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Supplemental Manual
AEDT Standard Input File (ASIF)

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1 Introduction

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

This Manual provides a description of the ASIF format for the **ASIF schema version 1.2.24**. It also provides an overview of ASIF usage and annotated sample studies. The Manual is intended for analysts and programmers who wish to create ASIF.

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

1.1 Overview of the ASIF Format

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

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

1.2 ASIF Schema Documentation

1.2.1 ASIF Schema Files

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

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

1.2.2 AsifMerge.html

The ASIF schema documentation, **AsifMerge.html**, is located under the *C:\Program Files\FAA\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	 	<p>Represented by a rectangle with solid or dotted border</p> <p>Solid rectangle – required element</p> <p>Dotted rectangle – optional element</p>
Element with (+) sign	 	Indicates that the element has child element(s) and/or attribute(s)
Element with min and max bound	 	Specifies the min/max number of times an element can occur in the parent element

1.3 Importing External Studies

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

2 ASIF Import Types

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

2.1 Full Study Import

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

Please see Section 3 for two sample studies.

2.2 Partial ASIF Import

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

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

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

```
<AsifXml xmlns:AsifXml="http://www.faa.gov/ASIF"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" version="1.2.24"
content="ENTER_CONTENT_TYPE_HERE">
```

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

```
    <*content type here*>
```

```
    ...
```

```
    </*end content type*>
```

```
</AsifXml>
```

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

2.3 Sample ASIFs

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

Full study ASIF

- asif_emissions_study.xml
- asif_emissions_study_scheduled_ops.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_runup_operationalProfiles.xml
- PartialASIF_scenario.xml
- PartialASIF_scenario_runups.xml
- PartialASIF_stationarySourceSet.xml
- PartialASIF_userGroundSupportEquipmentSet.xml
- UserDefinedANPPProfiles-ProcedureSteps.xml
- UserDefinedANPPProfiles-ProfilePoints.xml
- UserDefinedBADA4Profiles.xml
- UserDefinedSpectralClass.xml

3 ASIF Examples

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

3.1 Create a Simple Study

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

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

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

1. Create empty study file

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



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

```
<AsifXml version="1.2.24" content="study"
xmlns:AsifXml="http://www.faa.gov/ASIF"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">

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

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

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

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

    <!-- Add airport layouts here -->

    <!-- Add receptors here -->

    <!-- Add scenarios here -->

  </study>
</AsifXml>
```


2. Populate airport layouts section

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

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

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

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

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

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

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

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

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

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

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

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

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

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

3. Create receptor set

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

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

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

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

4. Create scenario and case hierarchy

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

    <!-- Add trackOpSet elements here -->

  </case>
</caseSet>
</scenario>
```

5. Populate cases with tracks and air operations

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

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

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

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

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

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

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

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

</subtrack>
</track>

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

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

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

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

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

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

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

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

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

6. Create annualization

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

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

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

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

  </annualizationGroup>
</annualization>
```

7. Full ASIF

The full study ASIF is as follows:

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

```
<AsifXml version="1.2.24" content="study"
xmlns:AsifXml="http://www.faa.gov/ASIF"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">

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

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

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

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

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

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

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

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

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

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

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

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

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

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

              <!-- displaced threshold for approach -->
              <appDispThresh>0.0</appDispThresh>
            </runwayEnd>
          </runway>
        </runwaySet>
      </airportLayout>
    </airportLayoutSet>
  </study>
</AsifXml>
```

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

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

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

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

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

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

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

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

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

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

```
<bankAngle>true</bankAngle>

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

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

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

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

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

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

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

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

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

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

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

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



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

</subtrack>
</track>

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

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

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

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

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

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

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

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

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

</case>
```

```
</caseSet>

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

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

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

  </annualizationGroup>
</annualization>

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

3.2 Create an Emissions Dispersion Study

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

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

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

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

1. Create empty study file

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



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

```
<?xml version="1.0" encoding="utf-8"?>
<AsifXml xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" version="1.2.24" content="study">
  <study>
    <name>PVD2004_small</name>
    <studyType>Dispersion</studyType>
    <emissionsUnits>Kilograms</emissionsUnits>
    <description>A sample emissions study</description>

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

  </study>
</AsifXml>
```

2. Populate airport layouts section

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

a) Define airport layout

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

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

b) Define stationary sources

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

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

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

c) Define airport gates/terminals

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

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

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

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

d) Define taxiways

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

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

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

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

.....

</taxiwaySet>
```

e) Define runways

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

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

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

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

f) Assemble taxipaths

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

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

```
<taxipathSet>  
  <taxipath>  
    <gateName>AC</gateName>  
    <runwayName>05</runwayName>  
    <direction>Outbound</direction>  
    <taxiwayName>AC inout 1 to 2</taxiwayName>  
    <taxiwayName>T3 to 4</taxiwayName>  
    <taxiwayName>T4 to 5</taxiwayName>  
    <taxiwayName>T5 to 6</taxiwayName>  
    <taxiwayName>E1 to 2</taxiwayName>  
    <taxiwayName>S2 to 3</taxiwayName>  
    <taxiwayName>S3 to 4</taxiwayName>  
  </taxipath>  
  
  <taxipath>  
    <gateName>AC</gateName>  
    <runwayName>05</runwayName>  
    <direction>Inbound</direction>  
    <taxiwayName>N5 to 6</taxiwayName>  
    <taxiwayName>N4 to 5</taxiwayName>  
    <taxiwayName>N3 to 4</taxiwayName>  
    <taxiwayName>N2 to 3</taxiwayName>  
    <taxiwayName>T1 to 2</taxiwayName>  
    <taxiwayName>T2 to 3</taxiwayName>  
    <taxiwayName>AC inout 1 to 2</taxiwayName>  
  </taxipath>  
  
  .....  
</taxipathSet>
```

g) Define tracks

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

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

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



```
    </subtrack>
  </track>

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

h) Define airport operating configurations

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

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

```
<airportConfigSet>
  <airportConfig>
    <configurationName>Configuration</configurationName>
    <useDistribution>>false</useDistribution>
    <airportCapacity>
      <capacityPoint>
        <arrivalsPerHour>27</arrivalsPerHour>
        <departuresPerHour>52</departuresPerHour>
      </capacityPoint>
      <capacityPoint>
        <arrivalsPerHour>52</arrivalsPerHour>
        <departuresPerHour>27</departuresPerHour>
      </capacityPoint>
    </airportCapacity>
    <runwayAssignmentSet>
      <runwayAssignment>
        <aircraftSize>S</aircraftSize>
        <runway>16</runway>
        <arrivalPercentage>0.8</arrivalPercentage>
```

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

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

i) Define operational profiles

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

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

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

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

```
</quarterHourlyProfile>
</quarterHourlyProfileSet>

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

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

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

3. Define receptor set

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

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

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

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

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

4. Define scenario and case hierarchy

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

a) Define scenario properties

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

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

```
    <mixingHeight>2226</mixingHeight> <!-- in feet -->
  </scenarioAirportLayout>
</scenarioAirportLayoutSet>
```

