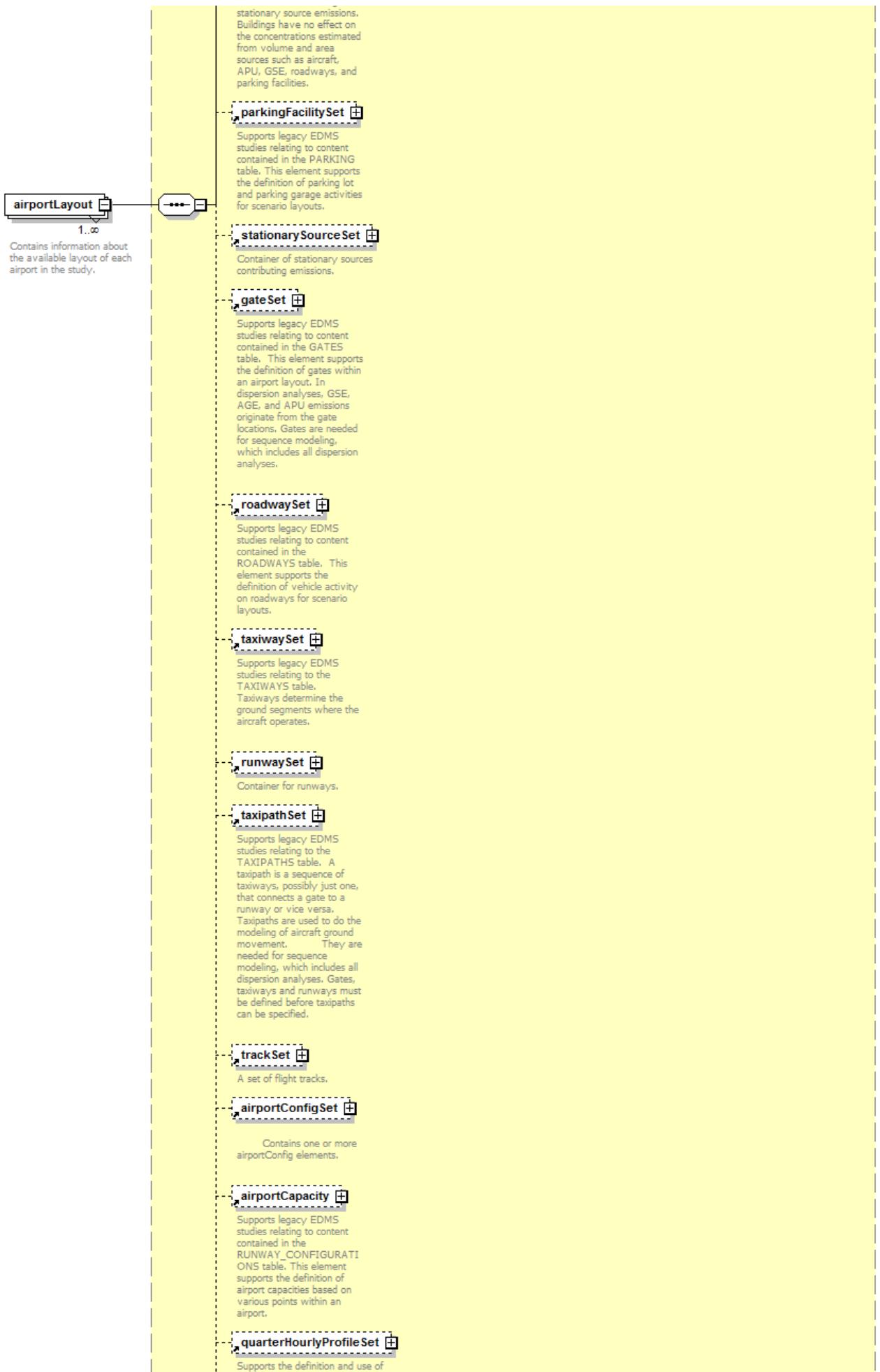
type	xs:int
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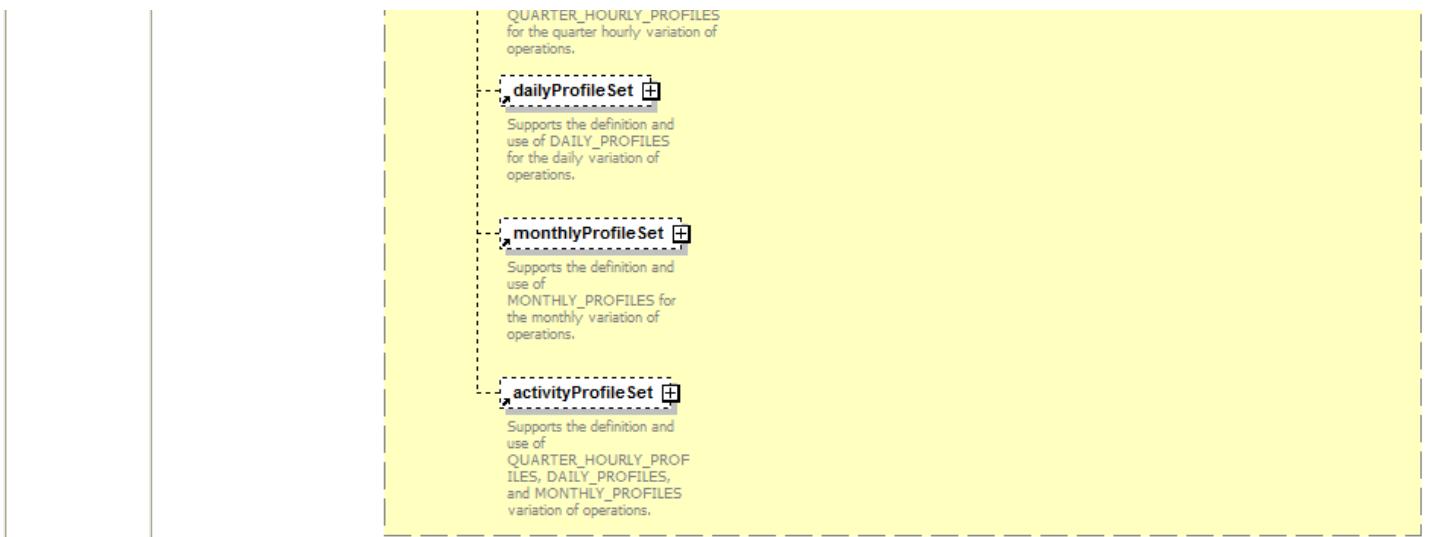
properties	use optional
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element airportLayoutSet/airportLayout

diagram







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

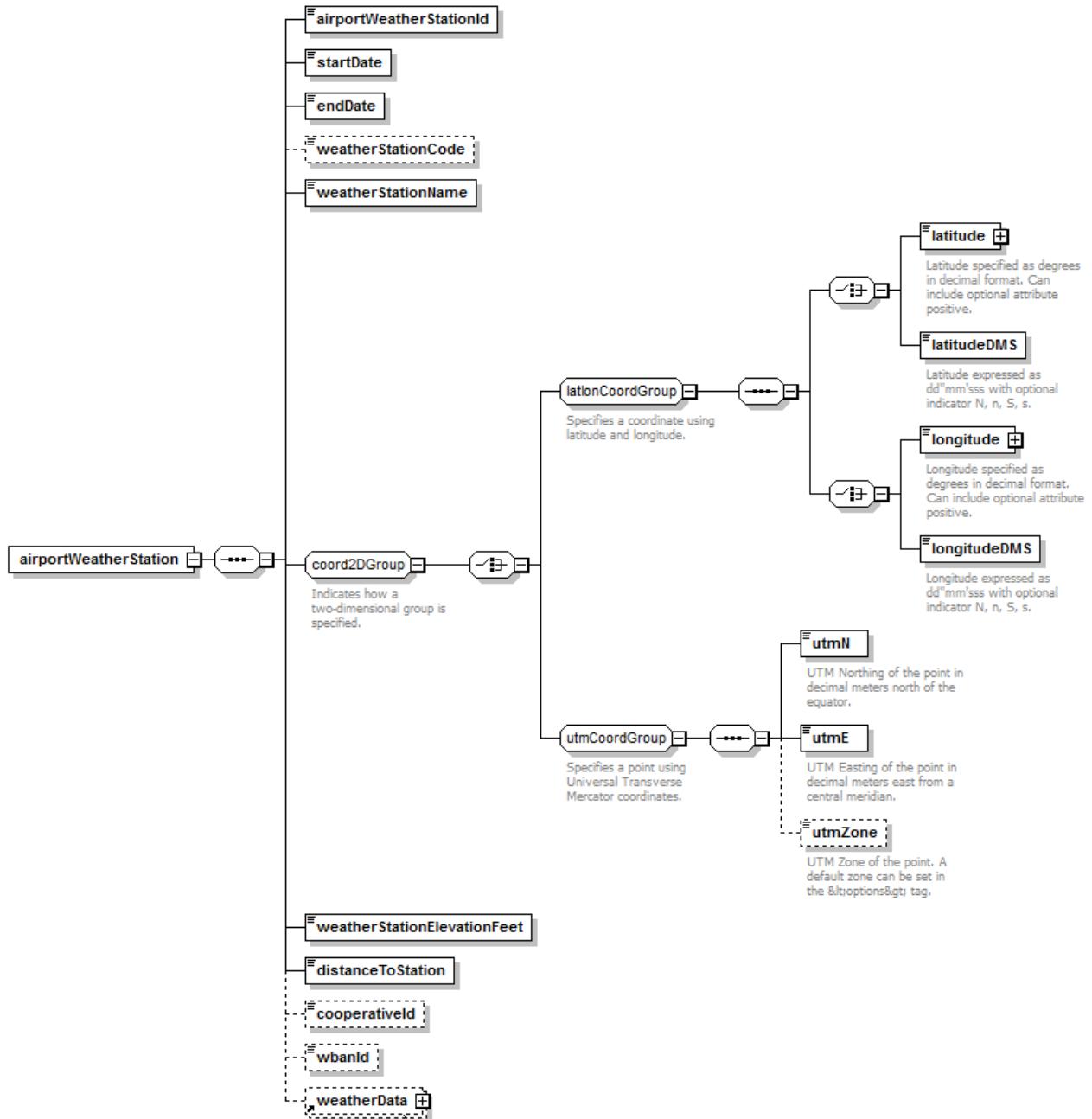
diagram	<pre> classDiagram class airportWeather class airportWeatherStationId class airportWeatherStation airportWeather "2..1" -- "1..1" airportWeatherStationId airportWeather "2..1" -- "1..1" airportWeatherStation </pre>
properties	content complex
children	airportWeatherStationId airportWeatherStation
used by	complexType airport

element **airportWeather/airportWeatherStationId**

diagram	<pre> classDiagram class airportWeatherStationId </pre>
type	xs:int
properties	content simple

element **airportWeatherStation**

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

element **airportWeatherStation/airportWeatherStationId**

diagram	
type	xs:int
properties	content simple

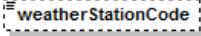
element **airportWeatherStation/startDate**

diagram	
type	xs:date
properties	content simple

element airportWeatherStation/endDate

diagram	
type	xs:date
properties	content simple

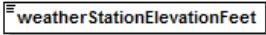
element airportWeatherStation/weatherStationCode

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

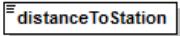
element airportWeatherStation/weatherStationName

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

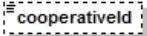
element airportWeatherStation/weatherStationElevationFeet

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

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.

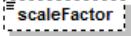
element annualizationCase/name

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

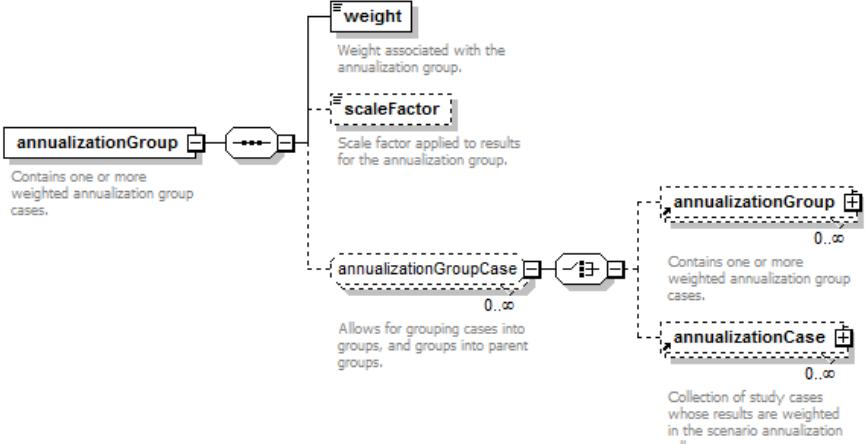
element annualizationCase/weight

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

element annualizationCase/scaleFactor

diagram	 scaleFactor Scale factor applied to results for the case.
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	 <p>The diagram illustrates the structure of the annualizationGroup element. It contains a sequence of three elements: weight, scaleFactor, and annualizationGroupCase. The weight element has a note: "Weight associated with the annualization group." The scaleFactor element has a note: "Scale factor applied to results for the annualization group." The annualizationGroupCase element has a note: "Allows for grouping cases into groups, and groups into parent groups." Below the main structure, there is a separate box containing another annualizationGroup element with a note: "Contains one or more weighted annualization group cases." This indicates that the annualizationGroup element can be part of a larger group.</p>
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	 weight Weight associated with the annualization group.
type	xs:double
properties	content simple
annotation	documentation Weight associated with the annualization group.

element annualizationGroup/scaleFactor

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

	<p># scaleFactor</p> <p>Scale factor applied to results for the annualization group.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 1
annotation	<p>documentation</p> <p>Scale factor applied to results for the annualization group.</p>

element areaStationarySource

diagram	<pre> graph LR AS[areaStationarySource] --> OTC[oneOrThreeCoords2DGroupSet] OTC --> PC[pointCoord] OTC --> PC2[polygonCoords] OTC --> BE[baseElevation] BE --> RH[releaseHeight] BE --> SZ[sigmaZ] style PC fill:#e0f2e0 style PC2 fill:#e0f2e0 style BE fill:#e0f2e0 style RH fill:#e0f2e0 style SZ fill:#e0f2e0 </pre>
properties	content complex
children	pointCoord polygonCoords baseElevation releaseHeight sigmaZ
used by	element stationarySource
annotation	<p>documentation</p> <p>Specifies the area in space occupied by a stationary source of emissions.</p>

element areaStationarySource/baseElevation

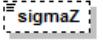
diagram	<p># baseElevation</p> <p>Elevation in MSL of area, valid values -500 to 5000 (m)</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>Elevation in MSL of area, valid values -500 to 5000 (m)</p>

element areaStationarySource/releaseHeight

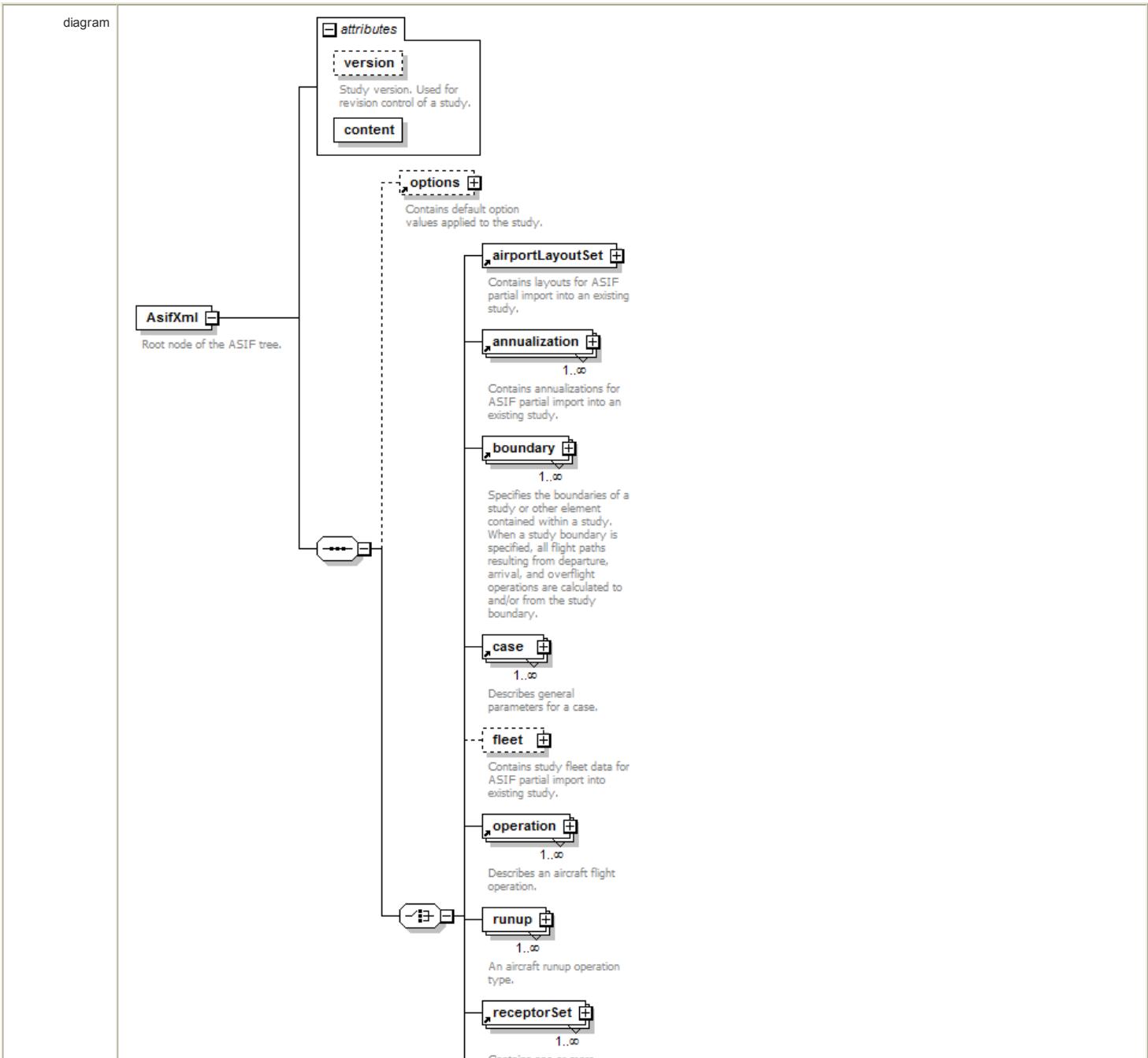
diagram	<p># releaseHeight</p> <p>Height at which emissions are released into the atmosphere. Valid values: 0 to 100 (m)</p>						
type	doubleInclusive100						
properties	minOcc 0 maxOcc 1 content simple default 0						
facets	<table> <tr> <td>Kind</td> <td>Value</td> <td>Annotation</td> </tr> <tr> <td>minInclusive</td> <td>0</td> <td></td> </tr> </table>	Kind	Value	Annotation	minInclusive	0	
Kind	Value	Annotation					
minInclusive	0						

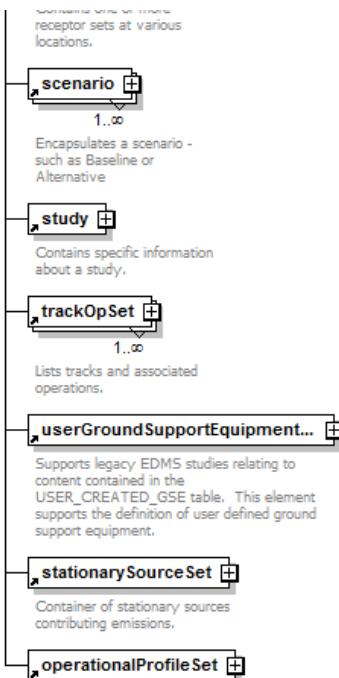
	maxInclusive 100
annotation	documentation Height at which emissions are released into the atmosphere. Valid values: 0 to 100 (m)

element areaStationarySource/sigmaZ

diagram	 <p>Vertical dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: 0.1 to 100.</p>
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





properties	content complex					
children	options airportLayoutSet annualization boundary case fleet operation runup receptorSet scenario study trackOpSet userGroundSupportEquipmentSet stationarySourceSet operationalProfileSet					
attributes	Name version	Type string16	Use optional	Default	Fixed	Annotation documentation Study version. Used for revision control of a study.
annotation	documentation Root node of the ASIF tree.					

attribute AsifXml/@version

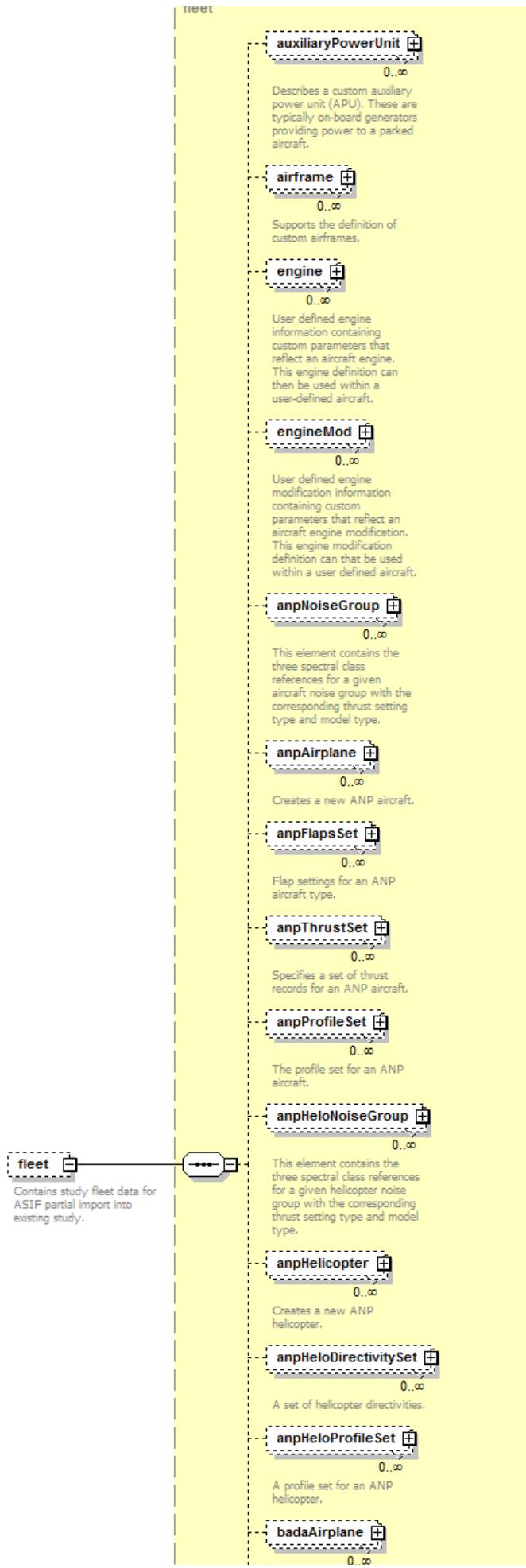
type	string16
properties	use optional
facets	Kind Value Annotation minLength 0 maxLength 16
annotation	documentation Study version. Used for revision control of a study.

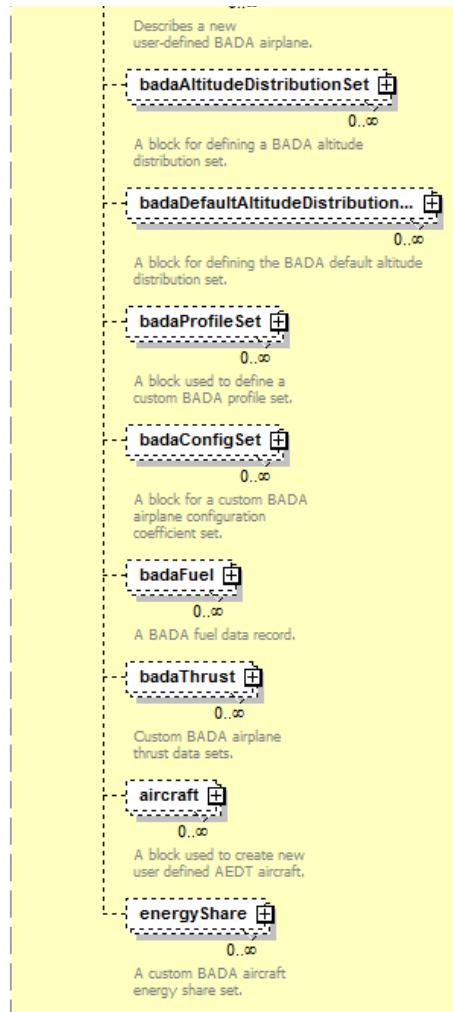
attribute AsifXml/@content

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

diagram	
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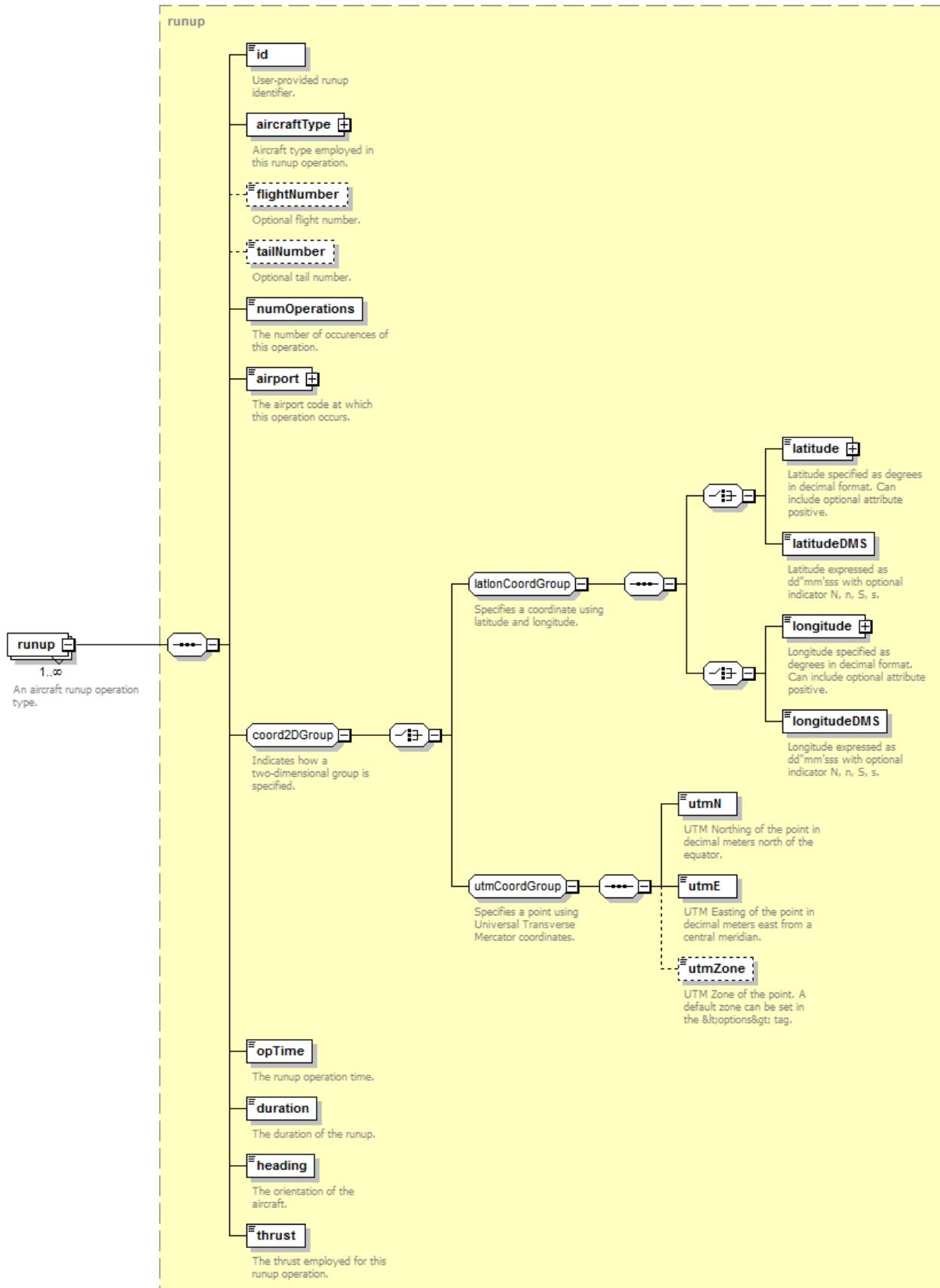




	type fleet
properties	minOcc 0 maxOcc 1 content complex
children	auxiliaryPowerUnit airframe engine engineMod anpNoiseGroup anpAirplane anpFlapsSet anpThrustSet anpProfileSet anpHeloNoiseGroup anpHelo anpHeloDirectivitySet anpHeloProfileSet badaAirplane badaAltitudeDistributionSet badaDefaultAltitudeDistributionSet badaProfileSet badaConfigSet badaFuel badaThrust 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

annotation	documentation An aircraft runup operation type.
------------	--

element backbone

diagram	<p>The diagram shows the backbone element as a rectangular box with a small square icon. It is connected via a sequence of nodes (represented by rectangles with small squares) to a dispersionWeight node, which is enclosed in a dashed box. Below the backbone node is a text box stating: "Represents the centerline of a set of dispersed tracks."</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>The diagram shows the backboneNode element as a rectangular box with a small square icon. It is connected via a sequence of nodes (represented by rectangles with small squares) to a trackNode node and a halfwidth node, both enclosed in dashed boxes. Below the backbone node is a text box stating: "A 3D node that is part of a backbone."</p>
properties	content complex
children	trackNode halfwidth
used by	element backboneNodes
annotation	documentation A 3D node that is part of a backbone.

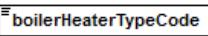
element backboneNode/halfwidth

diagram	<p>The diagram shows the halfwidth element as a rectangular box with a small square icon.</p>
type	xs:double
properties	content simple
annotation	documentation Halfwidth in nautical miles. (nmi)

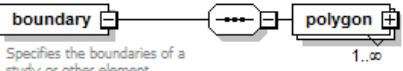
element backboneNodes

diagram	<p>The diagram shows the backboneNodes element as a rectangular box with a small square icon. It is connected via a sequence of nodes (represented by rectangles with small squares) to a backboneNode node, which is enclosed in a dashed box. Below the backboneNodes node is a text box stating: "The set of 3D nodes for the backbone." To the right of the backboneNode node is another text box stating: "1..∞ 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.

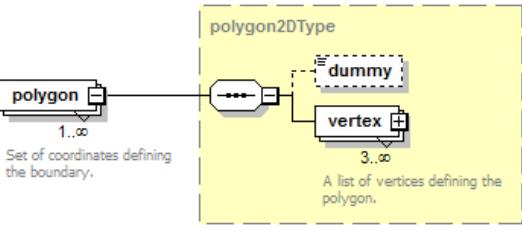
element boilerHeaterTypeCode

diagram	
	<p>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 37, 50 to 75, 80 to 93.</p>
type	union of (restriction of xs:integer, restriction of xs:integer, restriction of xs:integer)
properties	content simple
used by	element categoryBoilerHeater
annotation	<p>documentation</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 37, 50 to 75, 80 to 93.</p>

element boundary

diagram	
	<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>
properties	content complex
children	polygon
used by	elements AsifXml study
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>

element boundary/polygon

diagram	
	<p>Set of coordinates defining the boundary.</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	
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	<pre> classDiagram class building { <<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.>> } class name { <<Name of the building.>> } class elevation { <<Elevation of building. Valid values: -500 to 5000. (m)>> } class height { <<Height of building. Valid values: 0 to 100 (m)>> } class releaseHeight { <<Height at which emissions are released into the atmosphere. Valid values 0 to 100 (m)>> } class oneOrThreeCoords2DGroupSet { <<Type of coordinate specifying the area.>> } class pointCoord { <<Choice of a single point coordinate.>> } class polygonCoords { <<Choice of a 2D polygon.>> } building "3" --> name building "3" --> elevation building "3" --> height building "3" --> releaseHeight building "*" --> oneOrThreeCoords2DGroupSet oneOrThreeCoords2DGroupSet "*" --> pointCoord oneOrThreeCoords2DGroupSet "*" --> polygonCoords </pre>
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.</p> <p>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										
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>Name of the building.</p>									

element building/elevation

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

element building/height

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

element building/releaseHeight

diagram	<p>releaseHeight</p> <p>Height at which emissions are released into the atmosphere. Valid values 0 to 100 (m)</p>
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	<p>buildingSet</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>attributes</p> <p>dummy xs:int optional</p> <p>building</p> <p>1..∞</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>
properties	content complex
children	building
used by	complexType airportLayoutType
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 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	<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

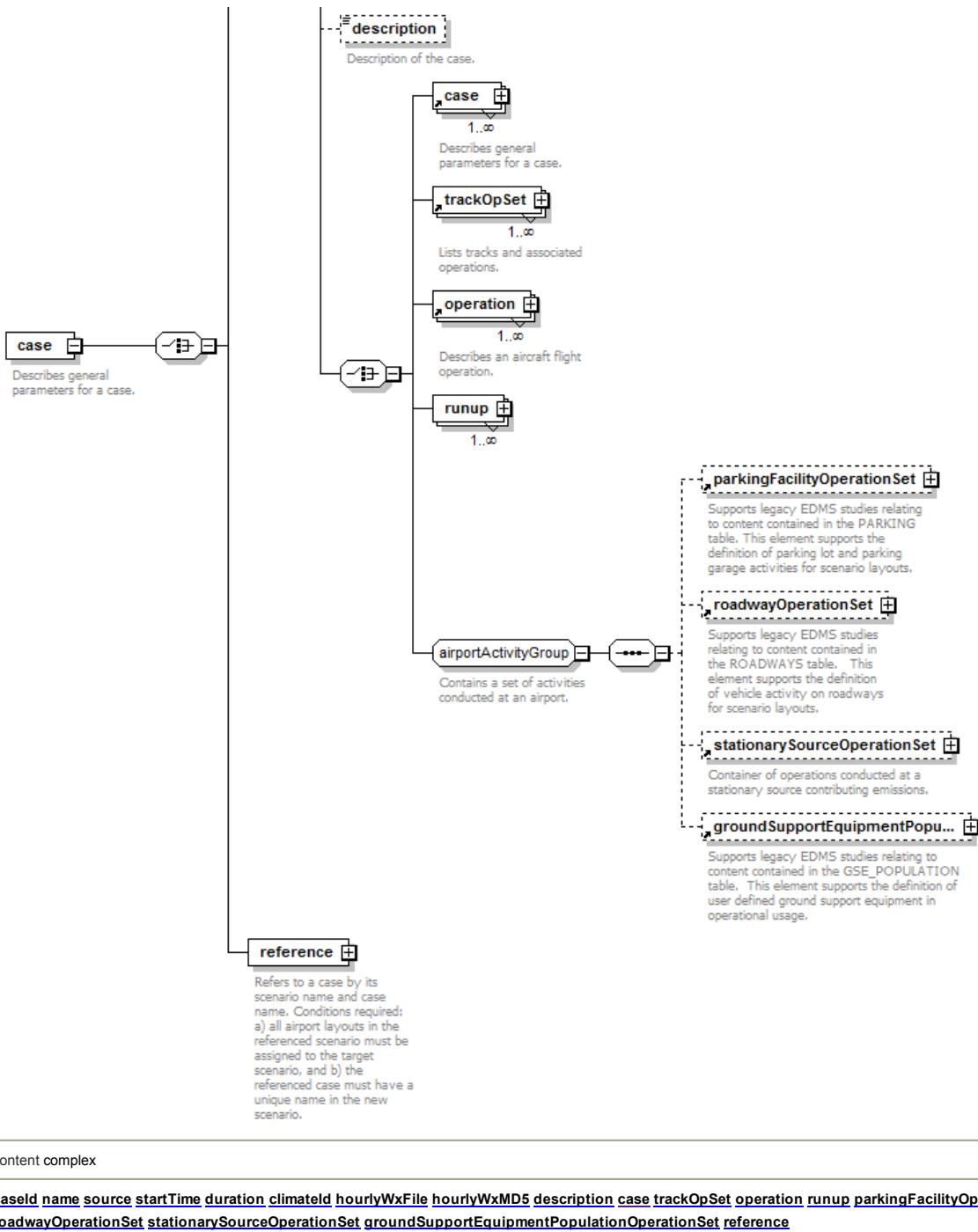
diagram	<p>arrivalsPerHour</p> <p>Number of arrivals per hour. Valid values: 0.00 to 400.00. (operations per hour)</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>Number of arrivals per hour. Valid values: 0.00 to 400.00. (operations per hour)</p>

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	<p>case</p> <p>Case ID.</p> <p>name</p> <p>The name of the case (must be unique within the scenario).</p> <p>source</p> <p>startTime</p> <p>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.</p> <p>duration</p> <p>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).</p> <p>climateId</p> <p>ID of a climate condition.</p> <p>hourlyWxFile</p> <p>The file containing the hourly weather data used for emissions calculations. This element is not supported in AEDT.</p> <p>hourlyWxMD5</p> <p>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.</p>
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element case/caseld

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

element case/name

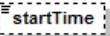
diagram	
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	 <p>The name of the case (must be unique within the scenario).</p>									
type	string255									
properties	content simple									
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <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	<p>documentation</p> <p>The name of the case (must be unique within the scenario).</p>									

element case/source

diagram																						
type	emissionsSourceType																					
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>enumeration</td> <td>Container</td> <td></td> </tr> <tr> <td>enumeration</td> <td>Aircraft</td> <td></td> </tr> <tr> <td>enumeration</td> <td>GSE Population</td> <td></td> </tr> <tr> <td>enumeration</td> <td>Parking Facilities</td> <td></td> </tr> <tr> <td>enumeration</td> <td>Roadways</td> <td></td> </tr> <tr> <td>enumeration</td> <td>Stationary Sources</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	enumeration	Container		enumeration	Aircraft		enumeration	GSE Population		enumeration	Parking Facilities		enumeration	Roadways		enumeration	Stationary Sources	
Kind	Value	Annotation																				
enumeration	Container																					
enumeration	Aircraft																					
enumeration	GSE Population																					
enumeration	Parking Facilities																					
enumeration	Roadways																					
enumeration	Stationary Sources																					

element case/startTime

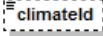
diagram	 <p>Case's start time. If not defined, the value specified in the scenario element will be used. Must match the value for startTime for the scenario. Accepts dateTime string.</p>
type	xs:dateTime
properties	minOcc 0 maxOcc 1 content simple
annotation	<p>documentation</p> <p>Case's start time.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

element case/duration

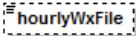
diagram	 <p>Case's duration. If not defined, the value specified in the scenario element will be used. Must match the value for duration for the scenario. For AEDT this is restricted to 24 hours (1 day). All cases within a scenario must have the same duration as the scenario. (hr).</p>
type	xs:int
properties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

element case/climateId

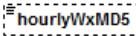
diagram	
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	 <p>ID of a climate condition.</p>
type	string8
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation ID of a climate condition.

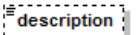
element case/hourlyWxFile

diagram	 <p>The file containing the hourly weather data used for emissions calculations. This element is not supported in AEDT.</p>
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	 <p>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.</p>
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	 <p>Description of the case.</p>
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	<pre> classDiagram class runup { id aircraftType flightNumber tailNumber numOperations airport runup *--> coord2DGroup runup *--> utmCoordGroup opTime duration heading thrust } class coord2DGroup { latitude longitude latitudeDMS longitudeDMS } class utmCoordGroup { utmN utmE utmZone } </pre> <p>The diagram illustrates the structure of the runup element. It consists of several attributes and coordinate systems. The attributes include:</p> <ul style="list-style-type: none"> id: User-provided runup identifier. aircraftType: Aircraft type employed in this runup operation. flightNumber: Optional flight number. tailNumber: Optional tail number. numOperations: The number of occurrences of this operation. airport: The airport code at which this operation occurs. opTime: The runup operation time. duration: The duration of the runup. heading: The orientation of the aircraft. thrust: The thrust employed for this runup operation. <p>Coordinate systems:</p> <ul style="list-style-type: none"> coord2DGroup (specifies a coordinate using latitude and longitude): <ul style="list-style-type: none"> latitude: Latitude specified as degrees in decimal format. Can include optional attribute positive. longitude: Longitude specified as degrees in decimal format. Can include optional attribute positive. latitudeDMS: Latitude expressed as dd°mm'ss with optional indicator N, n, S, s. longitudeDMS: Longitude expressed as dd°mm'ss with optional indicator N, n, S, s. utmCoordGroup (specifies a point using Universal Transverse Mercator coordinates): <ul style="list-style-type: none"> utmN: 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.
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
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element case/reference

diagram	<p>The diagram shows a rectangular box labeled "reference" connected by a dashed line to another rectangular box labeled "refScenario".</p> <p>reference 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> <p>refScenario Scenario under which an existing case appears.</p> <p>refCase Existing case that appears under the refScenario.</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	<p>The diagram shows a rectangular box labeled "refScenario".</p> <p>refScenario Scenario under which an existing case appears.</p>						
type	string255						
properties	content simple						
facets	<table> <tr> <td>Kind</td> <td>Value</td> </tr> <tr> <td>minLength</td> <td>0</td> </tr> <tr> <td>maxLength</td> <td>255</td> </tr> </table>	Kind	Value	minLength	0	maxLength	255
Kind	Value						
minLength	0						
maxLength	255						
annotation	<p>documentation</p> <p>Scenario under which an existing case appears.</p>						

element case/reference/refCase

diagram	<p>The diagram shows a rectangular box labeled "refCase".</p> <p>refCase Existing case that appears under the refScenario.</p>						
type	string255						
properties	content simple						
facets	<table> <tr> <td>Kind</td> <td>Value</td> </tr> <tr> <td>minLength</td> <td>0</td> </tr> <tr> <td>maxLength</td> <td>255</td> </tr> </table>	Kind	Value	minLength	0	maxLength	255
Kind	Value						
minLength	0						
maxLength	255						
annotation	<p>documentation</p> <p>Existing case that appears under the refScenario.</p>						

element caseSet

diagram	<p>The diagram shows a rectangular box labeled "caseSet" connected by a dashed line to another rectangular box labeled "case".</p> <p>caseSet Placeholder for one or more cases.</p> <p>case 1..∞ Describes general parameters for a case.</p>
properties	content complex
children	case
used by	element scenario
annotation	<p>documentation</p> <p>Placeholder for one or more cases.</p>

element categoryAircraftEngine

diagram	
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	<pre> classDiagram categoryAircraftEngine "Describes a category for the time an aircraft engine is at various power levels." --> engineCode engineCode <<timePercentPower7>> engineCode <<timePercentPower30>> engineCode <<timePercentPower85>> engineCode <<timePercentPower100>> </pre>
properties	content complex
children	engineCode timePercentPower7 timePercentPower30 timePercentPower85 timePercentPower100
used by	element stationarySource
annotation	<p>documentation</p> <p>Describes a category for the time an aircraft engine is at various power levels.</p>

element categoryAircraftEngine/engineCode

diagram										
type	string255									
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									

element categoryAircraftEngine/timePercentPower7

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

element categoryAircraftEngine/timePercentPower30

diagram							
	<p>Time at which engine is operating at 30% (approach) power. Valid values: 0 to 1000. (min)</p>						
type	doubleExclusive1000						
properties	<p>content simple</p> <p>default 0</p>						
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						

	maxExclusive 1000
annotation	documentation Time at which engine is operating at 30% (approach) power. Valid values: 0 to 1000. (min)

element categoryAircraftEngine/timePercentPower85

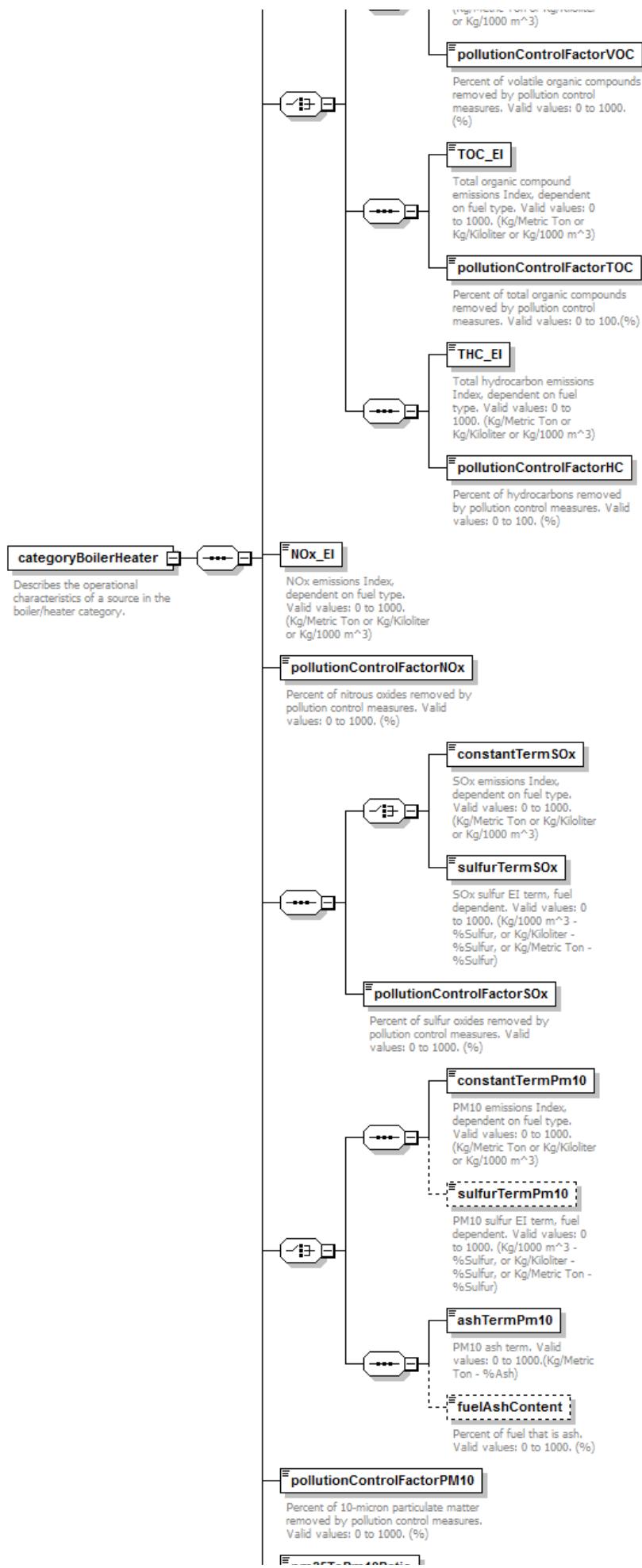
diagram	<p>Time at which engine is operating at 85% (climbout) power. Valid values: 0 to 1000. (min)</p>						
type	doubleExclusive1000						
properties	content simple default 0						
facets	<table> <tr> <td>Kind</td> <td>Value Annotation</td> </tr> <tr> <td>minInclusive</td> <td>0</td> </tr> <tr> <td>maxExclusive</td> <td>1000</td> </tr> </table>	Kind	Value Annotation	minInclusive	0	maxExclusive	1000
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	<p>Time at which engine is operating at 100% (takeoff) power. Valid values: 0 to 1000. (min)</p>						
type	doubleExclusive1000						
properties	content simple default 0						
facets	<table> <tr> <td>Kind</td> <td>Value Annotation</td> </tr> <tr> <td>minInclusive</td> <td>0</td> </tr> <tr> <td>maxExclusive</td> <td>1000</td> </tr> </table>	Kind	Value Annotation	minInclusive	0	maxExclusive	1000
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	 <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 37, 50 to 75, 80 to 93.</p> <p>CO emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)</p> <p>Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 1000. (%)</p> <p>TNMOC emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)</p> <p>Percent of total non-methane organic compounds removed by pollution control measures. Valid values: 0 to 1000. (%)</p> <p>VOC emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter)</p>
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	<p>pm25ToPm10Ratio</p> <p>PM 2.5 to PM 10 ratio. Valid values: 0 to 1000. (dimensionless)</p> <p>fuelCalciumSulfurRatio</p> <p>Ratio of calcium to sulfur within the fuel. Valid values: 0 to 1000. (dimensionless)</p> <p>fuelSulfurContent</p> <p>Percent of fuel that is sulfur. Valid values 0 to 1000. (%)</p>
properties	content complex
children	boilerHeaterTypeCode CO_EI pollutionControlFactorCO TNMOC_EI pollutionControlFactorTNMOC VOC_EI pollutionControlFactorVOC TOC_EI pollutionControlFactorTOC THC_EI pollutionControlFactorHC NOx_EI pollutionControlFactorNOx constantTermSOx sulfurTermSOx pollutionControlFactorSOx constantTermPm10 sulfurTermPm10 ashTermPm10 fuelAshContent pollutionControlFactorPM10 pm25ToPm10Ratio fuelCalciumSulfurRatio fuelSulfurContent
used by	element stationarySource
annotation	<p>documentation</p> <p>Describes the operational characteristics of a source in the boiler/heater category.</p>

element categoryBoilerHeater/CO_EI

diagram	<p>CO_EI</p> <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	<p>documentation</p> <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>

element categoryBoilerHeater/pollutionControlFactorCO

diagram	<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	<p>documentation</p> <p>Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 1000. (%)</p>

element categoryBoilerHeater/TNMOC_EI

diagram	<p>TNMOC_EI</p> <p>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)
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element categoryBoilerHeater/pollutionControlFactorTNMOC

diagram	 pollutionControlFactorTNMOC Percent of total non-methane 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 non-methane organic compounds removed by pollution control measures. Valid values: 0 to 1000. (%)

element categoryBoilerHeater/VOC_EI

diagram	 VOC_EI VOC 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 VOC emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)

element categoryBoilerHeater/pollutionControlFactorVOC

diagram	 pollutionControlFactorVOC Percent of volatile 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 volatile organic compounds removed by pollution control measures. Valid values: 0 to 1000. (%)

element categoryBoilerHeater/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)
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element categoryBoilerHeater/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.(%)

element categoryBoilerHeater/THC_EI

diagram	 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)
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 categoryBoilerHeater/pollutionControlFactorHC

diagram	 pollutionControlFactorHC Percent of hydrocarbons 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 hydrocarbons removed by pollution control measures. Valid values: 0 to 100. (%)

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)
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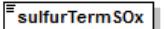
element categoryBoilerHeater/pollutionControlFactorNOx

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. (%)

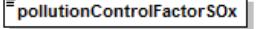
element categoryBoilerHeater/constantTermSOx

diagram	 constantTermSOx SOx 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 SOx emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)

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

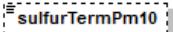
diagram	 pollutionControlFactorSOx Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 1000. (%)
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100

annotation	documentation Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 1000. (%)
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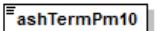
element **categoryBoilerHeater/constantTermPm10**

diagram	 constantTermPm10 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	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)

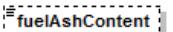
element **categoryBoilerHeater/sulfurTermPm10**

diagram	 sulfurTermPm10 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)

element **categoryBoilerHeater/ashTermPm10**

diagram	 ashTermPm10 PM10 ash term. Valid values: 0 to 1000.(Kg/Metric Ton - %Ash)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation PM10 ash term. Valid values: 0 to 1000.(Kg/Metric Ton - %Ash)

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/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. (%)

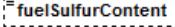
element categoryBoilerHeater/pm25ToPm10Ratio

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/fuelCalciumSulfurRatio

diagram	 fuelCalciumSulfurRatio Ratio of calcium to sulfur within the fuel. Valid values: 0 to 1000. (dimensionless)
type	doubleExclusive1000
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation Ratio of calcium to sulfur within the fuel. Valid values: 0 to 1000. (dimensionless)

element categoryBoilerHeater/fuelSulfurContent

diagram	 fuelSulfurContent Percent of fuel that is sulfur. 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 sulfur. Valid values 0 to 1000. (%)
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element categoryDeicingArea

diagram	<pre> classDiagram class categoryDeicingArea class typeCode class VOC_EI class ethyleneGlycolDensity class propyleneGlycolDensity class solutionConcentrationPercent categoryDeicingArea "1" -- "*" typeCode : Describes this category. categoryDeicingArea "1" -- "*" VOC_EI : VOC emissions index, fuel type dependent. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter) categoryDeicingArea "1" -- "*" ethyleneGlycolDensity : Ethylene glycol solution density. Valid values: 0 to 1000. (g/L) categoryDeicingArea "1" -- "*" propyleneGlycolDensity : Propylene glycol solution density. Valid values: 0 to 1000. (g/L) categoryDeicingArea "1" -- "*" solutionConcentrationPercent : Concentration of deicing solution. Valid values: 0 to 1000. (%) </pre> <p>categoryDeicingArea Describes the operational characteristics of a source in the deicing area category.</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	<pre> classDiagram class typeCode </pre> <p>typeCode Describes this category.</p>
type	int1to4
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 4
annotation	documentation Describes this category.

element categoryDeicingArea/VOC_EI

diagram	<pre> classDiagram class VOC_EI </pre> <p>VOC_EI VOC emissions index, fuel type dependent. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter)</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. (Kg/Metric Ton or Kg/Kiloliter)

element categoryDeicingArea/ethyleneGlycolDensity

diagram	<pre> classDiagram class ethyleneGlycolDensity </pre> <p>ethyleneGlycolDensity Ethylene 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 Ethylene glycol solution density. Valid values: 0 to 1000. (g/L)

element categoryDeicingArea/propyleneGlycolDensity

diagram	
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

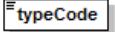
diagram	
type	doubleExclusive100
properties	content simple default 50
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation Concentration of deicing solution. Valid values: 0 to 1000. (%)

element categoryFuelTank

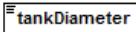
diagram	
properties	content complex
children	typeCode tankDiameter horizontalTank verticalTank reidVaporPressure
used by	element stationarySource
annotation	documentation Describes the operational characteristics of a source in the fuel tank category.

element categoryFuelTank/typeCode

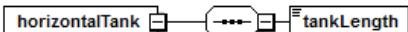
diagram	
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	 <p>Describes this category.</p>
type	int1to25
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 25
annotation	documentation Describes this category.