b) Define the case for non-aircraft operations

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

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

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

c) Define the case for aircraft operations

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

```
<case>
  <caseId>466140608</caseId>
  <name>2004_Baseline_Operations</name>
  <startTime>2004-01-01T00:00:00</startTime>
  <duration>8784</duration>
  <operation>
    <id>D_1</id>
    <aircraftType>
      <airframeModel>Airbus A319-100 Series</airframeModel>
      <engineCode>3CM028</engineCode>
      <apuName>APU GTCP 36-300 (80HP)</apuName>
      <groundSupportEquipmentLTOOperationSet>
        <groundSupportEquipmentLTOOperation>
          <gseID>8</gseID>
          <fuelType>Diesel</fuelType>
          <horsepower>88</horsepower>
          <loadFactor>0.8</loadFactor>
          <departureOpTime>3.9</departureOpTime> <!-- in minutes -->
        </groundSupportEquipmentLTOOperation>
      </groundSupportEquipmentLTOOperationSet>
      <gseID>13</gseID>
      <fuelType>Gasoline</fuelType>
```

```
    <horsepower>107</horsepower>
    <loadFactor>0.55</loadFactor>
    <departureOpTime>8</departureOpTime>
    <arrivalOpTime>8</arrivalOpTime>
  </groundSupportEquipmentLTOoperation>
</groundSupportEquipmentLTOoperation>
  <gseID>14</gseID>
  <fuelType>Gasoline</fuelType>
  <horsepower>107</horsepower>
  <loadFactor>0.5</loadFactor>
  <departureOpTime>11</departureOpTime>
  <arrivalOpTime>12</arrivalOpTime>
</groundSupportEquipmentLTOoperation>
</groundSupportEquipmentLTOoperation>
  <gseID>17</gseID>
  <fuelType>Diesel</fuelType>
  <horsepower>210</horsepower>
  <loadFactor>0.53</loadFactor>
  <departureOpTime>9.7</departureOpTime>
</groundSupportEquipmentLTOoperation>
</groundSupportEquipmentLTOoperation>
  <gseID>29</gseID>
  <fuelType>Diesel</fuelType>
  <horsepower>175</horsepower>
  <loadFactor>0.25</loadFactor>
  <departureOpTime>14</departureOpTime>
</groundSupportEquipmentLTOoperation>
</groundSupportEquipmentLTOoperation>
  <gseID>36</gseID>
  <fuelType>Diesel</fuelType>
  <horsepower>56</horsepower>
  <loadFactor>0.25</loadFactor>
  <arrivalOpTime>2.1</arrivalOpTime>
</groundSupportEquipmentLTOoperation>
</groundSupportEquipmentLTOoperation>
  <gseID>41</gseID>
  <fuelType>Diesel</fuelType>
  <horsepower>235</horsepower>
  <loadFactor>0.2</loadFactor>
  <departureOpTime>8</departureOpTime>
  <arrivalOpTime>7</arrivalOpTime>
</groundSupportEquipmentLTOoperation>
</groundSupportEquipmentLTOoperationSet>
</aircraftType>
<numOperations>366</numOperations>
<opType>D</opType>
<departureAirport type="ICAO">KPVD</departureAirport>
<departureGate>AC</departureGate>
<departureApuTime>3.5</departureApuTime> <!-- in minutes -->
<taxiOutDuration>10.72</taxiOutDuration> <!-- in minutes -->
<taxiInDuration>6.24</taxiInDuration> <!-- in minutes -->
<activityProfile>ActivityProfile-Baseline-KPVD-0-0-0</activityProfile>
<actypeWeight>146100</actypeWeight> <!-- in pounds -->
<fuelSulfurContent>0.00068</fuelSulfurContent>
</operation>

<operation>
```

```
<id>A_1</id>
<aircraftType>
  <airframeModel>Airbus A319-100 Series</airframeModel>
  <engineCode>3CM028</engineCode>
  <apuName>APU GTCP 36-300 (80HP)</apuName>
  <groundSupportEquipmentLT00operationSet>
    <groundSupportEquipmentLT00operation>
      <gseID>8</gseID>
      <fuelType>Diesel</fuelType>
      <horsepower>88</horsepower>
      <loadFactor>0.8</loadFactor>
      <departureOpTime>3.9</departureOpTime>
    </groundSupportEquipmentLT00operation>
    <groundSupportEquipmentLT00operation>
      <gseID>13</gseID>
      <fuelType>Gasoline</fuelType>
      <horsepower>107</horsepower>
      <loadFactor>0.55</loadFactor>
      <departureOpTime>8</departureOpTime>
      <arrivalOpTime>8</arrivalOpTime>
    </groundSupportEquipmentLT00operation>
    <groundSupportEquipmentLT00operation>
      <gseID>14</gseID>
      <fuelType>Gasoline</fuelType>
      <horsepower>107</horsepower>
      <loadFactor>0.5</loadFactor>
      <departureOpTime>11</departureOpTime>
      <arrivalOpTime>12</arrivalOpTime>
    </groundSupportEquipmentLT00operation>
    <groundSupportEquipmentLT00operation>
      <gseID>17</gseID>
      <fuelType>Diesel</fuelType>
      <horsepower>210</horsepower>
      <loadFactor>0.53</loadFactor>
      <departureOpTime>9.7</departureOpTime>
    </groundSupportEquipmentLT00operation>
    <groundSupportEquipmentLT00operation>
      <gseID>29</gseID>
      <fuelType>Diesel</fuelType>
      <horsepower>175</horsepower>
      <loadFactor>0.25</loadFactor>
      <departureOpTime>14</departureOpTime>
    </groundSupportEquipmentLT00operation>
    <groundSupportEquipmentLT00operation>
      <gseID>36</gseID>
      <fuelType>Diesel</fuelType>
      <horsepower>56</horsepower>
      <loadFactor>0.25</loadFactor>
      <arrivalOpTime>2.1</arrivalOpTime>
    </groundSupportEquipmentLT00operation>
    <groundSupportEquipmentLT00operation>
      <gseID>41</gseID>
      <fuelType>Diesel</fuelType>
      <horsepower>235</horsepower>
      <loadFactor>0.2</loadFactor>
      <departureOpTime>8</departureOpTime>
      <arrivalOpTime>7</arrivalOpTime>
    </groundSupportEquipmentLT00operation>
  </groundSupportEquipmentLT00operationSet>
</aircraftType>
```



```
        </groundSupportEquipmentLTOOperation>  
    </groundSupportEquipmentLTOOperationSet>  
</aircraftType>  
<numOperations>366</numOperations>  
<opType>A</opType>  
<arrivalAirport type="ICAO">KPVD</arrivalAirport>  
<arrivalGate>AC</arrivalGate>  
<arrivalApuTime>3.5</arrivalApuTime>  
<taxiOutDuration>10.72</taxiOutDuration>  
<taxiInDuration>6.24</taxiInDuration>  
<activityProfile>ActivityProfile-Baseline-KPVD-0-0-0</activityProfile>  
<actypeWeight>137800</actypeWeight>  
<fuelSulfurContent>0.00068</fuelSulfurContent>  
</operation>  
</case>  
</caseSet>
```

5. Full ASIF

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

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

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

4 User-Defined ANP and BADA 4 Profiles

4.1 Overview

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

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

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

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

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

Three Different Methods of Adding User-Defined Profiles

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



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



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

4.2 User-Defined ANP Profiles

4.2.1 Key Requirements for a New ANP Profile

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

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

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

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

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

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

4.2.2 ANP Profile – Procedure Steps

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

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

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

Sample ASIF for User-Defined ANP Procedural Profile

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

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

```

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

```

4.2.3 ANP Profile – Fixed-Point

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

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

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

Sample ASIF for User-Defined ANP Fixed-Point Profile

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

```

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

```

```

        <opMode>A</opMode>
    </point>
    <point>
        <pointNum>2</pointNum>
        <distance>-57243.00</distance>
        <altitude>3000.00</altitude>
        <speed>124.00</speed>
        <thrustSet>3560.00</thrustSet>
        <opMode>A</opMode>
    </point>
    <!-- more points -->
</profilePoints>
</profile>
<!-- additional profiles -->
</anpProfileSet>
</fleet>

```

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

4.3.1 Key Requirements for a New BADA 4 Profile

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

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

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

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

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

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

Parameter	ASIF Element Name	Field Name in Table FltBada4AirplaneProfile	Reference Fields (where applicable)
Operation Type	operationType	OperationType	
Weight Class	weightClass	WeightClass	
Weight	weight	Weight (lb)	

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

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

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

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

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

Sample ASIF for User-Defined BADA 4 Profile

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

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


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

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

4.4.1 Create a New User-Defined Aircraft with Custom Profiles

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

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

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

2. Export the new aircraft then delete it

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

3. Open and edit the exported ASIF

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

4. Import the ASIF

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

4.4.2 Add Custom Profiles to Existing Aircraft

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

1. Export an existing aircraft and its profiles

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

2. Open and edit the exported ASIF

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

3. Import the ASIF

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

5 ASIF Consideration

5.1 Airport Layout and Runways

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

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

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

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

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

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

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

Layout: KATL
 Effective date: 1/1/1900 Taxi-in time: 0 minutes 0 seconds
 Expiration date: 6/6/2079 Taxi-out time: 0 minutes 0 seconds

Ground Elements Tracks

Drag a column header and drop it here to group by that column

Type	ID	Name
Runway end	72254	08L
Runway end	84857	26R
Runway end	72255	08R
Runway end	84858	26L
Runway end	72256	09L
Runway end	84859	27R
Runway end	72257	09R
Runway end	84860	27L
Runway end	72258	10
Runway end	84861	28
Runway end	121432	27R
Runway end	122606	09L
Runway	36926	08L - 26R
Runway	36927	08R - 26L
Runway	36928	09L - 27R
Runway	36929	09R - 27L
Runway	36930	10 - 28
Runway	36931	H1
Runway	67816	27R - 09L
Runway	69090	H1
Helipad	72259	H1
Helipad	124455	H1

22 of 22 item(s) shown. 1 item(s) selected.

5.2 Event Consolidation

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

5.3 Control Codes

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

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

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

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

Furthermore, AEDT will ignore the following controls:

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

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

AEDT computes performance to the following extents:

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

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

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

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

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

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

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

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

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

Default GSEs for Airbus A319-100 Series – Departure Operation

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

To specify individual GSEs for the aircraft operation, use the **groundSupportEquipmentLT0OperationSet**, as follows:

```
<operation>
  <id>D_1</id>
  <aircraftType>
    <airframeModel>Airbus A319-100 Series</airframeModel>
    <engineCode>3CM028</engineCode>
    <apuName>APU GTCP 36-300 (80HP)</apuName>
    <groundSupportEquipmentLT0OperationSet>
      <groundSupportEquipmentLT0Operation>
        <gseID>8</gseID>
        <fuelType>Diesel</fuelType>
        <horsepower>88</horsepower>
        <loadFactor>0.8</loadFactor>
        <departureOpTime>3.9</departureOpTime>
      </groundSupportEquipmentLT0Operation>
      <groundSupportEquipmentLT0Operation>
        <gseID>13</gseID>
        <fuelType>Gasoline</fuelType>
        <horsepower>107</horsepower>
        <loadFactor>0.55</loadFactor>
        <departureOpTime>8</departureOpTime>
        <arrivalOpTime>8</arrivalOpTime>
      </groundSupportEquipmentLT0Operation>
      <groundSupportEquipmentLT0Operation>
        <gseID>14</gseID>
        <fuelType>Gasoline</fuelType>
        <horsepower>107</horsepower>
        <loadFactor>0.5</loadFactor>
        <departureOpTime>11</departureOpTime>
        <arrivalOpTime>12</arrivalOpTime>
      </groundSupportEquipmentLT0Operation>
      <groundSupportEquipmentLT0Operation>
        <gseID>17</gseID>
        <fuelType>Diesel</fuelType>
        <horsepower>210</horsepower>
        <loadFactor>0.53</loadFactor>
        <departureOpTime>9.7</departureOpTime>
      </groundSupportEquipmentLT0Operation>
      <groundSupportEquipmentLT0Operation>
        <gseID>29</gseID>
        <fuelType>Diesel</fuelType>
        <horsepower>175</horsepower>
        <loadFactor>0.25</loadFactor>
        <departureOpTime>14</departureOpTime>
      </groundSupportEquipmentLT0Operation>
      <groundSupportEquipmentLT0Operation>
        <gseID>36</gseID>
        <fuelType>Diesel</fuelType>
        <horsepower>56</horsepower>
        <loadFactor>0.25</loadFactor>
        <arrivalOpTime>2.1</arrivalOpTime>
      </groundSupportEquipmentLT0Operation>
    </groundSupportEquipmentLT0OperationSet>
  </aircraftType>
</operation>
```

```
<groundSupportEquipmentLT00operation>
  <gseID>41</gseID>
  <fuelType>Diesel</fuelType>
  <horsepower>235</horsepower>
  <loadFactor>0.2</loadFactor>
  <departureOpTime>8</departureOpTime>
  <arrivalOpTime>7</arrivalOpTime>
</groundSupportEquipmentLT00operation>
</groundSupportEquipmentLT00operationSet>
</aircraftType>
<numOperations>1</numOperations>
<opType>D</opType>
.....
.....
```

5.5 Import User-Defined Spectral Class Data

5.5.1 Sample ASIF for User-Defined Spectral Class Data

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

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

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

To import this file:

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

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

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

5.6 Importing an Older Version of ASIF File

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

For example, the ASIF schema version in AEDT 3g is **1.2.24**. Importing an ASIF version 1.2.19 file in AEDT 3g will generate five intermediate ASIF files for version 1.2.20, 1.2.21, 1.2.22, 1.2.23, and 1.2.24.

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

5.7 ASIF Version 1.2.18 Update for Stationary Sources

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



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

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

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

```
<!--ASIF update added PM10_EI field with a value of 0.239652854-->  
<!--ASIF update removed the ashTermPm10 element-->
```

- Stationary sources where different input data is required in AEDT 3e/3f as a result of an incompatible change in the modeling methodology and/or the input parameters, AEDT will remove such stationary sources when upgrading an older ASIF file to ASIF version 1.2.18 or higher. These actions will be noted as comments in the intermediate ASIF file(s). For example:

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

5.7.1 Deprecated Boiler/Heater and Fuel Tank Sources and Operations

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

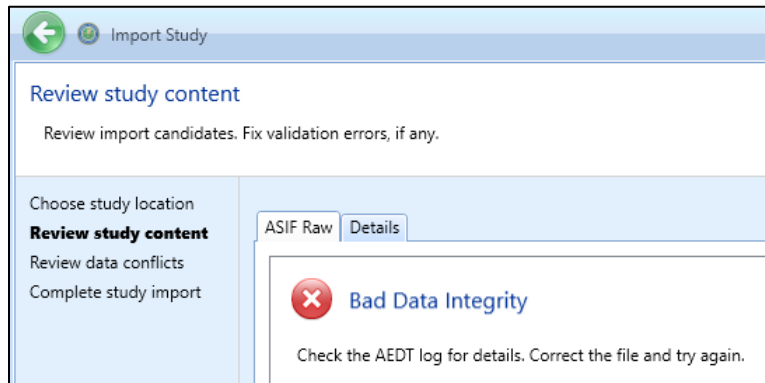


Figure 5-1 AEDT Import Study Dialog, Bad Data Integrity Error Message

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

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

How to View/Edit Intermediate ASIF

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

1. View the ASIF data error messages in the aedt.log file and note invalid stationary source reference names.
2. Locate the last intermediate ASIF file (e.g., ASIF version 1.2.20) saved in the **C:\AEDT\AsifImport** folder.
3. In the ASIF file, search for the stationary source reference names then manually remove matching operations from the ASIF file.

4. Import the manually edited ASIF file into AEDT.
5. Re-create new operations to replace those sources in AEDT GUI.

5.8 ASIF Version 1.2.20 Update for Runup Operations

In AEDT 3f, the existing runup operation feature has been expanded to support emissions dispersion modeling and to harmonize noise and emissions inputs for runups. The following changes were made in ASIF schema version 1.2.20 to support this feature.

- For the “runup” complex type in ASIF schema:
 - Replaced thrust with thrust per engine (thrustPerEngine); and
 - Added number of engines used (numEnginesUsed).

5.9 ASIF Version 1.2.21, 1.2.22, and 1.2.23 Updates to Support Greenhouse Gases Modeling

Expanded coverage of greenhouse gas (GHG) modeling in AEDT 3f release resulted in changes to the ASIF schema in versions 1.2.21, 1.2.22, and 1.2.23. These schema changes are summarized in the following sections.