element categoryFuelTank/tankDiameter

diagram	 <p>Diameter of tank. Valid values: 0 to 1000. (m)</p>
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/horizontalTank

diagram	 <p>Describes a horizontal tank.</p>  <p>Length of tank. Valid values: 0 to 1000. (m)</p>
properties	content complex
children	tankLength
annotation	documentation Describes a horizontal tank.

element categoryFuelTank/horizontalTank/tankLength

diagram	 <p>Length of tank. Valid values: 0 to 1000. (m)</p>
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/verticalTank

diagram	
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	<pre> classDiagram verticalTank "Describes a vertical tank." verticalTank --> maximumSolutionLevel : verticalTank --> tankHeight : verticalTank --> averageSolutionLevel : verticalTank --> meanWindSpeed : 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 1000. (m/s)" </pre>
properties	content complex
children	maximumSolutionLevel tankHeight averageSolutionLevel meanWindSpeed
annotation	documentation Describes a vertical tank.

element categoryFuelTank/verticalTank/maximumSolutionLevel

diagram	<p>maximumSolutionLevel Maximum height of solution inside the tank. Valid values: 0 to 1000. (m)</p>
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/verticalTank/tankHeight

diagram	<p>tankHeight Height of tank. Valid values: 0 to 1000. (m)</p>
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/verticalTank/averageSolutionLevel

diagram	<p>averageSolutionLevel Average height of solution inside the tank. Valid values: 0 to 1000. (m)</p>
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/verticalTank/meanWindSpeed

diagram	<pre> graph TD A[meanWindSpeed] --- B["Average wind speed at the tank. Valid values: 0 to 1000. (m/s)"] </pre>
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 1000. (m/s)

element categoryFuelTank/reidVaporPressure

diagram	<pre> graph TD A[reidVaporPressure] --- B["Reid vapor pressure. Valid values: 0 to 1000. (PSI)"] </pre>
type	int6to13
properties	minOcc 0 maxOcc 1 content simple default 10
facets	Kind Value Annotation minInclusive 6 maxInclusive 13
annotation	documentation Reid vapor pressure. Valid values: 0 to 1000. (PSI)

element categoryGenerator

diagram	<pre> graph TD A[typeCode] --- B["Describes this category."] B --- C[powerRatingHorsepower] B --- D[CO_EF] B --- E[TOC_EF] B --- F[NOx_EF] B --- G[SOx_EF] B --- H[PM10_EF] B --- I[pollutionControlFactorTOC] </pre>
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	<pre> classDiagram categoryGenerator < --> CO_EI categoryGenerator < --> VOC_EI categoryGenerator < --> NOx_EI categoryGenerator < --> SOx_EI categoryGenerator < --> PM10_EI categoryGenerator < --> pollutionControlFactorVOC categoryGenerator < --> fuelSulfurContent categoryGenerator --> pollutionControlFactorCO categoryGenerator --> pollutionControlFactorNOx categoryGenerator --> pollutionControlFactorSOx categoryGenerator --> pollutionControlFactorPM10 categoryGenerator --> pm25ToPM10Ratio </pre>
properties	content complex
children	typeCode powerRating Horsepower 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	<p>documentation</p> <p>Describes the operational characteristics of a source in the generator category.</p>

element categoryGenerator/typeCode

diagram	<pre> classDiagram typeCode </pre> <p>Describes this category.</p>
type	int1to8
properties	content simple

facets	Kind Value Annotation minInclusive 1 maxInclusive 8
annotation	documentation Describes this category.

element **categoryGenerator/powerRatingHorsepower**

diagram	 powerRatingHorsepower The rated power of the generator in horsepower. Valid values: 0 to 10000. (hp)
type	<u>doubleInclusive10000</u>
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	<u>doubleInclusive1000</u>
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	<u>doubleInclusive1000</u>
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	<u>doubleInclusive1000</u>
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 emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m^3)
type	<u>doubleInclusive1000</u>
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 emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m^3)
type	<u>doubleInclusive1000</u>
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 emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m^3)
type	<u>doubleInclusive1000</u>
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 emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m^3)
type	<u>doubleInclusive1000</u>
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	 <p>Amount of volatile organic compounds emitted. 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. Valid values: 0 to 1000. (%)

element categoryGenerator/fuelSulfurContent

diagram	 <p>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. (%)</p>
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. (%)

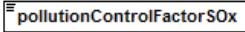
element categoryGenerator/pollutionControlFactorCO

diagram	 <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. (%)

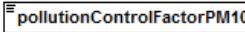
element categoryGenerator/pollutionControlFactorNOx

diagram	 <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. (%)

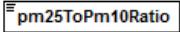
element categoryGenerator/pollutionControlFactorSOx

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 categoryGenerator/pollutionControlFactorPM10

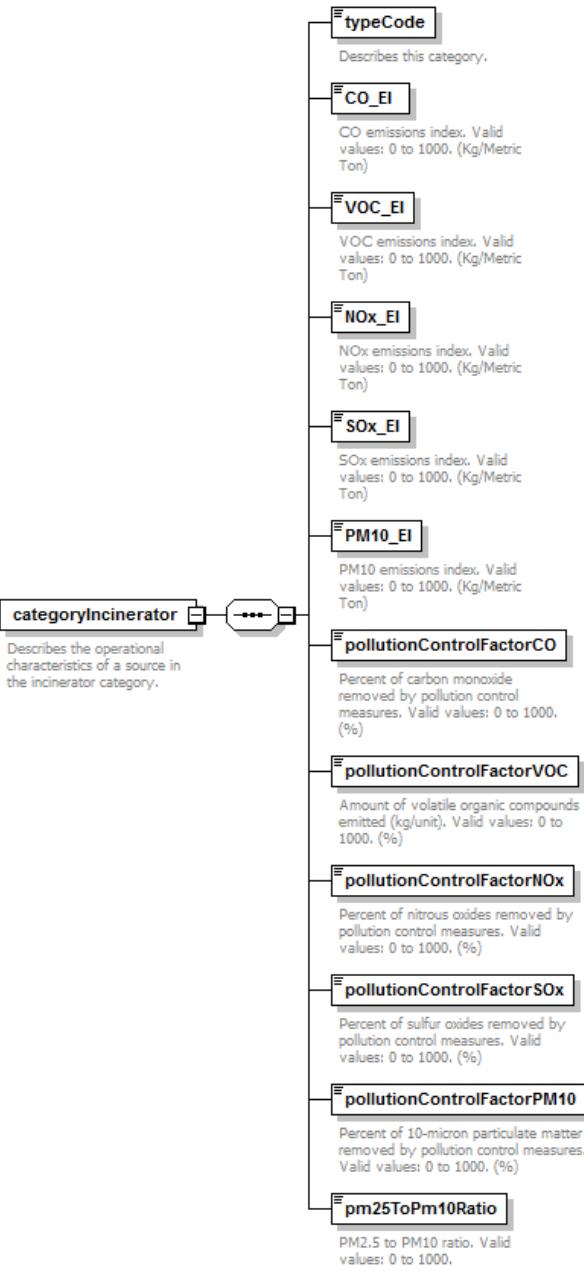
diagram	 pollutionControlFactorPM10 Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 1000. (%)
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of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

element categoryGenerator/pm25ToPm10Ratio

diagram	 pm25ToPm10Ratio PM 2.5 to PM 10 ratio. (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. (dimensionless)

element categoryIncinerator

diagram	
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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	<p>typeCode</p> <p><<Describes this category.>></p>
type	int1to2
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 2
annotation	documentation Describes this category.

element categoryIncinerator/CO_EI

diagram	 CO_EI CO 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 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	
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	<p>PM10_EI</p> <p>PM10 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 PM10 emissions index. Valid values: 0 to 1000. (Kg/Metric Ton)

element categoryIncinerator/pollutionControlFactorCO

diagram	<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 categoryIncinerator/pollutionControlFactorVOC

diagram	<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	
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	<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

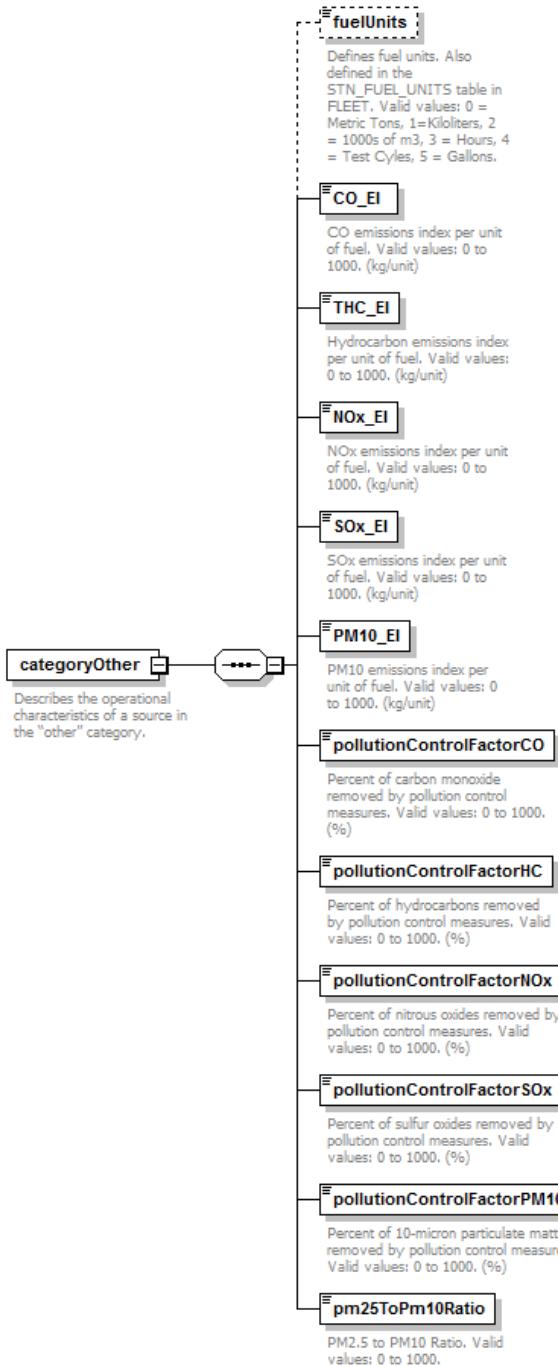
diagram	<p>pollutionControlFactorPM10</p> <p>Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation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

element categoryOther/fuelUnits

diagram	<p>fuelUnits</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 Cycles, 5 = Gallons.</p>
type	int0to5
properties	minOcc 0

	maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 5
annotation	documentation 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.

element categoryOther/CO_EI

diagram	 CO_EI CO 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 CO emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit)

element categoryOther/THC_EI

diagram	 THC_EI 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_EI 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_EI 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_EI PM10 emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit)
type	<u>doubleInclusive1000</u>
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	 pollutionControlFactorCO Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 1000. (%)
type	<u>doubleInclusive100</u>
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	<u>doubleInclusive100</u>
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	<u>doubleInclusive100</u>
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. (%)
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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	 categoryRecordCode --- recordCode 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. 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.
properties	content complex
children	recordCode
used by	element stationarySource
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.

element categorySandSaltPile

diagram	<pre> classDiagram class categorySandSaltPile { <<Describes the emissions characteristics of a source in the sand or salt pile category.>> } class typeCode { <<Describes this category.>> } class surfaceWindSpeedFraction { <<Surface wind speed fraction. Valid values: 0 to 1000. (unitless)>> } class surfaceRoughness { <<The surface roughness of the pile. Valid values: 0 to 1000. (cm)>> } class frictionVelocity { <<Friction velocity. Valid values: 0 to 1000. (m/s)>> } class fastestMileOfWind { <<Fastest mile of wind. Valid values: 0 to 1000. (m/s)>> } class meanWindSpeed { <<Average wind speed at sand or salt pile. Valid values: 0 to 1000. (m/s)>> } class moistureContent { <<Percentage of sand or salt pile that is moisture. Valid values: 0 to 1000. (%)>> } class massDisturbedPerDisturbance { <<The mass disturbed per disturbance. Valid values: 0 to 1000. (Metric Tons)>> } class erodedSurfaceArea { <<Eroded surface area of pile. Valid values: 0 to 1000. (meters²)>> } categorySandSaltPile "1" -- "*" typeCode : categorySandSaltPile "1" -- "*" surfaceWindSpeedFraction : categorySandSaltPile "1" -- "*" surfaceRoughness : categorySandSaltPile "1" -- "*" frictionVelocity : categorySandSaltPile "1" -- "*" fastestMileOfWind : categorySandSaltPile "1" -- "*" meanWindSpeed : categorySandSaltPile "1" -- "*" moistureContent : categorySandSaltPile "1" -- "*" massDisturbedPerDisturbance : categorySandSaltPile "1" -- "*" erodedSurfaceArea : </pre>
properties	content complex
children	typeCode surfaceWindSpeedFraction surfaceRoughness frictionVelocity fastestMileOfWind meanWindSpeed moistureContent massDisturbedPerDisturbance erodedSurfaceArea
used by	element stationarySource
annotation	documentation Describes the emissions characteristics of a source in the sand or salt pile category.

element categorySandSaltPile/typeCode

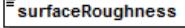
diagram	<pre> attribute typeCode { <<Describes this category.>> } </pre>
type	int1to5
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 5
annotation	documentation Describes this category.

element categorySandSaltPile/surfaceWindSpeedFraction

diagram	<pre> attribute surfaceWindSpeedFraction { <<Surface wind speed fraction. Valid values: 0 to 1000. (unitless)>> } </pre>
type	doubleInclusive1
properties	content simple default 0

	facets	Kind Value Annotation minInclusive 0 maxInclusive 1
	annotation	documentation Surface wind speed fraction. Valid values: 0 to 1000. (unitless)

element categorySandSaltPile/surfaceRoughness

diagram	 surfaceRoughness The surface roughness of the pile. Valid values: 0 to 1000. (cm)
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	 frictionVelocity Friction velocity. Valid values: 0 to 1000. (m/s)
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

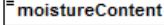
diagram	 fastestMileOfWind Fastest mile of wind. Valid values: 0 to 1000. (m/s)
type	doubleExclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation Fastest mile of wind. Valid values: 0 to 1000. (m/s)

element categorySandSaltPile/meanWindSpeed

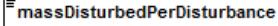
diagram	 meanWindSpeed Average wind speed at sand or salt pile. Valid values: 0 to 1000. (m/s)
type	doubleExclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation

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. (%)

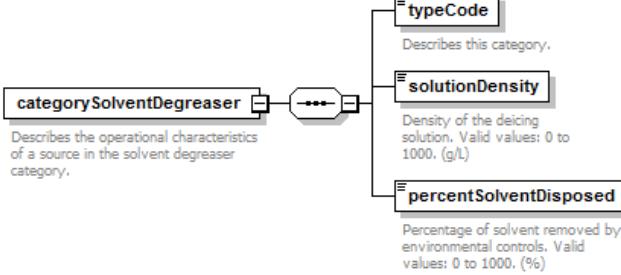
element categorySandSaltPile/massDisturbedPerDisturbance

diagram	 <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>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	 <p>Describes the operational characteristics of a source in the solvent degreaser category.</p>
properties	content complex
children	typeCode solutionDensity percentSolventDisposed
used by	element stationarySource
annotation	documentation

Describes the operational characteristics of a source in the solvent degreaser category.

element categorySolventDegreaser/typeCode

diagram	 Describes this category.
type	int1to13
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 13
annotation	documentation Describes this category.

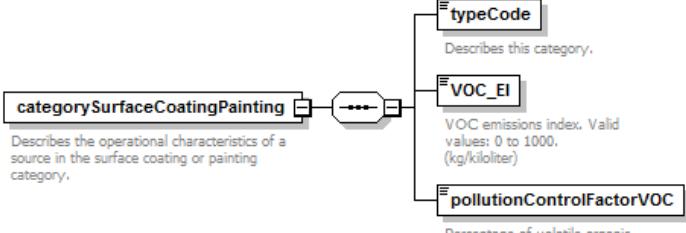
element categorySolventDegreaser/solutionDensity

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

diagram	 <p>categorySurfaceCoatingPainting</p> <p>Describes the operational characteristics of a source in the surface coating or painting category.</p>
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

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diagram	 typeCode Describes this category.
type	int1to8
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 8
annotation	documentation Describes this category.

element categorySurfaceCoatingPainting/VOC_EI

diagram	 VOC_EI 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	 pollutionControlFactorVOC 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	
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	<pre> classDiagram class categoryTrainingFire class typeCode class CO class VOC class NOx class SOx class PM10 categoryTrainingFire "1" -- "*" typeCode : Describes this category. categoryTrainingFire "1" -- "*" CO : Amount of carbon monoxide emitted. Valid values: 0 to 3000. (g/gal) categoryTrainingFire "1" -- "*" VOC : Amount of volatile organic compounds emitted. Valid values: 0 to 100. (g/gal) categoryTrainingFire "1" -- "*" NOx : Amount of nitrous oxides emitted. Valid values: 0 to 100. (g/gal) categoryTrainingFire "1" -- "*" SOx : Amount of sulfur oxides emitted. Valid values: 0 to 10. (g/gal) categoryTrainingFire "1" -- "*" PM10 : Amount of 10-micron particulate matter emitted. Valid values: 0 to 1000. (g/gal) typeCode < -- CO typeCode < -- VOC typeCode < -- NOx typeCode < -- SOx typeCode < -- PM10 </pre> <p>categoryTrainingFire 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.</p>
properties	content complex
children	typeCode CO VOC NOx SOx PM10
used by	element stationarySource
annotation	<p>documentation</p> <p>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.</p>

element categoryTrainingFire/typeCode

diagram	<p>typeCode Describes this category.</p>						
type	int1to5						
properties	content simple						
facets	<table> <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>documentation</p> <p>Describes this category.</p>						

element categoryTrainingFire/CO

diagram	<p>CO Amount of carbon monoxide emitted. Valid values: 0 to 3000. (g/gal)</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>Amount of carbon monoxide emitted. Valid values: 0 to 3000. (g/gal)</p>

element categoryTrainingFire/VOC

diagram	<p>VOC Amount of volatile organic compounds emitted. Valid values: 0 to 100. (g/gal)</p>
type	xs:double
properties	content simple

annotation	documentation Amount of volatile organic compounds emitted. Valid values: 0 to 100. (g/gal)
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element **categoryTrainingFire/NOx**

diagram	 NOx Amount of nitrous oxides emitted. Valid values: 0 to 100. (g/gal)
type	xs:double
properties	content simple
annotation	documentation Amount of nitrous oxides emitted. Valid values: 0 to 100. (g/gal)

element **categoryTrainingFire/SOx**

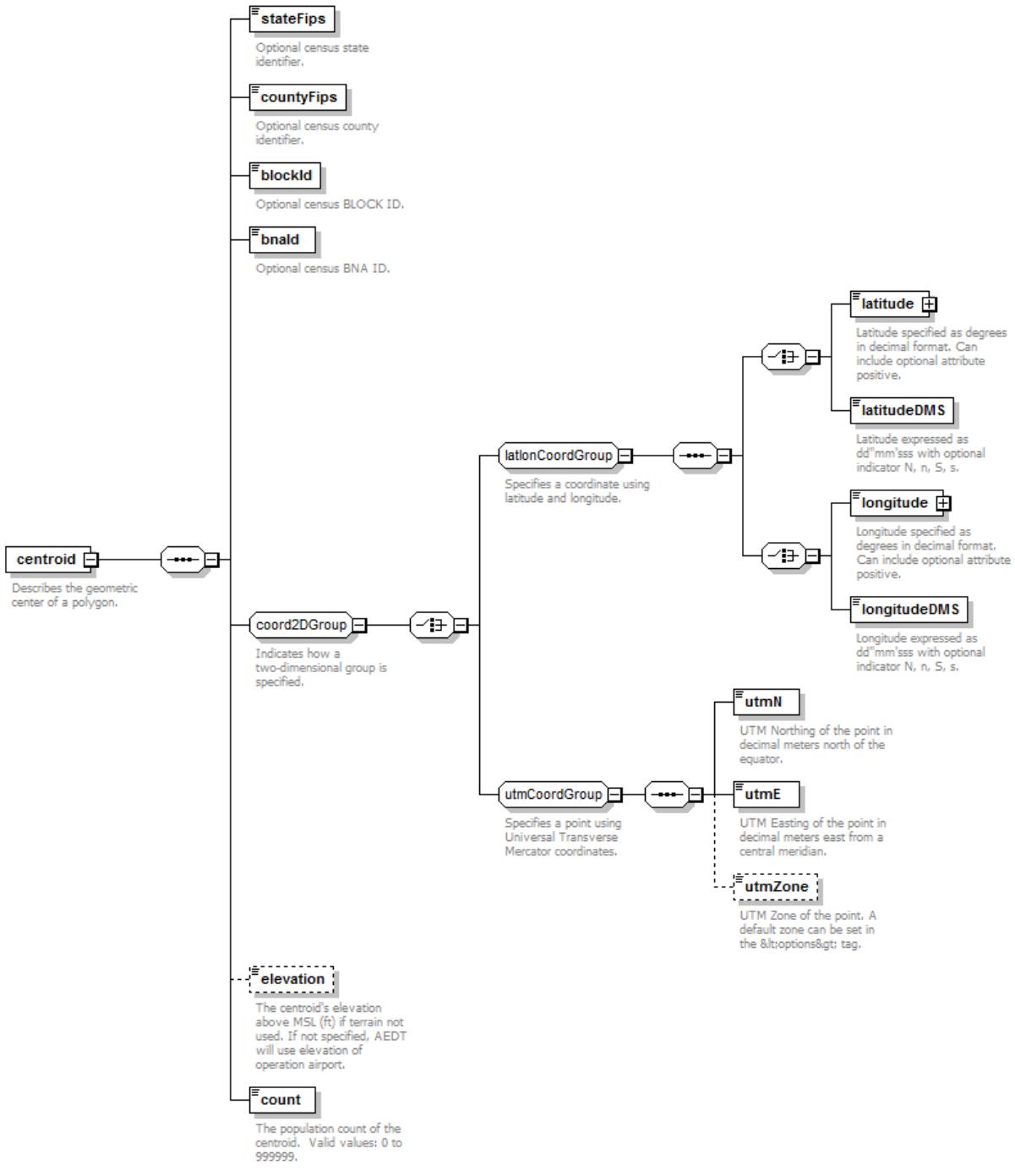
diagram	 SOx Amount of sulfur oxides emitted. Valid values: 0 to 10. (g/gal)
type	xs:double
properties	content simple
annotation	documentation Amount of sulfur oxides emitted. Valid values: 0 to 10. (g/gal)

element **categoryTrainingFire/PM10**

diagram	 PM10 Amount of 10-micron particulate matter emitted. Valid values: 0 to 1000. (g/gal)
type	xs:double
properties	content simple
annotation	documentation Amount of 10-micron particulate matter emitted. Valid values: 0 to 1000. (g/gal)

element **centroid**

diagram	
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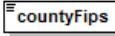


properties	content complex
children	stateFips countyFips blockId bnald latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation count
used by	group receptorGroup
annotation	documentation Describes the geometric center of a polygon.

element centroid/stateFips

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

element centroid/countyFips

diagram	 countyFips Optional census county identifier.
type	xs:int
properties	content simple
annotation	documentation Optional census county identifier.

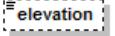
element centroid/blockId

diagram	 blockId Optional census BLOCK ID.
type	xs:int
properties	content simple
annotation	documentation Optional census BLOCK ID.

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

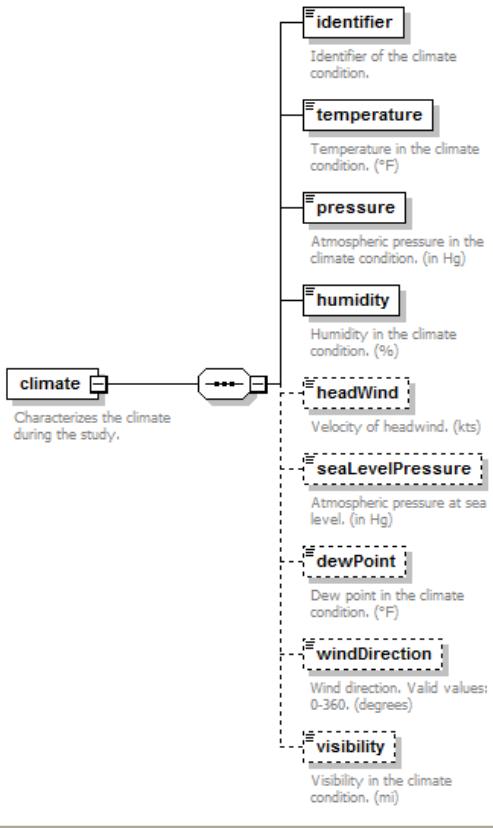
diagram	 elevation The centroid's elevation above MSL (ft) if terrain not used. If not specified, AEDT will use elevation of operation airport.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The centroid's elevation above MSL (ft) if terrain not used. If not specified, 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	
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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	
type	string8
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation Identifier of the climate condition.

element climate/temperature

diagram	
type	xs:float
properties	content simple
annotation	documentation Temperature in the climate condition. (°F)

element climate/pressure

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

element climate/humidity

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

element climate/headWind

diagram	 headWind Velocity of headwind. (kts)
type	xs:float
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Velocity of headwind. (kts)

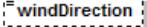
element climate/seaLevelPressure

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

element climate/dewPoint

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

element climate/windDirection

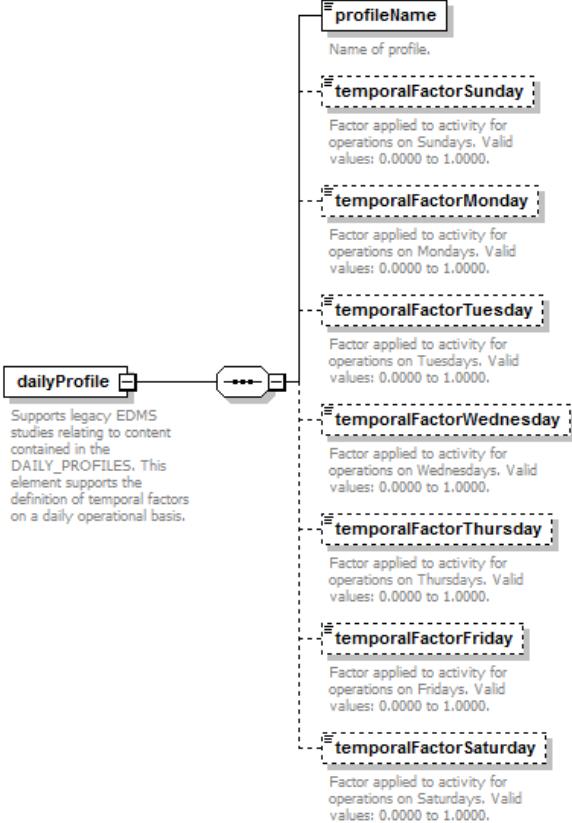
diagram	 windDirection Wind direction. Valid values: 0-360. (degrees)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation

Wind direction. Valid values: 0-360. (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

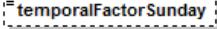
diagram	 <p>Supports legacy EDMS studies relating to content contained in the DAILY_PROFILES. This element supports the definition of temporal factors on a daily operational basis.</p>
properties	content complex
children	profileName temporalFactorSunday temporalFactorMonday temporalFactorTuesday temporalFactorWednesday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

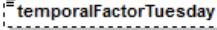
element dailyProfile/temporalFactorSunday

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

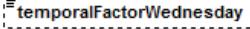
element dailyProfile/temporalFactorMonday

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.

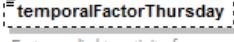
element dailyProfile/temporalFactorTuesday

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.

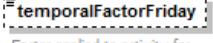
element dailyProfile/temporalFactorWednesday

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.

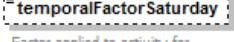
element dailyProfile/temporalFactorThursday

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.

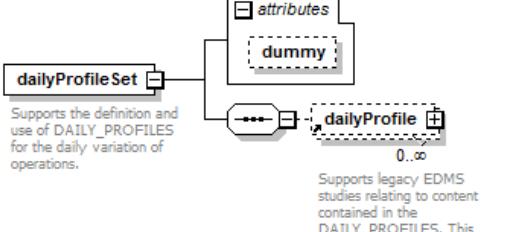
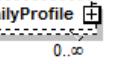
element dailyProfile/temporalFactorFriday

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.  0.. 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.
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	<p>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>
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	<p>Represents the centerline of a set of dispersed tracks.</p>
type	dispersionWeight1Type
properties	content complex
children	backbone

element **dispersionWeight/dispersionWeight3**

diagram	<p>Represents the centerline of a set of dispersed tracks.</p> <p>Specify the dispersion weight for the first left subtrack.</p> <p>Specify the dispersion weight for the first right subtrack.</p>
type	dispersionWeight3Type
properties	content complex
children	backbone weightl1 weightr1

element dispersionWeight/dispersionWeight5

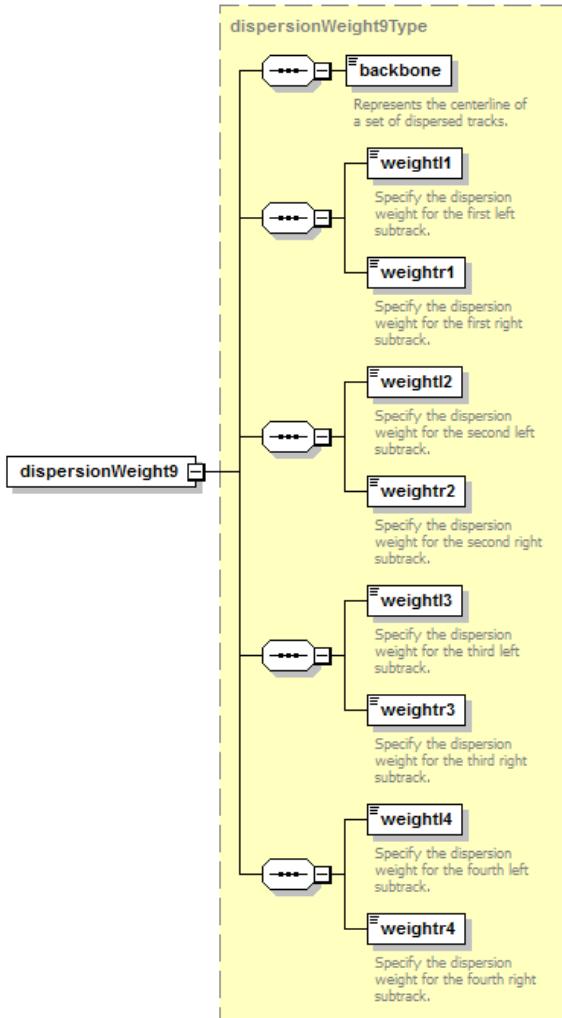
diagram	<p>The diagram illustrates the structure of the <code>dispersionWeight5Type</code>. It starts with a root element <code>dispersionWeight5</code>, which points to a yellow box labeled <code>dispersionWeight5Type</code>. Inside this box, there is a <code>backbone</code> element, followed by four <code>weight</code> elements: <code>weightl1</code>, <code>weightr1</code>, <code>weightl2</code>, and <code>weightr2</code>. Each <code>weight</code> element has a descriptive text below it explaining its purpose.</p>
type	dispersionWeight5Type
properties	content complex
children	backbone weightl1 weightr1 weightl2 weightr2

element dispersionWeight/dispersionWeight7

diagram	<p>The diagram illustrates the structure of the <code>dispersionWeight7Type</code>. It starts with a root element <code>dispersionWeight7</code>, which points to a yellow box labeled <code>dispersionWeight7Type</code>. Inside this box, there is a <code>backbone</code> element, followed by six <code>weight</code> elements: <code>weightl1</code>, <code>weightr1</code>, <code>weightl2</code>, <code>weightr2</code>, <code>weightl3</code>, and <code>weightr3</code>. Each <code>weight</code> element has a descriptive text below it explaining its purpose.</p>
type	dispersionWeight7Type
properties	content complex
children	backbone weightl1 weightr1 weightl2 weightr2 weightl3 weightr3

element dispersionWeight/dispersionWeight9

diagram	
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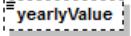
type	dispersionWeight9Type
properties	content complex
children	backbone weightl1 weightr1 weightl2 weightr2 weightl3 weightr3 weightl4 weightr4

element emissionsUsage

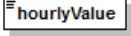
diagram	<pre> classDiagram class emissionsUsage { yearlyValue hourlyValue byPeakQuarterHour activityProfile } emissionsUsage < -- emissionsUsage emissionsUsage "1" --> yearlyValue : emissionsUsage "1" --> hourlyValue : emissionsUsage "1" --> byPeakQuarterHour : emissionsUsage "1" --> activityProfile : </pre> <p>The diagram illustrates the structure of the <code>emissionsUsage</code> element. It is defined by the <code>emissionsUsage</code> element (indicated by a small icon) and contains the following components:</p> <ul style="list-style-type: none"> yearlyValue: Annualized amount of emissions. hourlyValue: Hourly amount of emissions. byPeakQuarterHour: Indicates if the hourly value is the peak hourly value. activityProfile: An activity profile type (e.g. reference to one of hourlyProfile, dailyProfile or weeklyProfile).
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

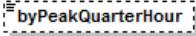
diagram	
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	 <p>Annualized amount of emissions.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Annualized amount of emissions.

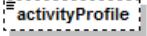
element **emissionsUsage/hourlyValue**

diagram	 <p>Hourly amount of emissions.</p>
type	xs:double
properties	content simple
annotation	documentation Hourly amount of emissions.

element **emissionsUsage/byPeakQuarterHour**

diagram	 <p>Indicates if the hourly value is the peak hourly value.</p>
type	xs:boolean
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	 <p>An activity profile type (e.g. reference to one of hourlyProfile, dailyProfile or weeklyProfile).</p>
type	string40
properties	minOcc 0 maxOcc 1 content simple
used by	element <u>activityProfileSet</u>
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	
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	<p>engineModeEmissionFactors</p> <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	<p>documentation</p> <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>

element **engineModeEmissionFactors/time**

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

element **engineModeEmissionFactors/fuel**

diagram	<p>fuel</p> <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	<p>documentation</p> <p>Rate of fuel burn in given mode. Valid values: nonnegative. (kg/s)</p>

element **engineModeEmissionFactors/CO**

diagram	<p>CO</p> <p>Amount of carbon monoxide emitted. Valid values: nonnegative. (kg/s)</p>
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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	HC Amount of hydrocarbons emitted. Valid values: nonnegative. (kg/s)
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	NOx Amount of nitrous oxide emitted. Valid values: nonnegative. (kg/s)
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	PM Amount of particulate matter emitted. Valid values: nonnegative. (kg/s)
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	SN Smoke number for the engine mode. Valid values: nonnegative. (kg/s)
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	<pre> classDiagram class gate { name elevation releaseHeight sigmaY sigmaZ oneOrThreeCoords2DGroupSet pointCoord polygonCoords } gate < -- gate gate --> "2..3" oneOrThreeCoords2DGroupSet gate --> pointCoord gate --> polygonCoords </pre> <p>The diagram illustrates the structure of the 'gate' element. It consists of a main class 'gate' which contains several attributes. One attribute, 'oneOrThreeCoords2DGroupSet', is associated with two other elements: 'pointCoord' and 'polygonCoords'. A note indicates that this attribute specifies the type of coordinate used to define the area.</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

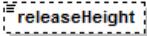
diagram	<pre> classDiagram class name { "Identifying name of gate." } </pre>						
type	string40						
properties	content simple						
facets	<table> <tr> <td>Kind</td> <td>Value Annotation</td> </tr> <tr> <td>minLength</td> <td>0</td> </tr> <tr> <td>maxLength</td> <td>40</td> </tr> </table>	Kind	Value 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

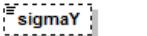
diagram	<pre> classDiagram class elevation { "Gate's elevation above mean sea level in meters. Valid values: -500 to 5000. (m)" } </pre>						
type	xs:double						
properties	<table> <tr> <td>minOcc</td> <td>0</td> </tr> <tr> <td>maxOcc</td> <td>1</td> </tr> <tr> <td>content</td> <td>simple</td> </tr>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

Gate's elevation above mean sea level in meters. Valid values: -500 to 5000. (m)

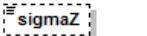
element gate/releaseHeight

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

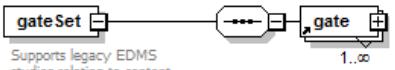
element gate/sigmaY

diagram	 sigmaY Horizontal dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: Variable, by airport. (m)
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	 sigmaZ Vertical dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: Variable, by airport. (m)
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)

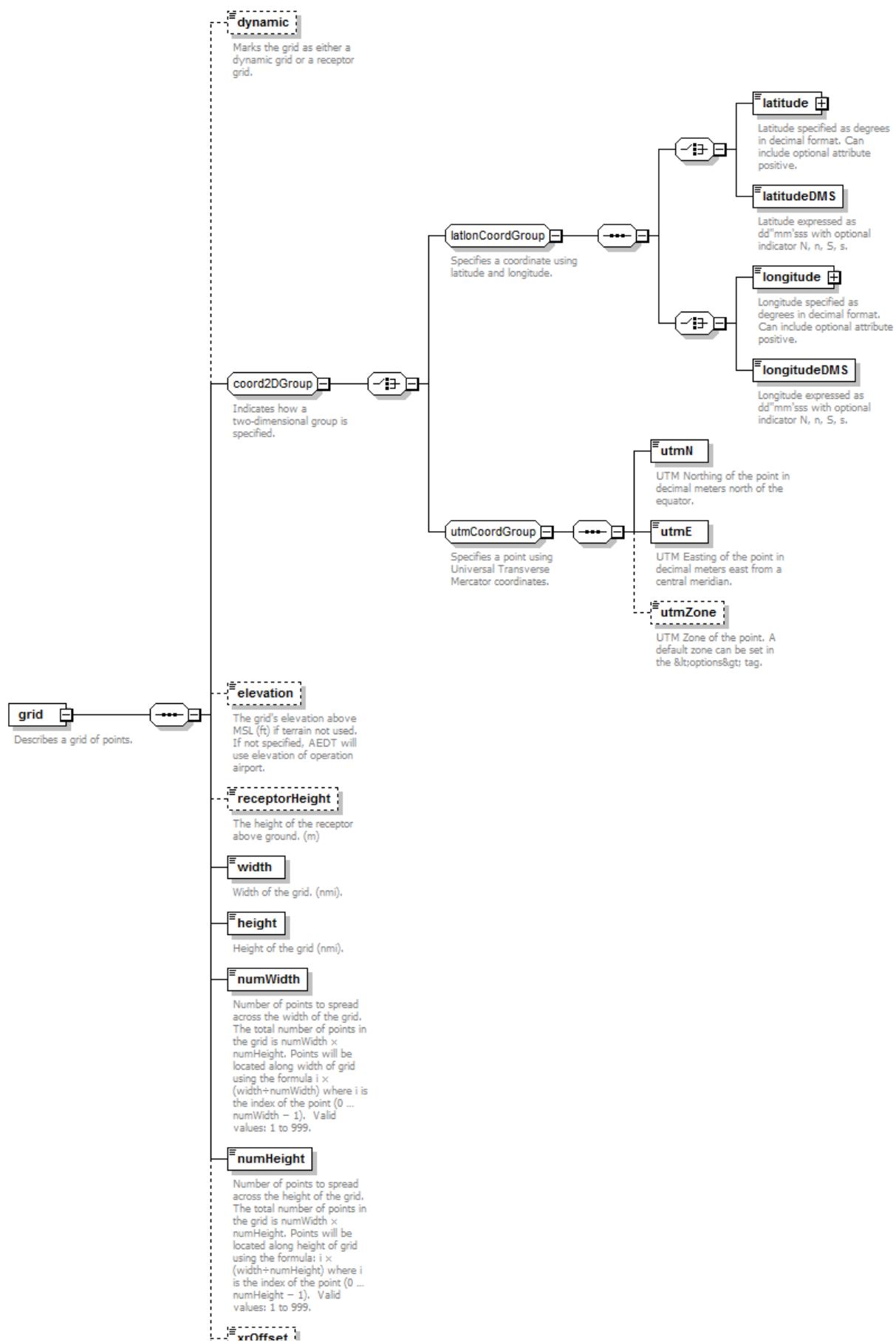
element gateSet

diagram	 gateSet  gate 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.
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



	<p>xOffset</p> <p>The X-offset of the receptor grid in nautical miles.</p> <p>ydOffset</p> <p>The Y-offset of the receptor grid in nautical miles.</p>
properties	content complex
children	dynamic latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation receptorHeight width height numWidth numHeight xrOffset ydOffset
used by	group receptorGroup
annotation	documentation Describes a grid of points.

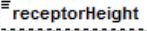
element grid/dynamic

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	 <p>The grid's elevation above MSL (ft) if terrain not used. If not specified, AEDT will use elevation of operation airport.</p>
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/receptorHeight

diagram	 <p>The height of the receptor above ground. (m)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The height of the receptor above ground. (m)

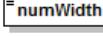
element grid/width

diagram	 <p>Width of the grid. (nmi).</p>
type	xs:double
properties	content simple
annotation	documentation Width of the grid. (nmi).

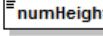
element grid/height

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 $i \times (\text{width} / \text{numWidth})$ 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 $i \times (\text{width} / \text{numWidth})$ 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 $i \times (\text{height} / \text{numHeight})$ 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 $i \times (\text{height} / \text{numHeight})$ where i is the index of the point (0 ... numHeight - 1). Valid values: 1 to 999.

element grid/xrOffset

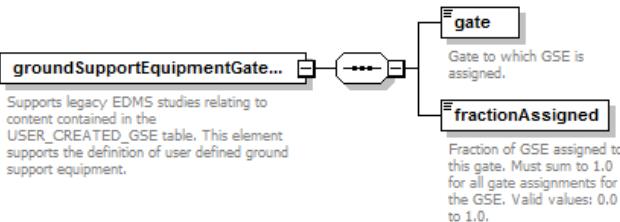
diagram	 xrOffset The X-offset of the receptor grid in nautical miles.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation The X-offset of the receptor grid in nautical miles.

element grid/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.

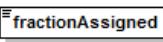
element groundSupportEquipmentGateAssignment

diagram	 <p>The diagram illustrates the structure of the <code>groundSupportEquipmentGateAssignment</code> element. It consists of three main components: <code>groundSupportEquipmentGateAssignment</code>, <code>gate</code>, and <code>fractionAssigned</code>. The <code>groundSupportEquipmentGateAssignment</code> component is connected to the <code>gate</code> component via a line with a square connector. The <code>fractionAssigned</code> component is also connected to the <code>gate</code> component via a line with a square connector. A callout box provides detailed documentation for each component.</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>groundSupportEquipmentGateAssignmentSet</p> <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>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	<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 GSE_POPULATION_GATE_ASSIGNMENTS table. This element supports the definition of gate to ground support equipment assignments.</p>												

attribute **groundSupportEquipmentGateAssignmentSet/@dummy**

type	xs:int
properties	use optional

element **groundSupportEquipmentLTOOperation**

diagram	<p>groundSupportEquipmentLTOOperation</p> <p>Describes operation of GSE operation.</p>
properties	content complex
children	gseID fuelType horsepower loadFactor manufactureYear departureOpTime arrivalOpTime
used by	element groundSupportEquipmentLTOOperationSet
annotation	<p>documentation</p> <p>Describes operation of GSE operation.</p>

element **groundSupportEquipmentLTOOperation/gseID**

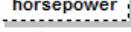
diagram	<p>gseID</p> <p>The GSE ID.</p>
type	xs:int

properties	content simple
annotation	documentation The GSE ID.

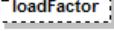
element groundSupportEquipmentLTOOperation/fuelType

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

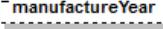
element groundSupportEquipmentLTOOperation/horsepower

diagram	
	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	
	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	
	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.)
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	
	The number of minutes used for a departure aircraft operation. Valid values: 0.00 to 480.00. (min)
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> <p>Describes operation of GSE operation.</p>												
properties	content complex												
children	groundSupportEquipmentLTOOperation												
used by	complexType aircraftType												
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	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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	<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> <p>The GSE ID.</p> <p>The type of GSE.</p> <p>GSE number of units. Valid values: 0 to 10000.</p> <p>Operation time, yearly. Valid values: 0 to 8784. (hr)</p> <p>Peak quarter hour operation time. Valid values: 0 to 15. (min/hr)</p> <p>Activity profile: (quarterly, daily, monthly).</p> <p>Horsepower is in hp units. Valid values: 0 to 10000. (hp)</p> <p>Load factor of GSE. (Will be empty for APU.) Valid values: 0 to 100.</p> <p>User non-road version flag.</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> <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>
properties	content complex
children	gseID fuelType gseType numUnits annualOpTime pkQtrHourOpTime activityProfile horsepower loadFactor useNonRoad manufactureYear groundSupportEquipmentGateAssignmentSet
used by	element groundSupportEquipmentPopulationOperationSet
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>

element **groundSupportEquipmentPopulationOperation/gseID**

diagram	<p>gseID</p> <p>The GSE ID.</p>
type	xs:int
properties	content simple
annotation	<p>documentation</p> <p>The GSE ID.</p>

element **groundSupportEquipmentPopulationOperation/fuelType**

diagram	<p>fuelType</p>
type	fuelType

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

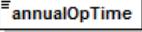
element groundSupportEquipmentPopulationOperation/gseType

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

element groundSupportEquipmentPopulationOperation/numUnits

diagram	 numUnits 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.

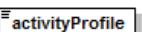
element groundSupportEquipmentPopulationOperation/annualOpTime

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

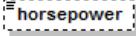
diagram	 pkQtrHourOpTime Peak quarter hour operation time. Valid values: 0 to 15. (min/hr)
type	xs:double
properties	content simple
annotation	documentation Peak quarter hour operation time. Valid values: 0 to 15. (min/hr)

element groundSupportEquipmentPopulationOperation/activityProfile

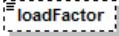
diagram	 activityProfile Activity profile; (quarterly, daily, monthly).
type	string40
properties	content simple
used by	element activityProfileSet
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Activity profile; (quarterly, daily, monthly).

element groundSupportEquipmentPopulationOperation/horsepower

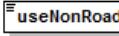
--	--

diagram	 Horsepower 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)

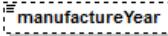
element groundSupportEquipmentPopulationOperation/loadFactor

diagram	 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.

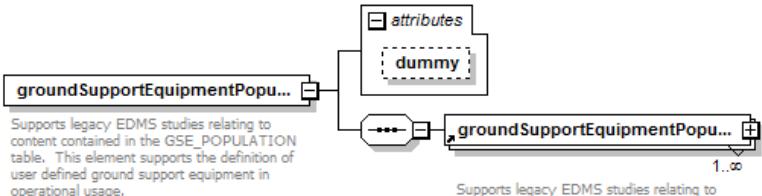
element groundSupportEquipmentPopulationOperation/useNonRoad

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

element groundSupportEquipmentPopulationOperation/manufactureYear

diagram	 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.)
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 date will be the year of the study.)

element groundSupportEquipmentPopulationOperationSet

diagram	 <p>The diagram shows a sequence of elements: groundSupportEquipmentPopulationOperation, attributes, dummy, and groundSupportEquipmentPopulationOperation. The first and last elements are solid boxes, while attributes and dummy are dashed boxes. Arrows indicate a flow from the first element to attributes, then to dummy, and finally to the second element. The second element has a multiplicity of 1..∞ at its end. A note below the first element states: "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." A note below the second element states: "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	<p>The diagram illustrates the structure of the <code>monthlyProfile</code> element. It features a central node labeled <code>monthlyProfile</code> with a detailed description: "Supports legacy EDMS studies relating to content contained in the <code>MONTHLY_PROFILES</code>. This element supports the definition of temporal factors on a monthly operational basis." A dashed line connects this node to a vertical stack of twelve smaller nodes, each labeled <code>temporalFactorMonth</code> where Month is a month from January to December. Each of these smaller nodes has a detailed description of its purpose and valid range (0.0000 to 1.0000).</p>
properties	content complex
children	profileName temporalFactorJanuary temporalFactorFebruary temporalFactorMarch temporalFactorApril temporalFactorMay temporalFactorJune temporalFactorJuly temporalFactorAugust temporalFactorSeptember temporalFactorOctober temporalFactorNovember temporalFactorDecember
used by	element monthlyProfileSet

annotation	documentation 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.
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element **monthlyProfile/profileName**

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

element **monthlyProfile/temporalFactorJanuary**

diagram	temporalFactorJanuary Factor applied to activity for operations during January. 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 during January. Valid values: 0.0000 to 1.0000.

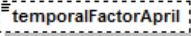
element **monthlyProfile/temporalFactorFebruary**

diagram	temporalFactorFebruary Factor applied to activity for operations during February. 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 during February. Valid values: 0.0000 to 1.0000.

element **monthlyProfile/temporalFactorMarch**

diagram	temporalFactorMarch Factor applied to activity for operations during March. 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 during March. Valid values: 0.0000 to 1.0000.

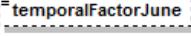
element monthlyProfile/temporalFactorApril

diagram	 temporalFactorApril 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.

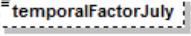
element monthlyProfile/temporalFactorMay

diagram	 temporalFactorMay 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	 temporalFactorJune 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	 temporalFactorJuly Factor applied to activity for operations during July. 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 July. Valid values: 0.0000 to 1.0000.

element monthlyProfile/temporalFactorAugust

diagram	
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	<p>temporalFactorAugust</p> <p>Factor applied to activity for operations during August. Valid values: 0.0000 to 1.0000.</p>
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 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	<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 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	<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 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	<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 November. Valid values: 0.0000 to 1.0000.

element monthlyProfile/temporalFactorDecember

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

element monthlyProfileSet

diagram	<p>The diagram illustrates the structure of the monthlyProfileSet element. It is a class with the following associations:</p> <ul style="list-style-type: none"> A directed association from monthlyProfileSet to attributes, which contains a node labeled dummy. A directed association from monthlyProfileSet to monthlyProfile, with a multiplicity of 0..infinity. <p>Annotations provide context for these elements:</p> <ul style="list-style-type: none"> monthlyProfileSet: Supports the definition and use of MONTHLY_PROFILES for the monthly variation of operations. 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. 												
properties	content complex												
children	<u>monthlyProfile</u>												
used by	element <u>operationalProfileSet</u> complexType <u>airportLayoutType</u>												
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><u>xs:int</u></td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	<u>dummy</u>	<u>xs:int</u>	optional			
Name	Type	Use	Default	Fixed	Annotation								
<u>dummy</u>	<u>xs:int</u>	optional											
annotation	documentation Supports the definition and use of MONTHLY_PROFILES for the monthly variation of operations.												

attribute monthlyProfileSet@dummy

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

element operation

diagram	<p>The diagram shows the id attribute of the operation element. The id attribute is represented as a class with a single attribute named id.</p> <p>Annotations describe the purpose of the id field:</p> <ul style="list-style-type: none"> The id field is a 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 id field is not necessary.
---------	--

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.

aircraftType

Type of aircraft in the flight.

cruiseAltitude

Override aircraft cruise altitude for this operation. (ft)

numOperations

Number of operations comprising this operation.

opType

carrier

Carrier flying the flight. Not fully supported in AEDT.

flightNumber

Flight number. Not fully supported in AEDT.

tailNumber

Flight's tail number. Not fully supported in AEDT.

userType

User-defined aircraft type. Cannot be an aircraftType. Not fully supported in AEDT.

userParam

User-defined parameter associated with the operation. Not fully supported in AEDT.

departureAirport

Departure airport's ICAO code. Required if the operation is used with a <flight> or <operation> element. Also required if used with a <trackOpSet> modeling departures, circuits, runups, or touch-and-goes.

departureRunway

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.

departureGate

Airport's departure gate. Not fully supported in AEDT.

departureApuTime

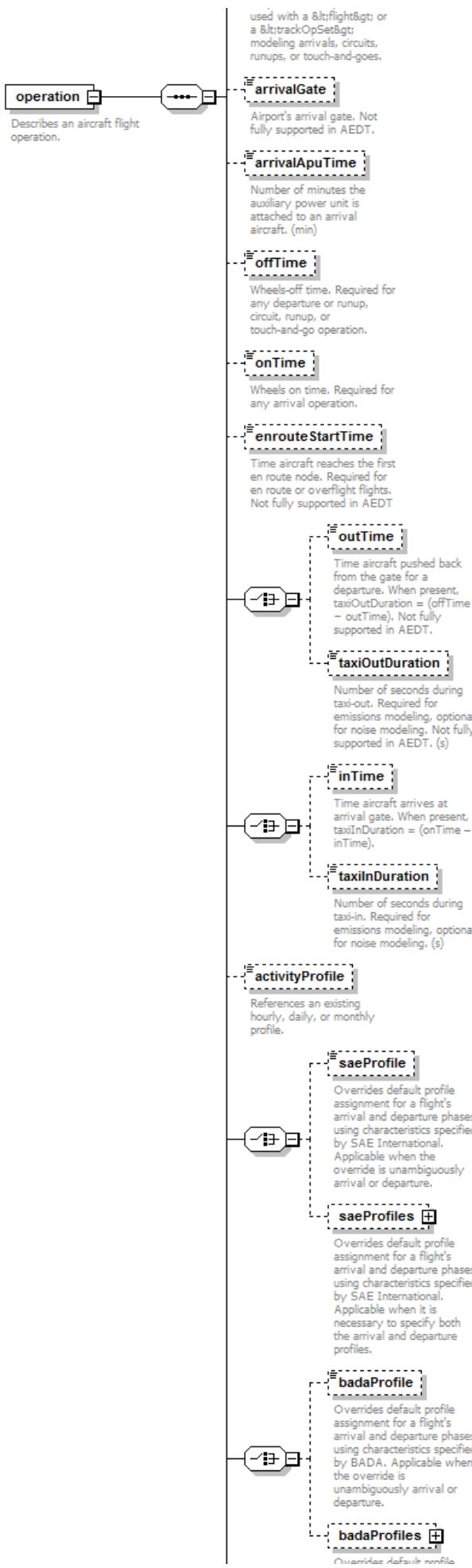
Number of minutes the auxiliary power unit is attached to a departing aircraft. (min)

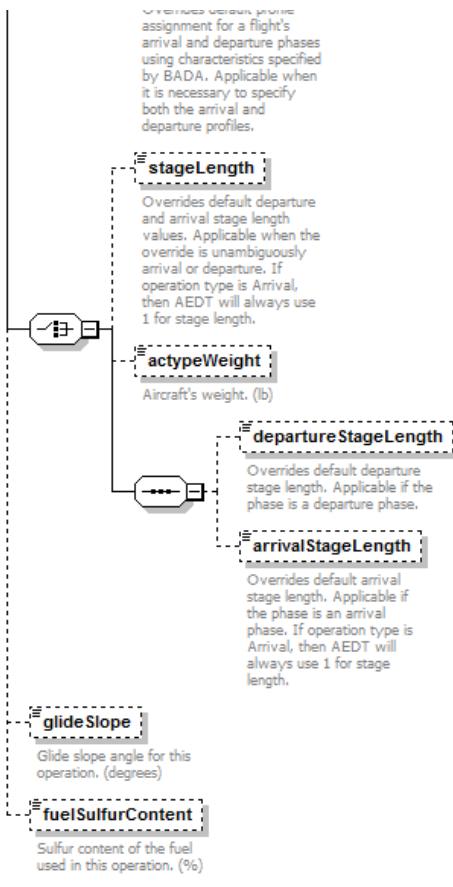
arrivalAirport

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.

arrivalRunway

Airport's arrival runway ID. Required if the operation is





properties	content complex
children	id aircraftType cruiseAltitude numOperations opType carrier flightNumber tailNumber userType userParam departureAirport departureRunway departureGate departureApuTime arrivalAirport arrivalRunway arrivalGate arrivalApuTime 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	
---------	--

	<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 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>						
type	string16						
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>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	
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	<pre> classDiagram class aircraftType { <<Type of aircraft in the flight.>> } class anpAircraftId { <<Air frame model, engine code, valid values: E (Electric), J (Jet), P (Piston), T (Turboprop).>> } class airframeModel { <<Air frame model.>> } class engineCode { <<Engine code, Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop).>> } class engineModCode { <<Engine modification code, (AEDT database reference table FLEET.FLT_ENGINE_MOD S column ENGINE_MOD_CODE.)>> } class apuName { <<Name of auxiliary power unit used by this type of aircraft.>> } class groundSupportEquipmentLTOO... <<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.>> </pre>
type	aircraftType
properties	content complex
children	anpAircraftId airframeModel engineCode engineModCode apuName groundSupportEquipmentLTOO...
annotation	documentation Type of aircraft in the flight.

element operation/cruiseAltitude

diagram	<p>cruiseAltitude Override aircraft cruise altitude for this operation. (ft)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Override aircraft cruise altitude for this operation. (ft)

element operation/numOperations

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

element operation/opType

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

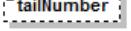
element operation/carrier

diagram	 Carrier flying the flight. Not fully supported in AEDT.
type	string4
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.