Due to significant changes in stationary sources, GSE, and airframe input data and modeling methodology, users are strongly encouraged to **review the intermediate/final ASIF files**, created by the ASIF update process, that are saved in the AsifImport directory under the AEDT data folder (e.g., C:\AEDT\AsifImport).

5.9.1 Stationary Sources

- Stationary sources where input data and modeling methodology was not changed will be migrated from earlier ASIF versions to version 1.2.23 and higher as-is. These include:
 - Salt/Sand Piles
 - Solvent Degreasing
 - Surface Coating
 - Deicing
 - Fuel Tanks
- For stationary sources where a superset of existing input data is required in AEDT 3f, as a result of changes in modeling methodology, AEDT will fill in new input parameters with default values (based on AP-42 and EPA’s GHG Emissions Factors’ Hub) when upgrading an older ASIF file to ASIF version 1.2.21 or higher.
 - Boiler/Space Heater
 - Added CO2_EI
 - Added pollutionControlFactorCO2
 - Added CH4_EI
 - Added pollutionControlFactorCH4

- Emergency Generator
 - Added CO2_EF
 - Added CH4_EF
 - Added CO2_EI
 - Added CH4_EI
 - Added pollutionControlFactorCO2
 - Added pollutionControlFactorCH4
- Incinerator
 - Added CO2_EI
 - Added pollutionControlFactorCO2
 - Added CH4_EI
 - Added pollutionControlFactorCH4
 - Renamed VOC_EI to TOC_EI
- Other
 - Added CO2_EI
 - Added pollutionControlFactorCO2
 - Added CH4_EI
 - Added pollutionControlFactorCH4
 - Added PM25_EI
 - Added pollutionControlFactorPM25
 - Renamed pollutionControlFactorHC to pollutionControlFactorTHC
 - Removed pm25ToPm10Ratio
- Training Fire
 - Added CO2_EI
 - Added CH4_EI
 - Added PM25_EI
 - Renamed CO to CO_EI
 - Renamed VOC to VOC_EI
 - Renamed NOx to NOx_EI
 - Renamed SOx to SOx_EI
 - Renamed PM10 to PM10_EI

5.9.2 Ground Support Equipment

Expanded the emissionFactorSet for GSE to include:

- CO2;
- CH4; and
- PM25

5.9.3 Airframe (to support GHG modeling of APUs)

Added "maxSeats" element to complexType airframe.

5.10 ASIF Version 1.2.24 Update for Runup Operations

In AEDT 3g, support for runup operations has been expanded to include the assignment and use of operational profiles. When defining a runup operation, users can assign quarter-hourly, daily, and monthly profiles for expansion into a given year. The following changes were made in ASIF schema version 1.2.24 to support this feature.

- For the "runup" complex type in ASIF schema:
 - Added quarterHourlyProfile;
 - Added dailyProfile;
 - Added monthlyProfile; and
 - Added year.

6 ASIF Schema Documentation

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

Schema AsifMerge.xsd

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

Elements

[activityProfile](#)
[activityProfileSet](#)
[airportCapacity](#)
[airportConfig](#)
[airportConfigSet](#)
[airportLayoutSet](#)
[airportWeather](#)
[airportWeatherStation](#)
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[categoryGenerator](#)
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[tocElGroup](#)
[utmCoordGroup](#)
[vocElGroup](#)

Complex types

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[anpHeloDirectivitySet](#)
[anpHeloNoiseGroup](#)
[anpHeloNPDCurve](#)
[anpHeloNPDCurves](#)
[anpHeloProcedureStep](#)
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Simple types

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[anpHeloNoiseId](#)
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[fuelType](#)
[groundVehicleType](#)
[int0to23](#)
[int0to360](#)
[int0to5](#)
[int0to87](#)
[int1to13](#)
[int1to15](#)
[int1to2](#)
[int1to25](#)
[int1to4](#)
[int1to5](#)
[int1to8](#)
[int1to93](#)
[int1to9999](#)
[int5to15](#)
[int5to65](#)
[int6to13](#)
[int89to148](#)
[latitudeDMSType](#)
[longitudeDMSType](#)
[nodeControlType](#)

[taxipath](#)
[taxipathSet](#)
[taxiTime](#)
[taxiway](#)
[taxiwaySet](#)
[track](#)
[trackNode](#)
[trackNodes](#)
[trackOpSet](#)
[trackref](#)
[trackSet](#)
[trackVector](#)
[trackVectors](#)
[userDefinedAirportSet](#)
[userGroundSupportEquipment](#)
[userGroundSupportEquipmentSet](#)
[vehicleEmissionFactors](#)
[volumeStationarySource](#)
[weatherData](#)
[windRose](#)
[windRoseData](#)
[windRoseStation](#)

[opType](#)
[originSourceType](#)
[profileType](#)
[quarterHourMinutes](#)
[spectralClassId](#)
[spectralFlightType](#)
[string1](#)
[string10](#)
[string100](#)
[string1024](#)
[string11](#)
[string12](#)
[string14](#)
[string15](#)
[string16](#)
[string2](#)
[string20](#)
[string200](#)
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[string4](#)
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[string42](#)
[string5](#)
[string50](#)
[string6](#)
[string64](#)
[string66](#)
[string7](#)
[string8](#)
[string9](#)
[studyType](#)
[taxiModelType](#)
[timeInModeBasisType](#)
[trackType](#)
[trainingFireFuelType](#)
[vectorTrackType](#)
[weatherDataYear](#)
[wingType](#)
[yessNoType](#)

element **activityProfile**

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

attribute **activityProfile/@name**


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

element **activityProfile/quarterHourlyProfile**


diagram	
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.

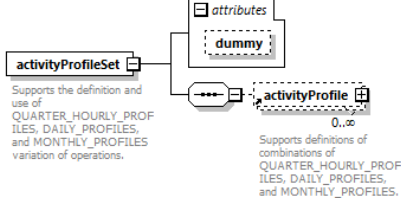
element **activityProfile/dailyProfile**

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

element **activityProfile/monthlyProfile**

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

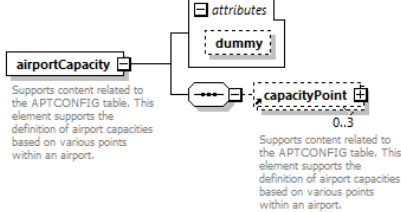
element **activityProfileSet**

diagram	 <p>activityProfileSet Supports the definition and use of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES variation of operations.</p> <p>activityProfile Supports definitions of combinations of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES.</p>												
properties	content complex												
children	activityProfile												
used by	element operationalProfileSet complexType airportLayoutType												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	documentation Supports the definition and use of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES variation of operations.												