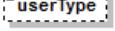
element operation/flightNumber

diagram	 Flight number. Not fully supported in AEDT.
type	string16
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	 Flight's tail number. Not fully supported in AEDT.
type	string8
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	 User-defined aircraft type. Cannot be an aircraftType. Not fully supported in AEDT.
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	
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	
type	airportCode
properties	minOcc 0 maxOcc 1 content complex
facets	Kind Value Annotation minLength 0 maxLength 4
attributes	Name Type Use Default Fixed Annotation <u>type</u> airportCodeType optional ANY <u>country</u> string3 optional ANY
annotation	documentation Departure airport's ICAO code. Required if the operation is used with a <flight> or <operation> element. Also required if used with a <trackOpSet> modeling departures, circuits, runups, or touch-and-goes.

element operation/departureRunway

diagram	
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 <flight> or a <trackOpSet> modeling departures, circuits, runups, or touch-and-goes.

element operation/departureGate

diagram	
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	<p>#departureGate</p> <p>Airport's departure gate. Not fully supported in AEDT.</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	<p>#departureApuTime</p> <p>Number of minutes the auxiliary power unit is attached to a departing aircraft. (min)</p>
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

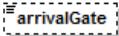
diagram	<pre> classDiagram class arrivalAirport class airportCode { <<attributes>> type country } arrivalAirport "1" --> "1" airportCode </pre> <p>Arrival airport's ICAO code. Required if the operation is used with a &lt;flight&gt; or &lt;operation&gt; element. Also required if used with a &lt;trackOpSet&gt; modeling arrivals, circuits, runups, or touch-and-goes.</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 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

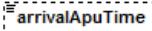
diagram	<p>#arrivalRunway</p> <p>Airport's arrival runway ID. Required if the operation is used with a &lt;flight&gt; or a &lt;trackOpSet&gt; modeling arrivals, circuits, runups, or touch-and-goes.</p>
type	string8
properties	minOcc 0

	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.

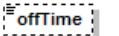
element **operation/arrivalGate**

diagram	 arrivalGate Airport's arrival gate. Not fully supported in AEDT.
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.

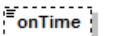
element **operation/arrivalApuTime**

diagram	 arrivalApuTime 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)

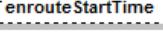
element **operation/offTime**

diagram	 offTime Wheels-off time. Required for any departure or runup, circuit, runup, or touch-and-go operation.
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	 onTime Wheels on time. Required for any arrival operation.
type	xs:dateTime
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Wheels on time. Required for any arrival operation.

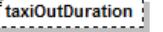
element operation/enrouteStartTime

diagram	 enrouteStartTime Time aircraft reaches the first en route node. Required for en route or overflight flights. Not fully supported in AEDT.
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	 outTime Time aircraft pushed back from the gate for a departure. When present, taxiOutDuration = (offTime - outTime). Not fully supported in AEDT.
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.

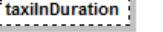
element operation/taxiOutDuration

diagram	 taxiOutDuration Number of seconds during taxi-out. Required for emissions modeling, optional for noise modeling. Not fully supported in AEDT. (s)
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

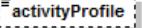
diagram	 inTime Time aircraft arrives at arrival gate. When present, taxiInDuration = (onTime - inTime).
type	xs:dateTime
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Time aircraft arrives at arrival gate. When present, taxiInDuration = (onTime - inTime).

element operation/taxiInDuration

diagram	 taxiInDuration Number of seconds during taxi-in. Required for emissions modeling, optional for noise modeling. (s)
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)

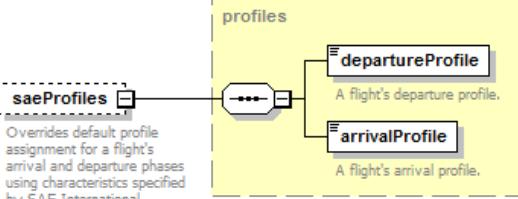
element operation/activityProfile

diagram	 References an existing hourly, daily, or monthly profile.
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	 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.
type	profileType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 8
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	 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.
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	<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 8
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

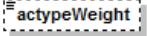
diagram	<p>badaProfiles</p> <p>Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by BADA. Applicable when it is necessary to specify both the arrival and departure profiles.</p> <p>profiles</p> <p>departureProfile A flight's departure profile.</p> <p>arrivalProfile A flight's arrival profile.</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 BADA. Applicable when it is necessary to specify both the arrival and departure profiles.

element operation/stageLength

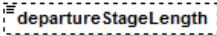
diagram	<p>stageLength</p> <p>Overrides default departure and arrival stage length values. Applicable when the override is unambiguously arrival or departure. If operation type is Arrival, then AEDT will always use 1 for stage length.</p>
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets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

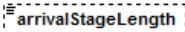
diagram	
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	 <p>Aircraft's weight. (lb)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Aircraft's weight. (lb)

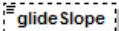
element operation/departureStageLength

diagram	 <p>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.

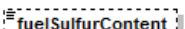
element operation/arrivalStageLength

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

element operation/fuelSulfurContent

diagram	 <p>Sulfur content of the fuel used in this operation. (%)</p>
type	xs:double

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

element operationalProfileSet

diagram	<pre> classDiagram class operationalProfileSet class quarterHourlyProfileSet class dailyProfileSet class monthlyProfileSet class activityProfileSet operationalProfileSet "2..1" --> quarterHourlyProfileSet operationalProfileSet "2..1" --> dailyProfileSet operationalProfileSet "2..1" --> monthlyProfileSet operationalProfileSet "2..1" --> activityProfileSet </pre> <p>The diagram illustrates the structure of an operationalProfileSet. It is a composite element containing four other profile sets: quarterHourlyProfileSet, dailyProfileSet, monthlyProfileSet, and activityProfileSet. Each of these contained profiles is described by a separate box with its name and a brief description of its purpose.</p>
properties	content complex
children	quarterHourlyProfileSet dailyProfileSet monthlyProfileSet activityProfileSet
used by	element AsifXml

element operations

diagram	<pre> classDiagram class operations class operation operations "1..>" --> operation </pre> <p>The diagram shows the operations element. It contains a list of aircraft flight operations, represented by the operation element. The multiplicity '1..>' indicates that an operations element can contain one or more operations.</p>
properties	content complex
children	operation
used by	element trackOpSet

element options

diagram	<pre> classDiagram class options class utmZoneDefault options "1..>" --> utmZoneDefault </pre> <p>The diagram shows the options element. It contains default option values applied to the study, represented by the utmZoneDefault element. The multiplicity '1..>' indicates that an options element can contain one or more utmZoneDefault elements.</p>
properties	content complex
children	utmZoneDefault
used by	element AsifXml

element options/utmZoneDefault

diagram	<pre> classDiagram class utmZoneDefault </pre> <p>The diagram shows the utmZoneDefault element, which represents the default UTM zone number.</p>
type	<code>xs:int</code>
properties	content simple

	default -1
annotation	documentation Default UTM zone number.

element parkingFacility

diagram	<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	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

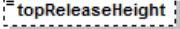
diagram	<p>Identifying name of parking facility.</p>
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Identifying name of parking facility.

element parkingFacility/numberOfLevels

diagram	<p>Number of levels in the parking facility. Valid values: 1 to 20.</p>
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

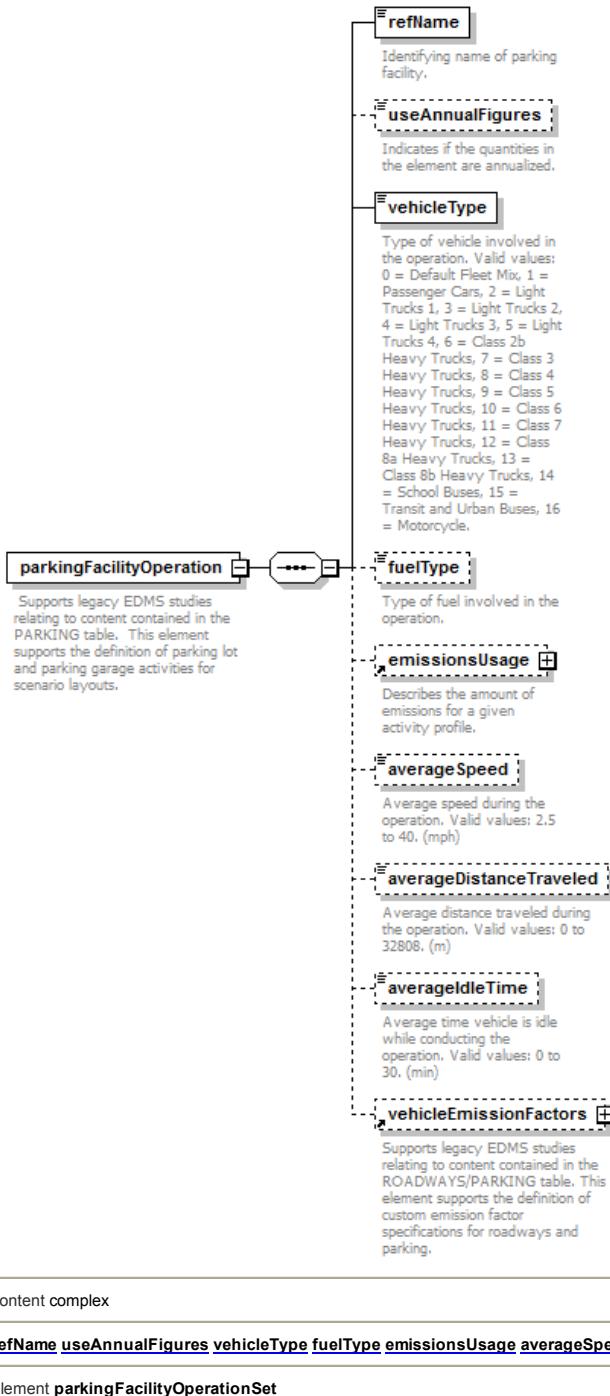
diagram	 spacing Distance between two parking spaces. (m)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Distance between two parking spaces. (m)

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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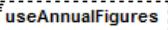


properties	content complex
children	refName useAnnualFigures vehicleType fuelType emissionsUsage averageSpeed averageDistanceTraveled averageIdleTime vehicleEmissionFactors
used by	element parkingFacilityOperationSet
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage activities for scenario layouts.</p>

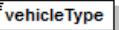
element parkingFacilityOperation/refName

diagram	refName Identifying name of parking facility.
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	 useAnnualFigures Indicates if the quantities in the element are annualized.
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation Indicates if the quantities in the element are annualized.

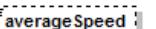
element parkingFacilityOperation/vehicleType

diagram	 vehicleType 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.
type	groundVehicleType
properties	content simple
facets	Kind Value 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
annotation	documentation 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.

element parkingFacilityOperation/fuelType

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

element parkingFacilityOperation/averageSpeed

diagram	 averageSpeed Average speed during the operation. Valid values: 2.5 to 40. (mph)
type	xs:double
properties	minOcc 0 maxOcc 1

	<p>content simple default 10</p>
annotation	documentation Average speed during the operation. Valid values: 2.5 to 40. (mph)

element parkingFacilityOperation/averageDistanceTraveled

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

element parkingFacilityOperation/averageIdleTime

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

element parkingFacilityOperationSet

diagram	<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>dummy 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 1..∞</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><u>xs:int</u></td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	<u>dummy</u>	<u>xs:int</u>	optional			
Name	Type	Use	Default	Fixed	Annotation								
<u>dummy</u>	<u>xs:int</u>	optional											
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 activities for scenario layouts.												

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 geometries for scenario layouts.</p> <p>dummy</p> <p>parkingFacility</p> <p>1..oo</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><code>xs:int</code></td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	<u>dummy</u>	<code>xs:int</code>	optional			
Name	Type	Use	Default	Fixed	Annotation								
<u>dummy</u>	<code>xs:int</code>	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 geometries for scenario layouts.</p>												

attribute parkingFacilitySet/@dummy

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

element pointReceptor

diagram	<p>pointReceptor</p> <p>Element specification for a point receptor.</p> <p>name</p> <p>coord2DGroup</p> <p>Indicates how a two-dimensional group is specified.</p> <p>elevation</p> <p>Elevation of the receptor above MSL (ft.)</p> <p>receptorHeight</p> <p>Height of the receptor above ground (ft.)</p> <p>latitude</p> <p>Latitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>longitude</p> <p>Longitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>utmN</p> <p>UTM Northing of the point in decimal meters north of the equator.</p> <p>utmE</p> <p>UTM Easting of the point in decimal meters east from a central meridian.</p> <p>utmZone</p> <p>UTM Zone of the point. A default zone can be set in the <options> tag.</p> <p>latitudeDMS</p> <p>Latitude expressed as dd' mm' ss' with optional indicator N, n, S, s.</p> <p>longitudeDMS</p> <p>Longitude expressed as dd' mm' ss' with optional indicator N, n, S, s.</p>
properties	content complex

children	name latitude longitudeDMS longitude longitudeDMS utmN utmE utmZone elevation receptorHeight
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	
	Elevation of the receptor above MSL. (ft.)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Elevation of the receptor above MSL. (ft.)

element pointReceptor/receptorHeight

diagram	
	Height of the receptor above ground (ft.)
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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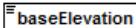
	<p>pointCoord +</p> <p>Type of 2-D coordinates specifying the point.</p> <p>baseElevation</p> <p>Elevation of point. Valid values: -500 to 5000. (m)</p> <p>releaseHeight</p> <p>Height above ground level at which emissions are released into the atmosphere. Valid values 0 to 100 (m)</p> <p>gasVelocity</p> <p>Velocity at which gas escapes from the source. Valid values: 1 to 30. (m/s)</p> <p>stackDiameter</p> <p>Diameter of stack where gas escapes from the source. Valid values: 0.1 to 50 (m)</p> <p>temperature</p> <p>Temperature at point. Valid values: 0 to 600. (°F)</p> <p>aboveAmbientTemperature</p> <p>Indicates if temperature is absolute (False) or if 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**

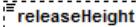
diagram	<pre> graph LR pointCoord[pointCoord] --> coord2DType[coord2DType] coord2DType --> lotionCoordGroup[lotionCoordGroup] coord2DType --> utmCoordGroup[utmCoordGroup] lotionCoordGroup --> latitude[latitude] lotionCoordGroup --> longitude[longitude] utmCoordGroup --> utmN[utmN] utmCoordGroup --> utmE[utmE] utmCoordGroup --> utmZone[utmZone] </pre>
type	coord2DType

properties	content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone
annotation	documentation Type of 2-D coordinates specifying the point.

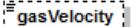
element pointStationarySource/baseElevation

diagram	 <p>Elevation of point. Valid values: -500 to 5000. (m)</p>
type	xs:double
properties	content simple
annotation	documentation Elevation of point. Valid values: -500 to 5000. (m)

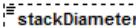
element pointStationarySource/releaseHeight

diagram	 <p>Height above ground level at which emissions are released into the atmosphere. Valid values 0 to 100 (m)</p>
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	 <p>Velocity at which gas escapes from the source. Valid values: 1 to 30. (m/s)</p>
type	doubleInclusiveRange1to30
properties	minOcc 0 maxOcc 1 content simple default 1
facets	Kind Value Annotation minInclusive 1 maxInclusive 30
annotation	documentation Velocity at which gas escapes from the source. Valid values: 1 to 30. (m/s)

element pointStationarySource/stackDiameter

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

	minExclusive 0
annotation	<p>documentation</p> <p>Diameter of stack where gas escapes from the source. Valid values: 0.1 to 50 (m)</p>

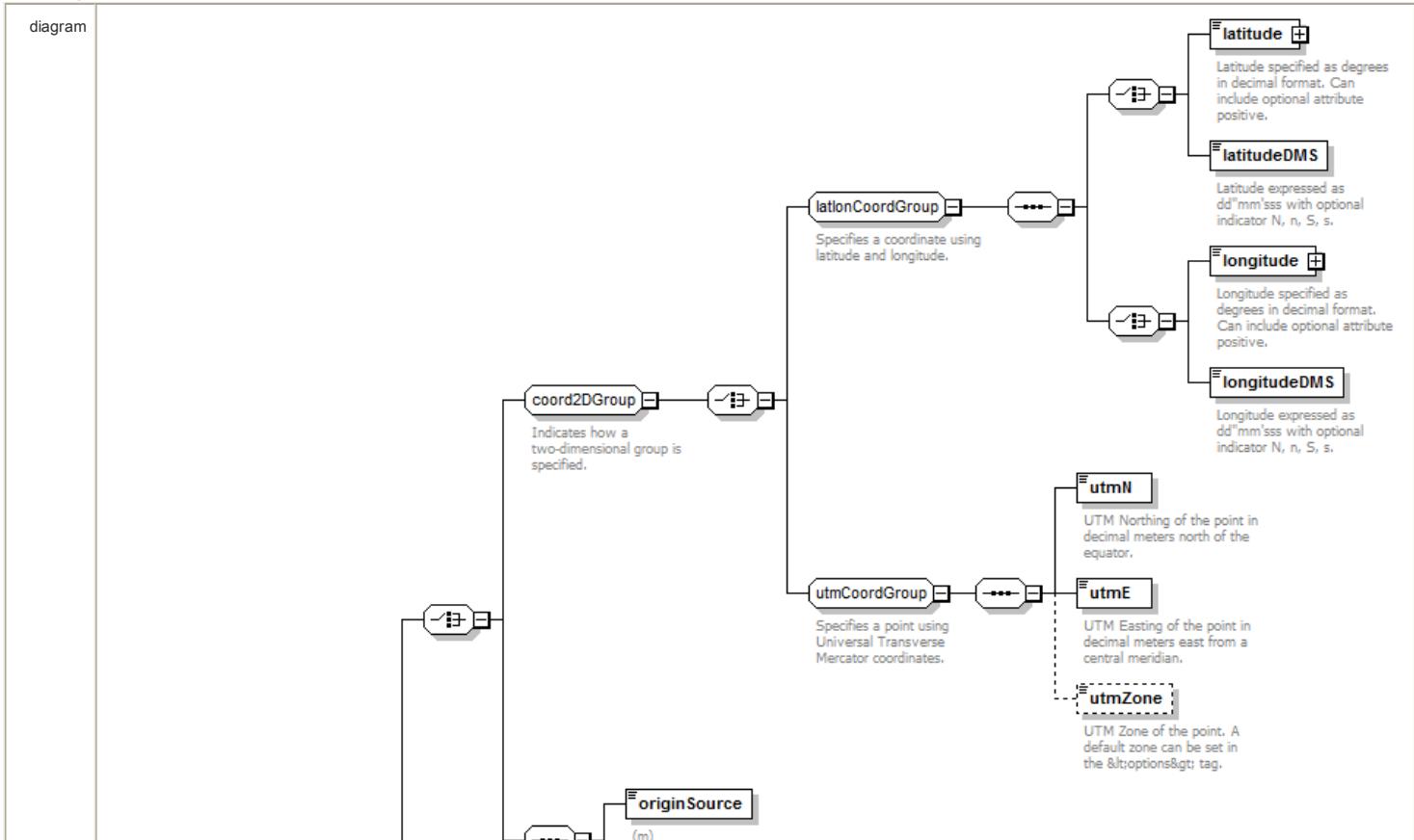
element pointStationarySource/temperature

diagram	<p>temperature</p> <p>Temperature at point. Valid values: 0 to 600. (°F)</p>
type	<u>doubleInclusiveRange0to600</u>
properties	minOcc 0 maxOcc 1 content simple default 32
facets	Kind Value Annotation minInclusive 0 maxInclusive 600
annotation	documentation Temperature at point. Valid values: 0 to 600. (°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**



	<p>polarGrid</p> <p>Supports legacy EDMS studies relating to the NETWORK_POLAR_RECEP TORS table. Two-Dimensional grid of individual receptors over an annular sector (polar) of the airport or study area.</p> <p>originName</p> <p>Refers to an existing gate, parking facility, roadway, runway, stationary source, taxiway, or training fire.</p> <p>elevation</p> <p>Altitude of point (meters).</p> <p>height</p> <p>Height of point (meters).</p> <p>ringStart</p> <p>Initial radius of first ring from center point.</p> <p>ringSpacing</p> <p>Spacing between rings starting from the first ring. Valid values: 0 to 1000.</p> <p>ringCount</p> <p>Total number of rings, including first ring. Valid values: 0 to 100.</p> <p>vectorStart</p> <p>Angle of point along a ring, 0 = north. Valid values: 0 to 360. (degrees)</p> <p>vectorSpacing</p> <p>Number of degrees between receptors. Valid values: 1 to 90. (degrees)</p> <p>vectorCount</p> <p>Number of receptors along the ring. Valid values: 1 to 36.</p> <p>xrOffset</p> <p>The X-offset of the receptor grid in nautical miles.</p> <p>ydOffset</p> <p>The Y-offset of the receptor grid in nautical miles.</p>
properties	content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone originSource originName elevation height ringStart ringSpacing ringCount vectorStart vectorSpacing vectorCount xrOffset ydOffset
used by	group receptorGroup
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to the NETWORK_POLAR_RECEP TORS table. Two-Dimensional grid of individual receptors over an annular sector (polar) of the airport or study area.</p>

element polarGrid/originSource

diagram	<p>originSource</p> <p>(m)</p> <p>originSourceType</p>						
properties	content simple						
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>pattern</td> <td>Gate Parking Facility Roadway Runway Stationary Source Taxiway Training Fire</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	pattern	Gate Parking Facility Roadway Runway Stationary Source Taxiway Training Fire	
Kind	Value	Annotation					
pattern	Gate Parking Facility Roadway Runway Stationary Source Taxiway Training Fire						
annotation	<p>documentation</p> <p>(m)</p>						

element polarGrid/originName

diagram	<p>originName</p> <p>Refers to an existing gate, parking facility, roadway, runway, stationary source, taxiway, or training fire.</p>
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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	
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	<p>ringCount</p> <p>Total number of rings, including first ring. Valid values: 0 to 100.</p>
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	<p>vectorStart</p> <p>Angle of point along a ring. 0 = north. Valid values: 0 to 360. (degrees)</p>
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	<p>vectorSpacing</p> <p>Number of degrees between receptors. Valid values: 1 to 90. (degrees)</p>
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	<p>vectorCount</p> <p>Number of receptors along the ring. Valid values: 1 to 36.</p>
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	<p>xrOffset</p> <p>The X-offset of the receptor grid in nautical miles.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0

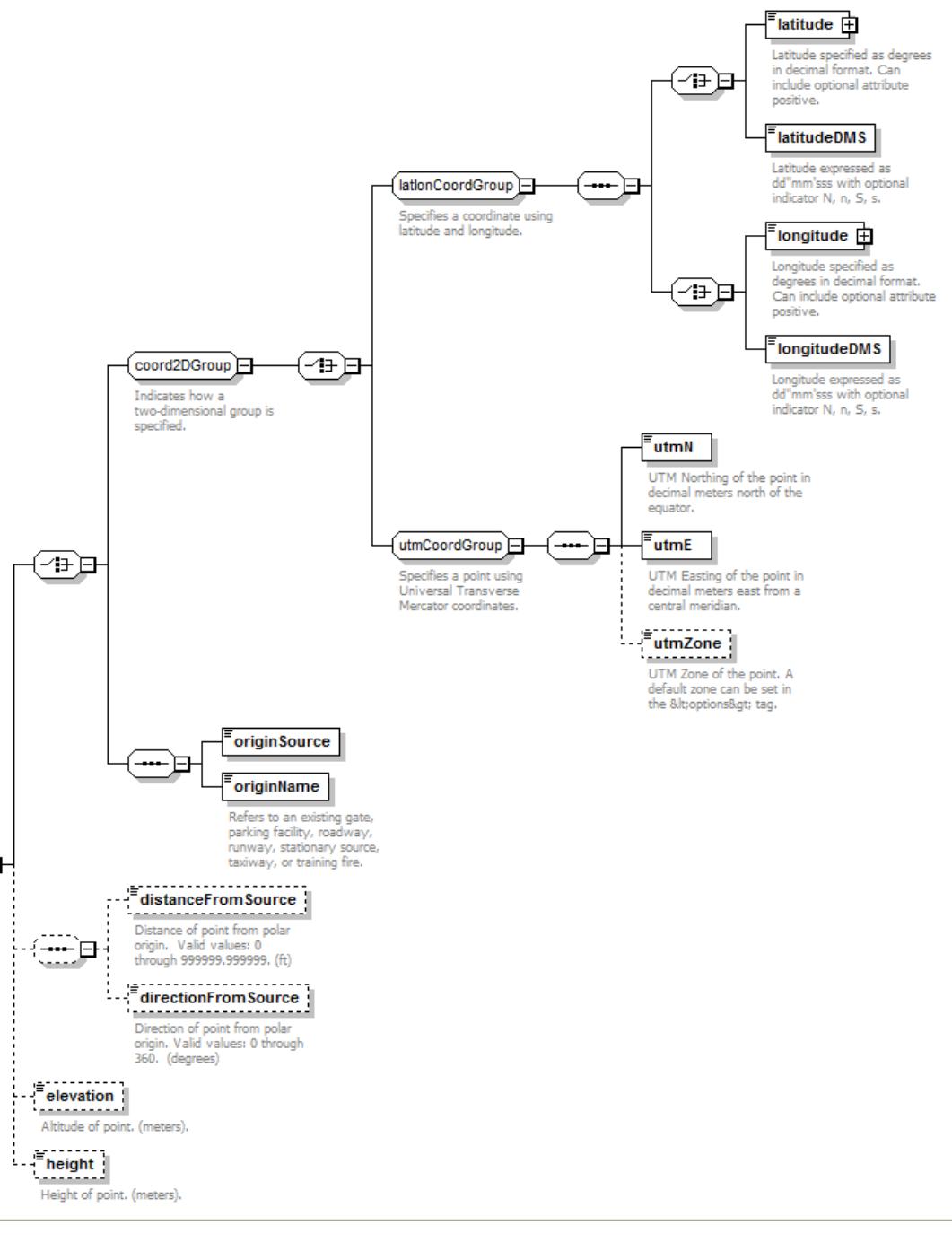
annotation documentation

The X-offset of the receptor grid in nautical miles.

element polarGrid/ydOffset

diagram	 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	
properties	content complex

children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone originSource originName distanceFromSource directionFromSource elevation height
used by	group receptorGroup
annotation	documentation Supports legacy EDMS studies relating to the NETWORK_POLAR_RECEPtors and DISCRETE_POLAR_RECEPtors table. Defines receptor points within a polar grid.

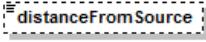
element polarReceptor/originSource

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

element polarReceptor/originName

diagram	
	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	
	Distance of point from polar origin. Valid values: 0 through 999999.99999. (ft)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple

element polarReceptor/directionFromSource

diagram	
	Direction of point from polar origin. Valid values: 0 through 360. (degrees)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple

element polarReceptor/elevation

diagram	
	Altitude of point. (meters).
type	xs:double

	content simple default 0
annotation	documentation Altitude of point. (meters).

element polarReceptor/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 quarterHourlyProfile

diagram	 quarterHourlyProfile 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. profileName Name of profile. temporalFactor 0..∞ Factor applied to activity for operations during the indicated quarter hour. Valid values: 0.0000 to 1.0000.
properties	content complex
children	profileName temporalFactor
used by	element quarterHourlyProfileSet
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.

element quarterHourlyProfile/profileName

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

element quarterHourlyProfile/temporalFactor

diagram	 temporalFactor 0..∞ Factor applied to activity for operations during the indicated quarter hour. Valid values: 0.0000 to 1.0000. attributes 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 minInclusive 0	Value Annotation			
attributes	Name startHour	Type int0to23	Use required	Default	Fixed	Annotation documentation
	startMinutes	quarterHourMinutes	required			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 minInclusive 0	Value Annotation			
		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 enumeration 0	Value Annotation			
		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>Supports the definition and use of QUARTER_HOURLY_PROFILES for the quarter hourly variation of operations.</p> <p>Supports legacy EDMS studies relating to content contained in the QUARTER_HOURLY_PROFILE SETS. This element supports the definition of temporal factors on a quarter-hourly operational basis.</p>						
properties	content complex						
children	quarterHourlyProfile						
used by	element operationalProfileSet complexType airportLayoutType						
attributes	<table> <tr> <td>Name dummy</td> <td>Type xs:int</td> <td>Use optional</td> <td>Default</td> <td>Fixed</td> <td>Annotation</td> </tr> </table>	Name dummy	Type xs:int	Use optional	Default	Fixed	Annotation
Name dummy	Type xs:int	Use optional	Default	Fixed	Annotation		
annotation	documentation Supports the definition and use of QUARTER_HOURLY_PROFILES for the quarter hourly variation of operations.						

attribute quarterHourlyProfileSet/@dummy

	type	xs:int				
	properties	use optional				

element receptorSet

diagram	<pre> classDiagram class receptorSet { <<Contains one or more receptor sets at various locations.>> } class name { <<Descriptive name of the receptor set.>> } class centroid { <<1..>> <<Describes the geometric center of a polygon.>> } class pointReceptor { <<1..>> <<Element specification for a point receptor.>> } class grid { <<Describes a grid of points.>> } class polarReceptor { <<1..>> <<Supports legacy EDMS studies relating to the NETWORK_POLAR_RECEP TORS and DISCRETE_POLAR_RECEP TORS table. Defines receptor points within a polar grid.>> } class polarGrid { <<Supports legacy EDMS studies relating to the NETWORK_POLAR_RECEP TORS table. Two-Dimensional grid of individual receptors over an annular sector (polar) of the airport or study area.>> } receptorSet "2..3" -- "1..>" name receptorSet "2..3" -- "1..>" centroid receptorSet "2..3" -- "1..>" pointReceptor receptorSet "2..3" -- "1..>" grid receptorSet "2..3" -- "1..>" polarReceptor receptorSet "2..3" -- "1..>" polarGrid </pre>
properties	content complex
children	name centroid pointReceptor grid polarReceptor polarGrid
used by	elements AsifXml study
annotation	<p>documentation</p> <p>Contains one or more receptor sets at various locations.</p>

element receptorSet/name

diagram	<pre> classDiagram class name { <<Descriptive name of the receptor set.>> } name <<String>> </pre>						
type	string255						
properties	content simple						
facets	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Kind</td> <td style="padding: 2px;">Value Annotation</td> </tr> <tr> <td style="padding: 2px;">minLength</td> <td style="padding: 2px;">0</td> </tr> <tr> <td style="padding: 2px;">maxLength</td> <td style="padding: 2px;">255</td> </tr> </table>	Kind	Value Annotation	minLength	0	maxLength	255
Kind	Value Annotation						
minLength	0						
maxLength	255						
annotation	<p>documentation</p> <p>Descriptive name of the receptor set.</p>						

element recordCode

diagram	<pre> classDiagram class recordCode { <<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.>> } recordCode <<Integer>> </pre>
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>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	name width coordinates
used by	element roadwaySet
annotation	<p>documentation</p> <p>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>

element roadway/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 for the roadway.</p>						

element roadway/width

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> <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>Roadway's width. Valid values: 1 to 99. (m)</p>								

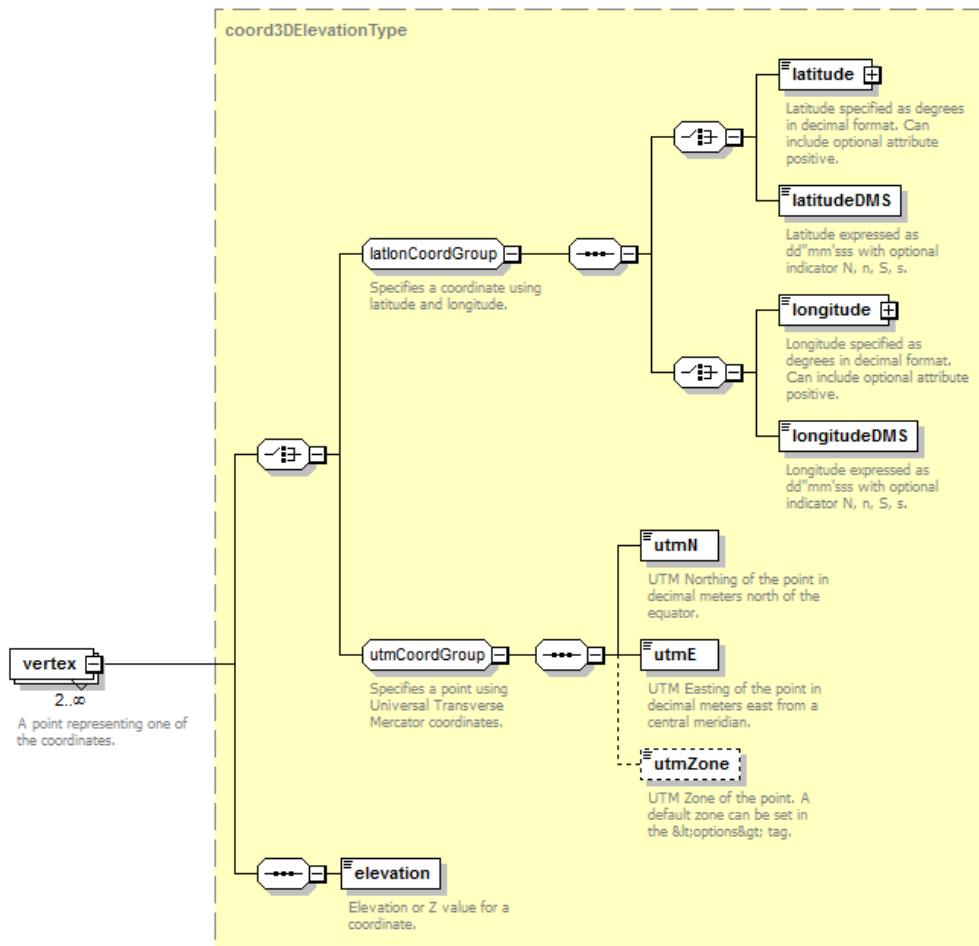
element roadway/coordinates

diagram							
properties	<table> <tr> <td>minOcc</td> <td>0</td> </tr> <tr> <td>maxOcc</td> <td>1</td> </tr> <tr> <td>content</td> <td>complex</td> </tr> </table>	minOcc	0	maxOcc	1	content	complex
minOcc	0						
maxOcc	1						
content	complex						
children	vertex						
annotation	<p>documentation</p> <p>Set of three-dimensional coordinates describing the roadway.</p>						

element roadway/coordinates/vertex

--	--

diagram

type [coord3DElevationType](#)properties
minOcc 2
maxOcc unbounded
content complexchildren [latitude](#) [latitudeDMS](#) [longitude](#) [longitudeDMS](#) [utmN](#) [utmE](#) [utmZone](#) [elevation](#)annotation documentation
A point representing one of the coordinates.**element roadwayOperation**

diagram

	<p>roadwayOperation</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> <p>refName Identifying name of roadway operation.</p> <p>useAnnualFigures Indicates if the quantities in the element are annualized.</p> <p>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 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> <p>fuelType Type of fuel involved in the operation. Valid values: G = gasoline, D = diesel.</p> <p>emissionsUsage Describes the amount of emissions for a given activity profile.</p> <p>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.</p> <p>speed Speed during the operation. Valid values: 5 to 65. (mph)</p> <p>roundTripDistance Round trip vehicle distance. (mi)</p>
properties	content complex
children	refName useAnnualFigures vehicleType fuelType emissionsUsage vehicleEmissionFactors speed roundTripDistance
used by	element roadwayOperationSet
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>

element **roadwayOperation/refName**

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

element **roadwayOperation/useAnnualFigures**

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

element roadwayOperation/vehicleType

diagram	vehicleType <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	Kind Value 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
annotation	documentation 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.

element roadwayOperation/fuelType

diagram	fuelType <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	Kind Value pattern G Gasoline D Diesel C Compressed Natural Gas L Liquefied Petroleum Gas E Electric Annotation
annotation	documentation Type of fuel involved in the operation. Valid values: G = gasoline, D = diesel.

element roadwayOperation/speed

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

annotation	documentation Speed during the operation. Valid values: 5 to 65. (mph)
------------	---

element roadwayOperation/roundTripDistance

diagram	<pre> graph LR dummy[attributes
dummy] --- roadways[roadwayOperation] </pre>
type	doubleInclusive4000
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 4000
annotation	documentation Round trip vehicle distance. (mi)

element roadwayOperationSet

diagram	<pre> graph LR dummy[attributes
dummy] --- roadways[roadwayOperation] roadways -- "1..∞" --- roadways </pre>
properties	content complex
children	roadwayOperation
used by	group airportActivityGroup
attributes	Name Type Use Default Fixed Annotation dummy xs:int optional
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.

attribute roadwayOperationSet/@dummy

type	xs:int
properties	use optional

element roadwaySet

diagram	<pre> graph LR dummy[attributes
dummy] --- roadways[roadway] roadways -- "1..∞" --- roadways </pre>
properties	content complex
children	roadway
used by	complexType airportLayoutType

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 ROADWAYS table. This element supports the definition of vehicle activity on roadways for scenario layouts.					

attribute **roadwaySet/@dummy**

type	xs:int
properties	use optional

element **runway**

diagram	<pre> graph LR runway[runway] --- length[length] runway --- width[width] runway --- runwayEnd[runwayEnd] </pre> <p>Describes dimensions of a runway.</p> <p>length Length of runway. Valid values: nonnegative. (ft)</p> <p>width Width of runway. Valid values: nonnegative. (ft)</p> <p>runwayEnd Characterizes the runway's endpoint. 1.2</p>
properties	content complex
children	length width runwayEnd
used by	element runwaySet
annotation	documentation Describes dimensions of a runway.

element **runway/length**

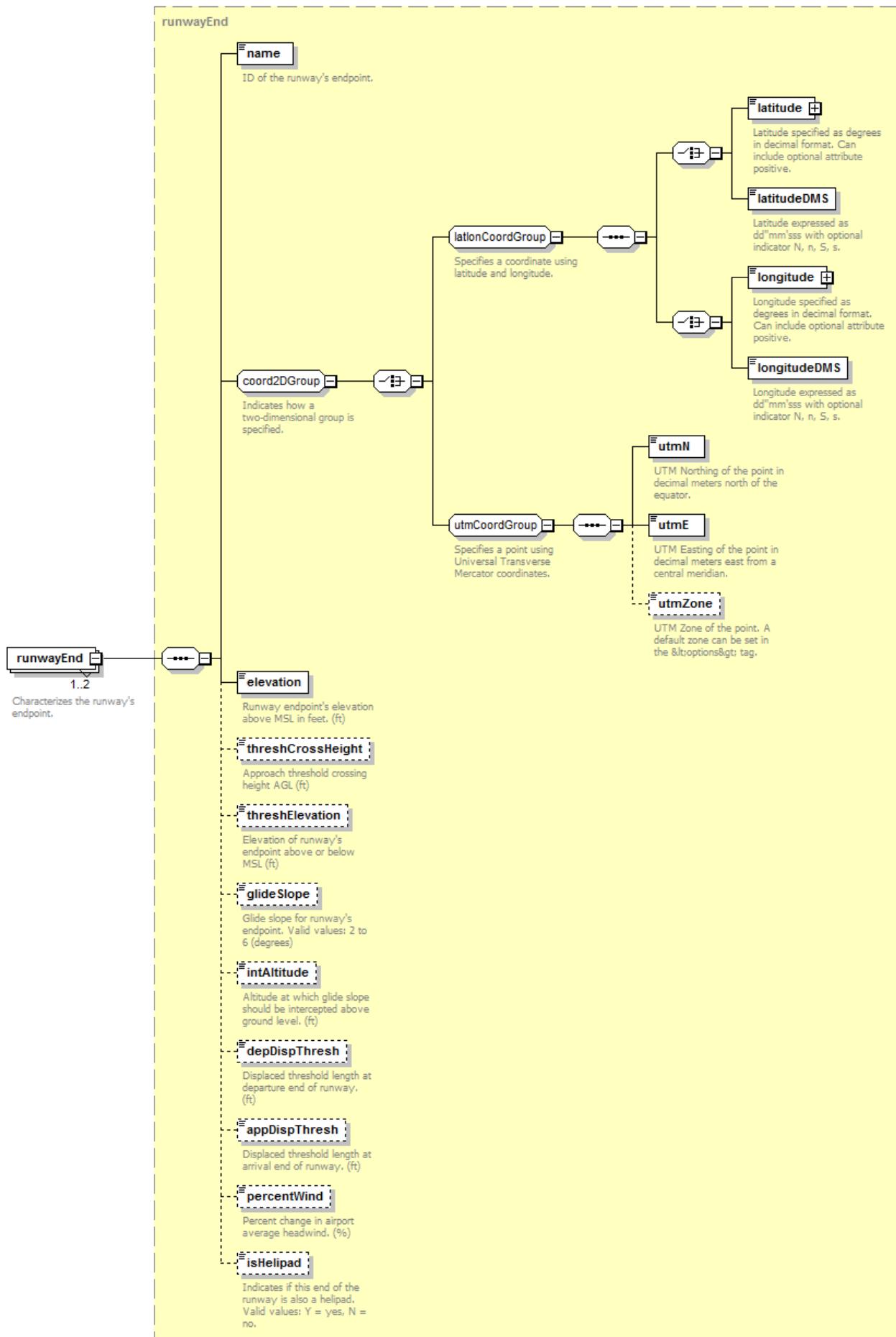
diagram	<pre> graph LR length[length] </pre> <p>length Length of runway. Valid values: nonnegative. (ft)</p>
type	xs:short
properties	content simple
annotation	documentation Length of runway. Valid values: nonnegative. (ft)

element **runway/width**

diagram	<pre> graph LR width[width] </pre> <p>width Width of runway. Valid values: nonnegative. (ft)</p>
type	xs:short
properties	content simple
annotation	documentation Width of runway. Valid values: nonnegative. (ft)

element **runway/runwayEnd**

diagram	
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type	runwayEnd
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properties	minOcc 1 maxOcc 2 content complex
children	name latitude longitudeDMS longitude longitudeDMS utmN utmE utmZone elevation threshCrossHeight threshElevation glideSlope intAltitude depDispThresh appDispThresh percentWind isHelipad
annotation	documentation Characterizes the runway's endpoint.

element runwayAssignment

diagram	<p>The diagram illustrates the structure of the <code>runwayAssignment</code> element. It consists of a main element <code>runwayAssignment</code> which contains a reference to <code>aircraftSize</code>. <code>aircraftSize</code> further contains references to <code>runway</code>, <code>arrivalPercentage</code>, <code>departurePercentage</code>, and <code>tgoPercentage</code>. Each of these components has a detailed description of its purpose and valid values.</p>
properties	content complex
children	aircraftSize runway arrivalPercentage departurePercentage tgoPercentage
used by	element runwayAssignmentSet
annotation	documentation Defines a assignment of operations to runways, by aircraft size.

element runwayAssignment/aircraftSize

diagram	<p>The diagram shows the <code>aircraftSize</code> element, which is a simple content complex type consisting of a single component <code>aircraftSize</code>.</p>
type	AircraftSizeType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation enumeration S enumeration L enumeration H

element runwayAssignment/runway

diagram	<p>The diagram shows the <code>runway</code> component of the <code>runwayAssignment</code> element. It consists of a single component <code>runway</code>, which is described as the name of the runway.</p>
type	string8
properties	content simple
used by	element runwaySet
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation Name of the runway.

element runwayAssignment/arrivalPercentage

diagram	
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	<p>arrivalPercentage</p> <p>Percentage of arrivals of the given aircraft size using this 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 arrivals of the given aircraft size using this runway. Valid values: 0 to 100. (%)

element runwayAssignment/departurePercentage

diagram	<p>departurePercentage</p> <p>Percentage of departures of the given aircraft size using this 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 departures of the given aircraft size using this runway. Valid values: 0 to 100. (%)

element runwayAssignment/tgoPercentage

diagram	<p>tgoPercentage</p> <p>Percentage of touch and gos of the given aircraft size using this 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 gos 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

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	<p>diagram</p> <pre> classDiagram runwaySet "Container for runways." runway "Describes dimensions of a runway." runwaySet --> runway *..1 </pre>
properties	content complex
children	runway
used by	complexType airportLayoutType
annotation	documentation Container for runways.

element scenario

	<p>diagram</p> <pre> classDiagram scenario "Encapsulates a scenario - such as Baseline or Alternative" name "Description of scenario." startTime "Start time of scenario, Accepts dateTime string." duration "Scenario's duration (hr)." taxiModel "Taxi model for scenario." timeInModeBasis "Time in mode basis" acftPerfModel "Aircraft performance model." 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." altitudeCutoff "Altitude in MSL 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. (ft)" sulfurConversionRate "Portion of sulfur in the fuel that, when combusted, becomes sulfuric acid used for emissions calculations, (%)" fuelSulfurContent "Percentage, by weight, of sulfur in the fuel used for emissions calculations. Default Values: 0.0006 (0.06%) (%)" description "A description of the scenario." scenarioAirportLayoutSet "Contains a set of airport layout types." caseSet "Placeholder for one or more cases." annualization "Contains annualizations for ASIF partial import into an existing study." scenario --> name scenario --> startTime scenario --> duration scenario --> taxiModel scenario --> timeInModeBasis scenario --> acftPerfModel scenario --> bankAngle scenario --> altitudeCutoff scenario --> sulfurConversionRate scenario --> fuelSulfurContent scenario --> description scenario --> scenarioAirportLayoutSet scenario --> caseSet scenario --> annualization </pre>
properties	content complex

children	name startTime duration taxiModel timeInModeBasis acftPerfModel bankAngle altitudeCutoff sulfurConversionRate fuelSulfurContent description scenarioAirportLayoutSet caseSet annualization
used by	elements AsifXml study
annotation	documentation Encapsulates a scenario - such as Baseline or Alternative

element scenario/name

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

element scenario/startTime

diagram	 startTime Start time of scenario. Accepts dateTime string.
type	xs:dateTime
properties	content simple
annotation	documentation Start time of scenario. Accepts dateTime string.

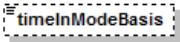
element scenario/duration

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 enumeration enumeration	Value Performance ICAO	Annotation
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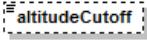
element **scenario/acftPerfModel**

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

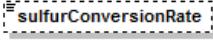
element **scenario/bankAngle**

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 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. (ft)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 18000
annotation	documentation Altitude in MSL 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. (ft)

element **scenario/sulfurConversionRate**

diagram	 sulfurConversionRate Portion of sulfur in the fuel that, when combusted, becomes sulfuric acid used for emissions calculations. (%)
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**

diagram	
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	<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

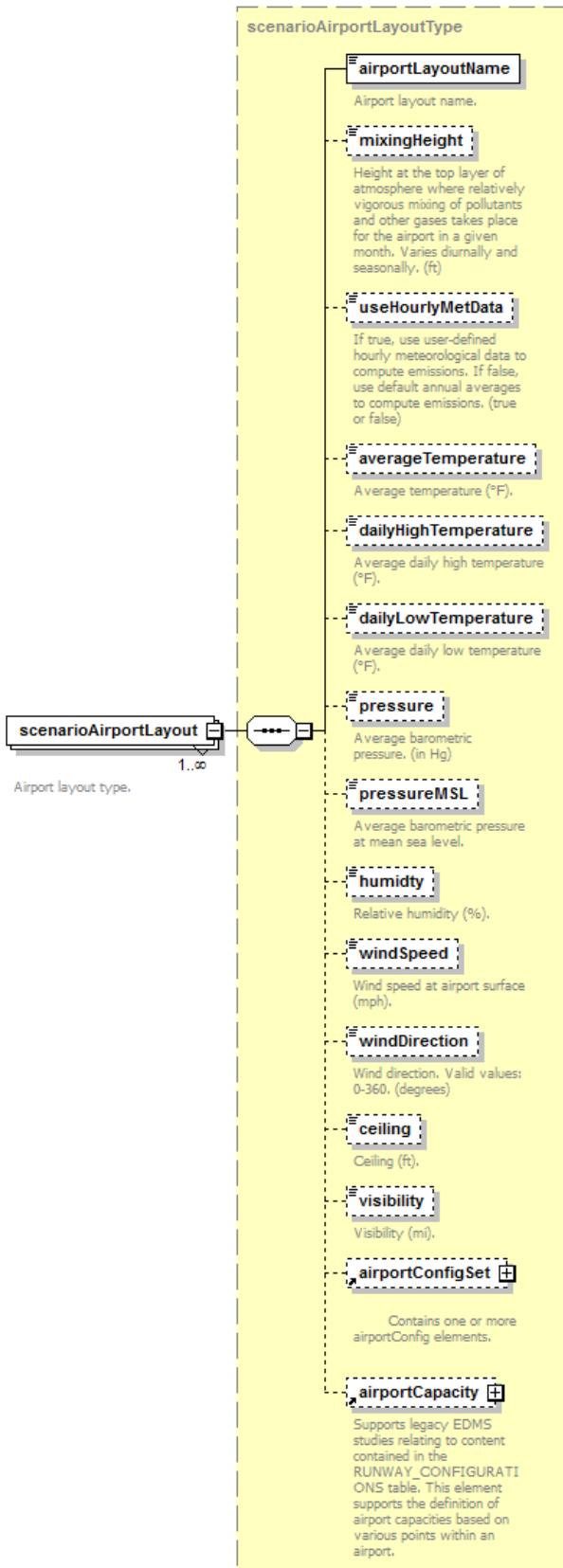
diagram	<p>A description of the scenario.</p>
type	string255
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation A description of the scenario.

element scenarioAirportLayoutSet

diagram	<p>Contains a set of airport layout types.</p> <p>1..∞</p> <p>Airport layout type.</p>
properties	content complex
children	scenarioAirportLayout
used by	element scenario
annotation	documentation Contains a set of airport layout types.

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	<p>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	<p>documentation</p> <p>Describes a single node of a radar flight path.</p>

element sensorNode/lat

diagram	<p>Latitude for this location (decimal degrees).</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>Latitude for this location (decimal degrees).</p>

element sensorNode/long

diagram	<p>Longitude for this location (decimal degrees).</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>Longitude for this location (decimal degrees).</p>

element sensorNode/altitude

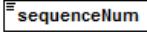
diagram	<p>Altitude at this location (ft)</p>
type	xs:double
properties	content simple

annotation	documentation Altitude at this location (ft)
------------	---

element sensorNode/messageTime

diagram	 Time aircraft reaches this location. NOTE: Not used in AEDT.
type	xs:dateTime
properties	content simple
annotation	documentation Time aircraft reaches this location. NOTE: Not used in AEDT.

element sensorNode/sequenceNum

diagram	 Order of this location in node list.
type	xs:int
properties	content simple
annotation	documentation Order of this location in node list.

element sensorNode/speed

diagram	 Ground speed of aircraft at this location (kts).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Ground speed of aircraft at this location (kts).

element sensorNode/thrust

diagram	 Thrust of aircraft at this location. NOTE: Not used in AEDT. (lb)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Thrust of aircraft at this location. NOTE: Not used in AEDT. (lb)

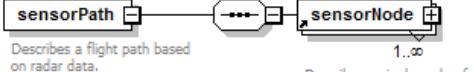
element sensorNode/source

diagram	 Source of the data for this node. NOTE: Not used in AEDT.
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>1..*</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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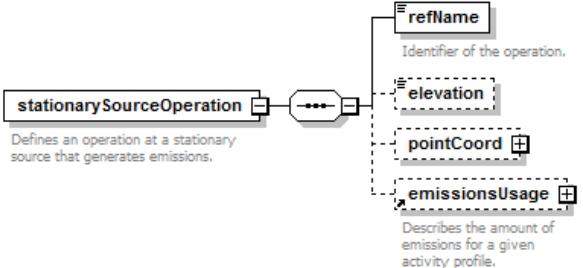
properties	content complex
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children	name pointStationarySource areaStationarySource volumeStationarySource categoryRecordCode categoryBoilerHeater categoryGenerator categoryIncinerator categoryAircraftEngine categoryFuelTank categorySurfaceCoatingPainting categoryDeicingArea categorySolventDegreaser categorySandSaltPile categoryTrainingFire categoryOther
used by	element stationarySourceSet
annotation	documentation Specifies a stationary source.

element **stationarySource/name**

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

element **stationarySourceOperation**

diagram	 <p>Defines an operation at a stationary source that generates emissions.</p>
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	 <p>Identifier of the operation.</p>
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Identifier of the operation.

element **stationarySourceOperation/elevation**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple

element **stationarySourceOperation/pointCoord**

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diagram	<pre> classDiagram coord2DType { <<pointCoord>> <<latlonCoordGroup>> <<utmCoordGroup>> <<latitude>> <<longitude>> <<latitudeDMS>> <<longitudeDMS>> <<utmN>> <<utmE>> <<utmZone>> } pointCoord --> latlonCoordGroup latlonCoordGroup --> latitude latlonCoordGroup --> longitude latlonCoordGroup --> latitudeDMS latlonCoordGroup --> longitudeDMS utmCoordGroup --> utmN utmCoordGroup --> utmE utmCoordGroup --> utmZone </pre>
type	coord2DType
properties	minOcc 0 maxOcc 1 content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone

element stationarySourceOperationSet

diagram	<pre> classDiagram stationarySourceOperationSet { <<dummy>> <<stationarySourceOperation>> attributes } dummy --> attributes attributes --> dummy dummy --> stationarySourceOperation stationarySourceOperation *--> dummy </pre>
properties	content complex
children	stationarySourceOperation
used by	group airportActivityGroup
attributes	Name Type Use Default Fixed Annotation <u>dummy</u> xs:int optional
annotation	documentation Container of operations conducted at a stationary source contributing emissions.

attribute stationarySourceOperationSet/@dummy

type	xs:int
properties	use optional

element stationarySourceSet

diagram	
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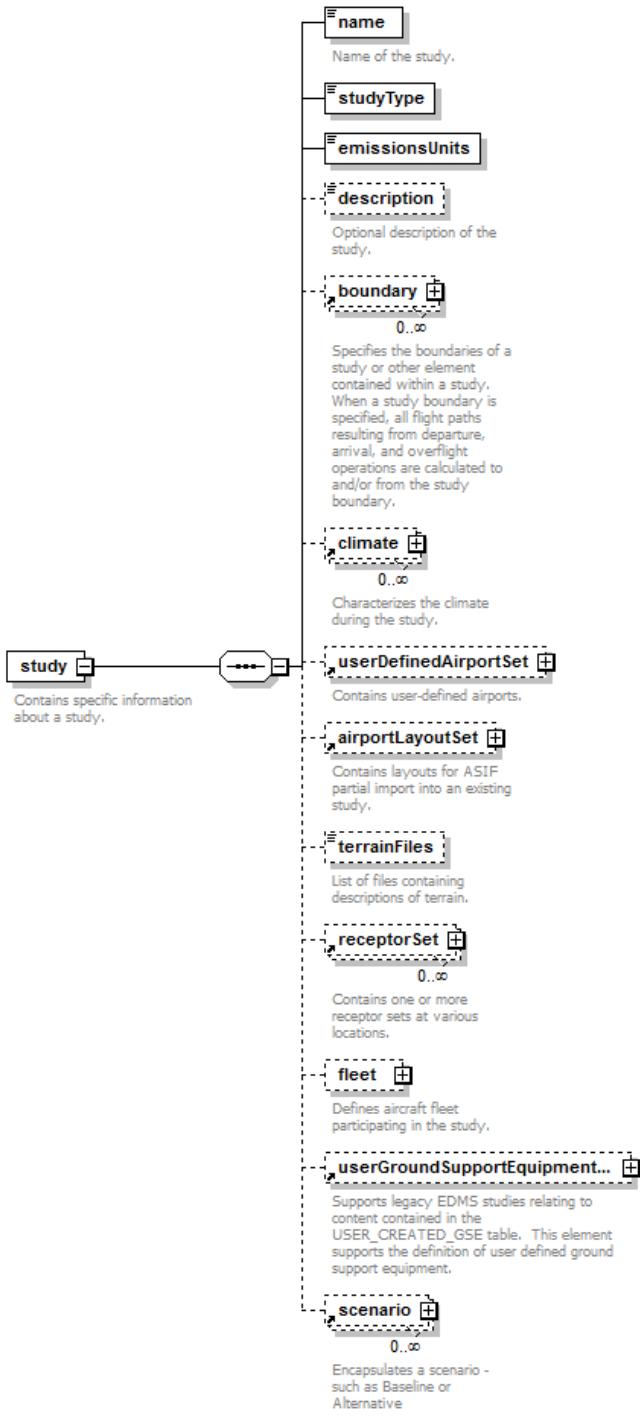
	<pre> classDiagram class stationarySourceSet { <<Container of stationary sources contributing emissions.>> } class stationarySource { <<Specifies a stationary source.>> } stationarySourceSet "1..>" stationarySource stationarySourceSet "1..>" dummy stationarySourceSet "1..>" attributes </pre> <p>stationarySource Set Container of stationary sources contributing emissions.</p> <p>stationarySource Specifies a stationary source.</p>												
properties	content complex												
children	stationarySource												
used by	element AsifXml 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>Container of stationary sources contributing emissions.</p>												

attribute **stationarySourceSet/@dummy**

type	xs:int
properties	use optional

element **study**

diagram	
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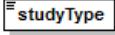
properties	content complex
children	name studyType emissionsUnits description boundary climate userDefinedAirportSet airportLayoutSet terrainFiles receptorSet fleet userGroundSupportEquipmentSet scenario
used by	element AsifXml
annotation	documentation Contains specific information about a study.

element study/name

diagram	<p>Name of the study.</p>
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	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>enumeration</td> <td>Emissions</td> <td></td> </tr> <tr> <td>enumeration</td> <td>Dispersion</td> <td></td> </tr> <tr> <td>enumeration</td> <td>Noise and Emissions</td> <td></td> </tr> <tr> <td>enumeration</td> <td>Noise and Dispersion</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	enumeration	Emissions		enumeration	Dispersion		enumeration	Noise and Emissions		enumeration	Noise and Dispersion	
Kind	Value	Annotation														
enumeration	Emissions															
enumeration	Dispersion															
enumeration	Noise and Emissions															
enumeration	Noise and Dispersion															

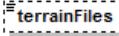
element study/emissionsUnits

diagram																			
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																		

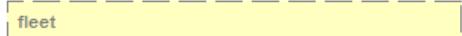
element study/description

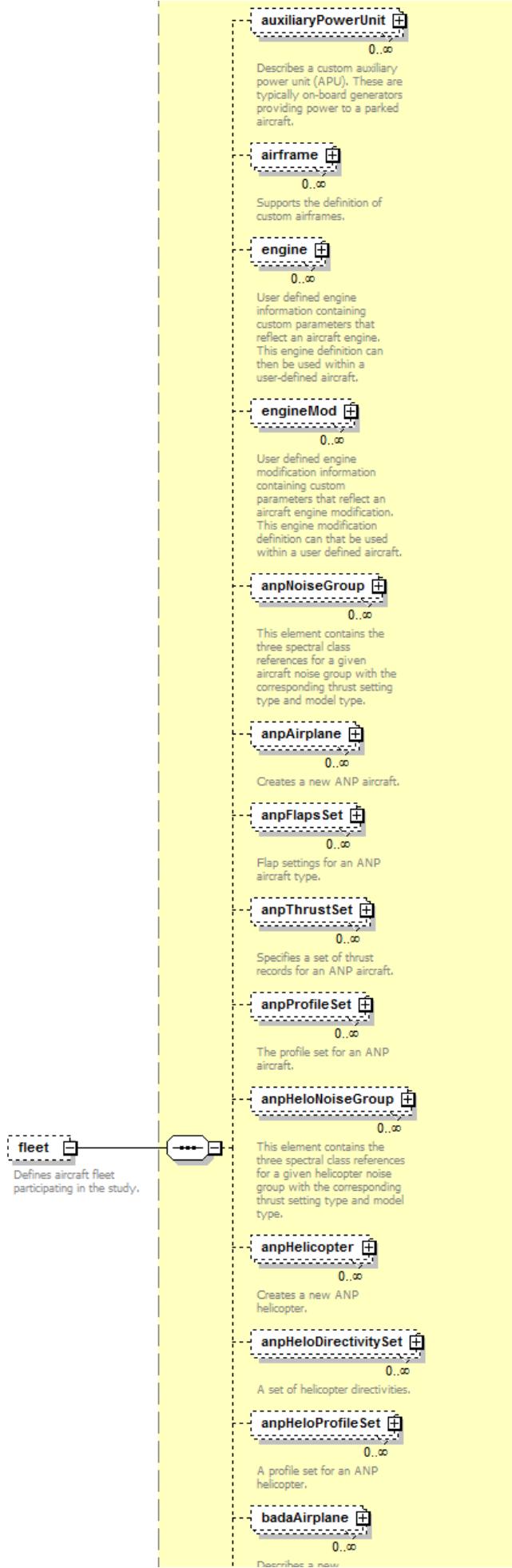
diagram	 Optional description of the study.									
type	string255									
properties	minOcc 0 maxOcc 1 content simple									
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <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	 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

diagram	
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	type fleet
properties	minOcc 0 maxOcc 1 content complex
children	auxiliaryPowerUnit airframe engine engineMod anpNoiseGroup anpAirplane anpFlapsSet anpThrustSet anpProfileSet anpHeloNoiseGroup anpHeliCopter anpHeloDirectivitySet anpHeloProfileSet badaAirplane badaAltitudeDistributionSet badaDefaultAltitudeDistributionSet badaProfileSet badaConfigSet badaFuel badaThrust aircraft energyShare
annotation	documentation Defines aircraft fleet participating in the study.

element subtrack

diagram	<p>The diagram shows the structure of the subtrack element. It consists of the following components:</p> <ul style="list-style-type: none"> subtrack: Intended to represent a dispersed child track of a parent track. id: ID for a subtrack. dispersionWeight: dispersion weight value; must be greater than one and less than or equal to 1. trackVectors: A list of flight track vectors. trackNodes: A set of flight track nodes.
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	
	ID for a subtrack.
type	xs:int
properties	content simple
annotation	documentation ID for a subtrack.

element subtrack/dispersionWeight

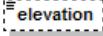
diagram	
	dispersion weight value; must be greater than one and less than or equal to 1.
type	xs:double
properties	content simple
used by	element backbone
annotation	documentation dispersion weight value; must be greater than one and less than or equal to 1.

element taxiNode

diagram	<p>taxiNode</p> <p>Supports legacy EDMS studies relating to the TAXIWAYS table. Taxi nodes define the points for a given taxiway.</p> <p>coord2DGroup Indicates how a two-dimensional group is specified.</p> <p>latlonCoordGroup Specifies a coordinate using latitude and longitude.</p> <p>utmCoordGroup Specifies a point using Universal Transverse Mercator coordinates.</p> <p>elevation Taxi node's elevation above MSL. Valid values: -500 to 5000. (m)</p> <p>speed Speed of aircraft at node. Valid values: 1.00 to 60.00. (mph)</p> <p>latitude Latitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>longitude Longitude specified as degrees in decimal format. Can include optional attribute positive.</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 <options> tag.</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.

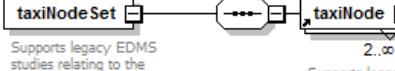
element `taxiNode/elevation`

diagram	 Taxi node's elevation above MSL. Valid values: -500 to 5000. (m)
type	<code>xs:double</code>
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Taxi node's elevation above MSL. Valid values: -500 to 5000. (m)

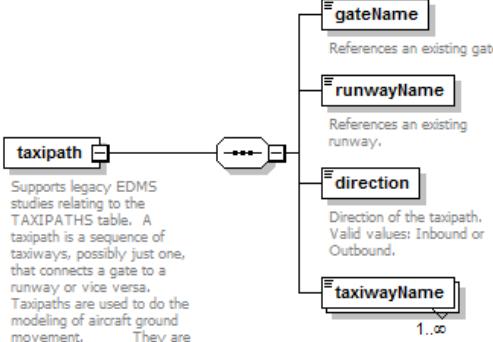
element `taxiNode/speed`

diagram	 Speed of aircraft at node. Valid values: 1.00 to 60.00. (mph)
type	<code>xs:double</code>
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.  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	taxiway
annotation	documentation Supports legacy EDMS studies relating to the TAXIWAYS table. Taxi nodes define the points for a given taxiway.

element `taxipath`

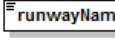
diagram	 Supports legacy EDMS studies relating to the TAXIPATHS table. A taxipath is a sequence of taxiways, possibly just one, that connects a gate to a runway or vice versa. Taxipaths are used to do the modeling of aircraft ground movement. They are needed for sequence modeling, which includes all dispersion analyses. Gates, taxiways and runways must be defined before taxipaths can be specified.  References an existing gate.  References an existing runway.  Direction of the taxipath. Valid values: Inbound or Outbound.  References an existing taxiway.
---------	---

properties	content complex
children	gateName runwayName direction taxiwayName
used by	element taxipathSet
annotation	<p>documentation</p> <p>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.</p>

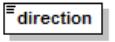
element taxipath/gateName

diagram	 References an existing gate.						
type	string40						
properties	content simple						
facets	<table> <tr> <td>Kind</td> <td>Value</td> </tr> <tr> <td>minLength</td> <td>0</td> </tr> <tr> <td>maxLength</td> <td>40</td> </tr> </table>	Kind	Value	minLength	0	maxLength	40
Kind	Value						
minLength	0						
maxLength	40						
annotation	<p>documentation</p> <p>References an existing gate.</p>						

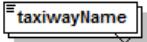
element taxipath/runwayName

diagram	 References an existing runway.						
type	string8						
properties	content simple						
facets	<table> <tr> <td>Kind</td> <td>Value</td> </tr> <tr> <td>minLength</td> <td>0</td> </tr> <tr> <td>maxLength</td> <td>8</td> </tr> </table>	Kind	Value	minLength	0	maxLength	8
Kind	Value						
minLength	0						
maxLength	8						
annotation	<p>documentation</p> <p>References an existing runway.</p>						

element taxipath/direction

diagram	 Direction of the taxipath. Valid values: Inbound or Outbound.				
type	directionType				
properties	content simple				
facets	<table> <tr> <td>Kind</td> <td>Value</td> </tr> <tr> <td>pattern</td> <td>A Arrival D Departure Inbound O Outbound</td> </tr> </table> <p>Annotation</p>	Kind	Value	pattern	A Arrival D Departure Inbound O Outbound
Kind	Value				
pattern	A Arrival D Departure Inbound O Outbound				
annotation	<p>documentation</p> <p>Direction of the taxipath. Valid values: Inbound or Outbound.</p>				

element taxipath/taxiwayName

diagram	 1..∞ References an existing taxiway.						
type	string20						
properties	<p>minOcc 1</p> <p>maxOcc unbounded</p> <p>content simple</p>						
facets	<table> <tr> <td>Kind</td> <td>Value</td> </tr> <tr> <td>minLength</td> <td>0</td> </tr> <tr> <td>maxLength</td> <td>20</td> </tr> </table>	Kind	Value	minLength	0	maxLength	20
Kind	Value						
minLength	0						
maxLength	20						

annotation	documentation References an existing taxiway.
------------	--

element taxipathSet

diagram	<pre> classDiagram class taxipathSet class taxipath taxipathSet "1..∞" --> "1..∞" taxipath </pre> <p>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.</p> <p>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.</p>
properties	content complex
children	taxipath
used by	complexType airportLayoutType
annotation	<p>documentation</p> <p>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.</p>

element taxiTime

diagram	<pre> classDiagram class taxiTime class source class taxin class taxiOut taxiTime --> source taxiTime --> taxin taxiTime --> taxiOut </pre>
properties	content complex
children	source taxin taxiOut
used by	complexType airport

element taxiTime/source

diagram	<pre> classDiagram class source </pre>
type	string6
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 6

element taxiTime/taxin

diagram	<pre> classDiagram class taxin </pre>
type	xs:int
properties	minOcc 0 maxOcc 1 content simple

element taxiTime/taxiOut

diagram	<pre> classDiagram class taxiOut </pre>

type	<code>xs:int</code>
properties	minOcc 0 maxOcc 1 content simple

element `taxiway`

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 taxiwaySet
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 `taxiway/name`

diagram	<p>Identifying name for taxiway.</p>									
type	<code>string20</code>									
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>20</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	minLength	0		maxLength	20	
Kind	Value	Annotation								
minLength	0									
maxLength	20									
annotation	<p>documentation</p> <p>Identifying name for taxiway.</p>									

element `taxiway/dispersionWidth`

diagram	<p>Width of emission dispersion around taxiway. Valid values: 0 to 100. (ft)</p>									
type	<code>doubleExclusive100</code>									
properties	minOcc 0 maxOcc 1 content simple default 1									
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>maxExclusive</td> <td>100</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	minInclusive	0		maxExclusive	100	
Kind	Value	Annotation								
minInclusive	0									
maxExclusive	100									
annotation	<p>documentation</p> <p>Width of emission dispersion around taxiway. Valid values: 0 to 100. (ft)</p>									

element `taxiwaySet`

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

	<p>taxiwaySet supports legacy EDMS studies relating to the TAXIWAYS table. Taxiways determine the ground segments where the aircraft operates.</p> <p>taxiway 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>track A flight track that can be used for flight operations.</p> <p>name The name of the track.</p> <p>optype Type of operation. (A = arrival, D = departure)</p> <p>wingtype Type of wing. (F = fixed wing, R = rotary wing)</p> <p>airport The IATA airport code.</p> <p>runway The name of the runway.</p> <p>vectorCourseHelipad Direction for helicopter operations of vector type (angle from North).</p> <p>backbone Represents the centerline of a set of dispersed tracks.</p> <p>subtrack Intended to represent a dispersed child track of a parent track.</p>
properties	content complex
children	name optype wingtype airport runway vectorCourseHelipad 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	<p>name The name of the track.</p>									
type	string64									
properties	<p>minOcc 0</p> <p>maxOcc 1</p> <p>content simple</p>									
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>64</td> <td></td> </tr> </table>	Kind	Value	Annotation	minLength	0		maxLength	64	
Kind	Value	Annotation								
minLength	0									
maxLength	64									
annotation	<p>documentation</p> <p>The name of the track.</p>									

element track/opType

diagram	
type	opType
properties	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 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 <u>type</u> airportCodeType optional ANY <u>country</u> 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	<p>The diagram shows the structure of the <code>vectorCourseHelipad</code> element. It consists of a single attribute node labeled <code>vectorCourseHelipad</code> with a dashed border. A callout box points to it with the text: "Direction for helicopter operations of vector type (angle from North)."</p>
type	<code>xs:double</code>
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Direction for helicopter operations of vector type (angle from North).

element trackNode

diagram	<p>The diagram illustrates the structure of the <code>trackNode</code> element. It starts with an attribute node <code>trackNode</code>, followed by a sequence of three nodes: <code>coord2DGroup</code>, <code>utmCoordGroup</code>, and <code>altitude speed</code>. The <code>coord2DGroup</code> node is associated with a callout box: "A flight track node." The <code>utmCoordGroup</code> node is associated with a callout box: "Indicates how a two-dimensional group is specified." The <code>altitude speed</code> node is associated with a callout box: "A group of nodes." Further nested structures include <code>nodeIdGroup</code> (under <code>altitude speed</code>) and <code>latlonCoordGroup</code> (under <code>utmCoordGroup</code>). Various coordinate and location-related elements like <code>id</code>, <code>description</code>, <code>latitude</code>, <code>longitude</code>, <code>utmN</code>, <code>utmE</code>, and <code>utmZone</code> are also shown with their respective descriptions.</p>
properties	content complex
children	<code>id description latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone altitude speed</code>
used by	elements <code>backboneNode</code> <code>trackNodes</code>

annotation	documentation A flight track node.
------------	---------------------------------------

element **trackNode/altitude**

diagram	<pre> classDiagram altitude < -- control altitude < -- attributes </pre> <p>Node's altitude above or below MSL (ft). Includes attribute node.</p>												
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 (ft). Includes attribute node.												

attribute **trackNode/altitude/@control**

type	nodeControlType						
properties	use optional						
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>pattern</td> <td>0 None 1 AtOrBelow 2 Match 3 AtOrAbove</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	pattern	0 None 1 AtOrBelow 2 Match 3 AtOrAbove	
Kind	Value	Annotation					
pattern	0 None 1 AtOrBelow 2 Match 3 AtOrAbove						

element **trackNode/speed**

diagram	<pre> classDiagram speed < -- control speed < -- attributes </pre> <p>Speed of aircraft at node. Includes attribute node. Valid values: nonnegative. (kts)</p>												
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 Speed of aircraft at node. Includes attribute node. Valid values: nonnegative. (kts)												

attribute **trackNode/speed/@control**

type	nodeControlType						
properties	use optional						
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>pattern</td> <td>0 None 1 AtOrBelow 2 Match 3 AtOrAbove</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	pattern	0 None 1 AtOrBelow 2 Match 3 AtOrAbove	
Kind	Value	Annotation					
pattern	0 None 1 AtOrBelow 2 Match 3 AtOrAbove						

element **trackNodes**

diagram	<pre> sequenceDiagram participant TN as trackNodes participant T as trackNode TN->>T: activate T TN-->>T: deactivate T </pre> <p>A set of flight track nodes</p>
properties	content complex
children	trackNode
used by	element subtrack
annotation	documentation A set of flight track nodes

element **trackOpSet**

diagram	<pre> classDiagram class trackOpSet { <<Lists tracks and associated operations.>> } class track { <<A flight track that can be used for flight operations.>> } class trackref { <<Reference to a flight track.>> } class sensorPath { <<Describes a flight path based on radar data.>> } class operations { <<Contains a list of aircraft flight operations.>> } trackOpSet "1..∞" --> "1..∞" track trackOpSet "1..∞" --> "1..∞" trackref trackOpSet "1..∞" --> "1..∞" sensorPath trackOpSet "1..∞" --> "1..∞" operations </pre>
properties	content complex
children	track trackref sensorPath operations
used by	elements AsifXml case
annotation	<p>documentation</p> <p>Lists tracks and associated operations.</p>

element **trackref**

diagram	<pre> classDiagram class trackref { <<Reference to a flight track.>> } class airportLayoutName { <<Airport layout associated with this track.>> } class trackName { <<Name of flight track.>> } class optype { <<Name of runway on the flight track.>> } trackref "1..∞" --> "1..∞" airportLayoutName trackref "1..∞" --> "1..∞" trackName trackref "1..∞" --> "1..∞" optype trackref "1..∞" --> "1..∞" runway </pre>
properties	content complex
children	airportLayoutName trackName optype runway
used by	element trackOpSet
annotation	<p>documentation</p> <p>Reference to a flight track.</p>

element **trackref/airportLayoutName**

diagram	<pre> classDiagram class airportLayoutName { <<Airport layout associated with this track.>> } </pre>									
type	string255									
properties	content simple									
facets	<table border="1"> <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	<p>documentation</p> <p>Airport layout associated with this track.</p>									

element **trackref/trackName**

diagram	<pre> classDiagram class trackName { <<Name of flight track.>> } </pre>									
type	string64									
properties	content simple									
facets	<table border="1"> <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>64</td> <td></td> </tr> </table>	Kind	Value	Annotation	minLength	0		maxLength	64	
Kind	Value	Annotation								
minLength	0									
maxLength	64									

annotation	documentation Name of flight track.
------------	--

element **trackref/opType**

diagram	
type	opType
properties	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 **trackref/runway**

diagram	 Name of runway on the flight track.
type	string8
properties	minOcc 0 maxOcc 1 content simple
used by	element runwaySet
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation Name of runway on the flight track.

element **trackSet**

diagram	 A set of flight tracks. A flight track that can be used for flight operations.
properties	content complex
children	track
used by	complexType airportLayoutType
annotation	documentation A set of flight tracks.

element **trackVector**

diagram	 A flight track vector. A group of nodes. String identifier for the grouping of nodes. An optional description for the grouping of nodes. Type of vector. Valid values: S = Straight, L = LeftTurn, R = RightTurn. Distance flown along this vector. Valid values: nonnegative. (nmi) Angle of the vector. (degrees) Radius of the vector. Valid values: nonnegative. (nmi)
---------	---

properties	content complex
children	id description type distance angle radius
used by	element trackVectors
annotation	documentation A flight track vector.

element [trackVector](#)/type

diagram	 type Type of vector. Valid values: S = Straight, L = LeftTurn, R = RightTurn.
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	 distance Distance flown along this vector. Valid values: nonnegative. (nmi)
type	xs:double
properties	content simple
annotation	documentation Distance flown along this vector. Valid values: nonnegative. (nmi)

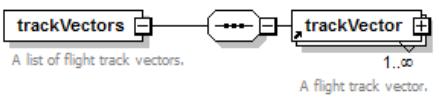
element [trackVector](#)/angle

diagram	 angle Angle of the vector. (degrees)
type	xs:double
properties	content simple
annotation	documentation Angle of the vector. (degrees)

element [trackVector](#)/radius

diagram	 radius Radius of the vector. Valid values: nonnegative. (nmi)
type	xs:double
properties	content simple
annotation	documentation Radius of the vector. Valid values: nonnegative. (nmi)

element [trackVectors](#)

diagram	 A list of flight track vectors. A flight track vector.
properties	content complex
children	trackVector
used by	element subtrack
annotation	documentation

A list of flight track vectors.

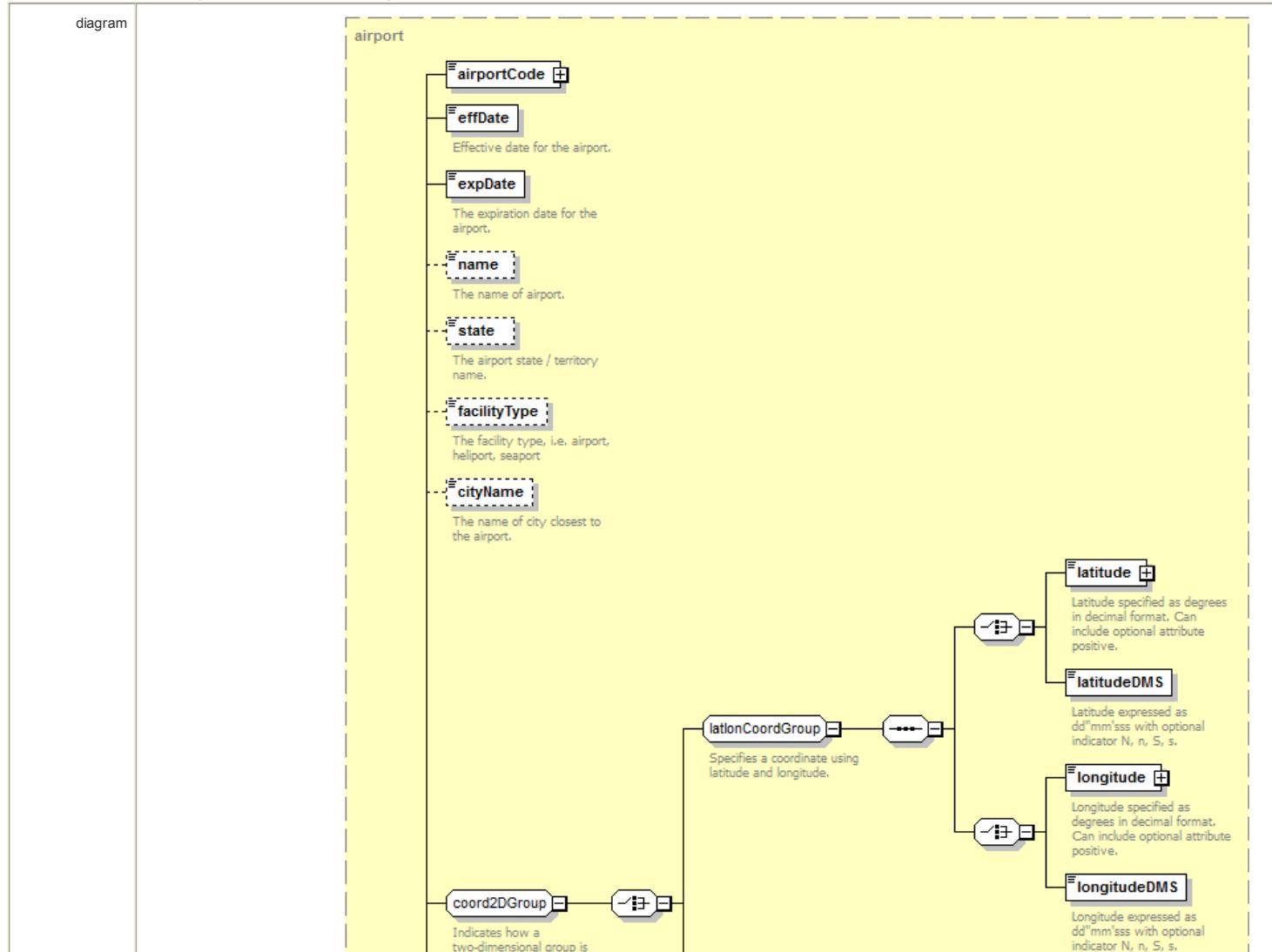
element userDefinedAirportSet

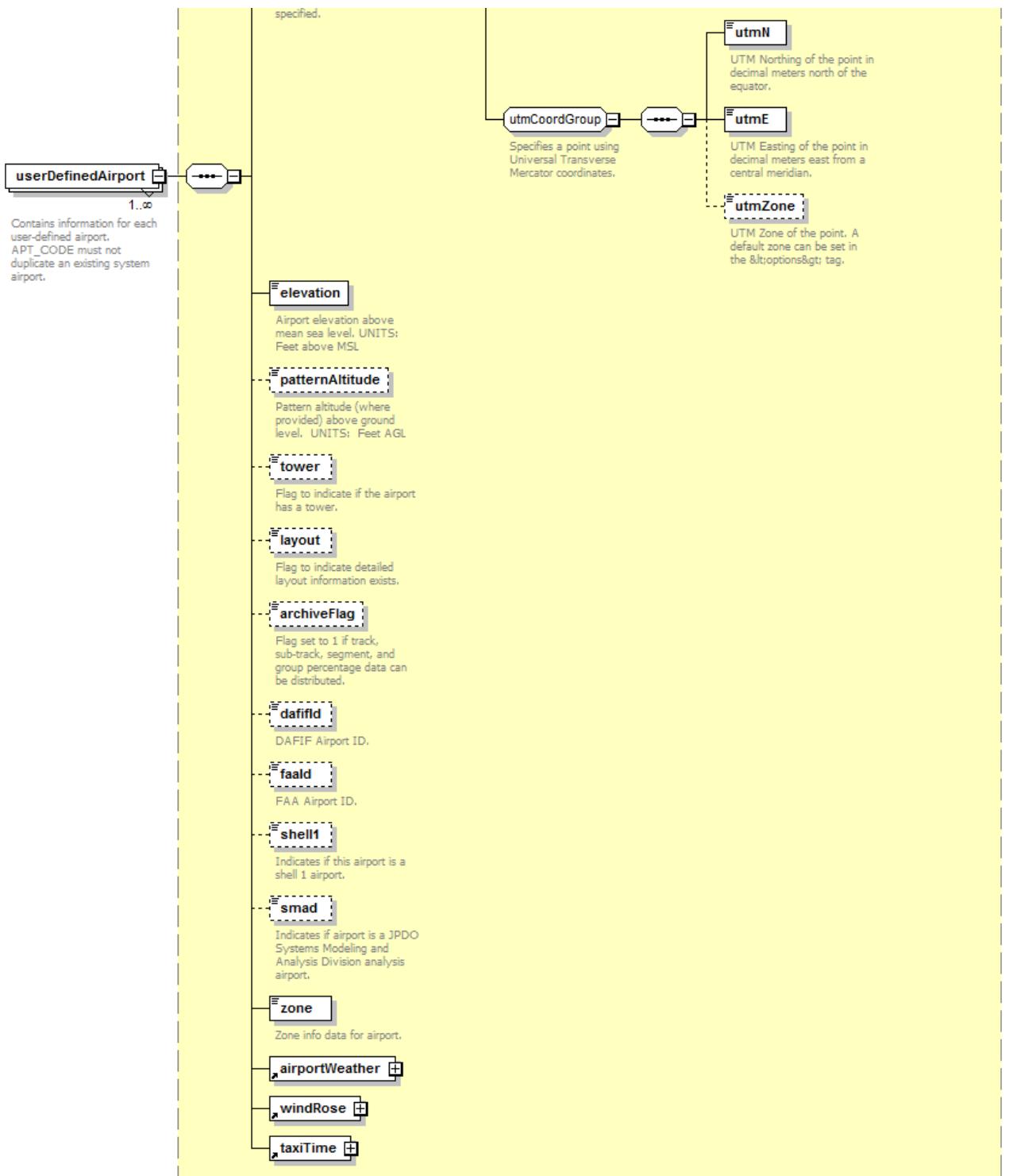
diagram	<pre> classDiagram class userDefinedAirportSet { <<Contains user-defined airports.>> } class userDefinedAirport { <<Contains information for each user-defined airport, APT_CODE must not duplicate an existing system airport.>> } userDefinedAirportSet "1..∞" --> userDefinedAirport userDefinedAirportSet <<Documentation>>: Contains user-defined airports. </pre>												
properties	content complex												
children	userDefinedAirport												
used by	element 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 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 latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation patternAltitude tower layout archiveFlag dafid faalid 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	
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	<pre> graph LR userGroundSupportEquipment[userGroundSupportEquipment] --- gseID[gseID] userGroundSupportEquipment --- gseName[gseName] userGroundSupportEquipment --- defaultLoadFactor[defaultLoadFactor] userGroundSupportEquipment --- defaultHorsepower[defaultHorsepower] userGroundSupportEquipment --- defaultOpTimeDepartures[defaultOpTimeDepartures] userGroundSupportEquipment --- defaultOpTimeArrivals[defaultOpTimeArrivals] userGroundSupportEquipment --- defaultAnnualOpTime[defaultAnnualOpTime] userGroundSupportEquipment --- userEmissionFactors[userEmissionFactors] </pre> <p>userGroundSupportEquipment 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>gseID User GSE ID (used as identifier (System GSE ID) in AIRCRAFT_GSE_ASSIGNMENTS, GSE_POPULATION, GSE_POPULATION_GATE_ASSIGNMENTS).</p> <p>gseName Custom GSE name.</p> <p>defaultLoadFactor GSE default load factor. Valid values: 0 to 100. (%)</p> <p>defaultHorsepower GSE default horsepower. Valid values: 0 to 10000. (hp)</p> <p>defaultOpTimeDepartures GSE default operation time departures. Valid values: 0 to 1000. (min/LTO)</p> <p>defaultOpTimeArrivals GSE default operation time arrivals. Valid values: 0 to 1000. (min/LTO)</p> <p>defaultAnnualOpTime GSE default operation time annual. Valid values: 0 to 8784. (min/LTO)</p> <p>userEmissionFactors Describes user-defined fuel emission factors.</p>
properties	content complex
children	gseID gseName defaultLoadFactor defaultHorsepower defaultOpTimeDepartures defaultOpTimeArrivals defaultAnnualOpTime userEmissionFactors
used by	element userGroundSupportEquipmentSet
annotation	<p>documentation</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>

element userGroundSupportEquipment/gseID

diagram	<p>gseID 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	<p>documentation</p> <p>User GSE ID (used as identifier (System GSE ID) in AIRCRAFT_GSE_ASSIGNMENTS, GSE_POPULATION, GSE_POPULATION_GATE_ASSIGNMENTS).</p>

element userGroundSupportEquipment/gseName

diagram	<p>gseName Custom GSE name.</p>									
type	string40									
properties	content simple									
facets	<table border="1"> <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>40</td> <td></td> </tr> </table>	Kind	Value	Annotation	minLength	0		maxLength	40	
Kind	Value	Annotation								
minLength	0									
maxLength	40									
annotation	<p>documentation</p> <p>Custom GSE name.</p>									

element userGroundSupportEquipment/defaultLoadFactor

diagram	 defaultLoadFactor GSE default load factor. Valid values: 0 to 100. (%)
type	doubleInclusive1
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation GSE default load factor. Valid values: 0 to 100. (%)

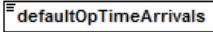
element userGroundSupportEquipment/defaultHorsepower

diagram	 defaultHorsepower GSE default horsepower. Valid values: 0 to 10000. (hp)
type	xs:double
properties	content simple
annotation	documentation GSE default horsepower. Valid values: 0 to 10000. (hp)

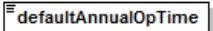
element userGroundSupportEquipment/defaultOpTimeDepartures

diagram	 defaultOpTimeDepartures GSE default operation time departures. Valid values: 0 to 1000. (min/LTO)
type	xs:double
properties	content simple
annotation	documentation GSE default operation time departures. Valid values: 0 to 1000. (min/LTO)

element userGroundSupportEquipment/defaultOpTimeArrivals

diagram	 defaultOpTimeArrivals GSE default operation time arrivals. Valid values: 0 to 1000. (min/LTO)
type	xs:double
properties	content simple
annotation	documentation GSE default operation time arrivals. Valid values: 0 to 1000. (min/LTO)

element userGroundSupportEquipment/defaultAnnualOpTime

diagram	 defaultAnnualOpTime GSE default operation time annual. Valid values: 0 to 8784. (min/LTO)
type	xs:double
properties	content simple
annotation	documentation GSE default operation time annual. Valid values: 0 to 8784. (min/LTO)

element userGroundSupportEquipment/userEmissionFactors

diagram	
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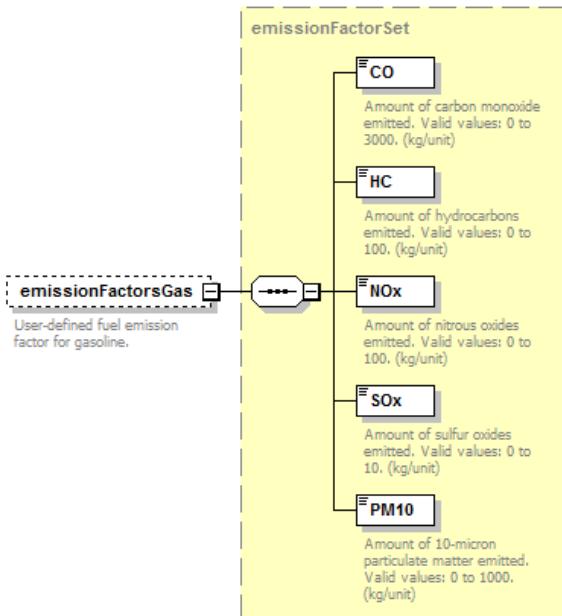
	<p>userEmissionFactors</p> <p>Describes user-defined fuel emission factors.</p> <p>emissionFactorsDiesel</p> <p>User-defined fuel emission factor for diesel.</p> <p>emissionFactorsGas</p> <p>User-defined fuel emission factor for gasoline.</p> <p>emissionFactorsCNG</p> <p>User-defined fuel emission factor for compressed natural gas.</p> <p>emissionFactorsLPG</p> <p>User-defined fuel emission factor for liquefied petroleum gas.</p>
properties	content complex
children	emissionFactorsDiesel emissionFactorsGas emissionFactorsCNG emissionFactorsLPG
annotation	<p>documentation</p> <p>Describes user-defined fuel emission factors.</p>

element userGroundSupportEquipment/userEmissionFactors/emissionFactorsDiesel

diagram	<p>emissionFactorsDiesel</p> <p>User-defined fuel emission factor for diesel.</p> <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)
type	emissionFactorSet
properties	<p>minOcc 0</p> <p>maxOcc 1</p> <p>content complex</p>
children	CO HC NOx SOx PM10
annotation	<p>documentation</p> <p>User-defined fuel emission factor for diesel.</p>

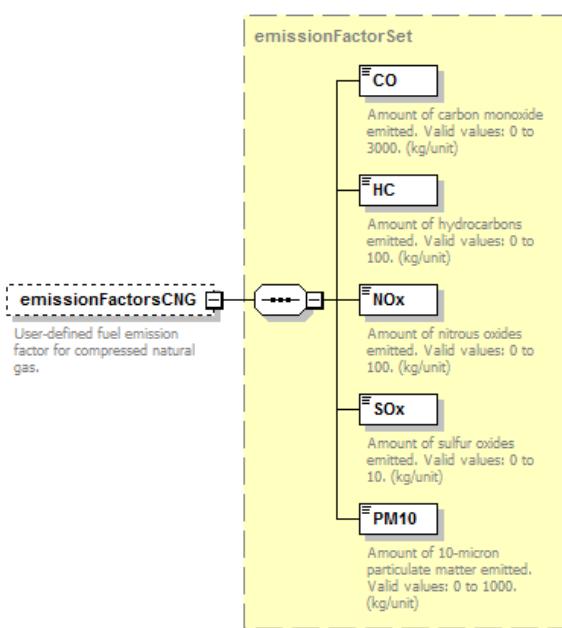
element userGroundSupportEquipment/userEmissionFactors/emissionFactorsGas

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 gasoline.

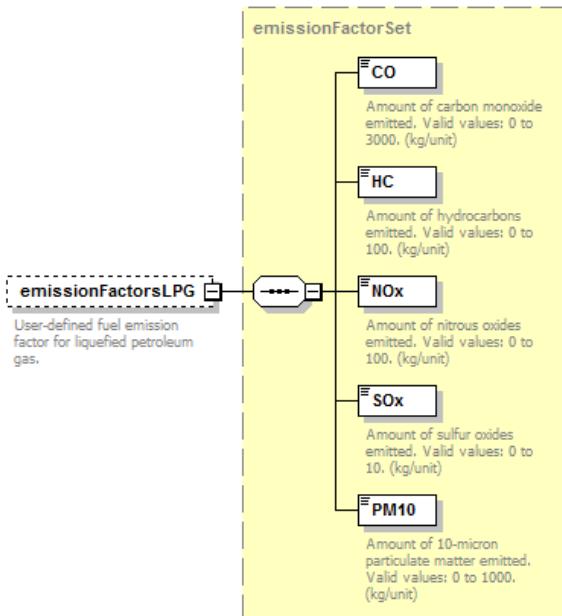
element userGroundSupportEquipment/userEmissionFactors/emissionFactorsCNG



	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

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 liquefied petroleum gas.	

element userGroundSupportEquipmentSet

diagram	<pre> classDiagram class userGroundSupportEquipment... <<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.>> attributes dummy } class userGroundSupportEquipment { <<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.>> } userGroundSupportEquipment... --> userGroundSupportEquipment </pre>
properties	content complex
children	userGroundSupportEquipment
used by	elements AsifXml study
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 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	
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	<pre> classDiagram class 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.>> } class CO class NMHC class VOC class THC class TOG class NOx class SOx class PM_10 class PM_2_5 class Benzene class MTBE class Butadiene class Formaldehyde class Acetaldehyde class Acrolein vehicleEmissionFactors "1" --> "1" CO vehicleEmissionFactors "1" --> "1" NMHC vehicleEmissionFactors "1" --> "1" VOC vehicleEmissionFactors "1" --> "1" THC vehicleEmissionFactors "1" --> "1" TOG vehicleEmissionFactors "1" --> "1" NOx vehicleEmissionFactors "1" --> "1" SOx vehicleEmissionFactors "1" --> "1" PM_10 vehicleEmissionFactors "1" --> "1" PM_2_5 vehicleEmissionFactors "1" --> "1" Benzene vehicleEmissionFactors "1" --> "1" MTBE vehicleEmissionFactors "1" --> "1" Butadiene vehicleEmissionFactors "1" --> "1" Formaldehyde vehicleEmissionFactors "1" --> "1" Acetaldehyde vehicleEmissionFactors "1" --> "1" 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	<p>documentation</p> <p>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.</p>

element **vehicleEmissionFactors/CO**

diagram	 Amount of carbon monoxide emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)
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	 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

diagram	 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

diagram	 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

diagram	 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

diagram	 Amount of nitrous oxides emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)
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type	xs:double
properties	content simple
annotation	documentation Amount of nitrous oxides emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)

element vehicleEmissionFactors/SOx

diagram	 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

diagram	 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	 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	 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	 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

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diagram	
	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	
	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	
	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	
	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	<p>volumeStationarySource</p> <p>Specifies the volume in space occupied by a stationary source of emissions.</p> <pre> graph LR A[pointCoord] --- B[baseElevation] B --- C[releaseHeight] C --- D[sigmaZ] C --- E[sigmaY] </pre> <p>The diagram illustrates the relationships between the following elements:</p> <ul style="list-style-type: none"> pointCoord: Type of 2D coordinates specifying the volume. baseElevation: Height of volume. (m) releaseHeight: Height at which emissions are released into the atmosphere. Valid values 0 to 100 (m) sigmaZ: Vertical dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: 0.1 to 100.0. (m) sigmaY: Horizontal dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: 0.1 to 100.0. (m)
properties	content complex

children	pointCoord baseElevation releaseHeight sigmaZ sigmaY
used by	element stationarySource
annotation	<p>documentation</p> <p>Specifies the volume in space occupied by a stationary source of emissions.</p>

element volumeStationarySource/pointCoord

diagram	<pre> classDiagram coord2DType < -- pointCoord coord2DType < -- lationCoordGroup coord2DType < -- utmCoordGroup lationCoordGroup --> latitude lationCoordGroup --> longitude utmCoordGroup --> utmN utmCoordGroup --> utmE utmCoordGroup --> utmZone </pre>
type	coord2DType
properties	content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone
annotation	<p>documentation</p> <p>Type of 2D coordinates specifying the volume.</p>

element volumeStationarySource/baseElevation

diagram	<pre> classDiagram baseElevation < -- xsDouble </pre>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>Height of volume. (m)</p>

element volumeStationarySource/releaseHeight

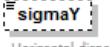
diagram	<pre> classDiagram releaseHeight < -- doubleInclusive100 </pre>
type	doubleInclusive100
properties	<p>minOcc 0</p> <p>maxOcc 1</p> <p>content simple</p>

	default 0
facets	<p>Kind Value Annotation</p> <p>minInclusive 0</p> <p>maxInclusive 100</p>
annotation	<p>documentation</p> <p>Height at which emissions are released into the atmosphere. Valid values 0 to 100 (m)</p>

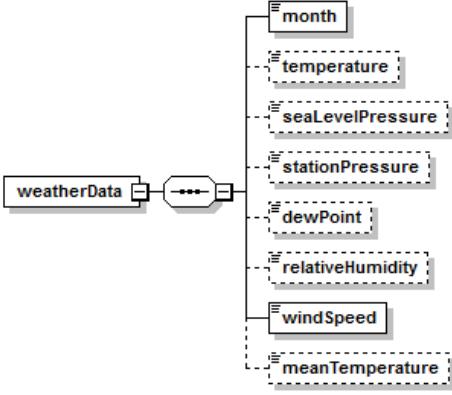
element volumeStationarySource/sigmaZ

diagram	 <p>Vertical dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: 0.1 to 100.0. (m)</p>
type	xs:double
properties	<p>minOcc 0</p> <p>maxOcc 1</p> <p>content simple</p> <p>default 0</p>
annotation	<p>documentation</p> <p>Vertical dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: 0.1 to 100.0. (m)</p>

element volumeStationarySource/sigmaY

diagram	 <p>Horizontal dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: 0.1 to 100.0. (m)</p>
type	xs:double
properties	<p>minOcc 0</p> <p>maxOcc 1</p> <p>content simple</p> <p>default 0</p>
annotation	<p>documentation</p> <p>Horizontal dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: 0.1 to 100.0. (m)</p>

element weatherData

diagram	 <pre> graph LR weatherData[weatherData] --> month[month] month --- temperature[temperature] month --- seaLevelPressure[seaLevelPressure] month --- stationPressure[stationPressure] month --- dewPoint[dewPoint] month --- relativeHumidity[relativeHumidity] month --- windSpeed[windSpeed] month --- meanTemperature[meanTemperature] </pre>
properties	content complex
children	month temperature seaLevelPressure stationPressure dewPoint relativeHumidity windSpeed meanTemperature
used by	element airportWeatherStation

element weatherData/month

diagram	
type	string3
properties	content simple

facets	Kind Value Annotation minLength 0 maxLength 3
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element weatherData/temperature

diagram	 temperature
type	xs:decimal
properties	minOcc 0 maxOcc 1 content simple

element weatherData/seaLevelPressure

diagram	 seaLevelPressure
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

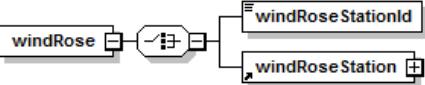
element weatherData/windSpeed

diagram	 windSpeed
type	xs:decimal
properties	content simple

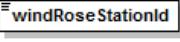
element weatherData/meanTemperature

diagram	 meanTemperature
type	xs:decimal
properties	minOcc 0 maxOcc 1 content simple

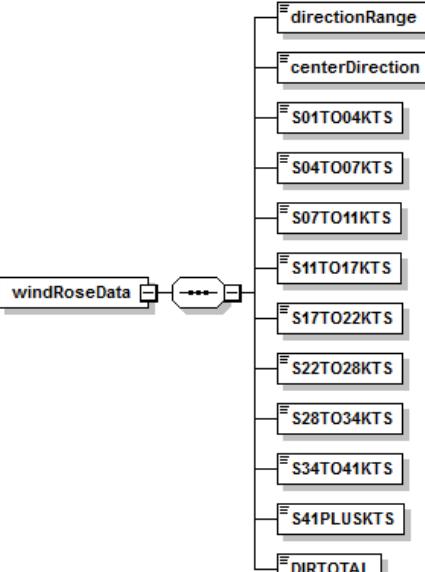
element **windRose**

diagram	
properties	content complex
children	windRoseStationId windRoseStation
used by	complexType airport

element **windRose/windRoseStationId**

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

element **windRoseData**

diagram	
properties	content complex
children	directionRange centerDirection S01TO04KTS S04TO07KTS S07TO11KTS S11TO17KTS S17TO22KTS S22TO28KTS S28TO34KTS S34TO41KTS S41PLUSKTS DIRTOTAL
used by	element windRoseStation

element **windRoseData/directionRange**

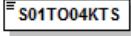
diagram	
type	string14
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 14

element **windRoseData/centerDirection**

diagram	
type	xs:int

properties	content simple
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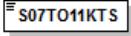
element **windRoseData/S01TO04KTS**

diagram	 S01TO04KTS
type	xs:int
properties	content simple

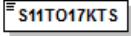
element **windRoseData/S04TO07KTS**

diagram	 S04TO07KTS
type	xs:int
properties	content simple

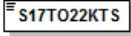
element **windRoseData/S07TO11KTS**

diagram	 S07TO11KTS
type	xs:int
properties	content simple

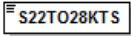
element **windRoseData/S11TO17KTS**

diagram	 S11TO17KTS
type	xs:int
properties	content simple

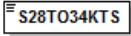
element **windRoseData/S17TO22KTS**

diagram	 S17TO22KTS
type	xs:int
properties	content simple

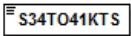
element **windRoseData/S22TO28KTS**

diagram	 S22TO28KTS
type	xs:int
properties	content simple

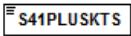
element **windRoseData/S28TO34KTS**

diagram	 S28TO34KTS
type	xs:int
properties	content simple

element **windRoseData/S34TO41KTS**

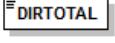
diagram	 S34TO41KTS
type	xs:int
properties	content simple

element **windRoseData/S41PLUSKTS**

diagram	 S41PLUSKTS
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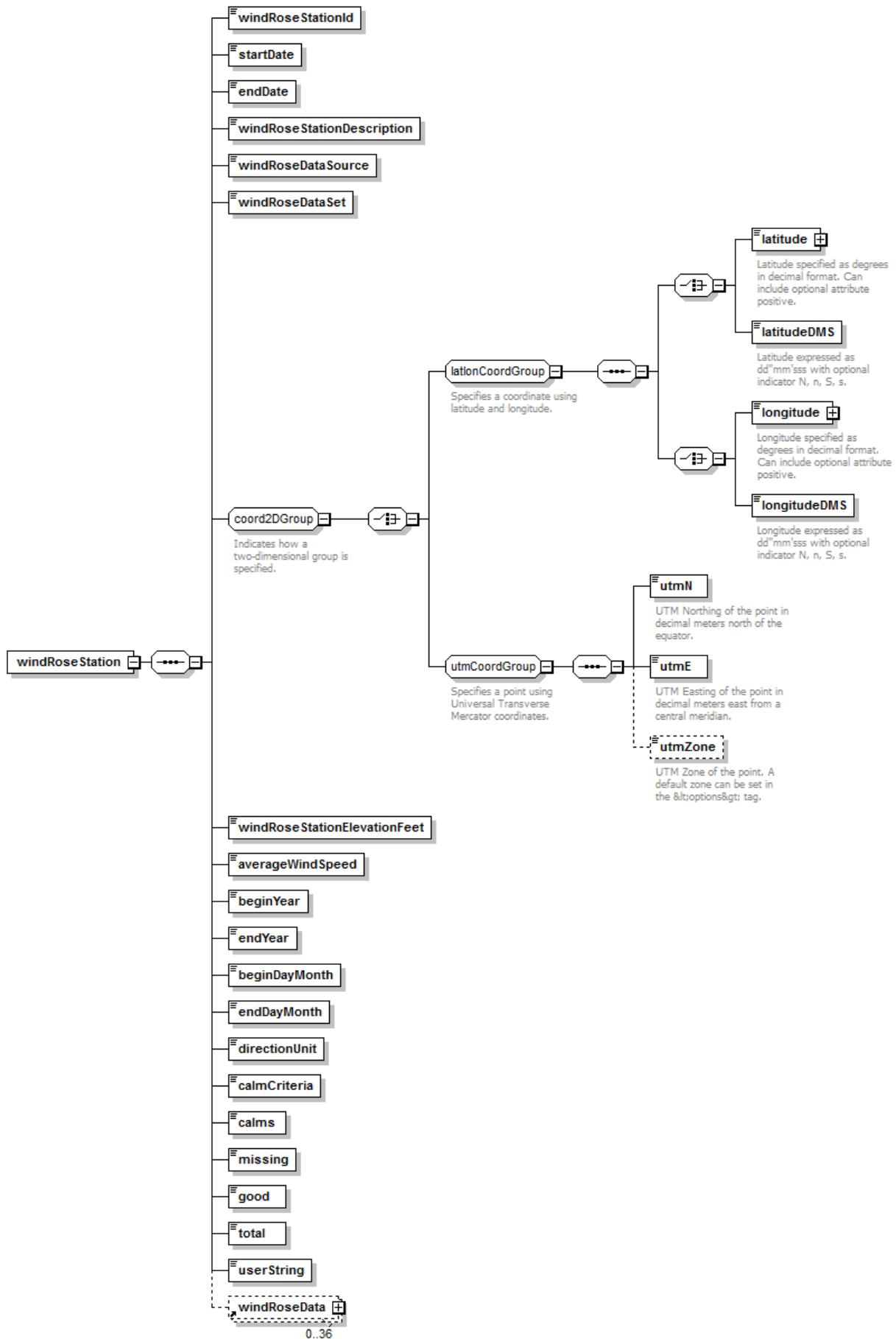
type	xs:int
properties	content simple

element windRoseData/DIRTOTAL

diagram	 DIRTOTAL
type	xs:int
properties	content simple

element windRoseStation

diagram	
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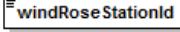


properties content complex

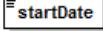
children `windRoseStationId startDate endDate windRoseStationDescription windRoseDataSource windRoseDataSet latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone windRoseStationElevationFeet averageWindSpeed beginYear endYear beginDayMonth endDayMonth directionUnit calmCriteria calms missing`

	good total userString windRoseData
used by	element windRose

element **windRoseStation/windRoseStationId**

diagram	 windRoseStationId
type	string5
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 5

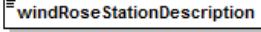
element **windRoseStation/startDate**

diagram	 startDate
type	xs:date
properties	content simple

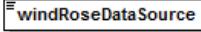
element **windRoseStation/endDate**

diagram	 endDate
type	xs:date
properties	content simple

element **windRoseStation/windRoseStationDescription**

diagram	 windRoseStationDescription
type	string42
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 42

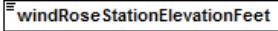
element **windRoseStation/windRoseDataSource**

diagram	 windRoseDataSource
type	string32
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 32

element **windRoseStation/windRoseDataSet**

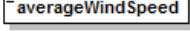
diagram	 windRoseDataSet
type	string66
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 66

element **windRoseStation/windRoseStationElevationFeet**

diagram	 windRoseStationElevationFeet
type	xs:int

properties	content simple
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element **windRoseStation/averageWindSpeed**

diagram	
type	xs:double
properties	content simple

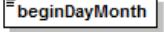
element **windRoseStation/beginYear**

diagram	
type	xs:int
properties	content simple

element **windRoseStation/endYear**

diagram	
type	xs:int
properties	content simple

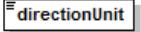
element **windRoseStation/beginDayMonth**

diagram	
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	
	<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>roadwayOperationSet </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> <p>stationarySourceOperationSet </p> <p>Container of operations conducted at a stationary source contributing emissions.</p> <p>groundSupportEquipmentPopu... </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>
children	parkingFacilityOperationSet roadwayOperationSet stationarySourceOperationSet groundSupportEquipmentPopulationOperationSet
used by	element case

annotation	documentation Contains a set of activities conducted at an airport.
------------	--

group annualizationGroupCase

diagram	<p>Contains one or more weighted annualization group cases.</p> <p>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>Specifies a coordinate using latitude and longitude.</p> <p>Specifies a point using Universal Transverse Mercator coordinates.</p> <p>Latitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>Latitude expressed as dd°mm'ss with optional indicator N, n, S, s.</p> <p>Longitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>Longitude expressed as dd°mm'ss with optional indicator N, n, S, s.</p> <p>UTM Northing of the point in decimal meters north of the equator.</p> <p>UTM Easting of the point in decimal meters east from a central meridian.</p> <p>UTM Zone of the point. A default zone can be set in the &lt;options&gt; 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 latlonCoordGroup

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

	<pre> classDiagram latlonCoordGroup < -- latitude latlonCoordGroup < -- longitude latitude < -- positive? longitude < -- positive? </pre> <p>latlonCoordGroup specifies a coordinate using latitude and longitude.</p>
children	latitude latitudeDMS longitude longitudeDMS
used by	complexType coord2DType group coord2DGroup
annotation	documentation Specifies a coordinate using latitude and longitude.

element **latlonCoordGroup/latitude**

diagram	<pre> classDiagram latitude --> latitudeDecimalType latitude < -- positive? </pre> <p>Latitude specified as degrees in decimal format. Can include optional attribute positive.</p>												
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										
annotation	documentation Latitude specified as degrees in decimal format. Can include optional attribute positive.												

element **latlonCoordGroup/latitudeDMS**

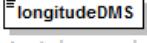
diagram	<pre> classDiagram latitudeDMS </pre> <p>Latitude expressed as dd"mm'sss with optional indicator N, n, S, s.</p>						
type	latitudeDMSType						
properties	content simple						
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>pattern</td> <td>[0-9]{2}[- :]{"0-9}{2}[- :]{"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}{3})?[N n S s]	
Kind	Value	Annotation					
pattern	[0-9]{2}[- :]{"0-9}{2}[- :]{"0-9}{2}(.{"0-9}{3})?[N n S s]						
annotation	documentation Latitude expressed as dd"mm'sss with optional indicator N, n, S, s.						

element **latlonCoordGroup/longitude**

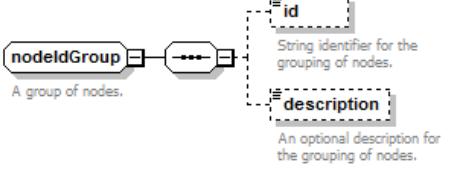
diagram	<pre> classDiagram longitude --> longitudeDecimalType longitude < -- positive? </pre> <p>Longitude specified as degrees in decimal format. Can include optional attribute positive.</p>
type	longitudeDecimalType
properties	content complex

attributes	Name positive	Type xs:string	Use optional	Default E	Fixed	Annotation
annotation	documentation	Longitude specified as degrees in decimal format. Can include optional attribute positive.				

element **latlonCoordGroup/longitudeDMS**

diagram	 Longitude expressed as dd°mm'sss with optional indicator N, n, S, s.
type	longitudeDMSType
properties	content simple
facets	Kind Value Annotation pattern [0-9]?[0-9]{2}[‐ ‐]"[0-9]{2}[‐ ‐]"[0-9]{2}(.[0-9]{3})?[E e W w]
annotation	documentation Longitude expressed as dd°mm'sss with optional indicator N, n, S, s.