attribute **activityProfileSet/@dummy**

type	xs:int
properties	use optional

element **airportCapacity**

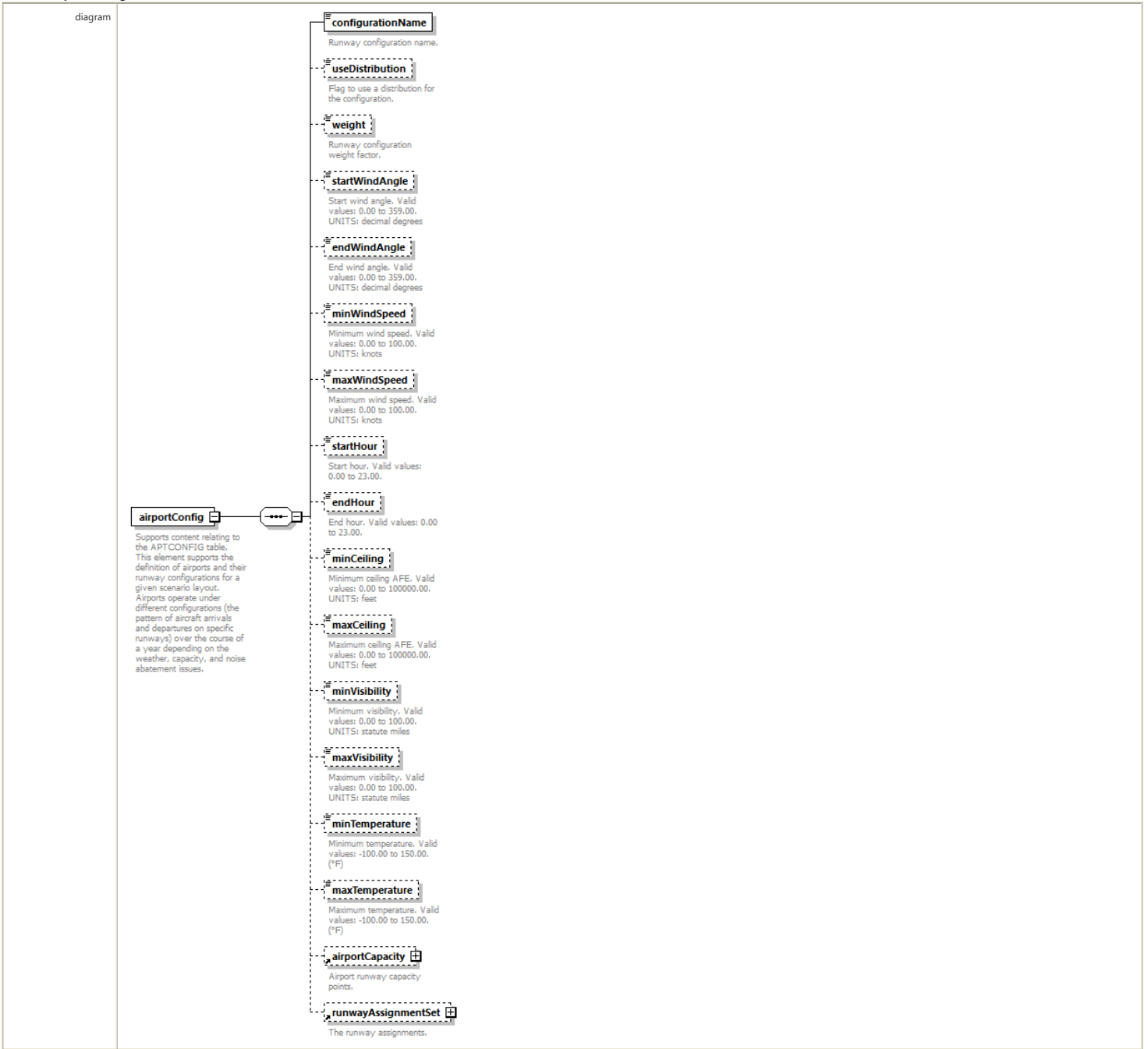
diagram	 <p>airportCapacity Supports content related to the APTCONFIG table. This element supports the definition of airport capacities based on various points within an airport.</p> <p>capacityPoint Supports content related to the APTCONFIG table. This element supports the definition of airport capacities based on various points within an airport.</p>												
properties	content complex												
children	capacityPoint												
used by	element airportConfig complexType airportLayoutType scenarioAirportLayoutType												
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></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy					
Name	Type	Use	Default	Fixed	Annotation								
dummy													

	dummy xsint optional
annotation	documentation Supports content related to the APTCONFIG table. This element supports the definition of airport capacities based on various points within an airport.

attribute **airportCapacity/@dummy**

type	xsint
properties	use optional

element **airportConfig**



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	documentation Supports content relating to the APTCONFIG 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.

element **airportConfig/configurationName**


diagram	configurationName 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.

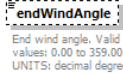
element **airportConfig/weight**

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

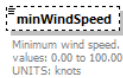
element **airportConfig/startWindAngle**

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

element **airportConfig/endWindAngle**

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

element **airportConfig/minWindSpeed**

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

element **airportConfig/maxWindSpeed**

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

element **airportConfig/startHour**

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

element **airportConfig/maxCeiling**

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

element **airportConfig/minVisibility**

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

annotation	documentation Minimum visibility. Valid values: 0.00 to 100.00. UNITS: statute miles
------------	---

element **airportConfig/maxVisibility**

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

element **airportConfig/minTemperature**

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

element **airportConfig/maxTemperature**

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

element **airportConfigSet**

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

element **airportLayoutSet**

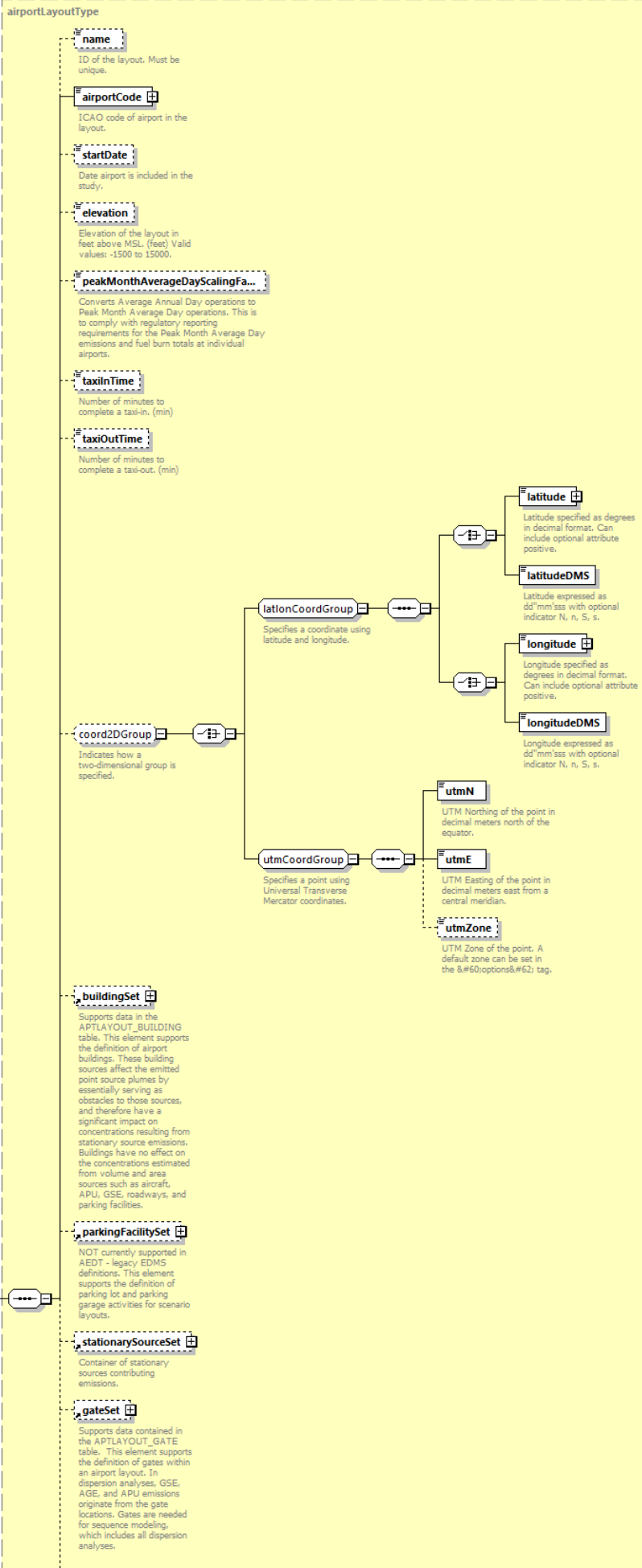
diagram													
properties	content complex												
children	airportLayout												
used by	elements AsifXml study												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <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	documentation Contains layouts for ASIF partial import into an existing study.												