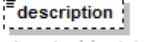
group **nodeIdGroup**

diagram	 A group of nodes. id String identifier for the grouping of nodes. description An optional description for the grouping of nodes.
children	id description
used by	elements trackNode trackVector
annotation	documentation A group of nodes.

element **nodeIdGroup/id**

diagram	 String identifier for the grouping of nodes.
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	 An optional description for the grouping of nodes.
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>oneOrThreeCoords2DGroupSet</p> <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	<p>documentation</p> <p>Type of coordinate specifying the area.</p>

element oneOrThreeCoords2DGroupSet/pointCoord

diagram	<p>coord2DType</p> <p>pointCoord Choice of a single point coordinate.</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>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 <options> tag.</p>
type	coord2DType
properties	content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone
annotation	<p>documentation</p> <p>Choice of a single point coordinate.</p>

element oneOrThreeCoords2DGroupSet/polygonCoords

diagram	<p>polygon2DType</p> <p>polygonCoords Choice of a 2D polygon.</p> <p>dummy</p> <p>vertex A list of vertices defining the polygon.</p>
type	polygon2DType
properties	content complex

children	dummy vertex
annotation	documentation Choice of a 2D polygon.

group receptorGroup

diagram	<pre> classDiagram receptorGroup < -- centroid receptorGroup < -- pointReceptor receptorGroup < -- grid receptorGroup < -- polarReceptor receptorGroup < -- polarGrid </pre> <p>The diagram shows a class named receptorGroup which is a generalization of several other classes. It has five children: centroid, pointReceptor, grid, polarReceptor, and polarGrid. Each child class is described with its purpose and constraints.</p> <ul style="list-style-type: none"> centroid: Describes the geometric center of a polygon. Multiplicity: 1..∞. pointReceptor: Element specification for a point receptor. Multiplicity: 1..∞. grid: Describes a grid of points. Multiplicity: 1..∞. polarReceptor: Supports legacy EDMS studies relating to the NETWORK_POLAR_RECEP TORS and DISCRETE_POLAR_RECEP TORS table. Defines receptor points within a polar grid. Multiplicity: 1..∞. polarGrid: Supports legacy EDMS studies relating to the NETWORK_POLAR_RECEP TORS table. Two-Dimensional grid of individual receptors over an annular sector (polar) of the airport or study area. Multiplicity: 1..∞.
children	centroid pointReceptor grid polarReceptor polarGrid
used by	element receptorSet
annotation	documentation Description of a receptor group.

group utmCoordGroup

diagram	<pre> classDiagram utmCoordGroup < -- utmN utmCoordGroup < -- utmE utmCoordGroup < -- utmZone </pre> <p>The diagram shows a class named utmCoordGroup which is a generalization of three other classes: utmN, utmE, and utmZone. Each child class is described with its purpose.</p> <ul style="list-style-type: none"> utmN: 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 &lt;options&gt; tag.
children	utmN utmE utmZone
used by	complexType coord2DType group coord2DGroup
annotation	documentation Specifies a point using Universal Transverse Mercator coordinates.

element utmCoordGroup/utmN

diagram	<pre> classDiagram utmN </pre> <p>The diagram shows a class named utmN.</p>
type	xs:double
properties	content simple

annotation	documentation UTM Northing of the point in decimal meters north of the equator.
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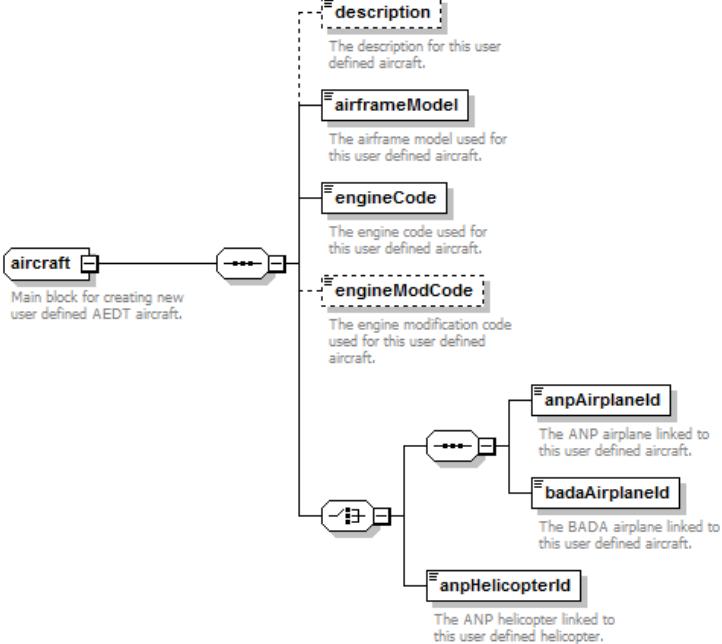
element utmCoordGroup/utmE

diagram	
	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	
	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.

complexType aircraft

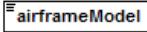
diagram	
children	description airframeModel engineCode engineModCode anpAirplaneId badaAirplaneId anpHelicopterId
used by	element fleet/aircraft
annotation	documentation Main block for creating new user defined AEDT aircraft.

element aircraft/description

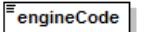
diagram	
	The description for this user defined aircraft.
type	string255

properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The description for this user defined aircraft.

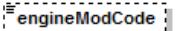
element aircraft/airframeModel

diagram	 airframeModel The airframe model used for this user defined aircraft.
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	 engineCode The engine code used for this user defined aircraft.
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	<u>badaAirplaneId</u>
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	<u>anpHelid</u>
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The ANP helicopter linked to this user defined helicopter.

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>tfmtFlag</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>taxidleEmissionFactors </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 tfmtFlag defaultSOx taxidleEmissionFactors 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>

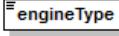
element **aircraftEngine/code**

diagram	 Unique ICAO UID.
type	engineCode
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Unique ICAO UID.

element **aircraftEngine/model**

diagram	 Engine model.
type	engineModel
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Engine model.

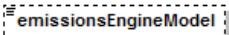
element **aircraftEngine/engineType**

diagram	 Engine type. Valid values: J (jet), T (turboprop), P (piston).
type	engineType
properties	content simple
facets	Kind Value Annotation pattern Jet J Turbo Turboprop T Prop Piston P
annotation	documentation Engine type. Valid values: J (jet), T (turboprop), P (piston).

element **aircraftEngine/notes**

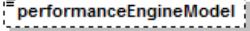
diagram	 Free-text notes for the engine.
type	string200
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 200
annotation	documentation Free-text notes for the engine.

element **aircraftEngine/emissionsEngineModel**

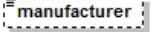
diagram	 ICAO emissions model for the engine.
type	string25
properties	minOcc 0

	maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 25
annotation	documentation ICAO emissions model for the engine.

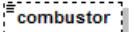
element aircraftEngine/performanceEngineModel

diagram	 performanceEngineModel ICAO performance model for the engine.
type	<u>string25</u>
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 25
annotation	documentation ICAO performance model for the engine.

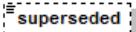
element aircraftEngine/manufacturer

diagram	 manufacturer Engine manufacturer.
type	<u>string100</u>
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Engine manufacturer.

element aircraftEngine/combustor

diagram	 combustor Combustor used on engine.
type	<u>string50</u>
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	 superseded ICAO UID of engine that supersedes the given engine.
type	<u>string10</u>
properties	minOcc 0 maxOcc 1 content simple

	<p>facets</p> <table> <tr><td>Kind</td><td>Value Annotation</td></tr> <tr><td>minLength</td><td>0</td></tr> <tr><td>maxLength</td><td>10</td></tr> </table>	Kind	Value Annotation	minLength	0	maxLength	10
Kind	Value Annotation						
minLength	0						
maxLength	10						
annotation	documentation ICAO UID of engine that supersedes the given engine.						

element aircraftEngine/ratedEngineOut

diagram	<p>Rated engine output (in kN). Valid values: Nonnegative.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Rated engine output (in kN). Valid values: Nonnegative.

element aircraftEngine/source

diagram	<p>Source of engine data.</p>						
type	string100						
properties	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>100</td></tr> </table>	Kind	Value Annotation	minLength	0	maxLength	100
Kind	Value Annotation						
minLength	0						
maxLength	100						
annotation	documentation Source of engine data.						

element aircraftEngine/bypassRatio

diagram	<p>Engine's bypass ratio. Valid values: Nonnegative.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Engine's bypass ratio. Valid values: Nonnegative.

element aircraftEngine/pressureRatio

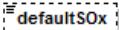
diagram	<p>Engine's pressure ratio. Valid values: Nonnegative.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Engine's pressure ratio. Valid values: Nonnegative.

element aircraftEngine/tfmtFlag

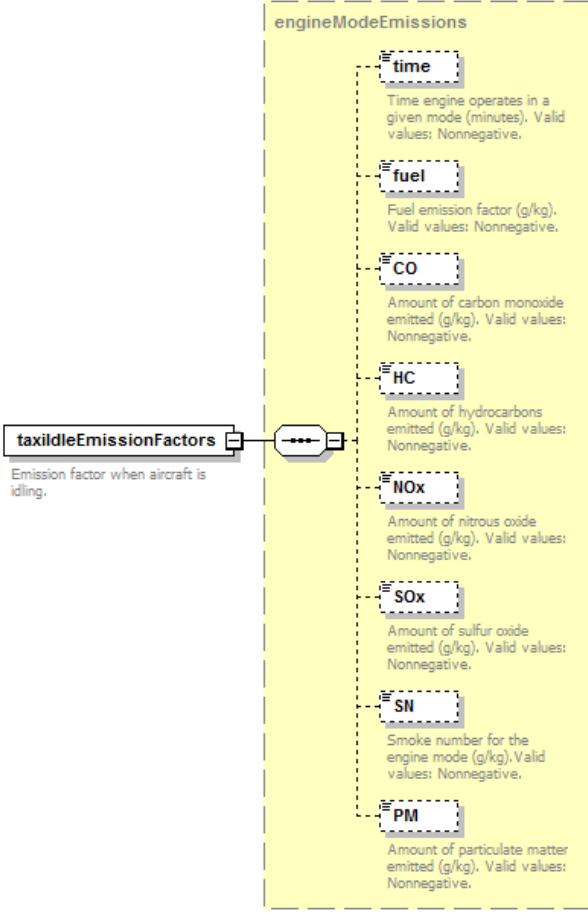
diagram	<p>Turbo-fan or Mixed turn-fan flag. Valid values: TF (turbofan) or MTF (mixed turbofan).</p>
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type	string50
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation Turbo-fan or Mixed turn-fan flag. Valid values: TF (turbofan) or MTF (mixed turbofan).

element aircraftEngine/defaultSOx

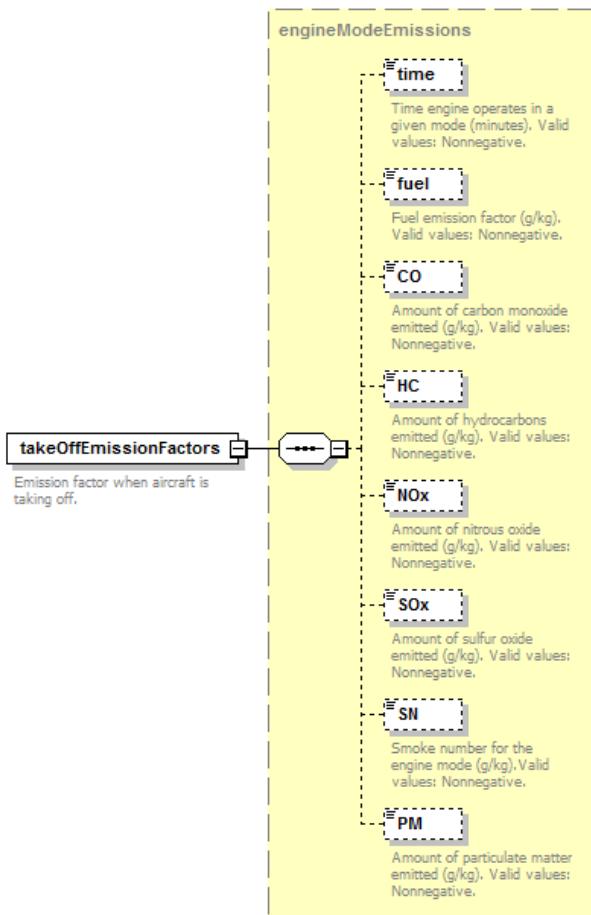
diagram	 <p>Sulfur oxides emitted (grams per kilogram of fuel). Valid values: Nonnegative.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Sulfur oxides emitted (grams per kilogram of fuel). Valid values: Nonnegative.

element aircraftEngine/taxiIdleEmissionFactors

diagram	 <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. <p>taxiIdleEmissionFactors</p> <p>Emission factor when aircraft is idling.</p>
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

type [engineModeEmissions](#)

properties content complex

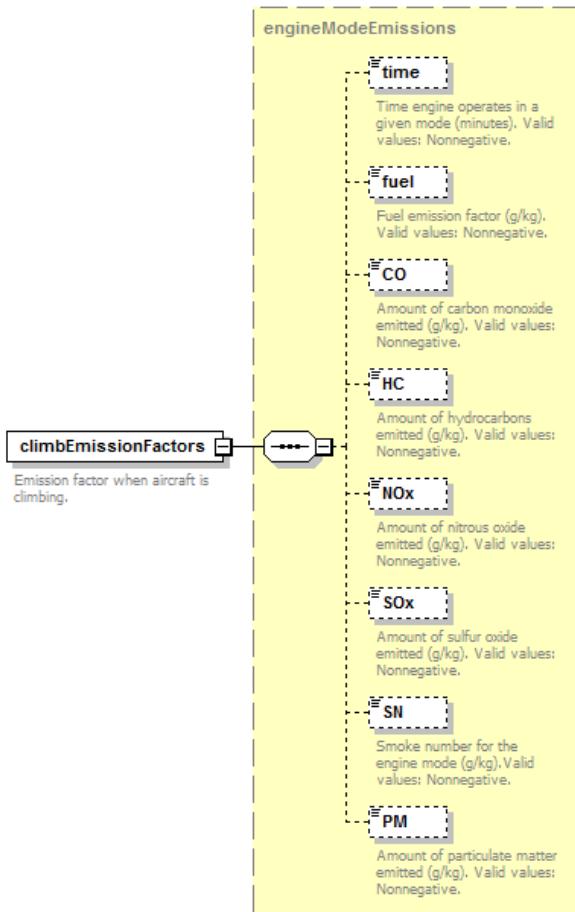
children [time](#) [fuel](#) [CO](#) [HC](#) [NOx](#) [SOx](#) [SN](#) [PM](#)

annotation documentation

Emission factor when aircraft is taking off.

element aircraftEngine/climbEmissionFactors

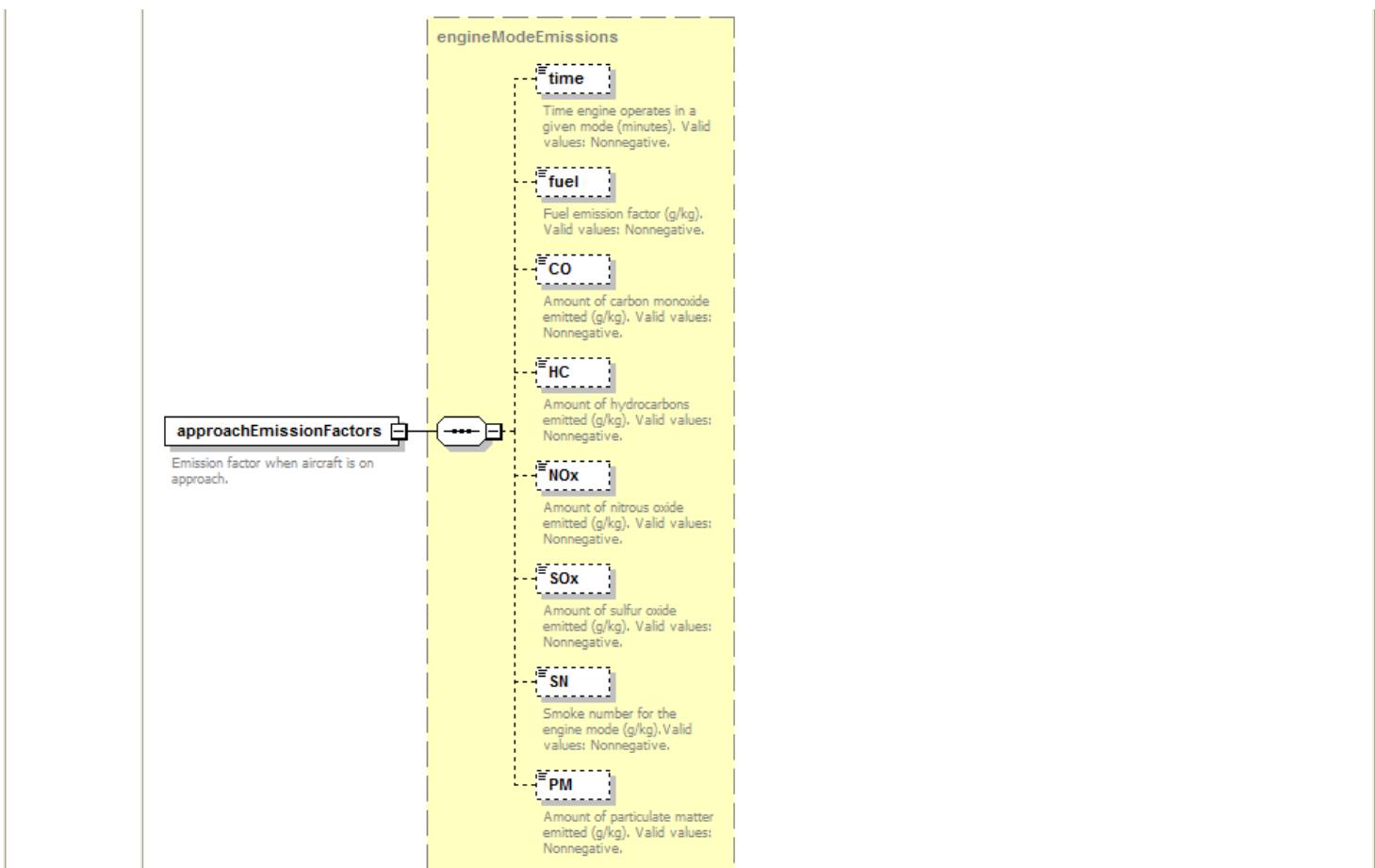
diagram



	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	
---------	--



type	engineModeEmissions
properties	content complex
children	time fuel CO HC NOx SOx SN PM
annotation	documentation Emission factor when aircraft is on approach.

complexType **aircraftEngineMod**

diagram	<pre> graph LR aircraftEngineMod[aircraftEngineMod] --> code[code] aircraftEngineMod --> description[description] </pre> <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>
children	code description
used by	fleet/engineMod
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 **aircraftEngineMod/code**

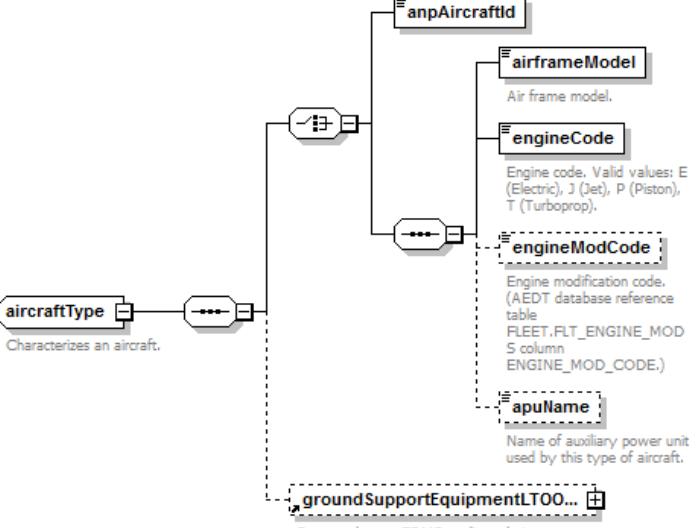
diagram	<pre> graph LR code[code] </pre> <p>Unique ICAO UID.</p>
type	engineModCode
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 50

annotation	documentation Unique ICAO UID.
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element **aircraftEngineMod**/description

diagram	 description Description of engine modifications.
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Description of engine modifications.

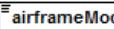
complexType **aircraftType**

diagram	
children	anpAircraftId airframeModel engineCode engineModCode apuName groundSupportEquipmentLTOO...
used by	elements operation/aircraftType runup/aircraftType
annotation	documentation Characterizes an aircraft.

element **aircraftType/anpAircraftId**

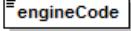
diagram	 anpAircraftId
type	anpAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255

element **aircraftType/airframeModel**

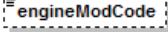
diagram	 airframeModel Air frame model.
type	string50
properties	content simple
facets	Kind Value Annotation

	minLength 0 maxLength 50
annotation	documentation Air frame model.

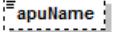
element aircraftType/engineCode

diagram	 engineCode <p>Engine code. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop).</p>
type	string25
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 25
annotation	documentation Engine code. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop).

element aircraftType/engineModCode

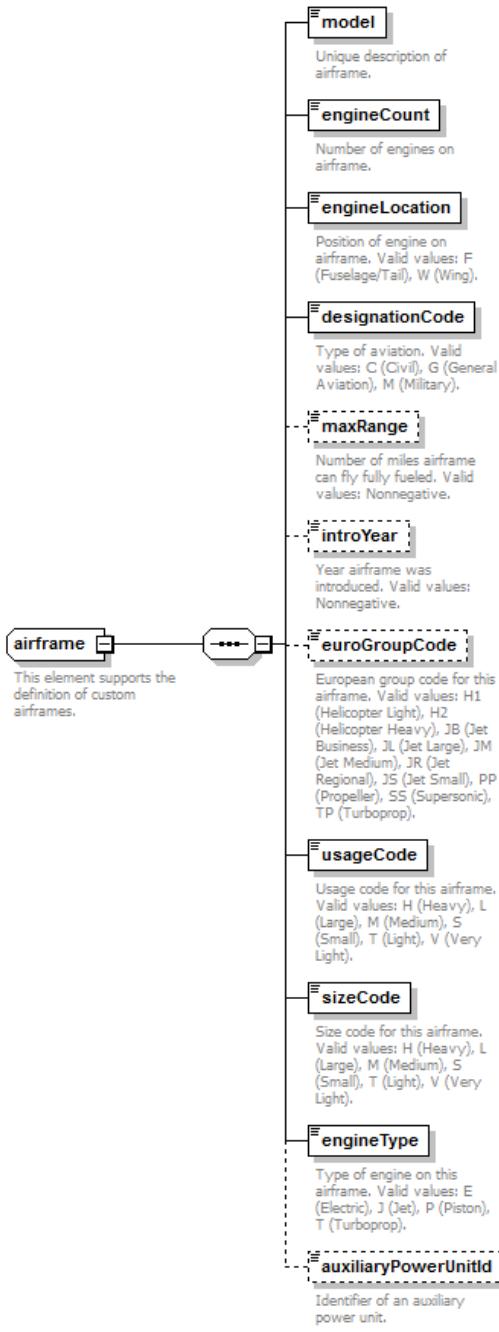
diagram	 engineModCode <p>Engine modification code. (AEDT database reference table FLEET.FLT_ENGINE_MOD S column ENGINE_MOD_CODE.)</p>
type	engineModCode
properties	minOcc 0 maxOcc 1 content simple default NONE
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation Engine modification code. (AEDT database reference table FLEET.FLT_ENGINE_MODS column ENGINE_MOD_CODE.)

element aircraftType/apuName

diagram	 apuName <p>Name of auxiliary power unit used by this type of aircraft.</p>
type	xs:string
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Name of auxiliary power unit used by this type of aircraft.

complexType airframe

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



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	<p>Unique description of airframe.</p>									
type	airframeModel									
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 Unique description of airframe.									

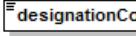
element airframe/engineCount

diagram	 engineCount Number of engines on airframe.
type	xs:int
properties	content simple
annotation	documentation Number of engines on airframe.

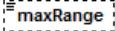
element airframe/engineLocation

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).

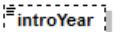
element airframe/designationCode

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

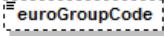
diagram	 maxRange Number of miles airframe can fly fully fueled. Valid values: Nonnegative.
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Number of miles airframe can fly fully fueled. Valid values: Nonnegative.

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.
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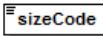
element airframe/euroGroupCode

diagram	 euroGroupCode 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).
type	<u>string2</u>
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).

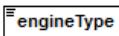
element airframe/usageCode

diagram	 usageCode Usage code for this airframe. Valid values: H (Heavy), L (Large), M (Medium), S (Small), T (Light), V (Very Light).
type	<u>string1</u>
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	 sizeCode Size code for this airframe. Valid values: H (Heavy), L (Large), M (Medium), S (Small), T (Light), V (Very Light).
type	<u>string1</u>
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

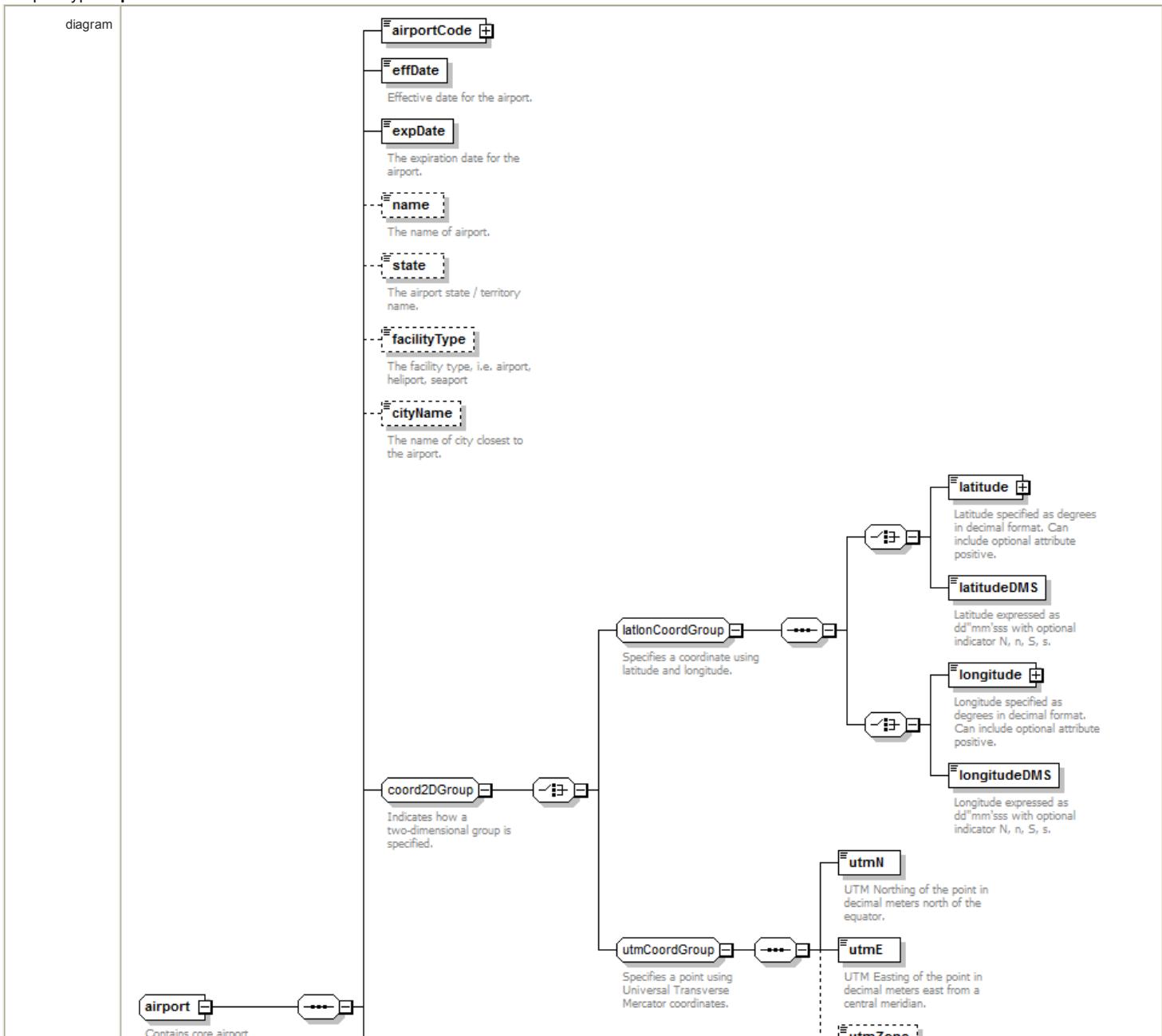
diagram	 engineType Type of engine on this airframe. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop).
type	<u>string1</u>
properties	content simple
facets	Kind Value Annotation

	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>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



	<p>information such as airport name, latitude/longitude, elevation, etc.</p> <p>elevation Airport elevation above mean sea level, UNITS: Feet above MSL</p> <p>patternAltitude Pattern altitude (where provided) above ground level, UNITS: Feet AGL</p> <p>tower Flag to indicate if the airport has a tower.</p> <p>layout Flag to indicate detailed layout information exists.</p> <p>archiveFlag Flag set to 1 if track, sub-track, segment, and group percentage data can be distributed.</p> <p>dafid DAFIF Airport ID.</p> <p>faaid FAA Airport ID.</p> <p>shell1 Indicates if this airport is a shell 1 airport.</p> <p>smad Indicates if airport is a JPDO Systems Modeling and Analysis Division analysis airport.</p> <p>zone Zone info data for airport.</p> <p>airportWeather [+]</p> <p>windRose [+]</p> <p>taxiTime [+]</p>	<p>utmZone UTM Zone of the point. A default zone can be set in the &lt;options&gt; tag.</p>
children	airportCode effDate expDate name state facilityType cityName latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation patternAltitude tower layout archiveFlag dafid faaid 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	<pre> classDiagram class airportCode { <<attributes>> type country } </pre>						
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> </table>	Name	Type	Use	Default	Fixed	Annotation
Name	Type	Use	Default	Fixed	Annotation		

type	airportCodeType	optional	ANY
country	string3	optional	ANY

element airport/effDate

diagram	 effDate Effective date for the airport.
type	xs:date
properties	content simple
annotation	documentation Effective date for the airport.

element airport/expDate

diagram	 expDate The expiration date for the airport.
type	xs:date
properties	content simple
annotation	documentation The expiration date for the airport.

element airport/name

diagram	 name 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	 state 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	 facilityType The facility type, i.e. airport, heliport, seaport
type	string25
properties	minOcc 0 maxOcc 1 content simple

	<p>facets</p> <table> <tr><td>Kind</td><td>Value Annotation</td></tr> <tr><td>minLength</td><td>0</td></tr> <tr><td>maxLength</td><td>25</td></tr> </table>	Kind	Value Annotation	minLength	0	maxLength	25
Kind	Value Annotation						
minLength	0						
maxLength	25						
annotation	<p>documentation</p> <p>The facility type, i.e. airport, heliport, seaport</p>						

element **airport/cityName**

diagram	cityName <p>The name of city closest to the airport.</p>				
type	string50				
properties	<p>minOcc 0 maxOcc 1 content simple</p>				
facets	<p>Kind Value Annotation</p> <table> <tr><td>minLength</td><td>0</td></tr> <tr><td>maxLength</td><td>50</td></tr> </table>	minLength	0	maxLength	50
minLength	0				
maxLength	50				
annotation	<p>documentation</p> <p>The name of city closest to the airport.</p>				

element **airport/elevation**

diagram	elevation <p>Airport elevation above mean sea level. UNITS: Feet above MSL</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>Airport elevation above mean sea level. UNITS: Feet above MSL</p>

element **airport/patternAltitude**

diagram	patternAltitude <p>Pattern altitude (where provided) above ground level. UNITS: Feet AGL</p>
type	xs:int
properties	<p>minOcc 0 maxOcc 1 content simple</p>
annotation	<p>documentation</p> <p>Pattern altitude (where provided) above ground level. UNITS: Feet AGL</p>

element **airport/tower**

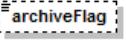
diagram	tower <p>Flag to indicate if the airport has a tower.</p>
type	xs:boolean
properties	<p>minOcc 0 maxOcc 1 content simple</p>
annotation	<p>documentation</p> <p>Flag to indicate if the airport has a tower.</p>

element **airport/layout**

diagram	layout <p>Flag to indicate detailed layout information exists.</p>
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.
type	xs:boolean
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/dafifid

diagram	 dafifid DAFIF Airport ID.
type	string7
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 7

element airport/faald

diagram	 faald FAA Airport ID.
type	string15
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 15

element airport/shell1

diagram	 shell1 Indicates if this airport is a shell 1 airport.
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation Indicates if this airport is a shell 1 airport.

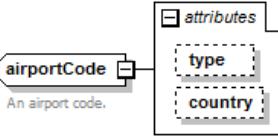
element airport/smad

diagram	 Indicates if airport is a JPDO Systems Modeling and Analysis Division analysis airport.
type	xs:boolean
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 info data for airport.
type	string100
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Zone info data for airport.

complexType airportCode

diagram	 An airport code.
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	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

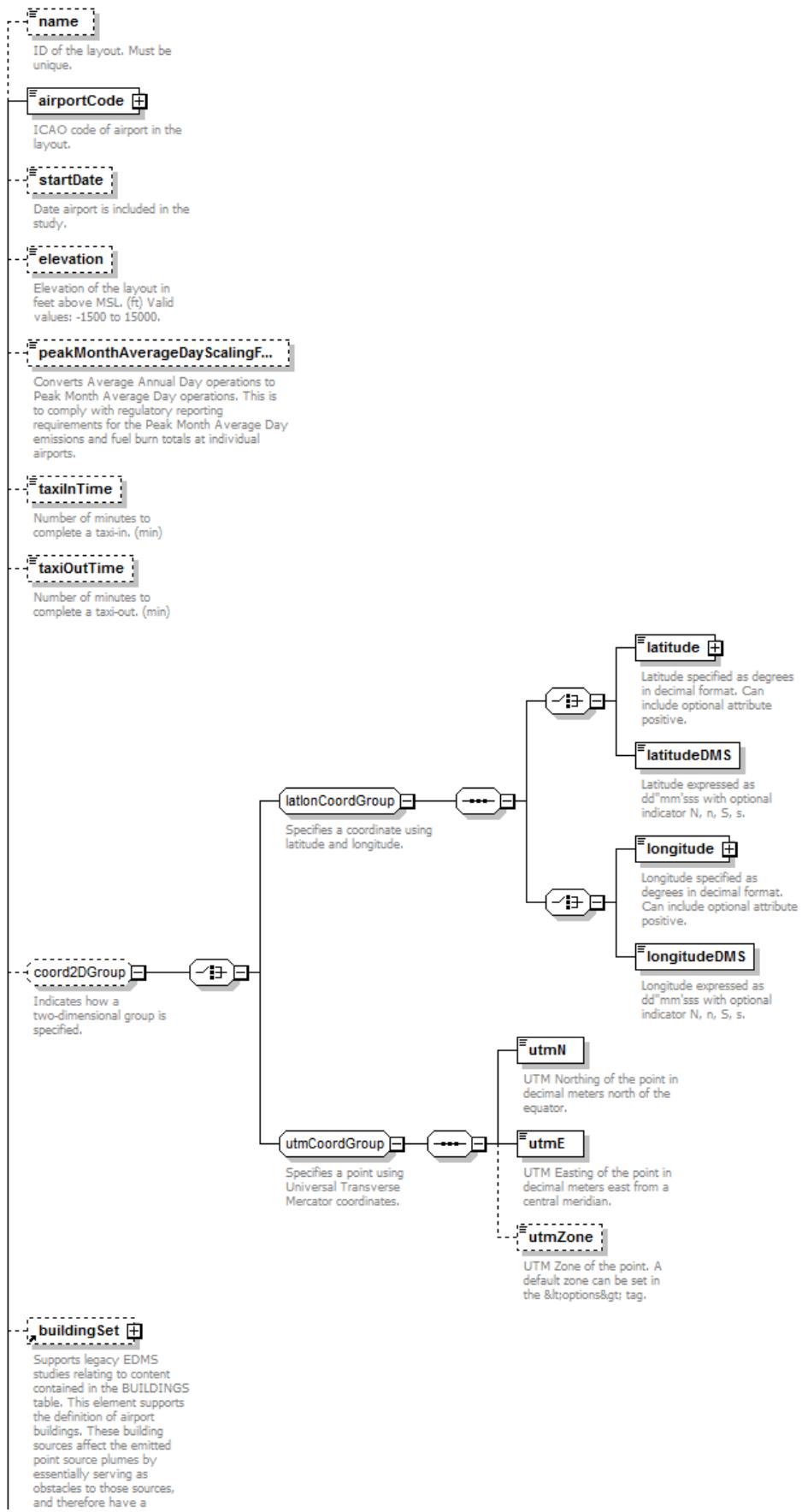
attribute airportCode/@country

type	string3
properties	use optional

	default ANY						
facets	<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>3</td></tr> </table>	Kind	Value Annotation	minLength	0	maxLength	3
Kind	Value Annotation						
minLength	0						
maxLength	3						

complexType airportLayoutType

diagram





	<p>Supports the definition and use of QUARTER_HOURLY_PROFILES for the quarter hourly variation of 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 taxiOutTime latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone buildingSet parkingFacilitySet stationarySourceSet gateSet roadwaySet taxiwaySet runwaySet taxipathSet trackSet airportConfigSet airportCapacity quarterHourlyProfileSet dailyProfileSet monthlyProfileSet activityProfileSet
used by	element airportLayoutSet / airportLayout
annotation	documentation Fields defining an airport and its layout.

element **airportLayoutType/name**

diagram	<p>ID of the layout. Must be unique.</p>
type	string255
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation ID of the layout. Must be unique.

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	documentation ICAO code of airport in the layout.																		

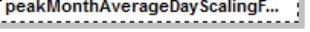
element airportLayoutType/startDate

diagram	 Date airport is included in the study.
type	xs:date
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Date airport is included in the study.

element airportLayoutType/elevation

diagram	 Elevation of the layout in feet above MSL. (ft) Valid values: -1500 to 15000.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Elevation of the layout in feet above MSL. (ft) Valid values: -1500 to 15000.

element airportLayoutType/peakMonthAverageDayScalingFactor

diagram	 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	 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	 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	<pre> classDiagram class anpAirplane { anpAirplaneId description sizeCode owner engineTypeCode numberEngines maxGrossWeightTakeoff maxGrossWeightLand maxDsStop depThrustCoeffType thrustStatic thrustRestore noiseId noiseCategory minBurn } anpAirplane --> anpAirplane : Creates a new ANP airplane. </pre>
children	anpAirplaneId description sizeCode owner engineTypeCode numberEngines maxGrossWeightTakeoff maxGrossWeightLand maxDsStop depThrustCoeffType thrustStatic thrustRestore noiseId noiseCategory minBurn
used by	element fleet/anpAirplane
annotation	documentation Creates a new ANP airplane.

element anpAirplane/anpAirplaneId

diagram	
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	anpAirplaneId ID of ANP airplane. Must be a new, unique value.
type	anpAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation ID of ANP airplane. Must be a new, unique value.

element anpAirplane/description

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

element anpAirplane/sizeCode

diagram	sizeCode Size code for this airframe. Valid values: H (Heavy), L (Large), M (Medium), S (Small), T (Light), V (Very Light).
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	owner The owner category: commercial, general aviation, 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: commercial, general aviation, military.

element anpAirplane/engineTypeCode

diagram	engineTypeCode The engine type code: prop, jet, turbo.
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	numberEngines Number of engines on this airplane. Valid values: 1 through 8.
type	xs:int
properties	content simple
annotation	documentation Number of engines on this airplane. Valid values: 1 through 8.

element anpAirplane/maxGrossWeightTakeoff

diagram	maxGrossWeightTakeoff Maximum gross weight on takeoff (min = 0, max = 999999, lbs).
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	maxGrossWeightLand Maximum gross weight on landing (min = 0, max = 999999, lbs).
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

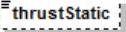
diagram	maxDsStop FAR landing field length at maximum landing weight (min =0, max = 20000, feet).
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation FAR landing field length at maximum landing weight (min =0, max = 20000, feet).

element anpAirplane/depThrustCoeffType

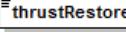
diagram	depThrustCoeffType Type of thrust coefficients: J=jet, P=prop.
type	anpCoeffType
properties	minOcc 0

	maxOcc 1 content simple
facets	Kind Value Annotation pattern Jet J Prop P
annotation	documentation Type of thrust coefficients: J=jet, P=prop.

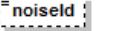
element anpAirplane/thrustStatic

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).

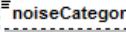
element anpAirplane/thrustRestore

diagram	 thrustRestore Flag indicating aircraft has automated thrust restoration system.
type	yesNoType
properties	content simple default N
facets	Kind Value Annotation pattern Yes Y 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

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diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Minimum fuel burn rate. (kg/sec)

complexType anpFlaps

diagram	<pre>graph LR; flapId[flapId] --- operationType[operationType]; anpFlaps[anpFlaps] --- coeff_R[coeff_R]; coeff_R --- coeff_CD[coeff_CD]; coeff_CD --- coeff_B[coeff_B]</pre>
children	flapId operationType coeff_R coeff_CD coeff_B
used by	element anpFlapsSet/flaps
annotation	documentation Flaps data element.

element anpFlaps/flapId

diagram	
type	anpFlapId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 6
annotation	documentation Flap-setting identifier.

element anpFlaps/operationType

diagram	
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 (CircuitFit), V (OverFit)

element anpFlaps/coeff_R

diagram	 coeff_R The drag-over-lift ratio. Valid values: 0.0 to 1.34.
type	xs:double
properties	content simple
annotation	documentation The drag-over-lift ratio. Valid values: 0.0 to 1.34.

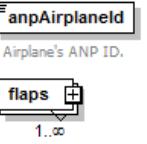
element anpFlaps/coeff_CD

diagram	 coeff_CD The takeoff and landing calibrated airspeed coefficient. Valid values: 0.0 to 1.34. (KNOTS/LB ^{1/2})
type	xs:double
properties	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	 coeff_B The takeoff distance coefficient. Valid values: 0.0 to 1.34. (FEET/LB)
type	xs:double
properties	content simple
annotation	documentation The takeoff distance coefficient. Valid values: 0.0 to 1.34. (FEET/LB)

complexType anpFlapsSet

diagram	 anpFlaps Set Flap settings set for an ANP aircraft type.  AnpAirplaneId Airplane's ANP ID. flaps 1..∞
children	anpAirplaneId flaps
used by	element fleet/anpFlapsSet
annotation	documentation Flap settings set for an ANP aircraft type.

element anpFlapsSet/anpAirplaneId

diagram	 anpAirplaneId Airplane's ANP ID.
type	anpAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's ANP ID.

element anpFlapsSet/flaps

diagram	
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	<pre> graph TD anpFlaps[anpFlaps] --- flapId[flapId] anpFlaps --- operationType[operationType] anpFlaps --- coeff_R[coeff_R] anpFlaps --- coeff_CD[coeff_CD] flaps[flaps] -- "1..∞" --> coeff_R </pre>
type	anpFlaps
properties	minOcc 1 maxOcc unbounded content complex
children	flapId operationType coeff_R coeff_CD coeff_B

complexType anpHelicopter

diagram	<pre> graph TD anpHelicopter[anpHelicopter] --- anpHelicopterId[anpHelicopterId] anpHelicopter --- noiseId[noiseId] anpHelicopter --- directivityId[directivityId] anpHelicopter --- description[description] anpHelicopter --- owner[owner] anpHelicopter --- engineTypeCode[engineTypeCode] anpHelicopter --- numberRotors[numberRotors] anpHelicopter --- diameter[diameter] anpHelicopter --- rpm[rpm] anpHelicopter --- maxTakeoffWeight[maxTakeoffWeight] anpHelicopter --- hasWheels[hasWheels] </pre>
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	<p>dbDescendDeceleration</p> <p>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

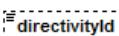
element [anpHelicopter/anpHelicopterId](#)

diagram	 anpHelicopterId Unique ID number of ANP Helicopter.
type	anpHeloid
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Unique ID number of ANP Helicopter.

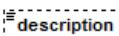
element [anpHelicopter/noiseld](#)

diagram	 noiseld ID of a Noise Group.
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	 directivityId Noise directivity ID for ANP helicopter.
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](#)

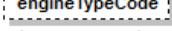
diagram	 description Description of ANP Helicopter.
type	string255
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation

	minLength 0 maxLength 255
annotation	documentation Description of ANP Helicopter.

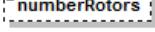
element anpHelicopter/owner

diagram	 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).

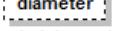
element anpHelicopter/engineTypeCode

diagram	 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	 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	 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	
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	<p>rpm</p> <p>The helicopter rotor speed (revolutions per minute). Valid values: 0 to 1000.</p>
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	<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	bLeft1 Adjust flyover noise as a function of speed, left. 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, left. Valid values: Min = -999.99 Max = 999.99.

element anpHelicopter/bLeft2

diagram	bLeft2 Adjust flyover noise as a function of speed, left. 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, left. Valid values: Min = -999.99 Max = 999.99.

element anpHelicopter/bCenter0

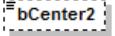
diagram	bCenter0 Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.

element anpHelicopter/bCenter1

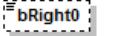
diagram	bCenter1 Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.

element anpHelicopter/bCenter2

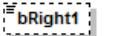
diagram	
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	 <p>Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.

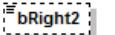
element anpHelicopter/bRight0

diagram	 <p>Adjust flyover noise as a function of speed, right. 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, right. Valid values: Min = -999.99 Max = 999.99.

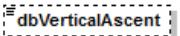
element anpHelicopter/bRight1

diagram	 <p>Adjust flyover noise as a function of speed, right. 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, right. Valid values: Min = -999.99 Max = 999.99.

element anpHelicopter/bRight2

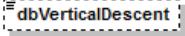
diagram	 <p>Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.

element anpHelicopter/dbVerticalAscent

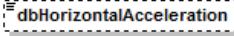
diagram	 <p>Decibel offset added to NPD levels, vertical ascent (dB). Valid values: Min = -50 Max = 50.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple

annotation	documentation Decibel offset added to NPD levels, vertical ascent (dB). Valid values: Min = -50 Max = 50.
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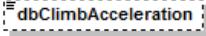
element anpHelicopter/dbVerticalDescent

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.

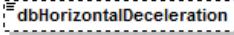
element anpHelicopter/dbHorizontalAcceleration

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.

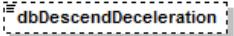
element anpHelicopter/dbClimbAcceleration

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.

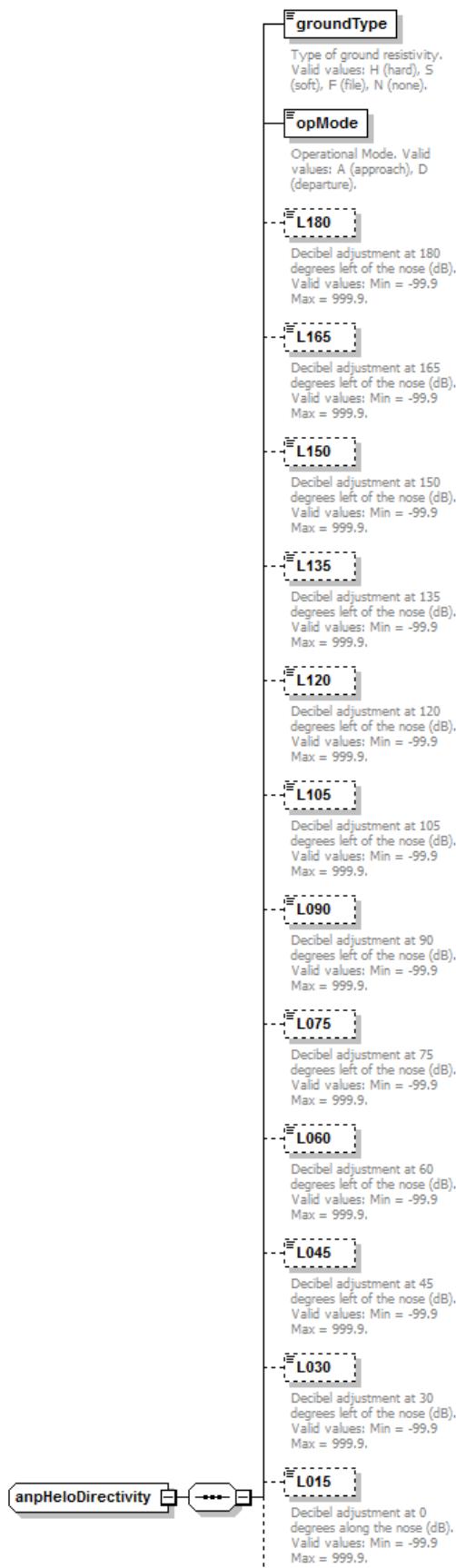
element anpHelicopter/dbDescendDeceleration

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



C000

Decibel adjustment at 180 degrees left of the nose (dB). Valid values: Min = -99,9 Max = 999,9.

R015

Decibel adjustment at 15 degrees right of the nose (dB). Valid values: Min = -99,9 Max = 999,9.

R030

Decibel adjustment at 30 degrees right of the nose (dB). Valid values: Min = -99,9 Max = 999,9.

R045

Decibel adjustment at 45 degrees right of the nose (dB). Valid values: Min = -99,9 Max = 999,9.

R060

Decibel adjustment at 60 degrees right of the nose (dB). Valid values: Min = -99,9 Max = 999,9.

R075

Decibel adjustment at 75 degrees right of the nose (dB). Valid values: Min = -99,9 Max = 999,9.

R090

Decibel adjustment at 90 degrees right of the nose (dB). Valid values: Min = -99,9 Max = 999,9.

R105

Decibel adjustment at 105 degrees right of the nose (dB). Valid values: Min = -99,9 Max = 999,9.

R120

Decibel adjustment at 120 degrees right of the nose (dB). Valid values: Min = -99,9 Max = 999,9.

R135

Decibel adjustment at 135 degrees right of the nose (dB). Valid values: Min = -99,9 Max = 999,9.

R150

Decibel adjustment at 150 degrees right of the nose (dB). Valid values: Min = -99,9 Max = 999,9.

R165

Decibel adjustment at 165 degrees right of the nose (dB). Valid values: Min = -99,9 Max = 999,9.

R180

Decibel adjustment at 180 degrees right of the nose (dB). Valid values: Min = -99,9 Max = 999,9.

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

groundType

Type of ground resistivity.
Valid values: H (hard), S (soft), F (file), N (none).

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	 opMode Operational Mode. Valid values: A (approach), D (departure).
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	 L180 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/L165

diagram	 L165 Decibel adjustment at 165 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 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	
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	<p>L135</p> <p>Decibel adjustment at 135 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 135 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element anpHeloDirectivity/L120

diagram	<p>L120</p> <p>Decibel adjustment at 120 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 120 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element anpHeloDirectivity/L105

diagram	<p>L105</p> <p>Decibel adjustment at 105 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 105 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element anpHeloDirectivity/L090

diagram	<p>L090</p> <p>Decibel adjustment at 90 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 90 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element anpHeloDirectivity/L075

diagram	<p>L075</p> <p>Decibel adjustment at 75 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 75 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
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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	
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	<p>R075</p> <p>Decibel adjustment at 75 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 75 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element anpHeloDirectivity/R090

diagram	<p>R090</p> <p>Decibel adjustment at 90 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 90 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element anpHeloDirectivity/R105

diagram	<p>R105</p> <p>Decibel adjustment at 105 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 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.
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element anpHeloDirectivity/R150

diagram	 Decibel adjustment at 150 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 150 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

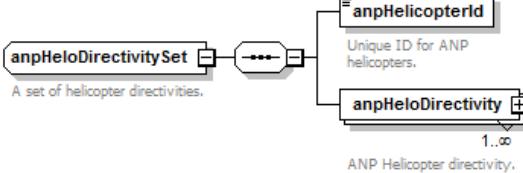
element anpHeloDirectivity/R165

diagram	 Decibel adjustment at 165 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 165 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element anpHeloDirectivity/R180

diagram	 Decibel adjustment at 180 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 180 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

complexType anpHeloDirectivitySet

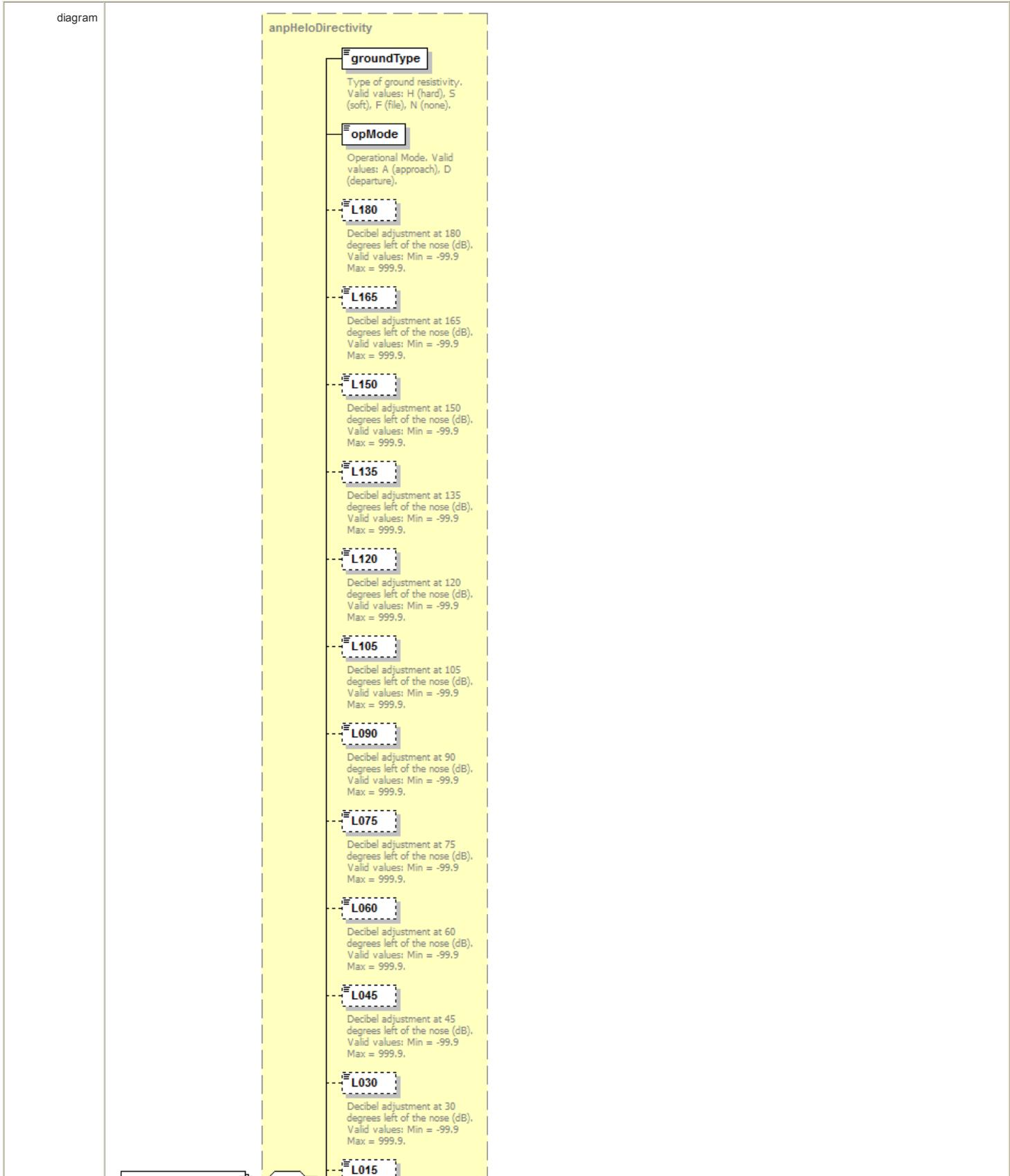
diagram	 A set of helicopter directivities.
children	anpHelicopterId anpHeloDirectivity
used by	element fleet/anpHeloDirectivitySet
annotation	documentation A set of helicopter directivities.

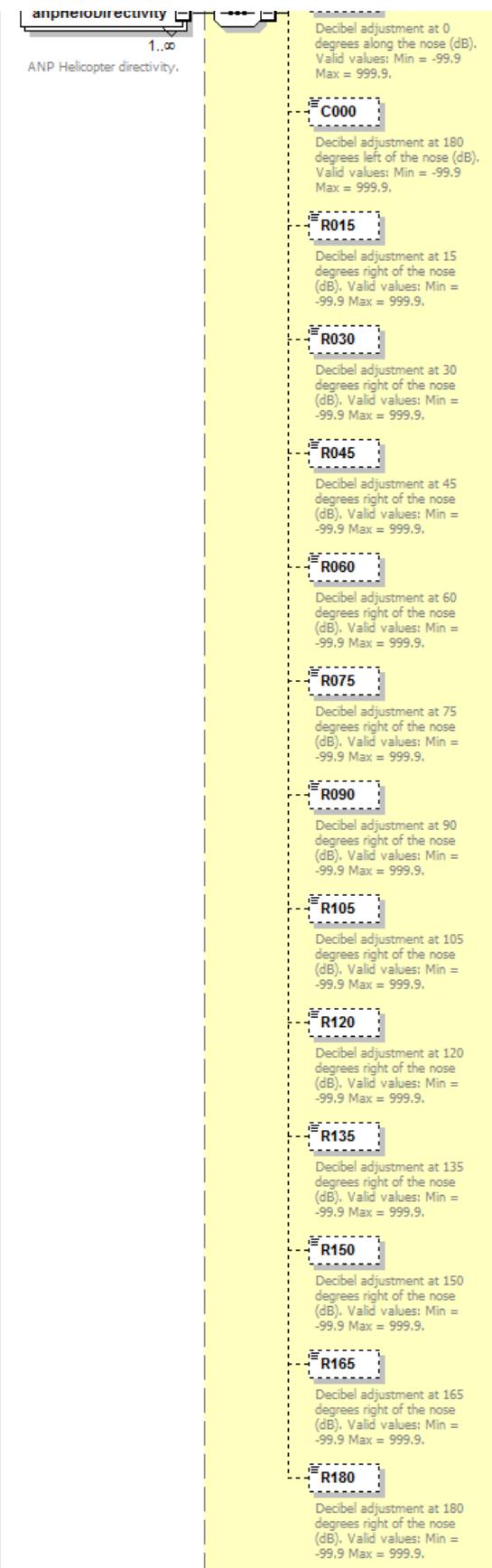
element anpHeloDirectivitySet/anpHelicopterId

diagram	 Unique ID for ANP helicopters.
type	anpHeloDirectId

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>12</td> </tr> </table>	Kind	Value Annotation	minLength	0	maxLength	12
Kind	Value Annotation						
minLength	0						
maxLength	12						
annotation	<p>documentation</p> <p>Unique ID for ANP helicopters.</p>						

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.
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complexType anpHeloNoiseGroup

diagram	<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	noiseId spectralClassApproach spectralClassDeparture spectralClassFlyover speedApproach speedDeparture speedFlyover npdCurves
used by	element fleet/anpHeloNoiseGroup
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 anpHeloNoiseGroup/noiseId

diagram	<p>The noise group id.</p>
type	anpHeloNoiseId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The noise group id.

element anpHeloNoiseGroup/spectralClassApproach

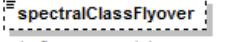
diagram	<p>The approach spectral class number. Valid values: 0 to 999.</p>
type	xs:short
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The approach spectral class number. Valid values: 0 to 999.

element anpHeloNoiseGroup/spectralClassDeparture

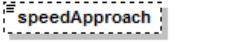
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diagram	 <p>The departure spectral class number. Valid values: 0 to 999.</p>
type	xs:short
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The departure spectral class number. Valid values: 0 to 999.

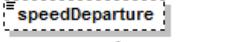
element anpHeloNoiseGroup/spectralClassFlyover

diagram	 <p>The flyover spectral class number. Valid values: 0 to 999.</p>
type	xs:short
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The flyover spectral class number. Valid values: 0 to 999.

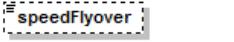
element anpHeloNoiseGroup/speedApproach

diagram	 <p>N 6.1 Approach reference speed (knots). Valid values: Min = 0.0 Max = 250.0.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation N 6.1 Approach reference speed (knots). Valid values: Min = 0.0 Max = 250.0.

element anpHeloNoiseGroup/speedDeparture

diagram	 <p>N 6.1 Depart reference speed (knots). Valid values: Min = 0.0 Max = 250.0..</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation N 6.1 Depart reference speed (knots). Valid values: Min = 0.0 Max = 250.0..

element anpHeloNoiseGroup/speedFlyover

diagram	 <p>N 6.1 Flyover reference speed (knots). Valid values: Min = 0.0 Max = 250.0.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation N 6.1 Flyover reference speed (knots). Valid values: Min = 0.0 Max = 250.0.

element anpHeloNoiseGroup/npdCurves

diagram	<pre> sequenceDiagram participant npdCurves participant npdCurve npdCurves->>npdCurve: activate npdCurve npdCurve-->>npdCurves: deactivate npdCurves deactivate npdCurve </pre> <p>The set of noise curves for this group.</p> <p>Base noise data interpolated/extrapolated upon according to slant range distance and thrust setting for aircraft.</p> <p>1..oo</p>
type	anpHeloNPDCurves
properties	minOcc 0 maxOcc 1 content complex
children	npdCurve
annotation	documentation The set of noise curves for this group.

complexType [anpHeloNPDCurve](#)

diagram	
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	<p>noiseType</p> <p>Type of noise described by this curve. Valid values: S (SEL), M (LAMAX), E (EPNL), P (PNLTM).</p> <p>opMode</p> <p>Engine operation mode.</p> <p>sideType</p> <p>Operation side type. Valid values: L (left), C (center), R (right), S (static)</p> <p>L_200</p> <p>Decibel level at 200 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p> <p>L_400</p> <p>Decibel level at 400 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p> <p>L_630</p> <p>Decibel level at 630 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p> <p>L_1000</p> <p>Decibel level at 1000 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p> <p>L_2000</p> <p>Decibel level at 2000 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p> <p>L_4000</p> <p>Decibel level at 4000 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p> <p>L_6300</p> <p>Decibel level at 6300 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p> <p>L_10000</p> <p>Decibel level at 10000 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p> <p>L_16000</p> <p>Decibel level at 16000 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p> <p>L_25000</p> <p>Decibel level at 25000 feet AGL. Valid values: Min = -50.0 Max = 999.9.</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>noiseType</p> <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).
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element **anpHeloNPDCurve/opMode**

diagram	 opMode Engine operation mode.
type	anpNpdOpMode
properties	content simple
facets	Kind Value Annotation pattern A D L G H J V W Y B C E F S
annotation	documentation Engine operation mode.

element **anpHeloNPDCurve/sideType**

diagram	 sideType Operation side type. Valid values: L (left), C (center), R (right), S (static)
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	 L_200 Decibel level at 200 feet AGL. Valid values: Min = -50.0 Max = 999.9.
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	 L_400 Decibel level at 400 feet AGL. Valid values: Min = -50.0 Max = 999.9.
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	 L_630 Decibel level at 630 feet AGL. Valid values: Min = -50.0 Max = 999.9.
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	 L_1000 Decibel level at 1000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
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	 L_2000 Decibel level at 2000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
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	 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 **anpHeloNPDCurve/L_6300**

diagram	 L_6300 Decibel level at 6300 feet AGL. Valid values: Min = -50.0 Max = 999.9.
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	 L_10000 Decibel level at 10000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
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.
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element **anpHeloNPDCurve/L_16000**

diagram	 Decibel level at 16000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
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**

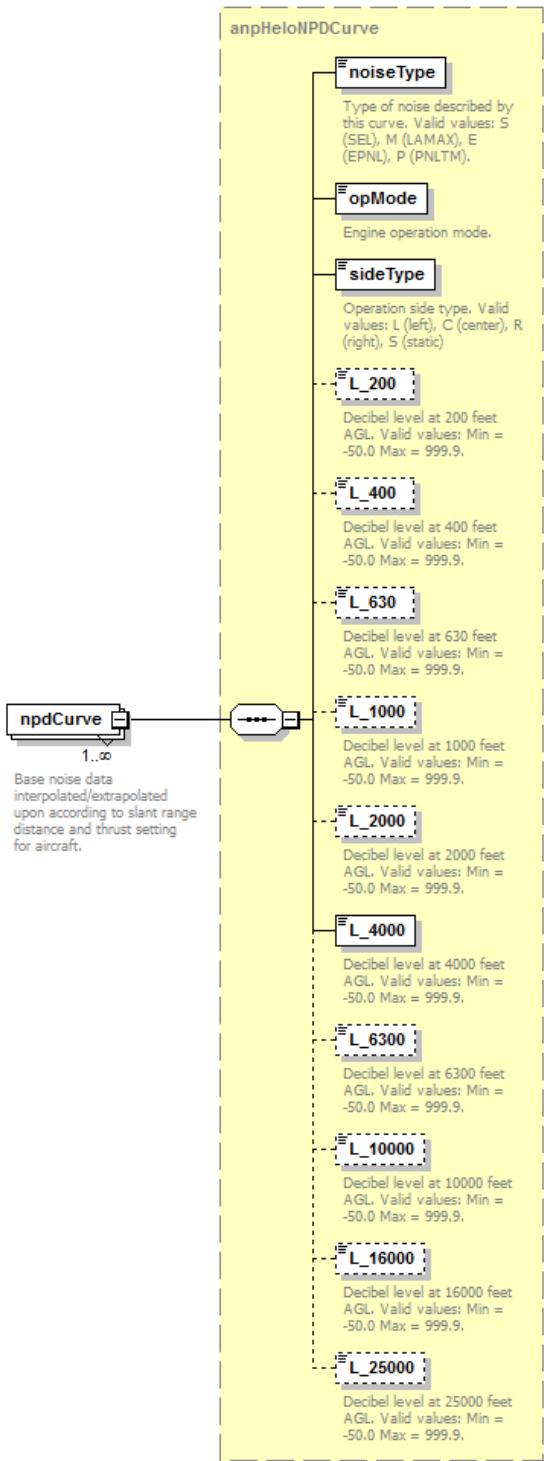
diagram	 Decibel level at 25000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 25000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

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	
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	<p>anpHeloProcedureStep Procedure data element.</p> <p>The diagram shows the anpHeloProcedureStep element with four associations:</p> <ul style="list-style-type: none"> stepNum: Step number of the procedure. Must be unique in a sequence. operationType: Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFlt), V (OverFlt). profileGroupId: Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data). 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).
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
annotation	documentation Step number of the procedure. Must be unique in a sequence.

element **anpHeloProcedureStep/operationType**

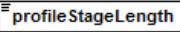
diagram	<p>operationType</p> <p>Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFlt), V (OverFlt)</p>
type	string1

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 (CircuitFit), V (OverFit)

element anpHeloProcedureStep/profileGroupId

diagram	 Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).
type	string8
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).

element anpHeloProcedureStep/profileStageLength

diagram	 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	 Type of step.
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of step.

element anpHeloProcedureStep/duration

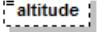
diagram	 Procedure's duration (hours).
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type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Procedure's duration (hours).

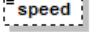
element **anpHeloProcedureStep/distance**

diagram	 distance Distance along the ground relative to start (min = ?9999999.9, max = 9999999.9, feet).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Distance along the ground relative to start (min = ?9999999.9, max = 9999999.9, feet).

element **anpHeloProcedureStep/altitude**

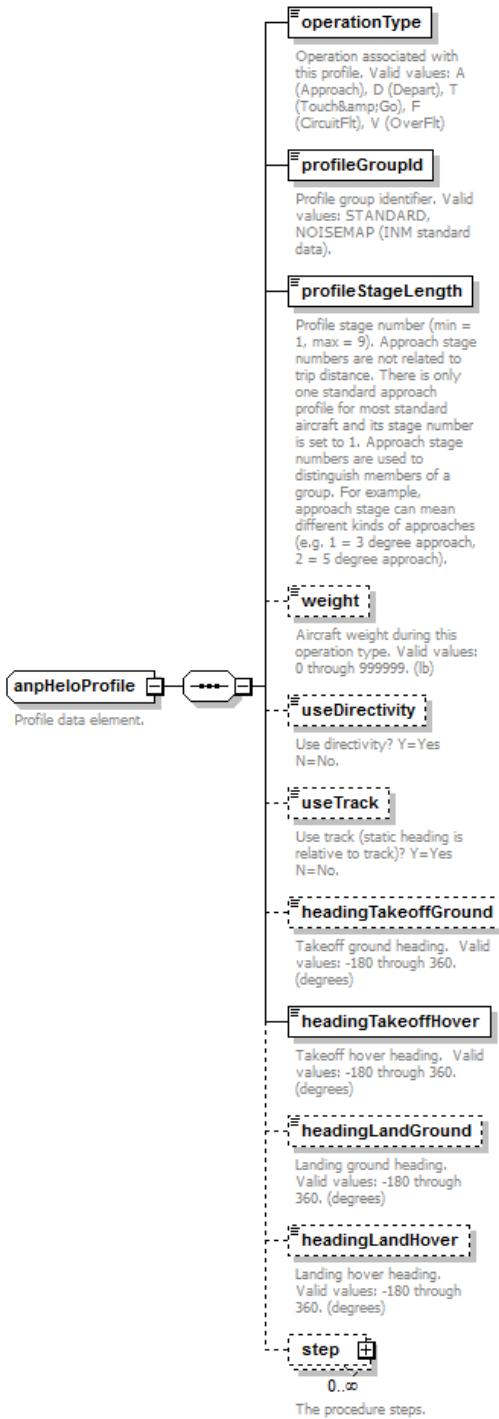
diagram	 altitude Altitude of aircraft (min = -9999, max = 60000, feet).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Altitude of aircraft (min = -9999, max = 60000, feet).

element **anpHeloProcedureStep/speed**

diagram	 speed Ground speed at this point (min = 0, max = 600, knots).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Ground speed at this point (min = 0, max = 600, knots).

complexType **anpHeloProfile**

diagram	
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children	operationType profileGroupId profileStageLength weight useDirectivity useTrack headingTakeoffGround headingTakeoffHover headingLandGround headingLandHover step
used by	element anpHeloProfileSet/profile
annotation	documentation Profile data element.

element **anpHeloProfile/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 anpHeloProfile/profileGroupId

diagram	 Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).
type	string8
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).

element anpHeloProfile/profileStageLength

diagram	 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

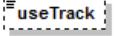
diagram	 Aircraft weight during this operation type. Valid values: 0 through 999999. (lb)
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Aircraft weight during this operation type. Valid values: 0 through 999999. (lb)

element anpHeloProfile/useDirectivity

diagram	 Use directivity? Y=Yes N=No.
type	yesNoType
properties	minOcc 0

	maxOcc 1 content simple
facets	Kind Value Annotation pattern Yes Y No N
annotation	documentation Use directive? Y=Yes N=No.

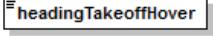
element **anpHeloProfile/useTrack**

diagram	 useTrack Use track (static heading is relative to track)? Y=Yes N=No.
type	<u>yesNoType</u>
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern Yes Y 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. (degrees)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Takeoff ground heading. Valid values: -180 through 360. (degrees)

element **anpHeloProfile/headingTakeoffHover**

diagram	 headingTakeoffHover Takeoff hover heading. Valid values: -180 through 360. (degrees)
type	xs:double
properties	content simple
annotation	documentation Takeoff hover heading. Valid values: -180 through 360. (degrees)

element **anpHeloProfile/headingLandGround**

diagram	 headingLandGround Landing ground heading. Valid values: -180 through 360. (degrees)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Landing ground heading. Valid values: -180 through 360. (degrees)

element **anpHeloProfile/headingLandHover**

diagram	
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	<p>#headingLandHover</p> <p>Landing hover heading. Valid values: -180 through 360. (degrees)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Landing hover heading. Valid values: -180 through 360. (degrees)

element anpHeloProfile/step

diagram	<pre> classDiagram class anpHeloProcedureStep { stepNum operationType profileGroupId profileStageLength stepType duration distance altitude speed } step *--> anpHeloProcedureStep anpHeloProcedureStep "0..∞" </pre> <p>The procedure steps.</p>
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

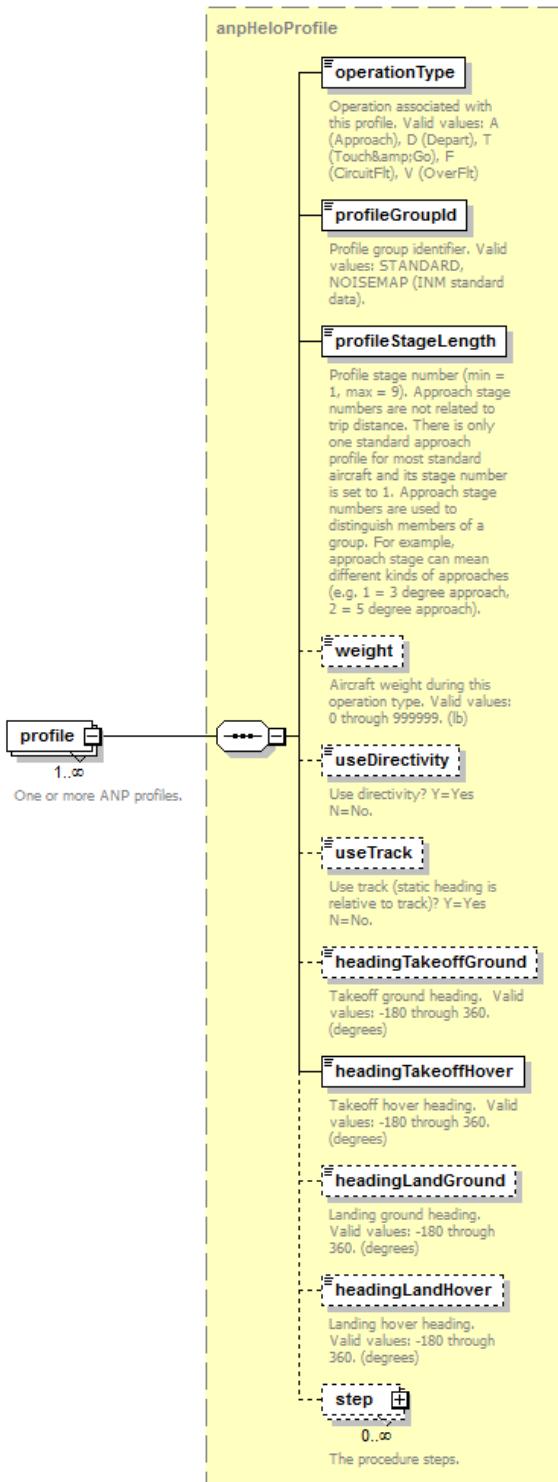
diagram	<pre> classDiagram class anpHeloProfileSet { <<A profile set for an ANP helicopter.>> } class anpHelicopterId { <<The anp helicopter id.>> } class profile { <<One or more ANP profiles.>> } anpHeloProfileSet "1..>" anpHelicopterId anpHeloProfileSet "1..>" profile </pre>
children	anpHelicopterId profile
used by	element fleet/anpHeloProfileSet
annotation	<p>documentation</p> <p>A profile set for an ANP helicopter.</p>

element anpHeloProfileSet/anpHelicopterId

diagram	<pre> classDiagram class anpHelicopterId { <<The anp helicopter id.>> } </pre>									
type	anpHeloid									
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>The anp helicopter id.</p>									

element anpHeloProfileSet/profile

diagram	
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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> graph LR anpNoiseGroup[anpNoiseGroup] --> noiseId[noiseId] anpNoiseGroup --> spectralClassApproach[spectralClassApproach] anpNoiseGroup --> spectralClassDeparture[spectralClassDeparture] anpNoiseGroup --> spectralClassAfterburner[spectralClassAfterburner] anpNoiseGroup --> thrustSetType[thrustSetType] anpNoiseGroup --> modelType[modelType] anpNoiseGroup --> 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	noiseId 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/noiseId

diagram							
	Noise group's ID.						
type	anpNoiseId						
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>Noise group's ID.</p>						

element anpNoiseGroup/spectralClassApproach

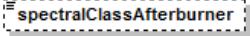
diagram							
	Spectral class number for approach (min = 0, max = 999).						
type	xs:short						
properties	<table> <tr> <td>minOcc</td> <td>0</td> </tr> <tr> <td>maxOcc</td> <td>1</td> </tr> <tr> <td>content</td> <td>simple</td> </tr> </table>	minOcc	0	maxOcc	1	content	simple
minOcc	0						
maxOcc	1						
content	simple						
annotation	<p>documentation</p> <p>Spectral class number for approach (min = 0, max = 999).</p>						

element anpNoiseGroup/spectralClassDeparture

diagram							
	Spectral class number for departure (min = 0, max = 999).						
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	documentation Spectral class number for departure (min = 0, max = 999).
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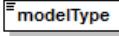
element **anpNoiseGroup/spectralClassAfterburner**

diagram	 spectralClassAfterburner Spectral class number for afterburner (min = 0, max = 999).
type	xs:short
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Spectral class number for afterburner (min = 0, max = 999).

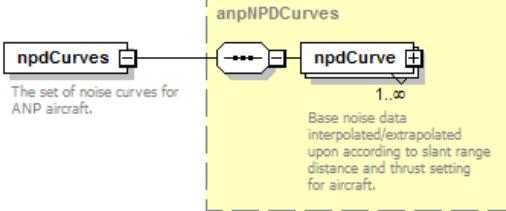
element **anpNoiseGroup/thrustSetType**

diagram	 thrustSetType Type of thrust setting. Valid values: L (pounds), P (percent), X (other).
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).

element **anpNoiseGroup/modelType**

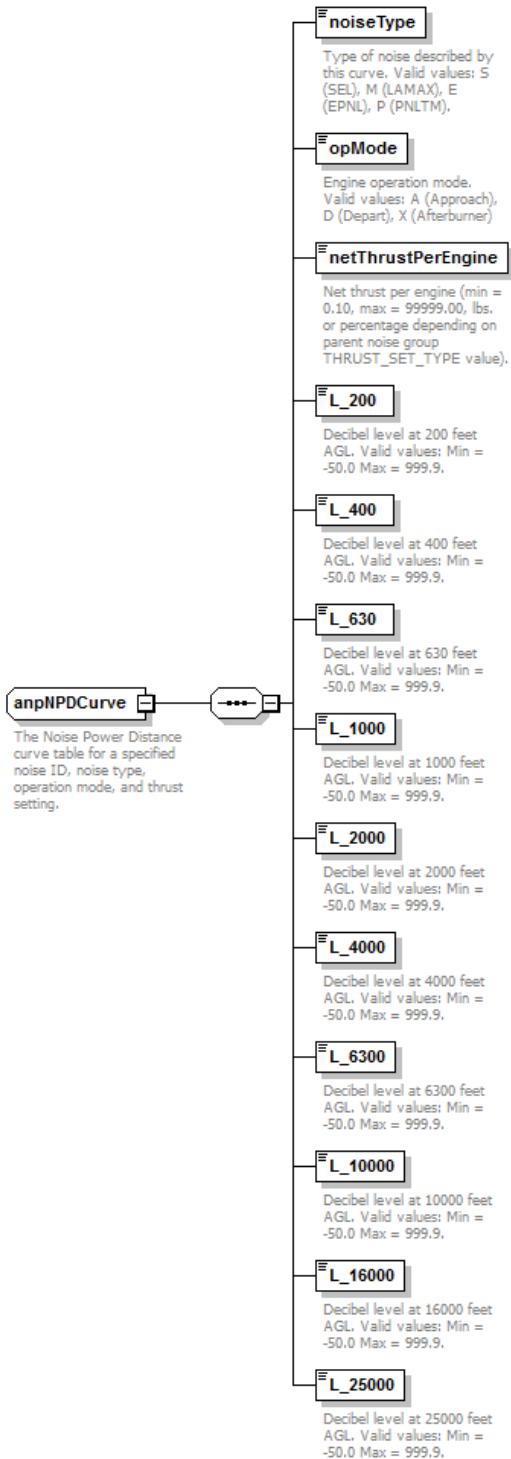
diagram	 modelType Type of distance-duration model. Valid values: I (INM), N (NoiseMap).
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of distance-duration model. Valid values: I (INM), N (NoiseMap).

element **anpNoiseGroup/npdCurves**

diagram	 anpNPDCurves The set of noise curves for ANP aircraft. npdCurves  npdCurve Base noise data interpolated/extrapolated upon according to slant range distance and thrust setting for aircraft. 1..∞
type	anpNPDCurves
properties	content complex
children	npdCurve
annotation	documentation The set of noise curves for ANP aircraft.

complexType **anpNPDCurve**

diagram	
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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	
	Type of noise described by this curve. Valid values: S (SEL), M (LAMAX), E (EPNL), P (PNLTM).
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 anpNPDCurve/opMode

diagram	 opMode Engine operation mode. Valid values: A (Approach), D (Depart), X (Afterburner)
type	anpNpdOpMode
properties	content simple
facets	Kind Value Annotation pattern A D L G H J V W Y Z B C E F X S
annotation	documentation Engine operation mode. Valid values: A (Approach), D (Depart), X (Afterburner)

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

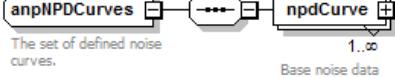
diagram	 L_16000 Decibel level at 16000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double

properties	content simple
annotation	documentation Decibel level at 16000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element anpNPDCurve/L_25000

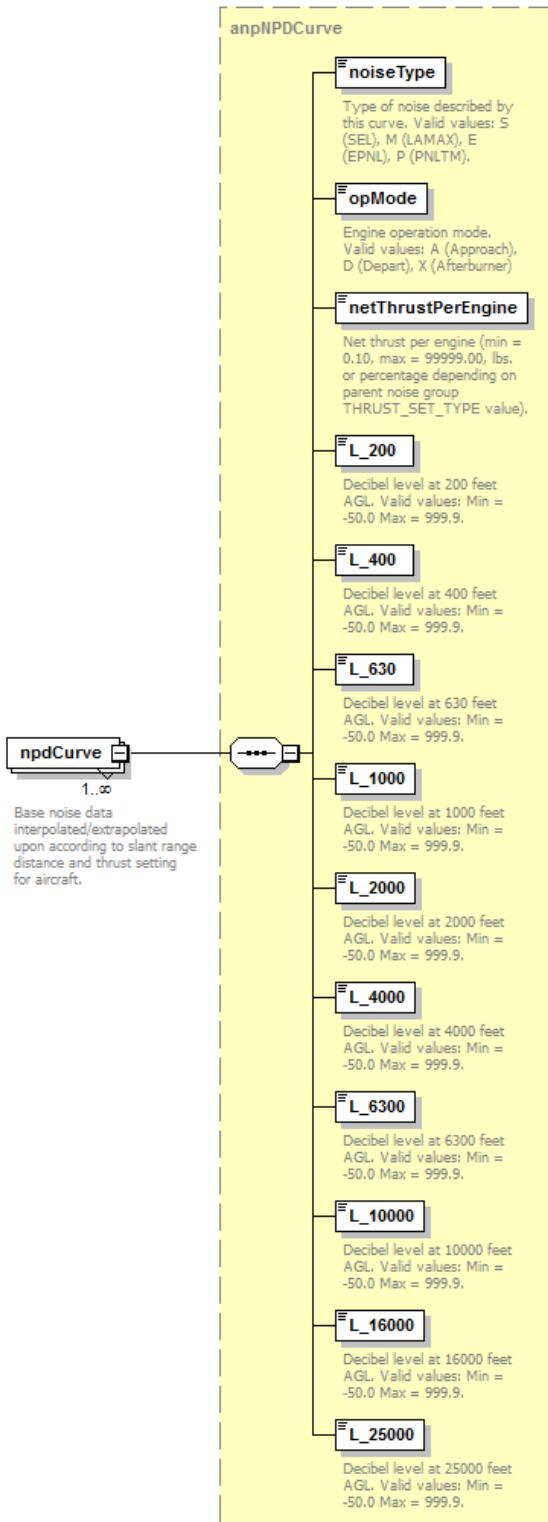
diagram	 L_25000 Decibel level at 25000 feet AGL. Valid values: Min = -50.0 Max = 999.9,
type	xs:double
properties	content simple
annotation	documentation Decibel level at 25000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

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	
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	<pre> classDiagram class anpProcedureStep { <<A single procedure step datum for the profile.>> } class stepNum { <<Step number of the procedure. Must be unique in a sequence.>> } class flapId { <<Flap-setting identifier.>> } class stepType { <<Type of step.>> } class thrustType { <<Type of thrust.>> } class param1 { <<Parameter particular for this step type (min = 9999.0, max = 60000.0).>> } class param2 { <<Parameter particular for this step type (min = 0, max = 600.0).>> } class param3 { <<Parameter particular for this step type (min = 0.0, max = 9999999.9).>> } anpProcedureStep "1" -- "1" stepNum : stepNum anpProcedureStep "1" -- "1" flapId : flapId anpProcedureStep "1" -- "1" stepType : stepType anpProcedureStep "1" -- "1" thrustType : thrustType anpProcedureStep "1" -- "1" param1 : param1 anpProcedureStep "1" -- "1" param2 : param2 anpProcedureStep "1" -- "1" param3 : param3 </pre>
children	stepNum flapId stepType thrustType param1 param2 param3
used by	element anpProcedureSteps/step
annotation	<p>documentation</p> <p>A single procedure step datum for the profile.</p>

element anpProcedureStep/stepNum

diagram	<pre> classDiagram class stepNum { <<Step number of the procedure. Must be unique in a sequence.>> } </pre>
type	xs:int
properties	content simple
annotation	<p>documentation</p> <p>Step number of the procedure. Must be unique in a sequence.</p>

element anpProcedureStep/flapId

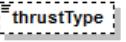
diagram	<pre> classDiagram class flapId { <<Flap-setting identifier.>> } </pre>
type	anpFlapId
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 6
annotation	<p>documentation</p> <p>Flap-setting identifier.</p>

element anpProcedureStep/stepType

diagram	<pre> classDiagram class stepType { <<Type of step.>> } </pre>
type	string1
properties	minOcc 0 maxOcc 1 content simple

facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of step.

element anpProcedureStep/thrustType

diagram	 thrustType Type of thrust.
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of thrust.

element anpProcedureStep/param1

diagram	 param1 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).

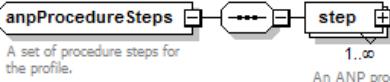
element anpProcedureStep/param2

diagram	 param2 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	 param3 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	 anpProcedureSteps  A set of procedure steps for the profile. step  An ANP procedure step. 1..∞
children	step
used by	element anpProfile/procedureSteps

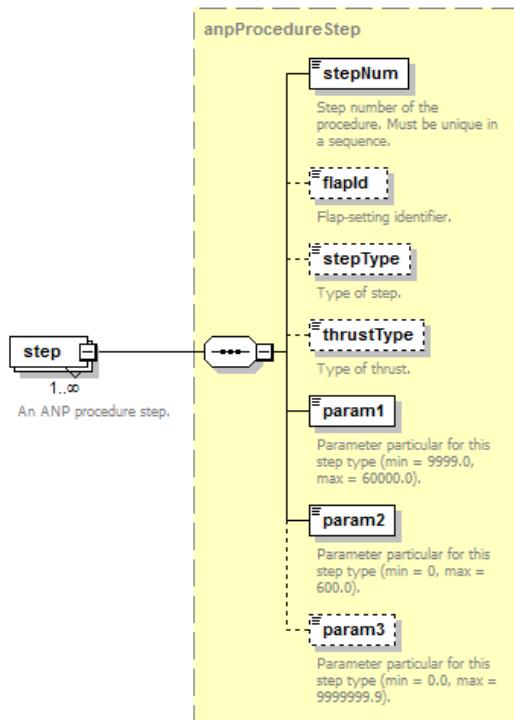
annotation

documentation

A set of procedure steps for the profile.

element **anpProcedureSteps/step**

diagram

type [anpProcedureStep](#)properties minOcc 1
maxOcc unbounded
content complexchildren [stepNum](#) [flapId](#) [stepType](#) [thrustType](#) [param1](#) [param2](#) [param3](#)annotation documentation
An ANP procedure step.complexType **anpProfile**

diagram

	<pre> graph LR anpProfile[anpProfile] --- operationType[operationType] anpProfile --- profileGroupId[profileGroupId] anpProfile --- profileStageLength[profileStageLength] anpProfile --- weight[weight] anpProfile --- procedureSteps[procedureSteps] anpProfile --- profilePoints[profilePoints] </pre> <p>anpProfile Profile data element.</p>
children	operationType profileGroupId profileStageLength weight procedureSteps profilePoints
used by	element anpProfileSet/profile
annotation	<p>documentation</p> <p>Profile data element.</p>

element anpProfile/operationType

diagram	<pre> graph LR operationType[operationType] </pre> <p>operationType</p> <p>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	<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>1</td> <td></td> </tr> </table>	Kind	Value	Annotation	minLength	0		maxLength	1	
Kind	Value	Annotation								
minLength	0									
maxLength	1									
annotation	<p>documentation</p> <p>Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&amp;Go), F (CircuitFlt), V (OverFlt)</p>									

element anpProfile/profileGroupId

diagram	<pre> graph LR profileGroupId[profileGroupId] </pre> <p>profileGroupId</p> <p>Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).</p>									
type	string8									
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>8</td> <td></td> </tr> </table>	Kind	Value	Annotation	minLength	0		maxLength	8	
Kind	Value	Annotation								
minLength	0									
maxLength	8									
annotation	documentation									

Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).

element anpProfile/profileStageLength

diagram	<p><code>profileStageLength</code></p> <p>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>						
type	string1						
properties	content simple						
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>1</td> </tr> </tbody> </table>	Kind	Value Annotation	minLength	0	maxLength	1
Kind	Value Annotation						
minLength	0						
maxLength	1						
annotation	<p>documentation</p> <p>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>						

element anpProfile/weight

diagram	<p><code>weight</code></p> <p>Aircraft weight during this operation type (min = 0, max = 999999, lbs).</p>
type	xs:int
properties	content simple
annotation	<p>documentation</p> <p>Aircraft weight during this operation type (min = 0, max = 999999, lbs).</p>

element anpProfile/procedureSteps

diagram	<p><code>procedureSteps</code></p> <p>Set of procedure steps associated with this profile.</p> <p><code>step</code></p> <p>1..∞</p> <p>An ANP procedure step.</p>
type	anpProcedureSteps
properties	content complex
children	step
annotation	<p>documentation</p> <p>Set of procedure steps associated with this profile.</p>

element anpProfile/profilePoints

diagram	<p><code>profilePoints</code></p> <p>Set of points associated with this profile.</p> <p><code>point</code></p> <p>1..∞</p>
type	anpProfilePoints
properties	content complex
children	point
annotation	<p>documentation</p> <p>Set of points associated with this profile.</p>

complexType **anpProfilePoint**

diagram	<pre> classDiagram anpProfilePoint < -- anpProfilePoints/point anpProfilePoint --> pointNum : pointNum anpProfilePoint --> distance : distance anpProfilePoint --> altitude : altitude anpProfilePoint --> speed : speed anpProfilePoint --> thrustSet : thrustSet anpProfilePoint --> opMode : opMode </pre> <p>A single profile point data element.</p>
children	pointNum distance altitude speed thrustSet opMode
used by	element anpProfilePoints/point
annotation	<p>documentation</p> <p>A single profile point data element.</p>

element **anpProfilePoint/pointNum**

diagram	<p>Point index number. Must be sequential and unique, starting at 1.</p>
type	xs:short
properties	content simple
annotation	<p>documentation</p> <p>Point index number. Must be sequential and unique, starting at 1.</p>

element **anpProfilePoint/distance**

diagram	<p>Distance along the ground relative to start (min = 79999999.9, max = 99999999.9, feet).</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>Distance along the ground relative to start (min = 79999999.9, max = 99999999.9, feet).</p>

element **anpProfilePoint/altitude**

diagram	<p>Altitude of aircraft (min = -9999, max = 60000, feet).</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>Altitude of aircraft (min = -9999, max = 60000, feet).</p>

element anpProfilePoint/speed

diagram	 speed Ground speed at this point (min = 0, max = 600, knots).
type	xs:double
properties	content simple
annotation	documentation Ground speed at this point (min = 0, max = 600, knots).

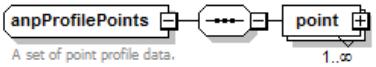
element anpProfilePoint/thrustSet

diagram	 thrustSet Corrected net thrust per engine at this point (min = 0.1, max = 99999, klbs or % max thrust).
type	xs:double
properties	content simple
annotation	documentation Corrected net thrust per engine at this point (min = 0.1, max = 99999, klbs or % max thrust).

element anpProfilePoint/opMode

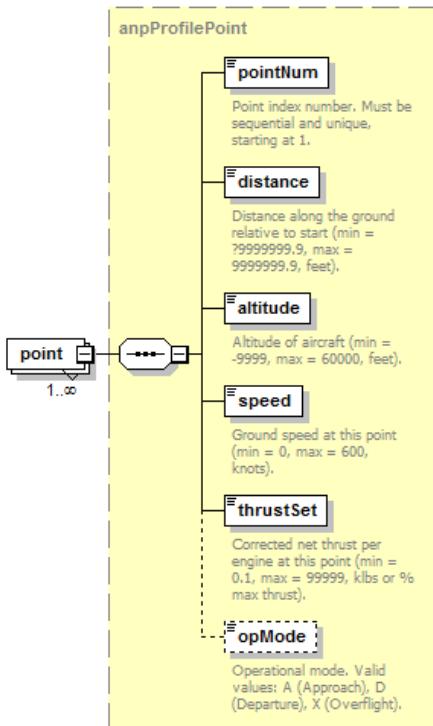
diagram	 opMode Operational mode. Valid values: A (Approach), D (Departure), X (Overflight).
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Operational mode. Valid values: A (Approach), D (Departure), X (Overflight).

complexType anpProfilePoints

diagram	 anpProfilePoints A set of point profile data. point 1..∞
children	point
used by	element anpProfile/profilePoints
annotation	documentation A set of point profile data.

element anpProfilePoints/point

diagram	
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	type	anpProfilePoint
	properties	minOcc 1 maxOcc unbounded content complex
	children	pointNum distance altitude speed thrustSet opMode

complexType anpProfileSet

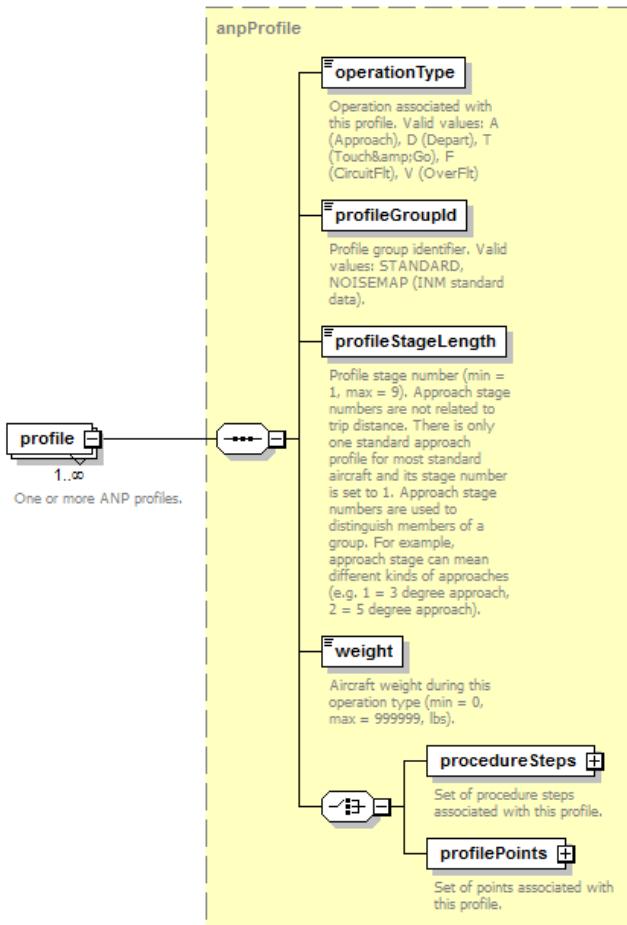
	diagram	<pre> classDiagram class anpProfileSet { <<anpAirplaneld>> <<profile>> } class anpAirplaneld { <<Airplane's ANP ID.>> } class profile { <<1..>> } anpProfileSet --> anpAirplaneld anpProfileSet --> profile </pre> <p>The diagram shows the <code>anpProfileSet</code> class with two children: <code>anpAirplaneld</code> and <code>profile</code>. The <code>anpAirplaneld</code> class has the annotation "Airplane's ANP ID.". The <code>profile</code> class has the annotation "One or more ANP profiles." and a multiplicity of <code>1..∞</code>.</p>
	children	anpAirplaneld profile
	used by	element fleet/anpProfileSet
	annotation	documentation A profile set for an ANP airplane.

element anpProfileSet/anpAirplaneld

	diagram	<pre> classDiagram class anpAirplaneld { <<Airplane's ANP ID.>> } </pre> <p>The diagram shows the <code>anpAirplaneld</code> class with the annotation "Airplane's ANP ID."</p>
	type	anpAirplaneld
	properties	content simple
	facets	Kind Value Annotation minLength 0 maxLength 255
	annotation	documentation Airplane's ANP ID.

element anpProfileSet/profile

	diagram	
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type	anpProfile
properties	<p>minOcc 1 maxOcc unbounded content complex</p>
children	operationType profileGroupId profileStageLength weight procedureSteps profilePoints
annotation	<p>documentation</p> <p>One or more ANP profiles.</p>

complexType anpThrustGeneral

diagram

	<pre> graph LR 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 General thrust data for an ANP aircraft.</p> <p>thrustType The type of generalized thrust-setting.</p> <p>coeff_E Corrected net thrust per engine coefficient. Valid values: -199999.9 through 99999.9. (lb).</p> <p>coeff_F Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F)</p> <p>coeff_GA Altitude adjustment coefficient at MSL. (lb/ft)</p> <p>coeff_GB Altitude-squared adjustment coefficient at MSL. (lb/ft^2)</p> <p>coeff_H Temperature adjustment coefficient. (lb/°C)</p> <p>coeff_K1 EPR or N1/sqrt(theta) adjustment coefficient. (lb/EPR)</p> <p>coeff_K2 EPR- or N1/sqrt(theta)-squared adjustment coefficient. (lb/EPR2)</p>
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	<pre> graph LR thrustType[thrustType] </pre> <p>The type of generalized thrust-setting.</p>						
type	string1						
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>1</td> </tr> </table>	Kind	Value Annotation	minLength	0	maxLength	1
Kind	Value Annotation						
minLength	0						
maxLength	1						
annotation	documentation The type of generalized thrust-setting.						

element anpThrustGeneral/coeff_E

diagram	 <pre> graph LR coeff_E[coeff_E] </pre> <p>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	
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	 coeff_F Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F)
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	 coeff_GA Altitude adjustment coefficient at MSL. (lb/ft)
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/°C)
type	xs:double
properties	content simple
annotation	documentation Temperature adjustment coefficient. (lb/°C)

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)
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complexType **anpThrustJet**

diagram	<pre> classDiagram class anpThrustJet { <<Jet thrust data for an ANP aircraft.>> } class 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<> } class coeff_E { <<Corrected net thrust per engine coefficient. Valid values: 0.0 through 500000.0. (lb)>> } class coeff_F { <<Speed (TAS) adjustment coefficient. Valid values: -200.000000 through 1000.000000. (lb/knot TAS at sea level and 59°F)>> } class coeff_GA { <<Altitude adjustment coefficient at MSL. (lb/ft)>> } class coeff_GB { <<Altitude-squared adjustment coefficient at MSL. (lb/ft^2)>> } class coeff_H { <<Temperature adjustment coefficient. (lb/°C)>> } anpThrustJet "1" -- "*" thrustType anpThrustJet "1" -- "*" coeff_E anpThrustJet "1" -- "*" coeff_F anpThrustJet "1" -- "*" coeff_GA anpThrustJet "1" -- "*" coeff_GB anpThrustJet "1" -- "*" coeff_H </pre>
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	<pre> classDiagram class 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<> } </pre>
type	string1
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	<pre> classDiagram class coeff_E { <<Corrected net thrust per engine coefficient. Valid values: 0.0 through 500000.0. (lb)>> } </pre>
type	xs:double
properties	content simple
annotation	documentation Corrected net thrust per engine coefficient. Valid values: 0.0 through 500000.0. (lb)

element **anpThrustJet/coeff_F**

diagram	
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	 <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	<p>documentation</p> <p>Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F)</p>

element anpThrustJet/coeff_GA

	 <p>Altitude adjustment coefficient at MSL. (lb/ft)</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>Altitude adjustment coefficient at MSL. (lb/ft)</p>

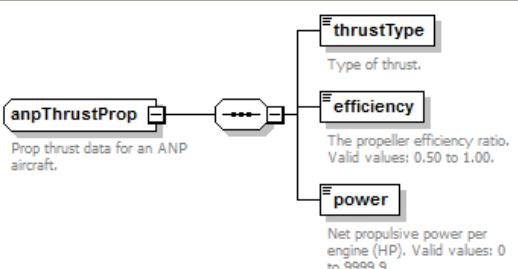
element anpThrustJet/coeff_GB

	 <p>Altitude-squared adjustment coefficient at MSL. (lb/ft^2)</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>Altitude-squared adjustment coefficient at MSL. (lb/ft^2)</p>

element anpThrustJet/coeff_H

	 <p>Temperature adjustment coefficient. (lb/°C)</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>Temperature adjustment coefficient. (lb/°C)</p>

complexType anpThrustProp

	 <p>Prop thrust data for an ANP aircraft.</p>
children	thrustType efficiency power
used by	element anpThrustSet/thrustProp
annotation	<p>documentation</p> <p>Prop thrust data for an ANP aircraft.</p>

element anpThrustProp/thrustType

	 <p>Type of thrust.</p>
annotation	<p>documentation</p> <p>Type of thrust.</p>

type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of thrust.