attribute **airportLayoutSet/@dummy**

type	xs:int
properties	use optional

element **airportLayoutSet/airportLayout**

diagram



roadwaySet	NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of vehicle activity on roadways for scenario layouts.
taxiwaySet	Supports data in the APTLAYOUT_TAXIWAY table. Taxiways determine the ground segments where the aircraft operates.
runwaySet	Container for runways.
taxipathSet	Supports data contained in the APTLAYOUT_TAXIPATH 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.
trackSet	A set of flight tracks.
airportConfigSet	Contains one or more airportConfig elements.
airportCapacity	Supports content related to the APTCONFIG table. This element supports the definition of airport capacities based on various points within an airport.
quarterHourlyProfileSet	Supports the definition and use of QUARTER_HOURLY_PROFILE S for the quarter hourly variation of operations.
dailyProfileSet	Supports the definition and use of data in the APTPROFILE_DAILY table for the daily variation of operations.
monthlyProfileSet	Supports the definition and use of data in the APTPROFILE_MONTHLY table for the monthly variation of operations.
activityProfileSet	Supports the definition and use of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES variation of operations.

type	airportLayoutType
properties	minOcc 1 maxOcc unbounded content complex
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
annotation	documentation Contains information about the available layout of each airport in the study.

element **airportWeather**

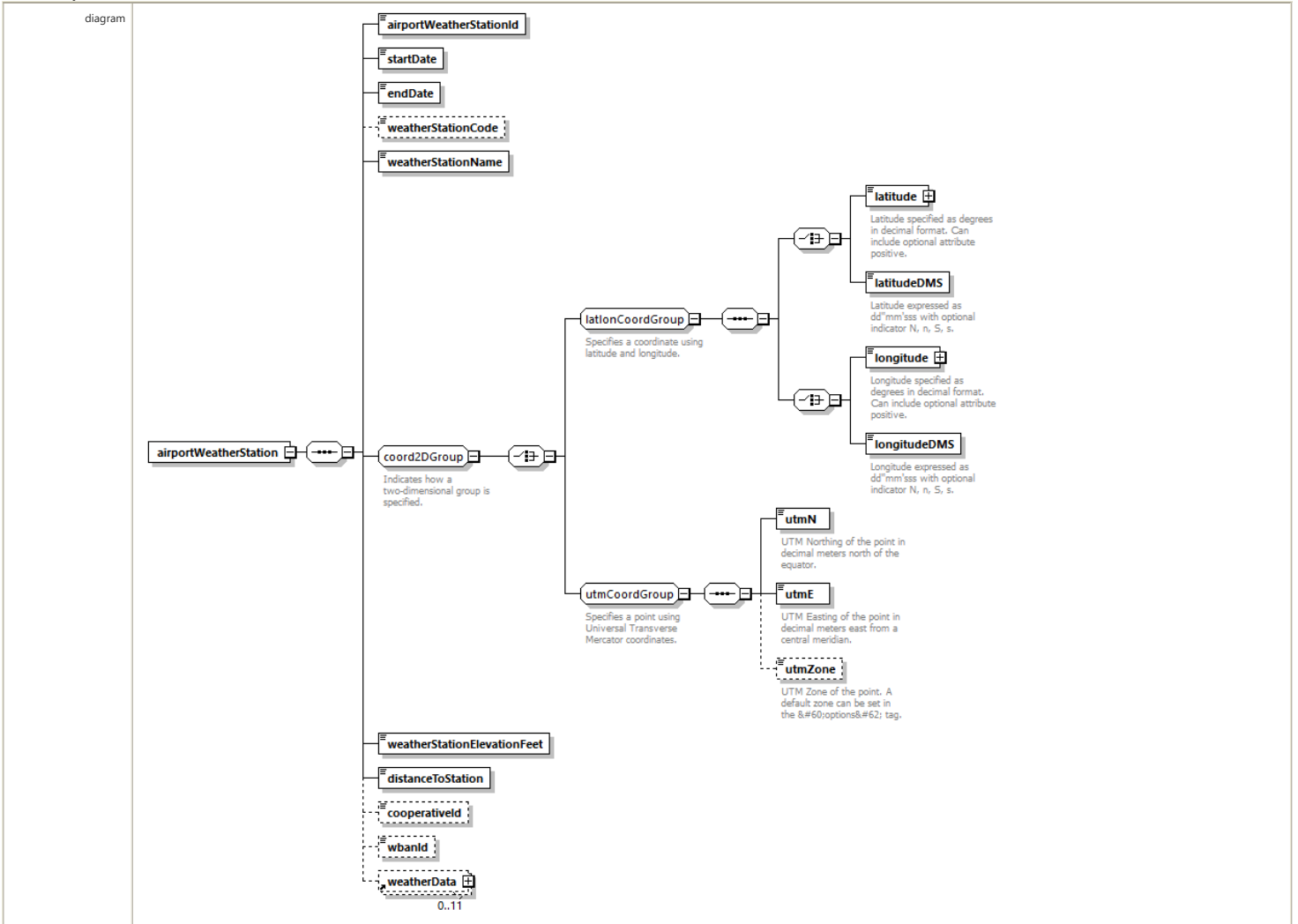
diagram	
properties	content complex
children	airportWeatherStationId airportWeatherStation
used by	complexType airport

element **airportWeather/airportWeatherStationId**

diagram	
type	xs:int

properties	content simple
------------	----------------

element **airportWeatherStation**



properties	content complex
children	airportWeatherStationId startDate endDate weatherStationCode weatherStationName latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone weatherStationElevationFeet distanceToStation cooperativeld wbandId 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/cooperativeld**

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

element **airportWeatherStation/wbanld**

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


element **annualizationCase/scaleFactor**

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

element **annualizationGroup**

diagram	
properties	content complex
children	weight scaleFactor annualizationGroup annualizationCase
used by	element annualization group annualizationGroupCase
annotation	documentation Contains one or more weighted annualization group cases.

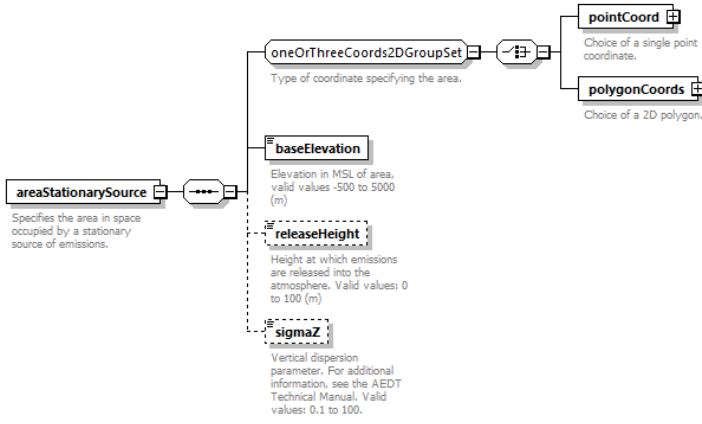
element **annualizationGroup/weight**

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

element **areaStationarySource**

diagram	 areaStationarySource Specifies the area in space occupied by a stationary source of emissions. The diagram shows a tree structure where areaStationarySource is the root. It has a child oneOrThreeCoords2DGroupSet (Type of coordinate specifying the area.) which branches into pointCoord (Choice of a single point coordinate.) and polygonCoords (Choice of a 2D polygon.). areaStationarySource also has children baseElevation (Elevation in MSL of area, valid values -500 to 5000 (m)), releaseHeight (Height at which emissions are released into the atmosphere. Valid values: 0 to 100 (m)), and sigmaZ (Vertical dispersion parameter. For additional information, see the AEDT Technical Manual. Valid values: 0.1 to 100.).
properties	content complex
children	pointCoord polygonCoords baseElevation releaseHeight sigmaZ
used by	element stationarySource
annotation	documentation Specifies the area in space occupied by a stationary source of emissions.