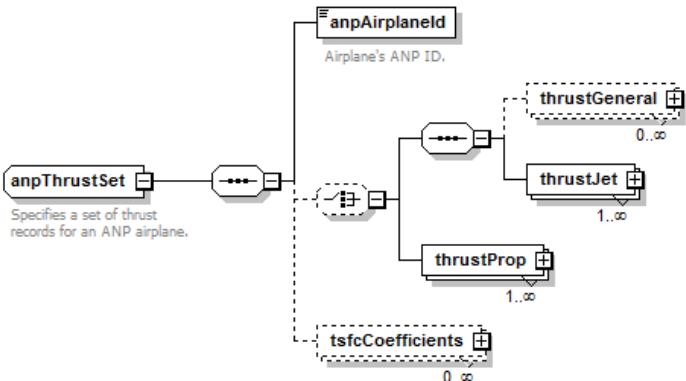
element anpThrustProp/efficiency

diagram	 <p>The propeller efficiency ratio. Valid values: 0.50 to 1.00.</p>
type	xs:double
properties	content simple
annotation	documentation The propeller efficiency ratio. Valid values: 0.50 to 1.00.

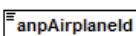
element anpThrustProp/power

diagram	 <p>Net propulsive power per engine (HP). Valid values: 0 to 9999.9.</p>
type	xs:double
properties	content simple
annotation	documentation Net propulsive power per engine (HP). Valid values: 0 to 9999.9.

complexType anpThrustSet

diagram	 <p>Specifies a set of thrust records for an ANP airplane.</p> <p>Airplane's ANP ID.</p> <p>0..∞</p> <p>1..∞</p> <p>1..∞</p> <p>0..∞</p>
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

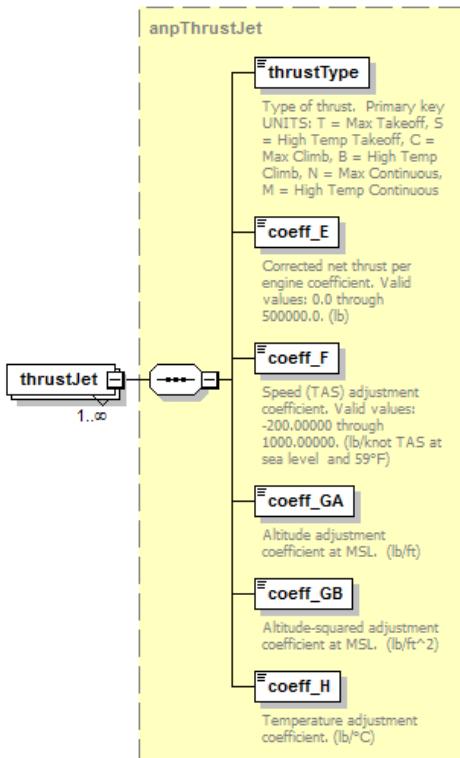
diagram	 <p>Airplane's ANP ID.</p>
type	anpAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's ANP ID.

element **anpThrustSet/thrustGeneral**

diagram	<pre> classDiagram class anpThrustGeneral { attribute thrustType attribute coeff_E attribute coeff_F attribute coeff_GA attribute coeff_GB attribute coeff_H attribute coeff_K1 attribute coeff_K2 } class thrustGeneral { attribute 0..oo } thrustGeneral "0..oo" --> anpThrustGeneral </pre>
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**

diagram	
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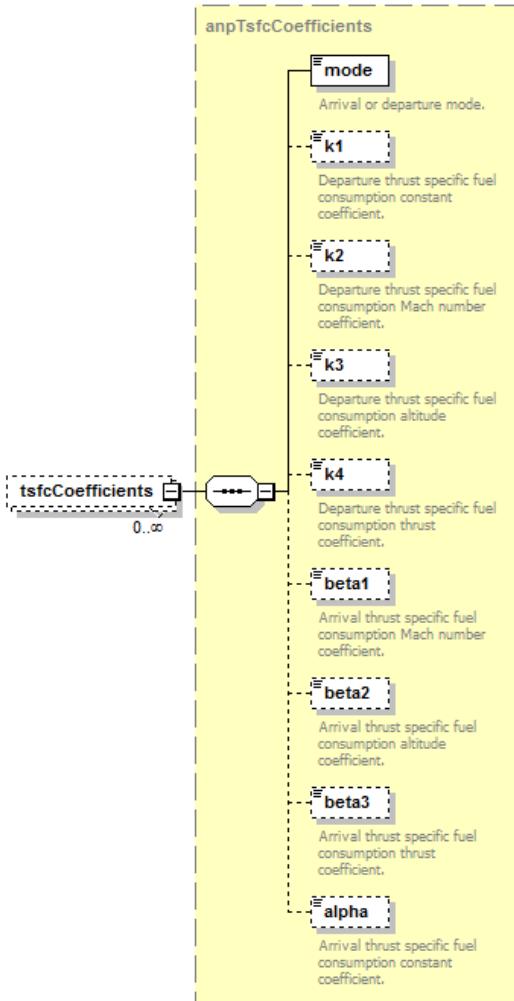
type	anpThrustJet
properties	minOcc 1 maxOcc unbounded content complex
children	thrustType coeff_E coeff_F coeff_GA coeff_GB coeff_H

element anpThrustSet/thrustProp

diagram	<pre> classDiagram class anpThrustProp { thrustType efficiency power } anpThrustProp "1..∞" -- "----" thrustProp </pre> <p>The diagram shows the <code>anpThrustProp</code> class with the following components:</p> <ul style="list-style-type: none"> <code>thrustType</code>: Type of thrust. <code>efficiency</code>: The propeller efficiency ratio. Valid values: 0.50 to 1.00. <code>power</code>: Net propulsive power per engine (HP). Valid values: 0 to 9999.9.
type	anpThrustProp
properties	minOcc 1 maxOcc unbounded content complex
children	thrustType efficiency power

element anpThrustSet/tsfcCoefficients

diagram	
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	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 mode[mode] --- k1[k1] mode --- k2[k2] mode --- k3[k3] mode --- k4[k4] mode --- anpTsfcCoefficients[anpTsfcCoefficients] anpTsfcCoefficients --- note["TSFC coefficient data for an ANP aircraft."] anpTsfcCoefficients --- beta1[beta1] anpTsfcCoefficients --- beta2[beta2] anpTsfcCoefficients --- beta3[beta3] anpTsfcCoefficients --- alpha[alpha] </pre>
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	<pre> graph LR mode[mode] </pre>
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Arrival or departure mode.

element anpTsfcCoefficients/k1

diagram	<pre> graph LR k1[k1] </pre>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Departure thrust specific fuel consumption constant coefficient.

element anpTsfcCoefficients/k2

diagram	 k2 Departure thrust specific fuel consumption Mach number coefficient.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Departure thrust specific fuel consumption Mach number coefficient.

element anpTsfcCoefficients/k3

diagram	 k3 Departure thrust specific fuel consumption altitude coefficient.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Departure thrust specific fuel consumption altitude coefficient.

element anpTsfcCoefficients/k4

diagram	 k4 Departure thrust specific fuel consumption thrust coefficient.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Departure thrust specific fuel consumption thrust coefficient.

element anpTsfcCoefficients/beta1

diagram	 beta1 Arrival thrust specific fuel consumption Mach number coefficient.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Arrival thrust specific fuel consumption Mach number coefficient.

element anpTsfcCoefficients/beta2

diagram	 beta2 Arrival thrust specific fuel consumption altitude coefficient.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation

Arrival thrust specific fuel consumption altitude coefficient.

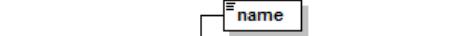
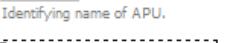
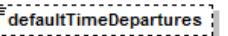
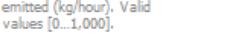
element anpTsfcCoefficients/beta3

diagram	 beta3 Arrival thrust specific fuel consumption thrust coefficient.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Arrival thrust specific fuel consumption thrust coefficient.

element anpTsfcCoefficients/alpha

diagram	 alpha Arrival thrust specific fuel consumption constant coefficient.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Arrival thrust specific fuel consumption constant coefficient.

complexType auxiliaryPowerUnit

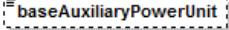
diagram	 auxiliaryPowerUnit  baseAuxiliaryPowerUnit name Identifying name of APU.  defaultTimeArrivals Base reference name, typically a system name.  defaultTimeDepartures Default length of time APU used for powering arrival aircraft (minutes). Valid values: Nonnegative.  CO Default length of time APU used for powering departure aircraft (minutes). Valid values: Nonnegative.  HC Amount of carbon monoxide emitted (kg/hour). Valid values [0...1,000].  NOx Amount of hydrocarbons emitted (kg/hour). Valid values [0...1,000].  SOx Amount of nitrous oxide emitted (kg/hour). Valid values [0...1,000].  PM Amount of sulfur oxide emitted (kg/hour). Valid values [0...1,000]. <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	documentation 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.
------------	--

element auxiliaryPowerUnit/name

diagram	 name Identifying name of APU.
type	apuName
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 30
annotation	documentation Identifying name of APU.

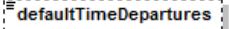
element auxiliaryPowerUnit/baseAuxiliaryPowerUnit

diagram	 baseAuxiliaryPowerUnit Base reference name, typically a system name.
type	apuName
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 30
annotation	documentation Base reference name, typically a system name.

element auxiliaryPowerUnit/defaultTimeArrivals

diagram	 defaultTimeArrivals Default length of time APU used for powering arrival 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 arrival aircraft (minutes). Valid values: Nonnegative.

element auxiliaryPowerUnit/defaultTimeDepartures

diagram	 defaultTimeDepartures 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	
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	 <p>Amount of carbon monoxide emitted (kg/hour). Valid values [0...1,000].</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of carbon monoxide emitted (kg/hour). Valid values [0...1,000].

element auxiliaryPowerUnit/HC

	 <p>Amount of hydrocarbons emitted (kg/hour). Valid values [0...1,000].</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of hydrocarbons emitted (kg/hour). Valid values [0...1,000].

element auxiliaryPowerUnit/NOx

	 <p>Amount of nitrous noxide emitted (kg/hour). Valid values [0...1,000].</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of nitrous noxide emitted (kg/hour). Valid values [0...1,000].

element auxiliaryPowerUnit/SOx

	 <p>Amount of sulfur oxide emitted (kg/hour). Valid values [0...1,000].</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of sulfur oxide emitted (kg/hour). Valid values [0...1,000].

element auxiliaryPowerUnit/PM

	 <p>Amount of particulate matter emitted (kg/hour). Valid values [0...1,000].</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of particulate matter emitted (kg/hour). Valid values [0...1,000].

complexType **badaAirplane**

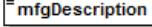
diagram	<pre> graph LR badaAirplane[badaAirplane] --- mfgDescription[mfgDescription] badaAirplane --- numEngines[numEngines] badaAirplane --- engineTypeCode[engineTypeCode] badaAirplane --- wakeCategory[wakeCategory] badaAirplane --- referenceAircraftMass[referenceAircraftMass] badaAirplane --- minAircraftMass[minAircraftMass] badaAirplane --- maxAircraftMass[maxAircraftMass] badaAirplane --- maxPayloadMass[maxPayloadMass] badaAirplane --- weightGradient[weightGradient] badaAirplane --- maxOperatingSpeed[maxOperatingSpeed] badaAirplane --- maxOperatingMachNumber[maxOperatingMachNumber] badaAirplane --- maxOperatingAltitude[maxOperatingAltitude] badaAirplane --- maxAltitudeAtMaxTakeoffWeight[maxAltitudeAtMaxTakeoffWeight] badaAirplane --- temperatureGradientOnMaximumAltitude[temperatureGradientOnMaximumAltitude] badaAirplane --- wingSurfaceArea[wingSurfaceArea] badaAirplane --- buffetOnsetLiftCoeff[buffetOnsetLiftCoeff] badaAirplane --- buffetingGradient[buffetingGradient] badaAirplane --- machDragCoeff[machDragCoeff] </pre> <p>badaAirplane Block used to create a user defined BADA airplane.</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.

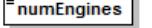
element badaAirplane/badaAirplaneId

diagram	 badaAirplaneId ID of a BADA airplane model. Must be unique.
type	badaAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation ID of a BADA airplane model. Must be unique.

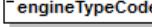
element badaAirplane/mfgDescription

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 J Turbo Turboprop T Prop Piston P
annotation	documentation The engine type code: J/T/P.

element badaAirplane/wakeCategory

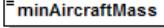
diagram	 wakeCategory The wake category.
type	badaWakeType
properties	content simple

facets	Kind pattern Heavy H Light L Medium M SuperHeavy J	Value Annotation
annotation	documentation The wake category.	

element badaAirplane/referenceAircraftMass

diagram	 <p>Minimum aircraft mass (min = 0.0, max = 455.0, metric ton).</p>
type	xs:double
properties	content simple
annotation	documentation Minimum aircraft mass (min = 0.0, max = 455.0, metric ton).

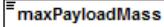
element badaAirplane/minAircraftMass

diagram	 <p>Minimum aircraft mass (min = 0.0, max = 455.0, metric ton).</p>
type	xs:double
properties	content simple
annotation	documentation Minimum aircraft mass (min = 0.0, max = 455.0, metric ton).

element badaAirplane/maxAircraftMass

diagram	 <p>Maximum aircraft mass (min = 0.0, max = 455.0, metric ton).</p>
type	xs:double
properties	content simple
annotation	documentation Maximum aircraft mass (min = 0.0, max = 455.0, metric ton).

element badaAirplane/maxPayloadMass

diagram	 <p>Maximum payload mass (min = 0.0, max = 455.0, (metric ton)).</p>
type	xs:double
properties	content simple
annotation	documentation Maximum payload mass (min = 0.0, max = 455.0, (metric ton)).

element badaAirplane/weightGradient

diagram	 <p>Weight gradient on maximum altitude (min = 0.0, max = 10.0, feet/kg).</p>
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	
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	<p>maxOperatingSpeed</p> <p>Maximum operating speed (min = 0.0, max = 600.0, knots cas).</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>Maximum operating speed (min = 0.0, max = 600.0, knots cas).</p>

element badaAirplane/maxOperatingMachNumber

diagram	<p>maxOperatingMachNumber</p> <p>Maximum operating Mach number (min = 0.0, max = 10.0, mach).</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>Maximum operating Mach number (min = 0.0, max = 10.0, mach).</p>

element badaAirplane/maxOperatingAltitude

diagram	<p>maxOperatingAltitude</p> <p>Maximum operating altitude (min = 79999.0, max = 60000.0, feel MSL).</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>Maximum operating altitude (min = 79999.0, max = 60000.0, feel MSL).</p>

element badaAirplane/maxAltitudeAtMaxTakeoffWeight

diagram	<p>maxAltitudeAtMaxTakeoffWeight</p> <p>Maximum altitude at maximum takeoff weight and ISA (min = 79999.0, max = 60000.0, feel MSL).</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>Maximum altitude at maximum takeoff weight and ISA (min = 79999.0, max = 60000.0, feel MSL).</p>

element badaAirplane/temperatureGradientOnMaximumAltitude

diagram	<p>temperatureGradientOnMaximumAltitude</p> <p>Temperature gradient on maximum altitude.</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>Temperature gradient on maximum altitude.</p>

element badaAirplane/wingSurfaceArea

diagram	<p>wingSurfaceArea</p> <p>Wing surface area (min = 0.0, max = 1000.0, square meters).</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>Wing surface area (min = 0.0, max = 1000.0, square meters).</p>

element **badaAirplane/buffetOnsetLiftCoeff**

diagram	<p>buffetOnsetLiftCoeff 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 Buffeting gradient (jet only).</p>
type	xs:double
properties	content simple
annotation	documentation Buffeting gradient (jet only).

element **badaAirplane/machDragCoeff**

diagram	<p>machDragCoeff 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**

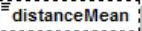
diagram	<p>badaAltitudeDistribution BADA altitude distribution data.</p> <p>The diagram shows the structure of the badaAltitudeDistribution complex type. It consists of a main element 'badaAltitudeDistribution' which contains several child elements: 'altitudeCount', 'distanceMean', 'distanceStddev', 'distanceLow', 'distanceHigh', and 'altitude'. Each child element is shown with its name in a box and a brief description below it.</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. (ft)
children	altitudeCount distanceMean distanceStddev distanceLow distanceHigh altitude
used by	element badaAltitudeDistributionSet/altitudeDistribution
annotation	documentation BADA altitude distribution data.

element **badaAltitudeDistribution/altitudeCount**

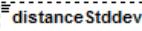
diagram	<p>altitudeCount Flight counts for a selected altitude.</p>
---------	--

type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Flight counts for a selected altitude.

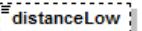
element **badaAltitudeDistribution/distanceMean**

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).

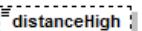
element **badaAltitudeDistribution/distanceStddev**

diagram	 distance Stddev 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. (ft)
type	xs:int

properties	content simple
annotation	documentation The selected cruise altitude. (ft)

complexType badaAltitudeDistributionSet

diagram	<pre> graph LR A[badaAltitudeDistributionSet] --> B[] B --> C[badaAirplaneId] C --> D[altitudeDistribution] style D fill:#ffffcc,stroke:#000,stroke-width:1px </pre> <p>A block for defining a BADA altitude distribution set.</p>
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	<pre> graph LR A[badaAirplaneId] </pre> <p>Airplane's BADA ID.</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 Airplane's BADA ID.									

element badaAltitudeDistributionSet/altitudeDistribution

diagram	<pre> graph LR A[altitudeDistribution] --> B[] B --> C[altitudeCount] C --> D[distanceMean] D --> E[distanceStddev] E --> F[distanceLow] F --> G[distanceHigh] G --> H[altitude] style A fill:#ffffcc,stroke:#000,stroke-width:1px </pre> <p>badaAltitudeDistribution</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. (ft)
type	badaAltitudeDistribution
properties	minOcc 1 maxOcc unbounded content complex
children	altitudeCount distanceMean distanceStddev distanceLow distanceHigh altitude

complexType badaConfig

diagram	
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	<p>badaConfig BADA Configuration Coefficient data.</p> <p>phase The phase of flight (IC=initial climb, TO=take-off, AP=approach, LD=landing).</p> <p>configName The configuration identifier.</p> <p>stallSpeed Stall speed, CAS. Valid values: 0.0 through 600.0. (kts)</p> <p>parasiticDrag The parasitic drag coefficient. Valid values: 0.0 through 10.0.</p> <p>inducedDrag The induced drag coefficient. Valid values: 0.0 through 10.0.</p>
children	phase configName stallSpeed parasiticDrag inducedDrag
used by	element badaConfigSet/badaConfig
annotation	documentation BADA Configuration Coefficient data.

element badaConfig/phase

diagram	<p>phase The phase of flight (IC=initial climb, TO=take-off, AP=approach, LD=landing).</p>
type	badaPhaseType
properties	content simple
facets	Kind Value Annotation pattern InitialClimb IC Takeoff TO Approach AP Landing LD Cruise CR

element badaConfig/configName

diagram	<p>configName The configuration identifier.</p>
type	string10
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 10

element badaConfig/stallSpeed

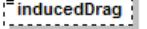
diagram	<p>stallSpeed Stall speed, CAS. Valid values: 0.0 through 600.0. (kts)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation

Stall speed, CAS. Valid values: 0.0 through 600.0. (kts)

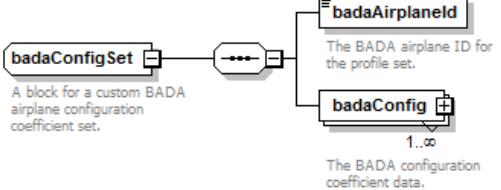
element badaConfig/parasiticDrag

diagram	 <p>The parasitic drag coefficient. Valid values: 0.0 through 10.0.</p>
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	 <p>The induced drag coefficient. Valid values: 0.0 through 10.0.</p>
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

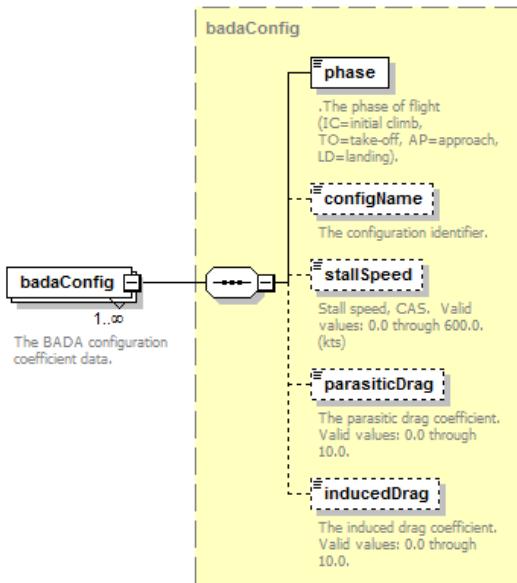
diagram	
children	badaAirplaneId badaConfig
used by	element fleet/badaConfigSet
annotation	documentation A block for a custom BADA airplane configuration coefficient set.

element badaConfigSet/badaAirplaneId

diagram	 <p>The BADA airplane ID for the profile set.</p>
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 : ... </pre> <p>The diagram shows the <code>badaFuel</code> class with the following attributes:</p> <ul style="list-style-type: none"> <code>badaAirplaneId</code>: The BADA aircraft ID <code>coeff_CF1</code>: 1st thrust specific fuel consumption coefficient. Valid values: 0.0 through 10.0. Variable units. ($\text{kg}/(\text{min} \cdot \text{kN})$ (jet); $\text{kg}/(\text{min} \cdot \text{kN knot})$; (turboprop); kg/min (piston)) <code>coeff_CF2</code>: 2nd thrust specific fuel consumption coefficient. Valid values: 0.0 through 1. (kts) <code>coeff_CF3</code>: 1st descent fuel flow coefficient. Min= Valid values: 0.0 through 100.0. (kg/min) <code>coeff_CF4</code>: 2nd descent fuel flow coefficient. Valid values: 0.0 through 1. (ft) <code>coeff_CR</code>: Cruise fuel flow correction coefficient. Valid values: 0.0 through 10.0. <p>The <code>badaFuel</code> class has a self-referencing association with multiplicity <code>...</code>.</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	
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	<p>badaAirplaneId</p> <p>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	<p>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	documentation 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	<p>2nd thrust specific fuel consumption coefficient. Valid values: 0.0 through 1. (kts)</p>
type	xs:double
properties	content simple
annotation	documentation 2nd thrust specific fuel consumption coefficient. Valid values: 0.0 through 1. (kts)

element badaFuel/coeff_CF3

diagram	<p>1st descent fuel flow coefficient. Min= Valid values: 0.0 through 100.0.(kg/min)</p>
type	xs:double
properties	content simple
annotation	documentation 1st descent fuel flow coefficient. Min= Valid values: 0.0 through 100.0.(kg/min)

element badaFuel/coeff_CF4

diagram	<p>2nd descent fuel flow coefficient. Valid values: 0.0 through 1. (ft)</p>
type	xs:double
properties	content simple
annotation	documentation 2nd descent fuel flow coefficient. Valid values: 0.0 through 1. (ft)

element badaFuel/coeff_CR

diagram	
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	<p>coeff_CR</p> <p>Cruise fuel flow correction coefficient. Valid values: 0.0 through 10.0.</p>
type	xs:double
properties	content simple
annotation	documentation Cruise fuel flow correction coefficient. Valid values: 0.0 through 10.0.

complexType badaProfile

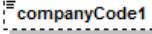
diagram	<pre> badaProfile [A BADA profile APF (airline procedures file) record.] ---> massRangeValue badaProfile ---> companyCode1 badaProfile ---> companyCode2 badaProfile ---> companyName badaProfile ---> aircraftVersion badaProfile ---> engine badaProfile ---> climbSpeedBelowTransitionAltitude badaProfile ---> climbSpeedAboveTransitionAltitude badaProfile ---> climbMachNumber badaProfile ---> cruiseSpeedBelowTransitionAltitude badaProfile ---> cruiseSpeedAboveTransitionAltitude badaProfile ---> cruiseMachNumber badaProfile ---> descentSpeedUnderTransitionAltitude badaProfile ---> descentSpeedOverTransitionAltitude badaProfile ---> descentMachNumber </pre>
children	massRangeValue companyCode1 companyCode2 companyName aircraftVersion engine climbSpeedBelowTransitionAltitude climbSpeedAboveTransitionAltitude

	<u>climbMachNumber</u> <u>cruiseSpeedBelowTransitionAltitude</u> <u>cruiseSpeedAboveTransitionAltitude</u> <u>cruiseMachNumber</u> <u>descentSpeedUnderTransitionAltitude</u> <u>descentSpeedOverTransitionAltitude</u> <u>descentMachNumber</u>
used by	element badaProfileSet/profile
annotation	documentation A BADA profile APF (airline procedures file) record.

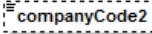
element badaProfile/massRangeValue

diagram	 massRangeValue Mass range. Valid values: LO (low range), AV (average range), HI (high range).
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).

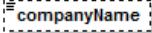
element badaProfile/companyCode1

diagram	 companyCode1 Three-letter company code.
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

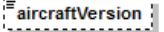
diagram	 companyCode2 Two-letter company code.
type	string2
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 2
annotation	documentation Two-letter company code.

element badaProfile/companyName

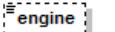
diagram	 companyName Name of airline that uses this procedure.
type	string15
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 15

annotation	documentation Name of airline that uses this procedure.
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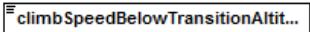
element badaProfile/aircraftVersion

diagram	 aircraftVersion Aircraft version to which this procedure applies.
type	<u>string12</u>
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 12
annotation	documentation Aircraft version to which this procedure applies.

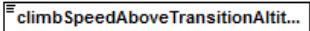
element badaProfile/engine

diagram	 engine Engine identifier.
type	<u>string12</u>
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 12
annotation	documentation Engine identifier.

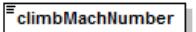
element badaProfile/climbSpeedBelowTransitionAltitude

diagram	 climbSpeedBelowTransitionAltitude Standard climb speed (CAS) between 1,500/6,000 and 10,000 feet. Valid values: 0.0, through 600.0. (kts).
type	<u>xs:short</u>
properties	content simple
annotation	documentation Standard climb speed (CAS) between 1,500/6,000 and 10,000 feet. Valid values: 0.0, through 600.0. (kts).

element badaProfile/climbSpeedAboveTransitionAltitude

diagram	 climbSpeedAboveTransitionAltitude Standard climb speed (CAS) between 10,000 feet and Mach transition altitude. Valid values: 0.0 through 600.0. (kts)
type	<u>xs:short</u>
properties	content simple
annotation	documentation Standard climb speed (CAS) between 10,000 feet and Mach transition altitude. Valid values: 0.0 through 600.0. (kts)

element badaProfile/climbMachNumber

diagram	 climbMachNumber Standard climb Mach number above Mach transition altitude. Valid values: 0.0 through 10.0.
type	<u>xs:double</u>

properties	content simple
annotation	documentation Standard climb Mach number above Mach transition altitude. Valid values: 0.0 through 10.0.

element badaProfile/cruiseSpeedBelowTransitionAltitude

diagram	 cruiseSpeedBelowTransitionAlt... Standard cruise speed (CAS) between 3,000 and 10,000 feet. Valid values: 0.0 through 600.0. (kts).
type	xs:short
properties	content simple
annotation	documentation Standard cruise speed (CAS) between 3,000 and 10,000 feet. Valid values: 0.0 through 600.0. (kts).

element badaProfile/cruiseSpeedAboveTransitionAltitude

diagram	 cruiseSpeedAboveTransitionAlt... Standard cruise speed (CAS) above 10,000 feet until Mach transition altitude. Valid values: 0.0 through 600.0. (kts).
type	xs:short
properties	content simple
annotation	documentation Standard cruise speed (CAS) above 10,000 feet until Mach transition altitude. Valid values: 0.0 through 600.0. (kts).

element badaProfile/cruiseMachNumber

diagram	 cruiseMachNumber Standard cruise Mach number above transition altitude. Valid values: 0.0 through 10.0.
type	xs:double
properties	content simple
annotation	documentation Standard cruise Mach number above transition altitude. Valid values: 0.0 through 10.0.

element badaProfile/descentSpeedUnderTransitionAltitude

diagram	 descentSpeedUnderTransitionA... Standard descent speed (CAS) between 3,000/6,000 and 10,000 feet. Valid values: 0.0 through 600.0. (kts)
type	xs:short
properties	content simple
annotation	documentation Standard descent speed (CAS) between 3,000/6,000 and 10,000 feet. Valid values: 0.0 through 600.0. (kts)

element badaProfile/descentSpeedOverTransitionAltitude

diagram	 descentSpeedOverTransitionAlt... Standard descent speed (CAS) above 10,000 feet until Mach transition. Valid values: 0.0 through 600.0. (kts).
type	xs:short
properties	content simple
annotation	documentation Standard descent speed (CAS) above 10,000 feet until Mach transition. Valid values: 0.0 through 600.0. (kts).

element badaProfile/descentMachNumber

diagram	
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	<p>descentMachNumber</p> <p>Standard descent Mach number above transition altitude. Valid values: 0.0 through 10.0.</p>
type	xs:double
properties	content simple
annotation	documentation Standard descent Mach number above transition altitude. Valid values: 0.0 through 10.0.

complexType badaProfileSet

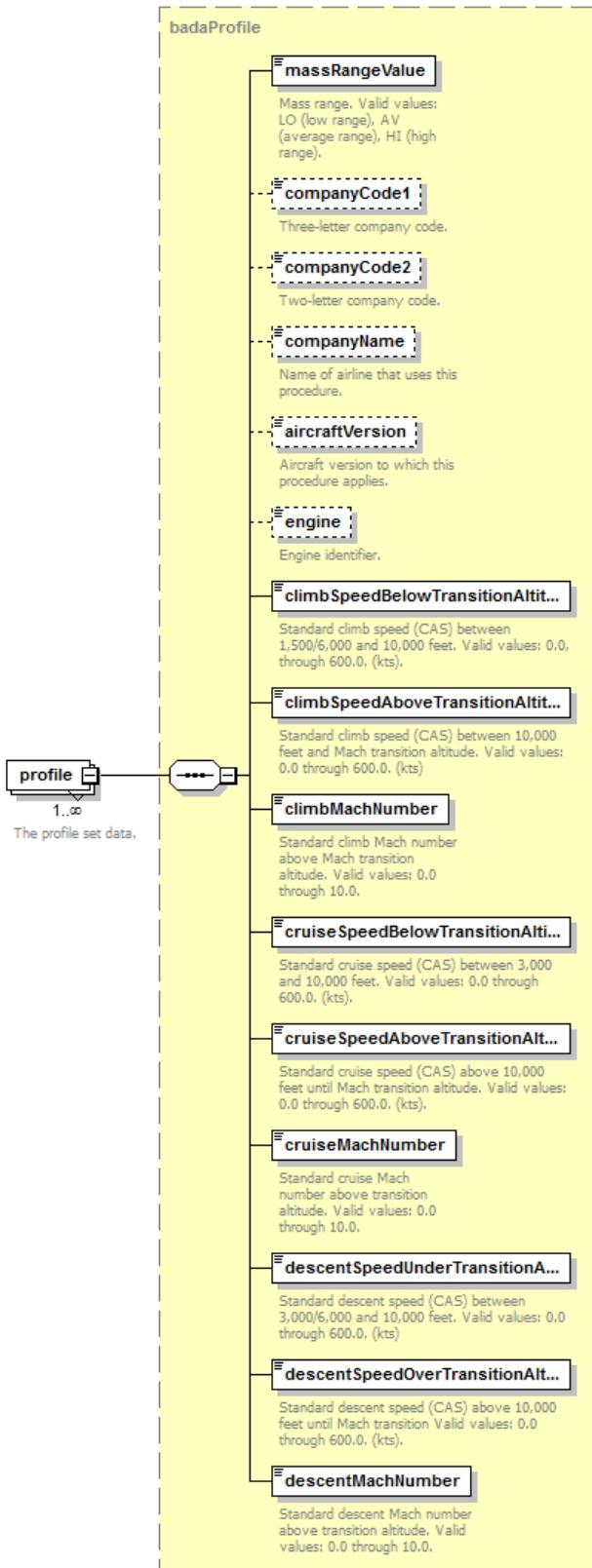
diagram	<p>The diagram illustrates the structure of the badaProfileSet element. It consists of three main components: a badaProfileSet block, a badaAirplaneId block, and a profile block. The badaProfileSet block is connected to the badaAirplaneId block, and the badaAirplaneId block is connected to the profile block. The profile block has a multiplicity of 1..∞. A note indicates that this block is used to define a custom BADA profile set.</p>
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	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	<pre> graph LR A[badaThrust] --- B[...] B --- C[badaAirplaneId] B --- D[coeff_TC1] B --- E[coeff_TC2] B --- F[coeff_TC3] B --- G[coeff_TC4] B --- H[coeff_TC5] B --- I[coeff_TDL] B --- J[coeff_TDH] B --- K[coeff_APP] B --- L[coeff_LD] B --- M[descentAlt] B --- N[descentSpeed] B --- O[descentMach] B --- P[notes] </pre> <p>A custom BADA thrust data record.</p>
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[badaAirplaneId] </pre>
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type	badaAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The BADA airplane ID.

element badaThrust/coeff_TC1

diagram	coeff_TC1 1st max climb thrust coefficient. Valid values: 0.0 through 1.
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. (ft)
type	xs:double
properties	content simple
annotation	documentation 2nd max climb thrust coefficient. Valid values: 0.0 through 1e9. (ft)

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)
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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 above MSL for calculation of descent thrust. Valid values: -9999.0 through 60000.0. (ft)
type	xs:double
properties	content simple
annotation	documentation Transition altitude above MSL for calculation of descent thrust. Valid values: -9999.0 through 60000.0. (ft)

element badaThrust/descentSpeed

diagram	
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	<p>descentSpeed</p> <p>Reference descent speed. Valid values: 0.0 through 600.0. (kts)</p>
type	xs:double
properties	content simple
annotation	documentation Reference descent speed. Valid values: 0.0 through 600.0. (kts)

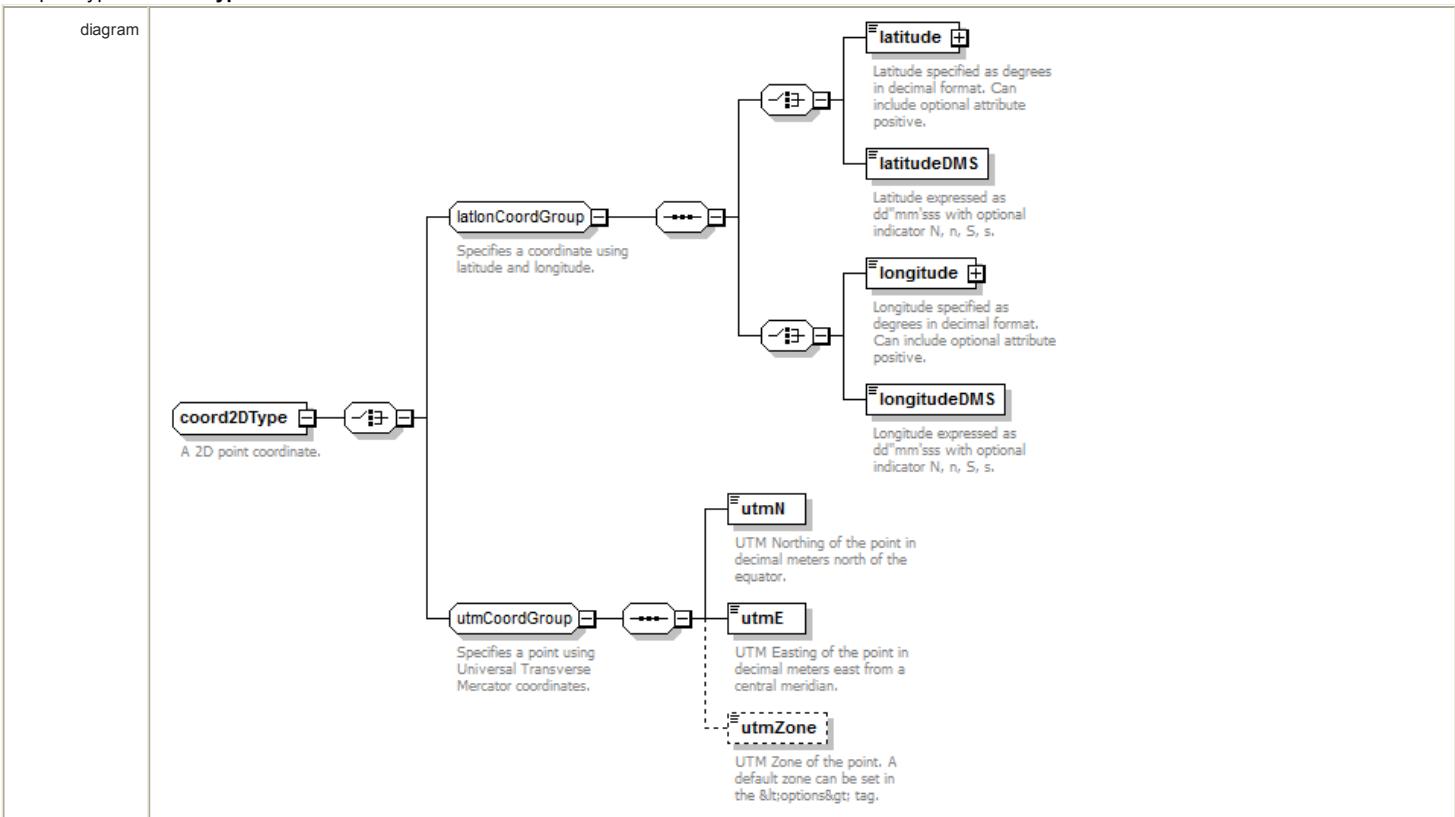
element badaThrust/descentMach

diagram	<p>descentMach</p> <p>Reference descent Mach number. Valid values: 0.0 through 10.0.</p>
type	xs:float
properties	content simple
annotation	documentation Reference descent Mach number. Valid values: 0.0 through 10.0.

element badaThrust/notes

diagram	<p>User notes.</p>
type	string255
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation User notes.

complexType coord2DType



children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone
used by	elements stationarySourceOperation/pointCoord pointStationarySource/pointCoord volumeStationarySource/pointCoord oneOrThreeCoords2DGroupSet/pointCoord polygon2DType/vertex complexType coord3DElevationType
annotation	documentation A 2D point coordinate.

complexType coord3DElevationType

diagram	<pre> classDiagram coord2DType < -- coord3DElevationType coord3DElevationType { <<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.>> } coord3DElevationType <--> lationCoordGroup coord3DElevationType <--> utmCoordGroup lationCoordGroup { <<Specifies a coordinate using latitude and longitude.>> latitude longitude } utmCoordGroup { <<Specifies a point using Universal Transverse Mercator coordinates.>> utmN utmE utmZone } elevation </pre>
---------	---

type	extension of coord2DType
properties	base coord2DType
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation
used by	elements roadway/coordinates/vertex polygon3DElevationType/vertex

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

diagram	<pre> <!-- elevation --> <<Elevation or Z value for a coordinate.>> </pre>
type	xs:float
properties	content simple
annotation	documentation Elevation or Z value for a coordinate.

complexType dispersionWeight1Type

diagram	
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	<p>dispersionWeight1Type backbone </p> <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> <p>Represents the centerline of a set of dispersed tracks.</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>backbone </p> <p>Represents the centerline of a set of dispersed tracks.</p>
type	xs:double
properties	content simple
used by	element track
annotation	documentation Represents the centerline of a set of dispersed tracks.

complexType dispersionWeight3Type

diagram	<p>dispersionWeight3Type dispersionWeight1Type (extension) </p> <p>Specify the dispersion weight for a backbone with 2 subtracks..</p> <p>backbone Represents the centerline of a set of dispersed tracks.</p> <p>weightl1 Specify the dispersion weight for the first left subtrack.</p> <p>weightr1 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>weightl1 </p> <p>Specify the dispersion weight for the first left subtrack.</p>
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the first left subtrack.

element dispersionWeight3Type/weightr1

diagram	
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	<p>weightr1</p> <p>Specify the dispersion weight for the first right subtrack.</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>Specify the dispersion weight for the first right subtrack.</p>

complexType dispersionWeight5Type

diagram	<pre> classDiagram dispersionWeight3Type < -- dispersionWeight5Type dispersionWeight5Type { <<backbone>> weightl1 weightr1 weightl2 weightr2 } backbone { <<Represents the centerline of a set of dispersed tracks.>> } weightl1 { <<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.>> } </pre>
type	extension of dispersionWeight3Type
properties	base dispersionWeight3Type
children	backbone weightl1 weightr1 weightl2 weightr2
used by	element dispersionWeight/dispersionWeight5 complexType dispersionWeight7Type
annotation	<p>documentation</p> <p>Specify the dispersion weight for a backbone with 4 subtracks.</p>

element dispersionWeight5Type/weightl2

diagram	<p>weightl2</p> <p>Specify the dispersion weight for the second left subtrack.</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>Specify the dispersion weight for the second left subtrack.</p>

element dispersionWeight5Type/weightr2

diagram	<p>weightr2</p> <p>Specify the dispersion weight for the second right subtrack.</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>Specify the dispersion weight for the second right subtrack.</p>

complexType dispersionWeight7Type

diagram	<pre> classDiagram dispersionWeight5Type < -- dispersionWeight7Type dispersionWeight7Type { <<backbone>> <<weightl1>> <<weightr1>> <<weightl2>> <<weightr2>> <<weightl3>> <<weightr3>> } </pre>
type	extension of dispersionWeight5Type
properties	base dispersionWeight5Type
children	backbone weightl1 weightr1 weightl2 weightr2 weightl3 weightr3
used by	element dispersionWeight/dispersionWeight7 complexType dispersionWeight9Type
annotation	documentation Specify the dispersion weight for a backbone with 6 subtracks.

element dispersionWeight7Type/weightl3

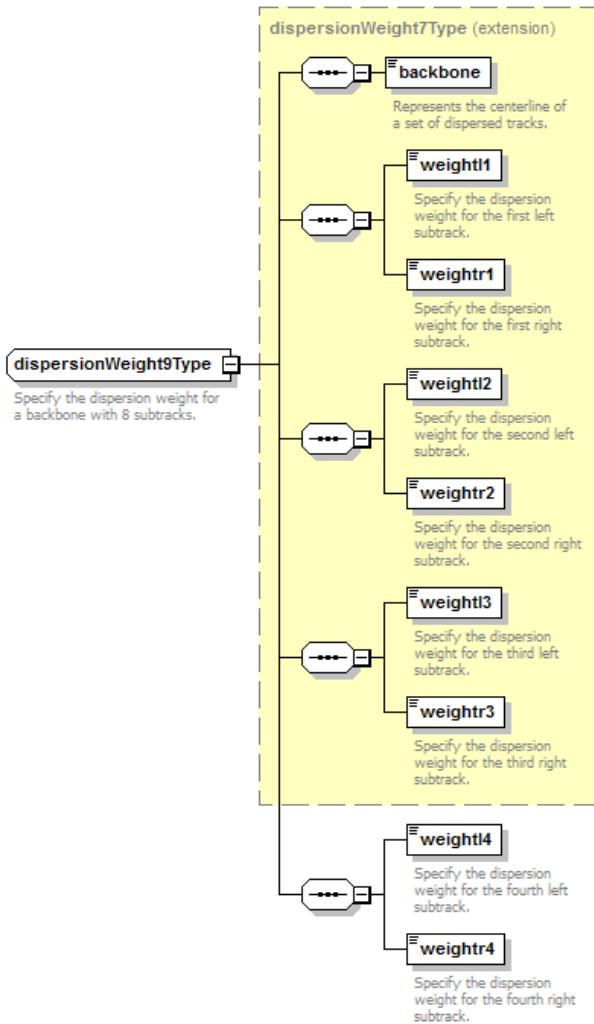
diagram	
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the third left subtrack.

element dispersionWeight7Type/weightr3

diagram	
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the third right subtrack.

complexType dispersionWeight9Type

diagram	
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type	extension of dispersionWeight7Type
properties	base dispersionWeight7Type
children	backbone weightl1 weightr1 weightl2 weightr2 weightl3 weightr3 weightl4 weightr4
used by	element dispersionWeight/dispersionWeight9
annotation	documentation Specify the dispersion weight for a backbone with 8 subtracks.

element [dispersionWeight9Type/weightl4](#)

diagram	<p>weightl4 Specify the dispersion weight for the fourth left subtrack.</p>
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the fourth left subtrack.

element [dispersionWeight9Type/weightr4](#)

diagram	<p>weightr4 Specify the dispersion weight for the fourth right subtrack.</p>
type	xs:double
properties	content simple
annotation	documentation

Specify the dispersion weight for the fourth right subtrack.

complexType emissionFactorSet

diagram	<pre> graph LR A[emissionFactorSet] --> B[...] B --- CO[CO] B --- HC[HC] B --- NOx[NOx] B --- SOx[SOx] B --- PM10[PM10] </pre> <p>Supports legacy EDMS studies relating to content that contains emission factor definitions. This element supports the definition of various emission factors defined under GSE and training fires.</p>
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 emission factors defined under GSE and training fires.

element emissionFactorSet/CO

diagram	<pre> graph LR CO[CO] </pre> <p>Amount of carbon monoxide emitted. Valid values: 0 to 3000. (kg/unit)</p>
type	xs:double
properties	content simple
annotation	documentation Amount of carbon monoxide emitted. Valid values: 0 to 3000. (kg/unit)

element emissionFactorSet/HC

diagram	<pre> graph LR HC[HC] </pre> <p>Amount of hydrocarbons emitted. Valid values: 0 to 100. (kg/unit)</p>
type	xs:double
properties	content simple
annotation	documentation Amount of hydrocarbons emitted. Valid values: 0 to 100. (kg/unit)

element emissionFactorSet/NOx

diagram	<pre> graph LR NOx[NOx] </pre> <p>Amount of nitrous oxides emitted. Valid values: 0 to 100. (kg/unit)</p>
type	xs:double
properties	content simple
annotation	documentation Amount of nitrous oxides emitted. Valid values: 0 to 100. (kg/unit)

element emissionFactorSet/SOx

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

element emissionFactorSet/PM10

diagram	
type	xs:double
properties	content simple
annotation	documentation Amount of 10-micron particulate matter emitted. Valid values: 0 to 1000. (kg/unit)

complexType energyShare

diagram	<p>The diagram illustrates the structure of the <code>energyShare</code> complex type. It consists of three components: <code>anpAirplaneId</code>, <code>badaAirplaneId</code>, and <code>transEnergyShare</code>. These components are connected by dashed lines, indicating they are part of the same structure. A note below the <code>energyShare</code> element states: "A custom BADA energy share."</p>
children	anpAirplaneId badaAirplaneId transEnergyShare
used by	element fleet/energyShare
annotation	documentation A custom BADA energy share.

element energyShare/anpAirplaneId

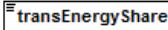
diagram	<p>The diagram shows a single box labeled <code>anpAirplaneId</code> with a note below it: "The ANP airplane ID."</p>
type	anpAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The ANP airplane ID.

element energyShare/badaAirplaneId

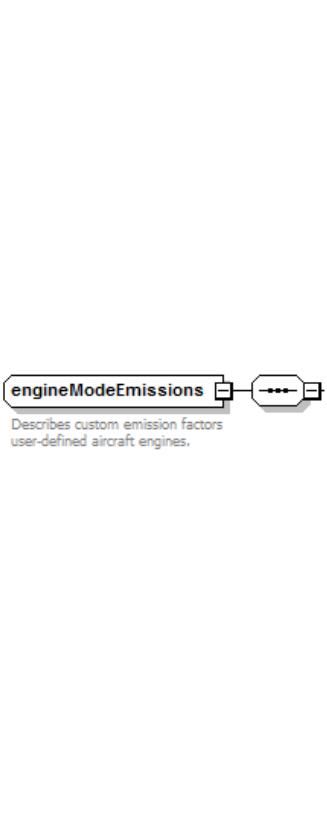
diagram	<p>The diagram shows a single box labeled <code>badaAirplaneId</code> with a note below it: "The BADA airplane ID."</p>
type	badaAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0

	maxLength 255
annotation	documentation The BADA airplane ID.

element **energyShare/transEnergyShare**

diagram	 <p>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	 <p>Describes custom emission factors user-defined aircraft engines.</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.
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 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.
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element engineModeEmissions/fuel

diagram	 Fuel emission factor (g/kg). Valid values: Nonnegative.
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	 Amount of carbon monoxide emitted (g/kg). Valid values: Nonnegative.
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	 Amount of hydrocarbons emitted (g/kg). Valid values: Nonnegative.
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	 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	 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.