element **areaStationarySource/baseElevation**

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

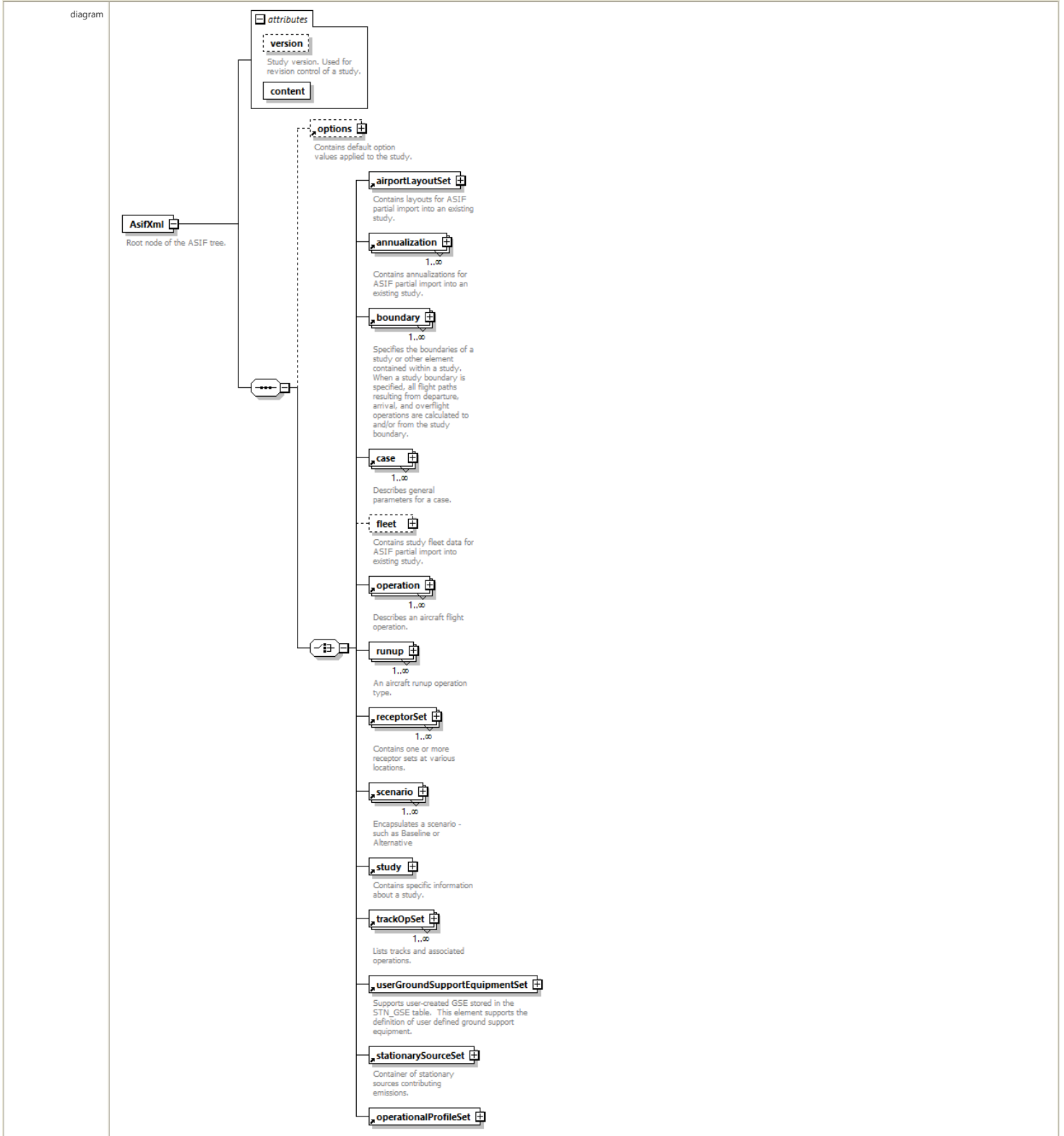
element **areaStationarySource/releaseHeight**

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

element **areaStationarySource/sigmaZ**

diagram	 <p>Vertical dispersion parameter. For additional information, see the AEDT Technical Manual. Valid values: 0.1 to 100.</p>
type	xsdouble
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Vertical dispersion parameter. For additional information, see the AEDT Technical 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	Type	Use	Default	Fixed	Annotation
	version	string16	optional			documentation Study version. Used for revision control of a study.
	content	derived by: xs:string	required			
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

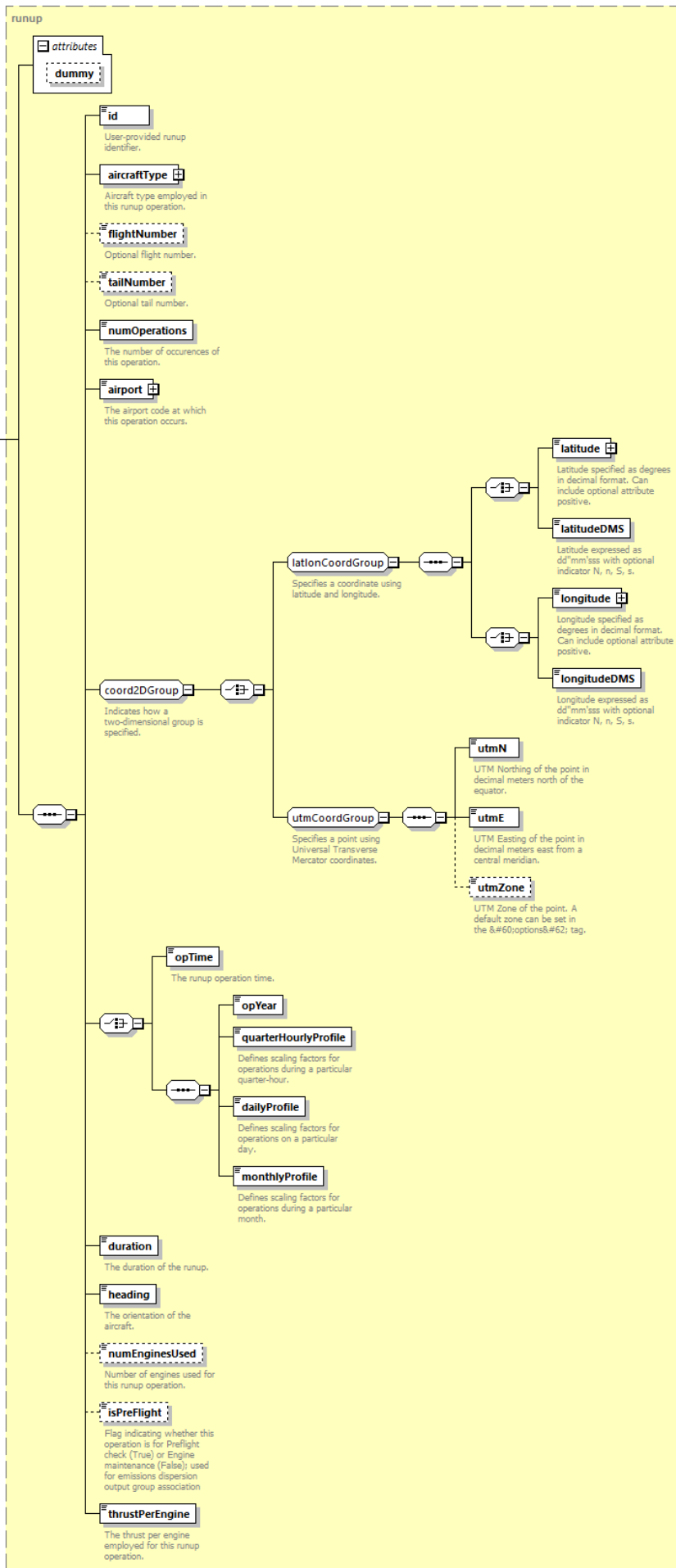
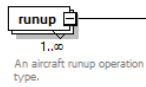


fleet 0..∞
Contains study fleet data for ASIF partial import into existing study.



type	fleet
properties	minOcc 0 maxOcc 1 content complex
children	auxiliaryPowerUnit airframe engine engineMod spectralClass appNoiseGroup appAirplane appElapsSet appThrustSet appProfileSet appHeloNoiseGroup appHelicopter appHeloDirectivitySet appHeloProfileSet badaAirplane badaAltitudeDistributionSet badaDefaultAltitudeDistributionSet badaProfileSet badaConfigSet badaFuel badaThrust bada4ProfileSet aircraft energyShare
annotation	documentation Contains study fleet data for ASIF partial import into existing study.