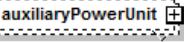
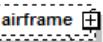
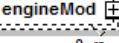
element engineModeEmissions/SN

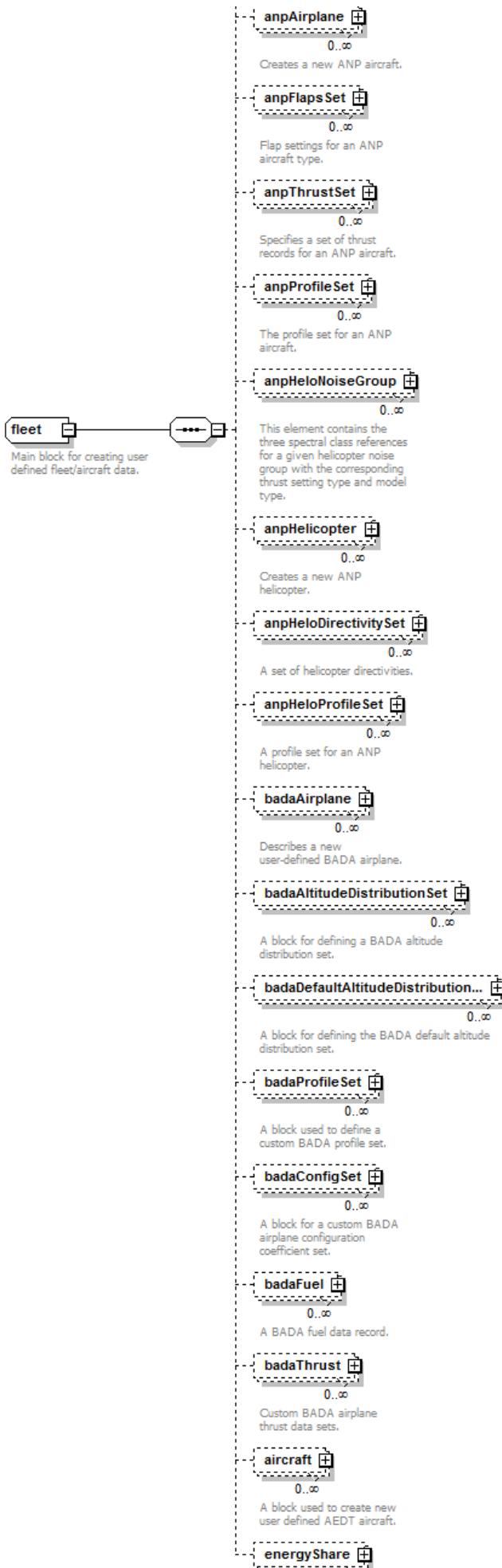
diagram	 Smoke number for the engine mode (g/kg). Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Smoke number for the engine mode (g/kg). Valid values: Nonnegative.

element engineModeEmissions/PM

diagram	 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	 0..∞ <p>Describes a custom auxiliary power unit (APU). These are typically on-board generators providing power to a parked aircraft.</p>  0..∞ <p>Supports the definition of custom airframes.</p>  0..∞ <p>User defined engine information containing custom parameters that reflect an aircraft engine. This engine definition can then be used within a user-defined aircraft.</p>  0..∞ <p>User defined engine modification information containing custom parameters that reflect an aircraft engine modification. This engine modification definition can then be used within a user defined aircraft.</p>  0..∞ <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>
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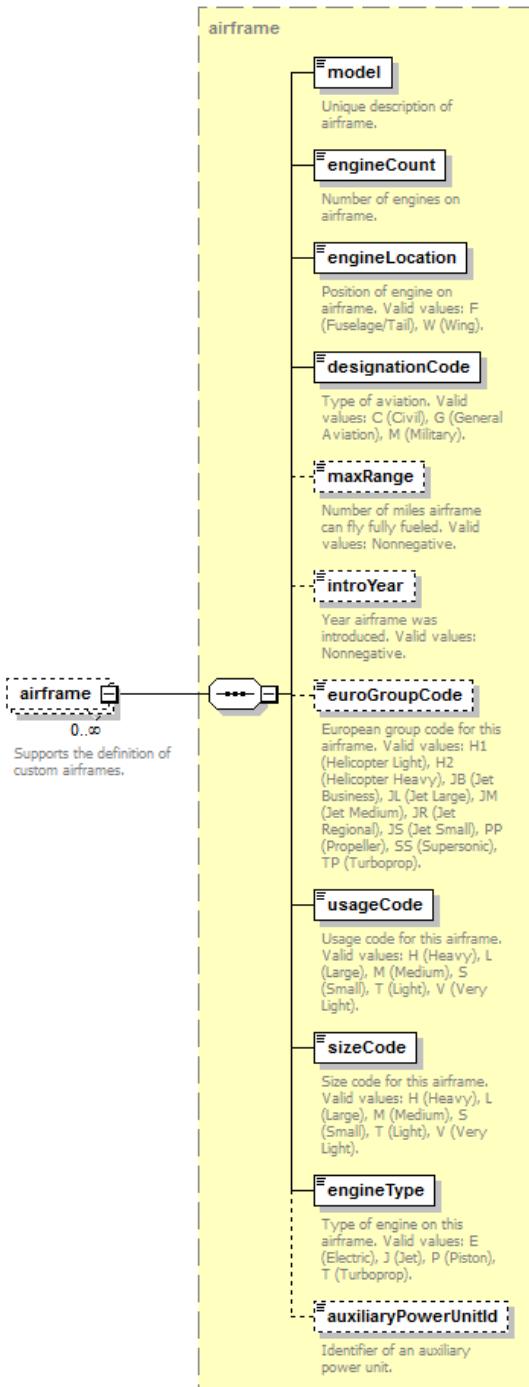
	<p style="text-align: right;">0..∞</p> <p>A custom BADA aircraft energy share set.</p>
children	auxiliaryPowerUnit airframe engine engineMod anpNoiseGroup anpAirplane anpFlapsSet anpThrustSet anpProfileSet anpHeloNoiseGroup anpHelicopter anpHeloDirectivitySet anpHeloProfileSet badaAirplane badaAltitudeDistributionSet badaDefaultAltitudeDistributionSet badaProfileSet badaConfigSet badaFuel badaThrust aircraft energyShare
used by	elements AsifXml/fleet study/fleet
annotation	<p>documentation</p> <p>Main block for creating user defined fleet/aircraft data.</p>

element fleet/auxiliaryPowerUnit

diagram	<pre> classDiagram class auxiliaryPowerUnit { <<0..∞ >> auxiliaryPowerUnit <--> auxiliaryPowerUnit name baseAuxiliaryPowerUnit defaultTimeArrivals defaultTimeDepartures CO HC NOx SOx PM } </pre>
type	auxiliaryPowerUnit
properties	minOcc 0 maxOcc unbounded content complex
children	name baseAuxiliaryPowerUnit defaultTimeArrivals defaultTimeDepartures CO HC NOx SOx PM
annotation	<p>documentation</p> <p>Describes a custom auxiliary power unit (APU). These are typically on-board generators providing power to a parked aircraft.</p>

element fleet/airframe

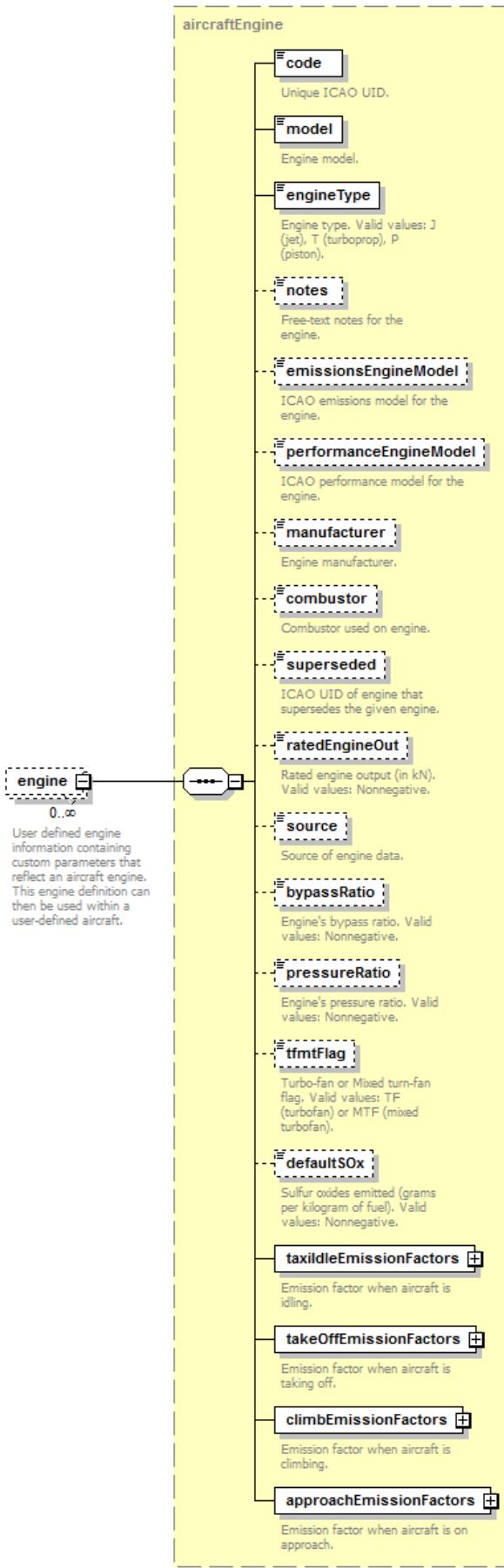
diagram	
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type	airframe
properties	minOcc 0 maxOcc unbounded content complex
children	model engineCount engineLocation designationCode maxRange introYear euroGroupCode usageCode sizeCode engineType auxiliaryPowerUnitId
annotation	documentation Supports the definition of custom airframes.

element fleet/engine

diagram	
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type	aircraftEngine
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properties	minOcc 0 maxOcc unbounded content complex
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children	code model engineType notes emissionsEngineModel performanceEngineModel manufacturer combustor supersedes 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 Unique ICAO UID. description Description of engine modifications. } engineMod "0..∞" --> aircraftEngineMod </pre>
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 be used within a user defined aircraft.

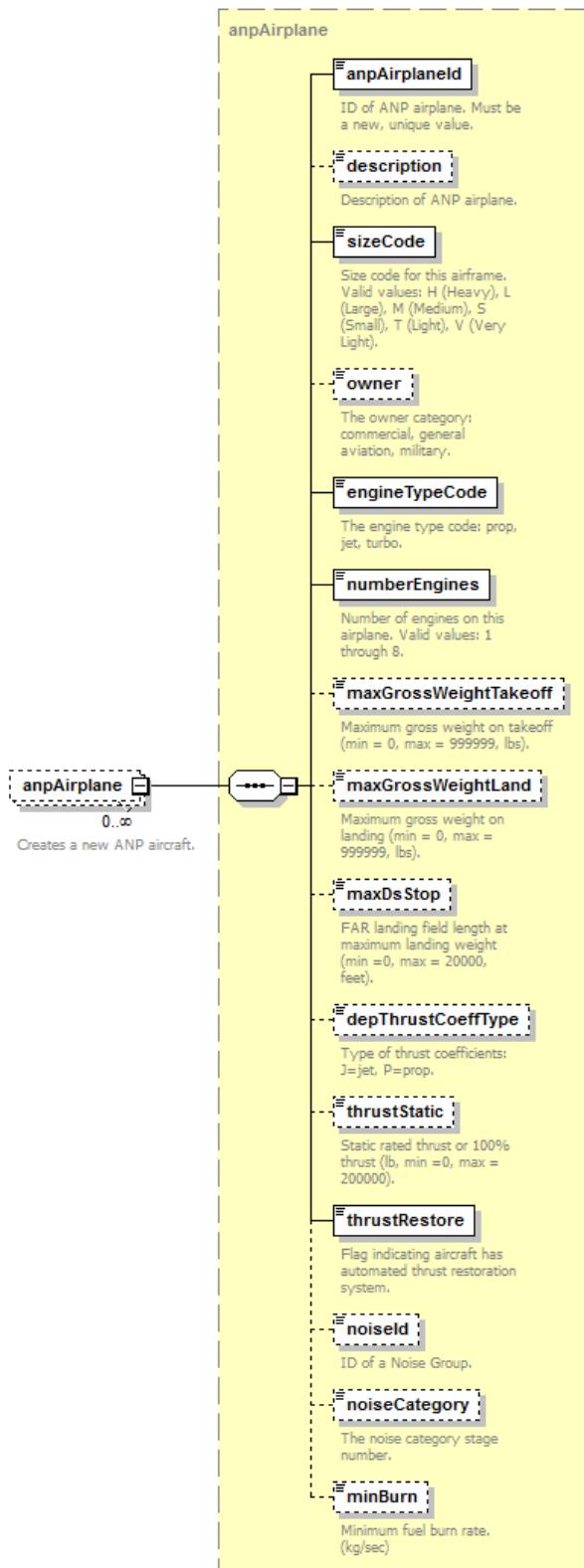
element fleet/anpNoiseGroup

diagram	<pre> classDiagram class anpNoiseGroup { noiseld Noise group's ID. spectralClassApproach Spectral class number for approach (min = 0, max = 999). spectralClassDeparture Spectral class number for departure (min = 0, max = 999). spectralClassAfterburner Spectral class number for afterburner (min = 0, max = 999). thrustSetType Type of thrust setting. Valid values: L (pounds), P (percent), X (other). modelType Type of distance-duration model. Valid values: I (INM), N (NoiseMap). npdCurves + The set of noise curves for ANP aircraft. } anpNoiseGroup "0..∞" --> anpNoiseGroup </pre>
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

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diagram



type	<code>anpAirplane</code>
properties	minOcc 0 maxOcc unbounded content complex
children	<code>anpAirplaneId</code> <code>description</code> <code>sizeCode</code> <code>owner</code> <code>engineTypeCode</code> <code>numberEngines</code> <code>maxGrossWeightTakeoff</code> <code>maxGrossWeightLand</code> <code>maxDsStop</code> <code>depThrustCoeffType</code> <code>thrustStatic</code> <code>thrustRestore</code> <code>noiseld</code> <code>noiseCategory</code> <code>minBurn</code>
annotation	documentation Creates a new ANP aircraft.

element fleet/anpFlapsSet

diagram	<pre> classDiagram class anpFlapsSet { <<Flap settings for an ANP aircraft type.>> } class anpAirplaneld { <<Airplane's ANP ID.>> } anpFlapsSet "0..∞" --> "1..∞" anpAirplaneld : flaps </pre>
type	anpFlapsSet
properties	minOcc 0 maxOcc unbounded content complex
children	anpAirplaneld flaps
annotation	documentation Flap settings for an ANP aircraft type.

element fleet/anpThrustSet

diagram	<pre> classDiagram class anpThrustSet { <<Specifies a set of thrust records for an ANP aircraft.>> } class anpAirplaneld { <<Airplane's ANP ID.>> } anpThrustSet "0..∞" --> "1..∞" anpAirplaneld : thrustGeneral anpAirplaneld "1..∞" --> "1..∞" thrustJet anpAirplaneld "1..∞" --> "1..∞" thrustProp </pre>
type	anpThrustSet
properties	minOcc 0 maxOcc unbounded content complex
children	anpAirplaneld thrustGeneral thrustJet thrustProp tsfcCoefficients
annotation	documentation Specifies a set of thrust records for an ANP aircraft.

element fleet/anpProfileSet

diagram	<pre> classDiagram class anpProfileSet { <<The profile set for an ANP aircraft.>> } class anpAirplaneld { <<Airplane's ANP ID.>> } anpProfileSet "0..∞" --> "1..∞" anpAirplaneld : profile </pre>
type	anpProfileSet
properties	minOcc 0 maxOcc unbounded content complex
children	anpAirplaneld profile
annotation	documentation The profile set for an ANP aircraft.

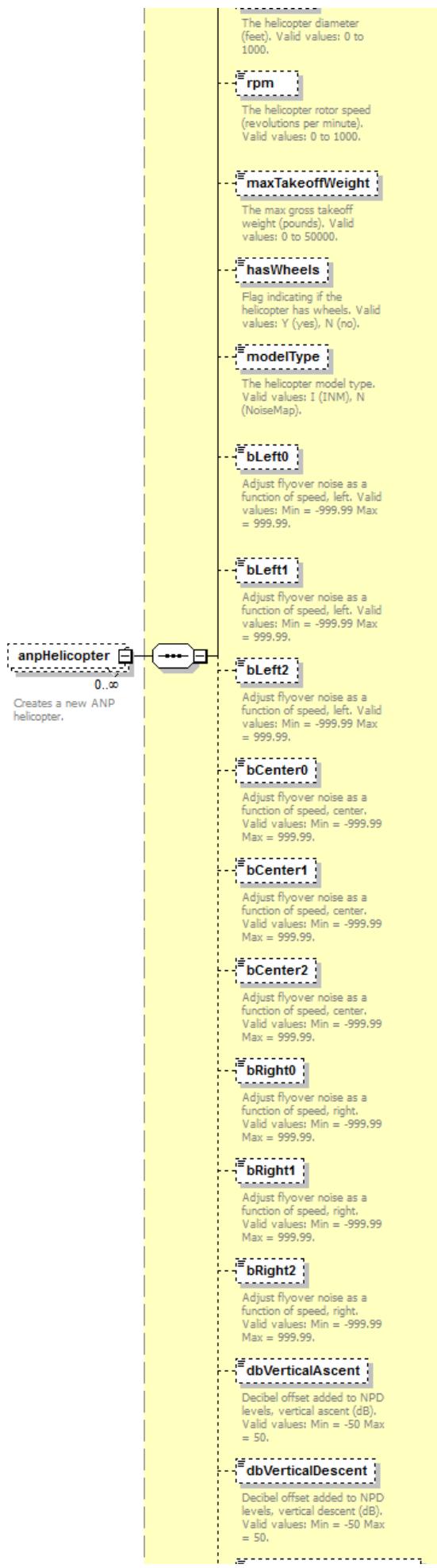
element fleet/anpHeloNoiseGroup

diagram	
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	<p>anpHeloNoiseGroup</p> <pre> graph LR A[anpHeloNoiseGroup 0..∞] --> B[noiseId] B --> C[spectralClassApproach] C --> D[spectralClassDeparture] D --> E[spectralClassFlyover] E --> F[speedApproach] F --> G[speedDeparture] G --> H[speedFlyover] H --> I[npdCurves] </pre> <p>This element contains the three spectral class references for a given helicopter noise group with the corresponding thrust setting type and model type.</p>
type	anpHeloNoiseGroup
properties	minOcc 0 maxOcc unbounded content complex
children	noiseId spectralClassApproach spectralClassDeparture spectralClassFlyover speedApproach speedDeparture speedFlyover npdCurves
annotation	documentation 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	<p>anpHelicopter</p> <pre> graph LR A[anpHelicopter] --> B[anpHelicopterId] B --> C[noiseId] C --> D[directivityId] D --> E[description] E --> F[owner] F --> G[engineTypeCode] G --> H[numberRotors] H --> I[diameter] </pre>
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	<p>dbHorizontalAcceleration</p> <p>Decibel offset added to NPD levels, depart horizontal acceleration (dB). Valid values: Min = -50 Max = 50.</p> <p>dbClimbAcceleration</p> <p>Decibel offset added to NPD levels, depart with climbing acceleration (dB). Valid values: Min = -50 Max = 50.</p> <p>dbHorizontalDeceleration</p> <p>Decibel offset added to NPD levels, approach with horizontal deceleration (dB). Valid values: Min = -50 Max = 50.</p> <p>dbDescendDeceleration</p> <p>Decibel offset added to NPD levels, approach with descending deceleration (dB). Valid values: Min = -50 Max = 50.</p>
type	anpHelicopter
properties	minOcc 0 maxOcc unbounded content complex
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
annotation	documentation Creates a new ANP helicopter.

element fleet/anpHeloDirectivitySet

diagram	<pre> classDiagram class anpHeloDirectivitySet { <<A set of helicopter directivities.>> } class anpHeloDirectivity { <<ANP Helicopter directivity.>> } class anpHelicopterId { <<Unique ID for ANP helicopters.>> } anpHeloDirectivitySet "0..∞" -- "1..∞" anpHeloDirectivity anpHeloDirectivitySet "0..∞" -- "0..∞" anpHelicopterId </pre>
type	anpHeloDirectivitySet
properties	minOcc 0 maxOcc unbounded content complex
children	anpHelicopterId anpHeloDirectivity
annotation	documentation A set of helicopter directivities.

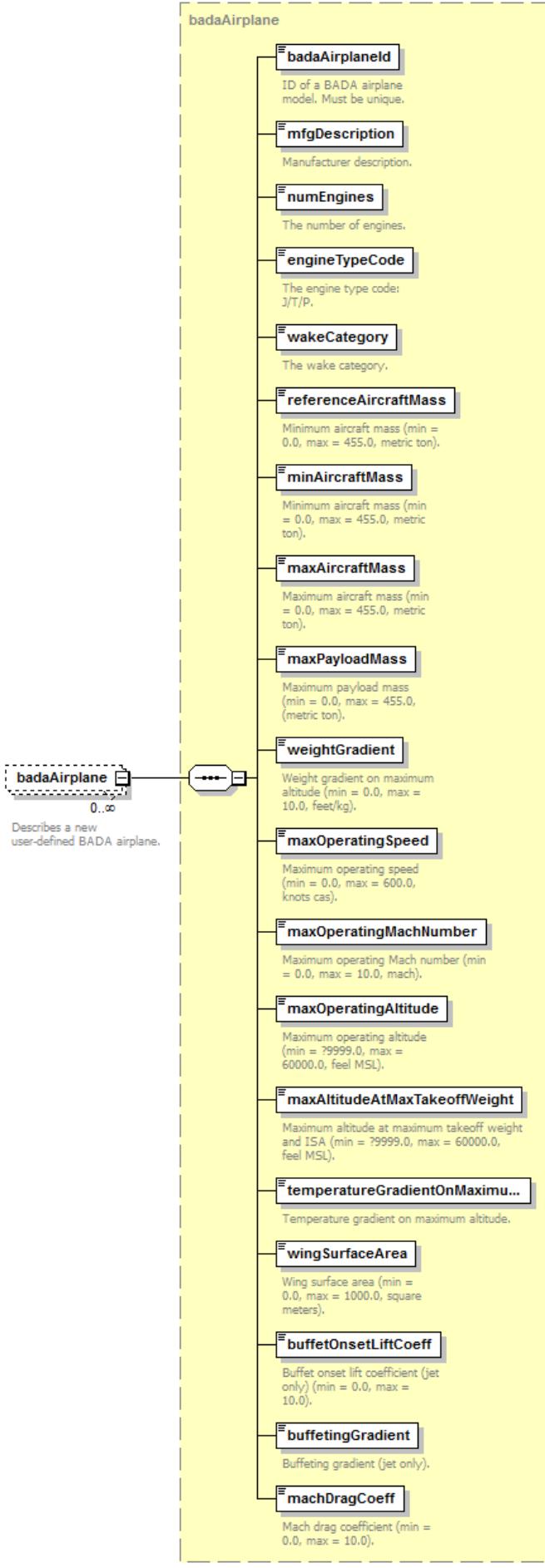
element fleet/anpHeloProfileSet

diagram	<pre> classDiagram class anpHeloProfileSet { <<A profile set for an ANP helicopter.>> } class profile { <<One or more ANP profiles.>> } class anpHelicopterId { <<The anp helicopter id.>> } anpHeloProfileSet "0..∞" -- "1..∞" profile anpHeloProfileSet "0..∞" -- "0..∞" anpHelicopterId </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



type	badaAirplane
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properties	minOcc 0 maxOcc unbounded content complex
children	badaAirplaneId 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

diagram	
type	badaAltitudeDistributionSet
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	
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	
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**

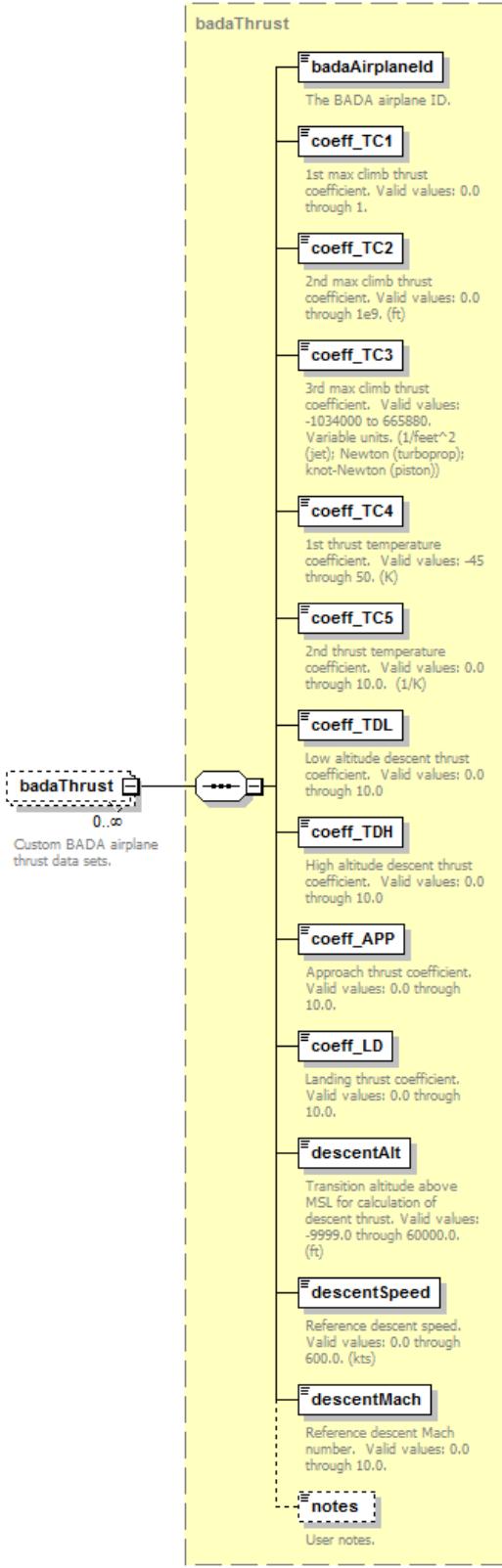
diagram	<pre> graph LR A["badaConfigSet"] --- B["badaConfigSet"] B --- C["badaAirplaneId"] B --- D["badaConfig"] </pre> <p>A block for a custom BADA airplane configuration coefficient set.</p>
type	badaConfigSet
properties	minOcc 0 maxOcc unbounded content complex
children	badaAirplaneId badaConfig
annotation	documentation A block for a custom BADA airplane configuration coefficient set.

element **fleet/badaFuel**

diagram	<pre> graph LR A["badaFuel"] --- B["badaFuel"] B --- C["badaAirplaneId"] B --- D["coeff_CF1"] B --- E["coeff_CF2"] B --- F["coeff_CF3"] B --- G["coeff_CF4"] B --- H["coeff_CR"] </pre> <p>A BADA fuel data record.</p>
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/aircraft**

diagram	<pre> classDiagram class aircraft { <<description>> <<airframeModel>> <<engineCode>> <<engineModCode>> <<anpAirplaneld>> <<badaAirplaneld>> <<anpHelicopterId>> } class aircraft { <<0..>> <<A block used to create new user defined AEDT aircraft.>> } aircraft < -- aircraft aircraft --> description aircraft --> airframeModel aircraft --> engineCode aircraft --> engineModCode aircraft --> anpAirplaneld aircraft --> badaAirplaneld aircraft --> anpHelicopterId </pre>
type	aircraft
properties	minOcc 0 maxOcc unbounded content complex
children	description airframeModel engineCode engineModCode anpAirplaneld badaAirplaneld anpHelicopterId
annotation	documentation A block used to create new user defined AEDT aircraft.

diagram	<pre> classDiagram class energyShare { <<0..>> <<A custom BADA aircraft energy share set.>> } class energyShare { <<anpAirplaneld>> <<badaAirplaneld>> <<transEnergyShare>> } energyShare < -- energyShare energyShare --> anpAirplaneld energyShare --> badaAirplaneld energyShare --> transEnergyShare </pre>
type	energyShare
properties	minOcc 0 maxOcc unbounded content complex
children	anpAirplaneld badaAirplaneld transEnergyShare
annotation	documentation A custom BADA aircraft energy share set.

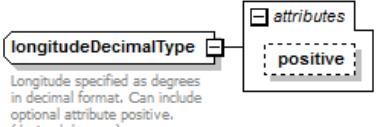
diagram	<pre> classDiagram class latitudeDecimalType { <<Latitude specified as degrees in decimal format. Can include optional attribute positive. (decimal degrees)>> } class latitudeDecimalType { <<positive>> } latitudeDecimalType < -- latitudeDecimalType latitudeDecimalType --> attributes </pre>
type	extension of xs:double

properties	base xs:double
used by	element latlonCoordGroup/latitude
attributes	Name <u>positive</u> 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

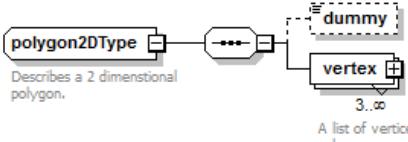
complexType longitudeDecimalType

diagram	 longitudeDecimalType Longitude specified as degrees in decimal format. Can include optional attribute positive. (decimal degrees) positive
type	extension of xs:double
properties	base xs:double
used by	element latlonCoordGroup/longitude
attributes	Name <u>positive</u> 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	 polygon2DType Describes a 2 dimensional polygon. dummy vertex vertex 3..∞ A list of vertices defining the polygon.
children	dummy vertex
used by	elements boundary/polygon oneOrThreeCoords2DGroupSet/polygonCoords
annotation	documentation Describes a 2 dimensional polygon.

element polygon2DType/dummy

diagram	 dummy
type	xs:int
properties	minOcc 0 maxOcc 1 content simple

element polygon2DType/vertex

diagram	<pre> graph TD vertex["vertex"] --> lationCoordGroup lationCoordGroup --- ellipsis1[...] ellipsis1 --- latitude ellipsis1 --- longitude latitude --- latitudeDMS longitude --- longitudeDMS utmCoordGroup --- ellipsis2[...] ellipsis2 --- utmN ellipsis2 --- utmE utmN --- utmZone </pre> <p>coord2DType</p> <p>vertex: A list of vertices defining the polygon.</p> <p>lationCoordGroup: Specifies a coordinate using latitude and longitude.</p> <p>utmCoordGroup: Specifies a point using Universal Transverse Mercator coordinates.</p> <p>latitude: Latitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>longitude: Longitude 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>longitudeDMS: Longitude expressed as dd' mm''ss with optional indicator N, n, S, s.</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 &lt;options&gt; tag.</p>
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> graph LR polygon3DElevationType[polygon3DElevationType] --- ellipsis1[...] ellipsis1 --- dummy[dummy] dummy --- vertex["vertex"] vertex --- ellipsis2[...] </pre> <p>The elevation or Z value for a polygon.</p> <p>A list of vertices defining the polygon.</p>
children	dummy vertex
annotation	documentation The elevation or Z value for a polygon.

element polygon3DElevationType/dummy

diagram	<p>dummy</p>
type	xs:int
properties	minOcc 0 maxOcc 1 content simple

element polygon3DElevationType/vertex

diagram	
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	<pre> graph TD coord3DElevationType[coord3DElevationType] --> vertex[vertex] vertex -- "3...∞" --> lationCoordGroup[latlonCoordGroup] vertex -- "3...∞" --> utmCoordGroup[utmCoordGroup] vertex -- "3...∞" --> elevation[elevation] lationCoordGroup --> latitude[latitude] lationCoordGroup --> longitude[longitude] utmCoordGroup --> utmN[utmN] utmCoordGroup --> utmE[utmE] utmCoordGroup --> utmZone[utmZone] elevation --> elevation </pre> <p>coord3DElevationType</p> <p>vertex <small>3...∞</small> A list of vertices defining the polygon.</p> <p>latlonCoordGroup Specifies a coordinate using latitude and longitude.</p> <p>utmCoordGroup Specifies a point using Universal Transverse Mercator coordinates.</p> <p>elevation Elevation or Z value for a coordinate.</p> <p>latitude Latitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>longitude Longitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>latitudeDMS Latitude expressed as dd°mm'sss with optional indicator N, n, S, s.</p> <p>longitudeDMS Longitude expressed as dd°mm'sss with optional indicator N, n, S, s.</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 <options> tag.</p>
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	<pre> graph LR profiles[profiles] --> departureProfile[departureProfile] profiles --> arrivalProfile[arrivalProfile] </pre> <p>profiles Contains an arrival and departure profile.</p> <p>departureProfile A flight's departure profile.</p> <p>arrivalProfile A flight's arrival profile.</p>
children	departureProfile arrivalProfile
used by	elements operation/badaProfiles operation/saeProfiles
annotation	documentation Contains an arrival and departure profile.

element profiles/departureProfile

diagram	<pre> graph TD departureProfile[departureProfile] </pre> <p>departureProfile A flight's departure profile.</p>
type	profileType
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 8

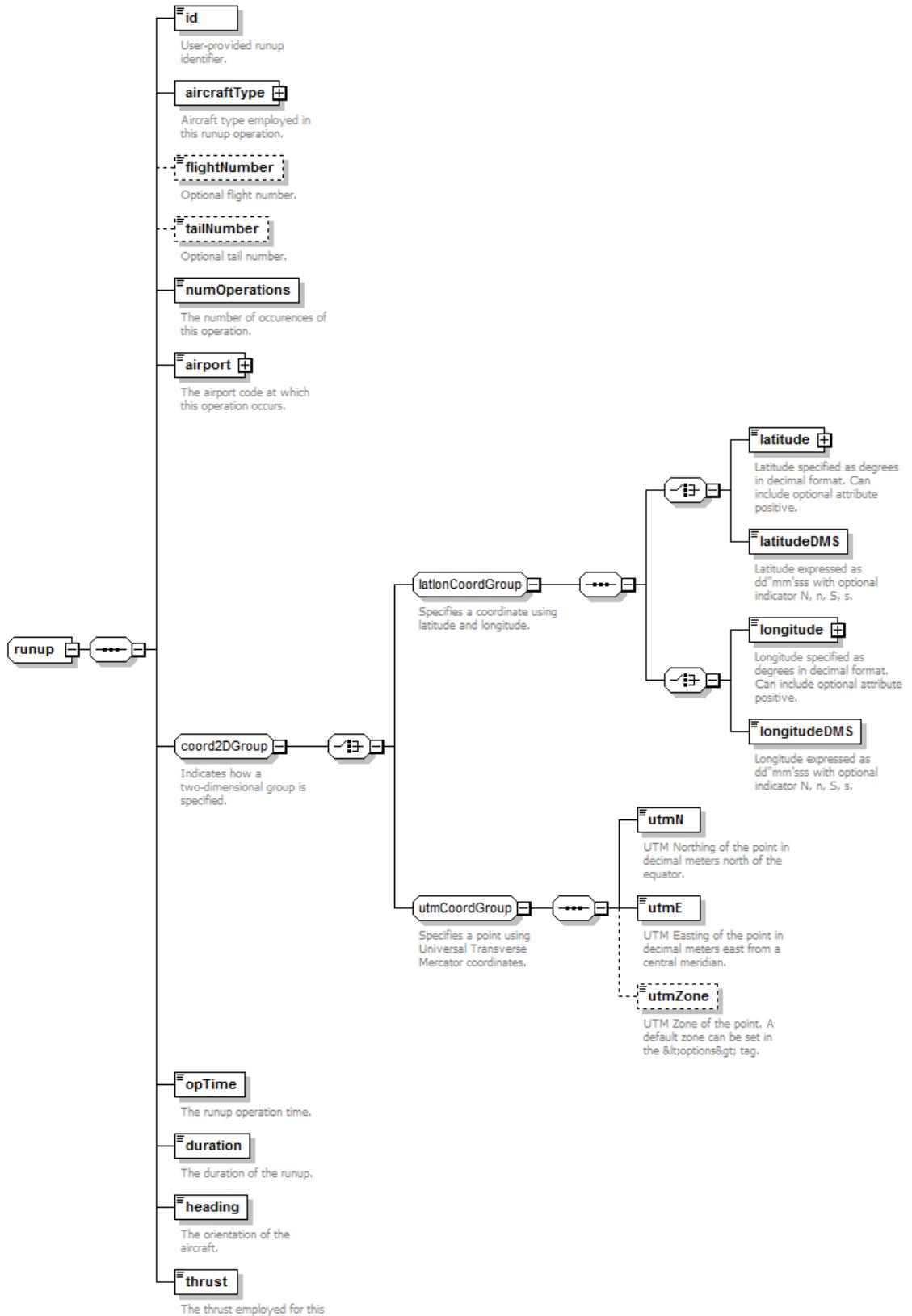
annotation	documentation A flight's departure profile.
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element profiles/arrivalProfile

diagram	 arrivalProfile A flight's arrival profile.
type	profileType
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation A flight's arrival profile.

complexType runup

diagram	
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children	id aircraftType flightNumber tailNumber numOperations airport latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone opTime duration heading thrust
used by	elements AsifXml/runup case/runup

element runup/id

diagram	<pre> classDiagram class id { id } id "*" -- "1" id </pre> <p>The diagram shows the <code>id</code> element structure. It consists of a single <code>id</code> element, indicated by a self-referencing association.</p>
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	type string16
properties	content simple
facets	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 groundSupportEquipmentLTOO... } aircraftType "1..*" --> "1..*" aircraftType </pre> <p>Aircraft type employed in this runup operation.</p>
type	aircraftType
properties	content complex
children	anpAircraftId airframeModel engineCode engineModCode apuName groundSupportEquipmentLTOO... OperationSet
annotation	documentation Aircraft type employed in this runup operation.

element runup/flightNumber

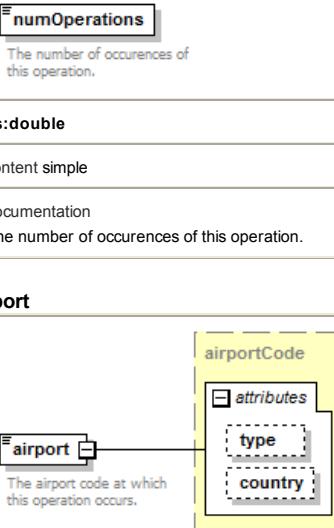
diagram	<pre> classDiagram class flightNumber </pre> <p>Optional flight number.</p>
type	string16
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 16
annotation	documentation Optional flight number.

element runup/tailNumber

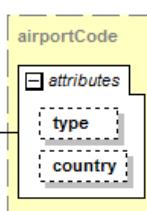
diagram	<pre> classDiagram class tailNumber </pre> <p>Optional tail number.</p>
type	string8
properties	minOcc 0 maxOcc 1

	content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation Optional tail number.

element runup/numOperations

diagram	
type	xs:double
properties	content simple
annotation	documentation The number of occurrences of this operation.

element runup/airport

diagram	
type	airportCode
properties	content complex
facets	Kind Value Annotation minLength 0 maxLength 4
attributes	Name Type Use Default Fixed Annotation <u>type</u> airportCodeType optional ANY <u>country</u> string3 optional ANY
annotation	documentation The airport code at which this operation occurs.

element runup/opTime

diagram	
type	xs:dateTime
properties	content simple
annotation	documentation The runup operation time.

element runup/duration

diagram	
type	xs:double
properties	content simple
annotation	documentation The duration of the runup.

element runup/heading

diagram	
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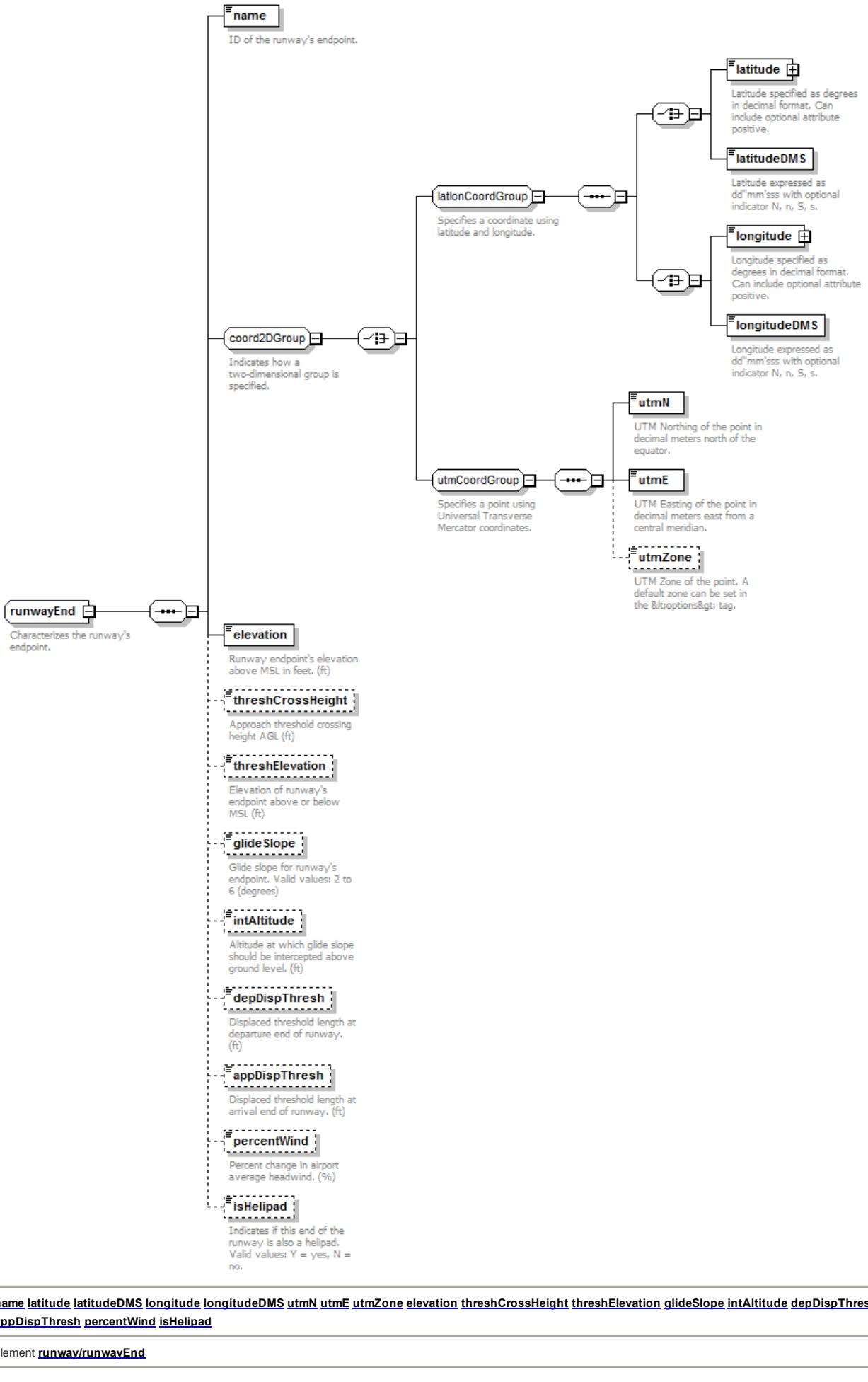
	heading The orientation of the aircraft.
type	xs:double
properties	content simple
annotation	documentation The orientation of the aircraft.

element runup/thrust

diagram	thrust The thrust employed for this runup operation.
type	xs:double
properties	content simple
annotation	documentation The thrust employed for this runup operation.

complexType runwayEnd

diagram	
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annotation	documentation Characterizes the runway's endpoint.
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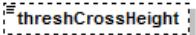
element runwayEnd/name

diagram	 name ID of the runway's endpoint.
type	string8
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation ID of the runway's endpoint.

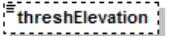
element runwayEnd/elevation

diagram	 elevation Runway endpoint's elevation above MSL in feet. (ft)
type	xs:double
properties	content simple
annotation	documentation Runway endpoint's elevation above MSL in feet. (ft)

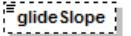
element runwayEnd/threshCrossHeight

diagram	 threshCrossHeight Approach threshold crossing height AGL (ft)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Approach threshold crossing height AGL (ft)

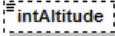
element runwayEnd/threshElevation

diagram	 threshElevation Elevation of runway's endpoint above or below MSL (ft)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Elevation of runway's endpoint above or below MSL (ft)

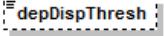
element runwayEnd/glideSlope

diagram	 glideSlope Glide slope for runway's endpoint. Valid values: 2 to 6 (degrees)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Glide slope for runway's endpoint. Valid values: 2 to 6 (degrees)

element runwayEnd/intAltitude

diagram	 <p>Altitude at which glide slope should be intercepted above ground level. (ft)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Altitude at which glide slope should be intercepted above ground level. (ft)

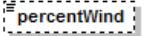
element runwayEnd/depDispThresh

diagram	 <p>Displaced threshold length at departure end of runway. (ft)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Displaced threshold length at departure end of runway. (ft)

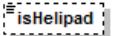
element runwayEnd/appDispThresh

diagram	 <p>Displaced threshold length at arrival end of runway. (ft)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Displaced threshold length at arrival end of runway. (ft)

element runwayEnd/percentWind

diagram	 <p>Percent change in airport average headwind. (%)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Percent change in airport average headwind. (%)

element runwayEnd/isHelpad

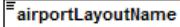
diagram	 <p>Indicates if this end of the runway is also a helipad. Valid values: Y = yes, N = no.</p>
type	xs:string
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation

Indicates if this end of the runway is also a helipad. Valid values: Y = yes, N = no.

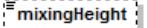
complexType scenarioAirportLayoutType

diagram	<pre> classDiagram class scenarioAirportLayoutType { airportLayoutName mixingHeight useHourlyMetData averageTemperature dailyHighTemperature dailyLowTemperature pressure pressureMSL humidity windSpeed windDirection ceiling visibility airportConfigSet airportCapacity } scenarioAirportLayoutType "1" *-- "1" airportLayoutName scenarioAirportLayoutType "1" *-- "1" mixingHeight scenarioAirportLayoutType "1" *-- "1" useHourlyMetData scenarioAirportLayoutType "1" *-- "1" averageTemperature scenarioAirportLayoutType "1" *-- "1" dailyHighTemperature scenarioAirportLayoutType "1" *-- "1" dailyLowTemperature scenarioAirportLayoutType "1" *-- "1" pressure scenarioAirportLayoutType "1" *-- "1" pressureMSL scenarioAirportLayoutType "1" *-- "1" humidity scenarioAirportLayoutType "1" *-- "1" windSpeed scenarioAirportLayoutType "1" *-- "1" windDirection scenarioAirportLayoutType "1" *-- "1" ceiling scenarioAirportLayoutType "1" *-- "1" visibility scenarioAirportLayoutType "1" *-- "1" airportConfigSet scenarioAirportLayoutType "1" *-- "1" airportCapacity </pre> <p>Describes weather conditions.</p>
children	airportLayoutName mixingHeight useHourlyMetData averageTemperature dailyHighTemperature dailyLowTemperature pressure pressureMSL humidity windSpeed windDirection ceiling visibility airportConfigSet airportCapacity
used by	element scenarioAirportLayoutSet/scenarioAirportLayout
annotation	<p>documentation</p> <p>Describes weather conditions.</p>

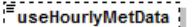
element **scenarioAirportLayoutType/airportLayoutName**

diagram	 airportLayoutName Airport layout name.
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airport layout name.

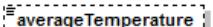
element scenarioAirportLayoutType/mixingHeight

diagram	 mixingHeight 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. (ft)
type	xs:double
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. (ft)

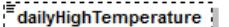
element scenarioAirportLayoutType/useHourlyMetData

diagram	 useHourlyMetData If true, use user-defined hourly meteorological data to compute emissions. If false, use default annual averages to compute emissions. (true or false)
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	 averageTemperature Average temperature (°F).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Average temperature (°F).

element scenarioAirportLayoutType/dailyHighTemperature

diagram	 dailyHighTemperature Average daily high temperature (°F).
type	xs:double
properties	minOcc 0

	maxOcc 1 content simple default 0
annotation	documentation Average daily high temperature (°F).

element **scenarioAirportLayoutType/dailyHighTemperature**

diagram	dailyHighTemperature Average daily high temperature (°F).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Average daily high temperature (°F).

element **scenarioAirportLayoutType/dailyLowTemperature**

diagram	dailyLowTemperature Average daily low temperature (°F).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Average daily low temperature (°F).

element **scenarioAirportLayoutType/pressure**

diagram	pressure Average barometric pressure. (in Hg)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Average barometric pressure. (in Hg)

element **scenarioAirportLayoutType/pressureMSL**

diagram	pressureMSL Average barometric pressure at mean sea level.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Average barometric pressure at mean sea level.

element **scenarioAirportLayoutType/humidity**

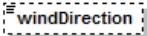
diagram	humidity Relative humidity (%).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Relative humidity (%).

element **scenarioAirportLayoutType/windSpeed**

diagram	windSpeed 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	 windDirection Wind direction. Valid values: 0-360. (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. (degrees)

element scenarioAirportLayoutType/ceiling

diagram	 ceiling Ceiling (ft).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Ceiling (ft).

element scenarioAirportLayoutType/visibility

diagram	 visibility Visibility (mi).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Visibility (mi).

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
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properties	base xs:string
used by	element runwayAssignment/aircraftSize
facets	Kind Value Annotation enumeration S enumeration L enumeration H
annotation	documentation Aircraft size.

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
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 J Prop P

simpleType **anpFlapId**

type	restriction of xs:string
properties	base xs:string
used by	elements 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/anpHeliocopterId
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 <code>xs:string</code>
properties	base <code>xs:string</code>
used by	elements anpNPDCurve/noiseType anpHeloNPDCurve/noiseType
facets	Kind Value Annotation pattern S M E P

simpleType [anpNpdOpMode](#)

type	restriction of <code>xs:string</code>
properties	base <code>xs:string</code>
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 <code>xs:string</code>
properties	base <code>xs:string</code>
used by	elements anpHelicopter/owner anpAirplane/owner
facets	Kind Value Annotation pattern Commercial C Military M General G

simpleType [anpSizeCode](#)

type	restriction of <code>xs:string</code>
properties	base <code>xs:string</code>
used by	element anpAirplane/sizeCode
facets	Kind Value Annotation pattern Heavy H Large L Small S

simpleType [apuName](#)

type	restriction of <code>xs:string</code>
properties	base <code>xs:string</code>
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 [badaAirplaneId](#)

type	restriction of <code>xs:string</code>
properties	base <code>xs:string</code>
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 <code>xs:string</code>
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properties	base xs:string
used by	element badaConfig/phase
facets	Kind Value Annotation pattern InitialClimb IC 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 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 taxiway/dispersionWidth categorySandSaltPile / fastestMileOfWind categorySandSaltPile / frictionVelocity categoryBoilerHeater / fuelAshContent categoryBoilerHeater / fuelSulfurContent categoryGenerator / fuelSulfurContent airportConfig / maxWindSpeed categoryFuelTank / verticalTank / meanWindSpeed categorySandSaltPile / meanWindSpeed airportConfig / minWindSpeed categoryDeicingArea / solutionConcentrationPercent
facets	Kind Value Annotation minInclusive 0 maxExclusive 100

simpleType doubleExclusive1000

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type	restriction of xs:double
properties	base xs:double
used by	elements categoryFuelTank/verticalTank/averageSolutionLevel categoryBoilerHeater/fuelCalciumSulfurRatio categorySandSaltPile/massDisturbedPerDisturbance categoryFuelTank/verticalTank/maximumSolutionLevel categoryFuelTank/tankDiameter categoryFuelTank/verticalTank/tankHeight categoryFuelTank/horizontalTank/tankLength categoryAircraftEngine/timePercentPower100 categoryAircraftEngine/timePercentPower30 categoryAircraftEngine/timePercentPower7 categoryAircraftEngine/timePercentPower85
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000

simpleType doubleExclusive1000

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 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 categoryBoilerHeater/pollutionControlFactorCO categoryGenerator/pollutionControlFactorCO categoryIncinerator/pollutionControlFactorCO categoryOther/pollutionControlFactorCO categoryBoilerHeater/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 categoryBoilerHeater/pollutionControlFactorTOC categoryBoilerHeater/pollutionControlFactorVOC categoryGenerator/pollutionControlFactorVOC categoryIncinerator/pollutionControlFactorVOC categorySurfaceCoatingPainting/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 categoryBoilerHeater/ashTermPm10 categoryGenerator/CO_EF categoryBoilerHeater/CO_EI categoryOther/CO_EI categoryGenerator/CO_EI categoryIncinerator/CO_EI categoryBoilerHeater/constantTermPm10 categoryBoilerHeater/constantTermSOx categoryGenerator/NOx_EF categoryBoilerHeater/NOx_EI categoryIncinerator/NOx_EI categoryGenerator/NOx_EI categoryOther/NOx_EI categoryGenerator/PM10_EF categoryGenerator/PM10_EI categoryIncinerator/PM10_EI categoryOther/PM10_EI categoryGenerator/SOx_EF categoryGenerator/SOx_EI categoryIncinerator/SOx_EI categoryOther/SOx_EI categoryBoilerHeater/sulfurTermPm10 categoryBoilerHeater/sulfurTermSOx categoryBoilerHeater/THC_EI categoryOther/THC_EI categoryBoilerHeater/TNMOC_EI categoryGenerator/TOC_EF categoryBoilerHeater/TOC_EI categoryBoilerHeater/VOC_EI categoryGenerator/VOC_EI categoryIncinerator/VOC_EI categorySurfaceCoatingPainting/VOC_EI categoryDeicingArea/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 doubleInclusiveRange0to600

type	restriction of xs:double
properties	base xs:double
used by	element pointStationarySource/temperature
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
used by	element pointStationarySource/gasVelocity
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 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.

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 aircraft/engineModCode aircraftType/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
	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 [0,1000].

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 [0,10000].

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 [0,2000].

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].
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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 parkingFacilityOperation/fuelType roadwayOperation/fuelType groundSupportEquipmentPopulationOperation/fuelType groundSupportEquipmentLTOOperation/fuelType
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 parkingFacilityOperation/vehicleType roadwayOperation/vehicleType
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 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	
used by	element categoryFuelTank/reidVaporPressure	
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}([.][0-9]{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]?[0-9]{2}[.][0-9]{2}[.][0-9]{2}([.][0-9]{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	elements track/opType operation/opType trackref/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	string8
properties	base string8
used by	elements profiles/arrivalProfile operation/badaProfile profiles/departureProfile operation/saeProfile
facets	Kind Value Annotation minLength 0 maxLength 8
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 string1

type	restriction of xs:string
properties	base xs:string
used by	elements operation/arrivalStageLength operation/departureStageLength airframe/designationCode airframe/engineLocation airframe/engineType anpTsfcCoefficients mode anpNoiseGroup/modelType anpHelicopter/modelType anpHeloProfile/operationType anpHeloProcedureStep/operationType anpFlaps/operationType anpProfile/operationType anpHeloDirectivity/opMode anpProfilePoint/opMode anpHeloProfile/profileStageLength anpHeloProcedureStep/profileStageLength anpProfile/profileStageLength airframe/sizeCode operation/stageLength anpHeloProcedureStep/stepType anpProcedureStep/stepType anpNoiseGroup/thrustSetType anpThrustGeneral/thrustType anpThrustJet/thrustType anpThrustProp/thrustType anpProcedureStep/thrustType airframe/usageCode
facets	Kind Value Annotation minLength 0 maxLength 1

annotation	documentation A string up to one character long.
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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/almCriteria windRoseStation/endDayMonth windRoseStation/userString
facets	Kind Value Annotation minLength 0 maxLength 11

simpleType string12

type	restriction of xs:string
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/faaid

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 aircraftType/engineCode airport/facilityType aircraftEngine/performanceEngineModel airportWeatherStation/weatherStationName
facets	Kind Value Annotation minLength 0 maxLength 25

annotation	documentation A string up to 25 characters long.
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simpleType string255

type	restriction of xs:string
properties	base xs:string
used by	elements trackref/airportLayoutName scenarioAirportLayoutType/airportLayoutName study/description scenario/description case/description aircraft/description aircraftEngineMod/description anpHelicopter/description anpAirplane/description categoryAircraftEngine/engineCode case/hourlyWxFile badaAirplane/mfgDescription building/name receptorSet/name pointReceptor/name study/name scenario/name case/name annualization/name annualizationCase/name airportLayoutType/name badaThrust/notes case/reference/refCase case/reference/refScenario sensorNode/source study/terrainFiles
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	elements badaProfile/companyCode1 weatherData/month 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

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
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 aircraftType/airframeModel 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/bnaiId airportWeatherStation/cooperativeId 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	elements track/name trackref/trackName
facets	Kind Value Annotation minLength 0 maxLength 64
annotation	documentation

	A string up to 64 characters long.
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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 anpHeloProfile/profileGroupId anpHeloProcedureStep/profileGroupId anpProfile/profileGroupId track/runway runwayAssignment/runway trackref/runway taxipath/runwayName operation/tailNumber runup/tailNumber simpleType profileType
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 **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 **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
annotation	documentation Simple element allowing for either a choice of "yes" or "no".