element **AsifXml/runup**



type	runup
properties	minOcc 1 maxOcc unbounded content complex
children	id aircraftType flightNumber tailNumber numOperations airport latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone opTime opYear quarterHourlyProfile dailyProfile monthlyProfile duration heading numEnginesUsed isPreFlight thrustPerEngine
attributes	Name Type Use Default Fixed Annotation dummy xs:int optional
annotation	documentation An aircraft runup operation type.

element **backbone**

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

element **backboneNode**

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

element **backboneNode/halfwidth**

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

element **backboneNodes**

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

element **boilerHeaterTypeCode**

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

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

element **boundary**

diagram	<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 .												
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	documentation 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.												

attribute **boundary/@dummy**

type	xs:int
properties	use optional

element **boundary/polygon**

diagram	
type	polygon2DType
properties	minOcc 1 maxOcc unbounded content complex
children	dummy vertex
annotation	documentation Set of coordinates defining the boundary.

element **building**

diagram	
properties	content complex
children	name elevation height releaseHeight pointCoord polygonCoords
used by	element buildingSet
annotation	documentation Supports data in the APTLAYOUT_BUILDING 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.


element **building/name**

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

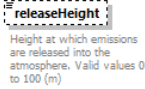
element **building/elevation**

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

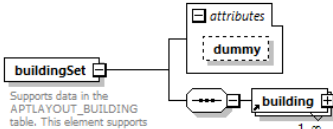
element **building/height**

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

element **building/releaseHeight**

diagram	
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>Supports data in the APTLAYOUT_BUILDING 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>Supports data in the APTLAYOUT_BUILDING 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	<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	documentation Supports data in the APTLAYOUT_BUILDING 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>The diagram shows a container element labeled capacityPoint. Inside this container, there are two child elements: arrivalsPerHour and departuresPerHour. The arrivalsPerHour child is described as "Number of arrivals per hour. Valid values: 0.00 to 400.00. (operations per hour)". The departuresPerHour child is described as "Number of departures per hour. Valid values: 0.00 to 400.00. (operations per hour)".</p> <p>Supports content related to the APTCONFIG table. This element supports the definition of airport capacities based on various points within an airport.</p>
properties	content complex
children	arrivalsPerHour departuresPerHour
used by	element airportCapacity
annotation	documentation Supports content related to the APTCONFIG table. This element supports the definition of airport capacities based on various points within an airport.

element **capacityPoint/arrivalsPerHour**

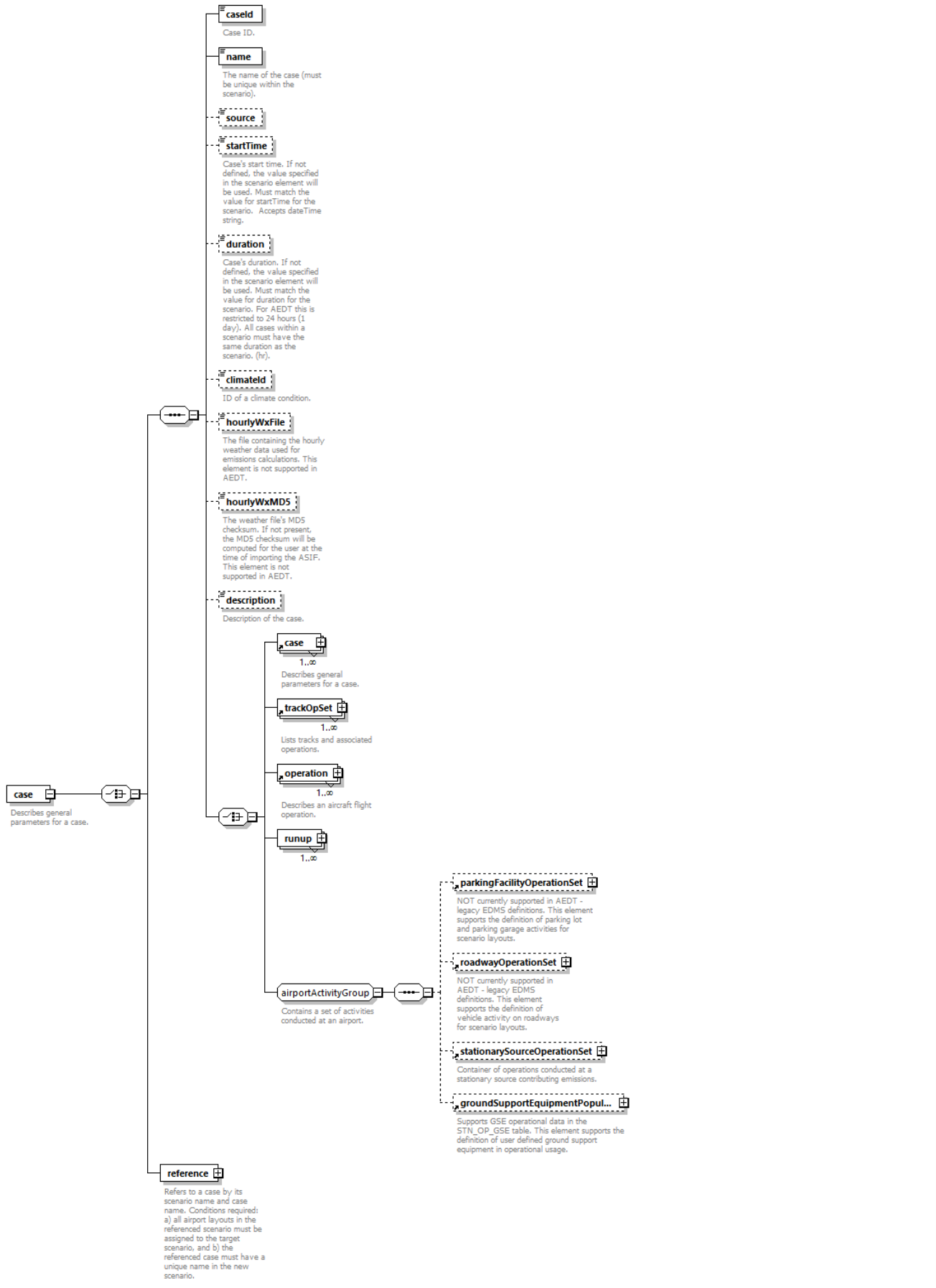
diagram	<p>The diagram shows a single child element labeled arrivalsPerHour with the description: "Number of arrivals per hour. Valid values: 0.00 to 400.00. (operations per hour)".</p>
type	xs:double
properties	content simple
annotation	documentation Number of arrivals per hour. Valid values: 0.00 to 400.00. (operations per hour)

element **capacityPoint/departuresPerHour**

diagram	<p>The diagram shows a single child element labeled departuresPerHour with the description: "Number of departures per hour. Valid values: 0.00 to 400.00. (operations per hour)".</p>
type	xs:double
properties	content simple
annotation	documentation Number of departures per hour. Valid values: 0.00 to 400.00. (operations per hour)

element **case**

diagram




properties content complex

children [caselid](#) [name](#) [source](#) [startTime](#) [duration](#) [climateId](#) [hourlyWxFile](#) [hourlyWxMDS](#) [description](#) [case](#) [trackOpSet](#) [operation](#) [runup](#) [parkingFacilityOperationSet](#) [roadwayOperationSet](#) [stationarySourceOperationSet](#) [groundSupportEquipmentPopulationOperationSet](#) [reference](#)


used by elements [AsifXml](#) [case](#) [caseSet](#)

annotation	documentation Describes general parameters for a case.
------------	---


element case/caseld

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

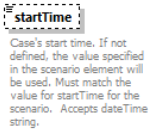
element case/name

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


element case/source

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

element case/startTime

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

element case/duration

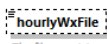
diagram	
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Case's duration. If not defined, the value specified in the scenario element will be used. Must match the value for duration for the scenario. For AEDT this is restricted to 24 hours (1 day). All cases within a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

element case/climateld

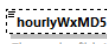
diagram	
type	string8

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

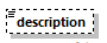
element **case/hourlyWxFile**

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

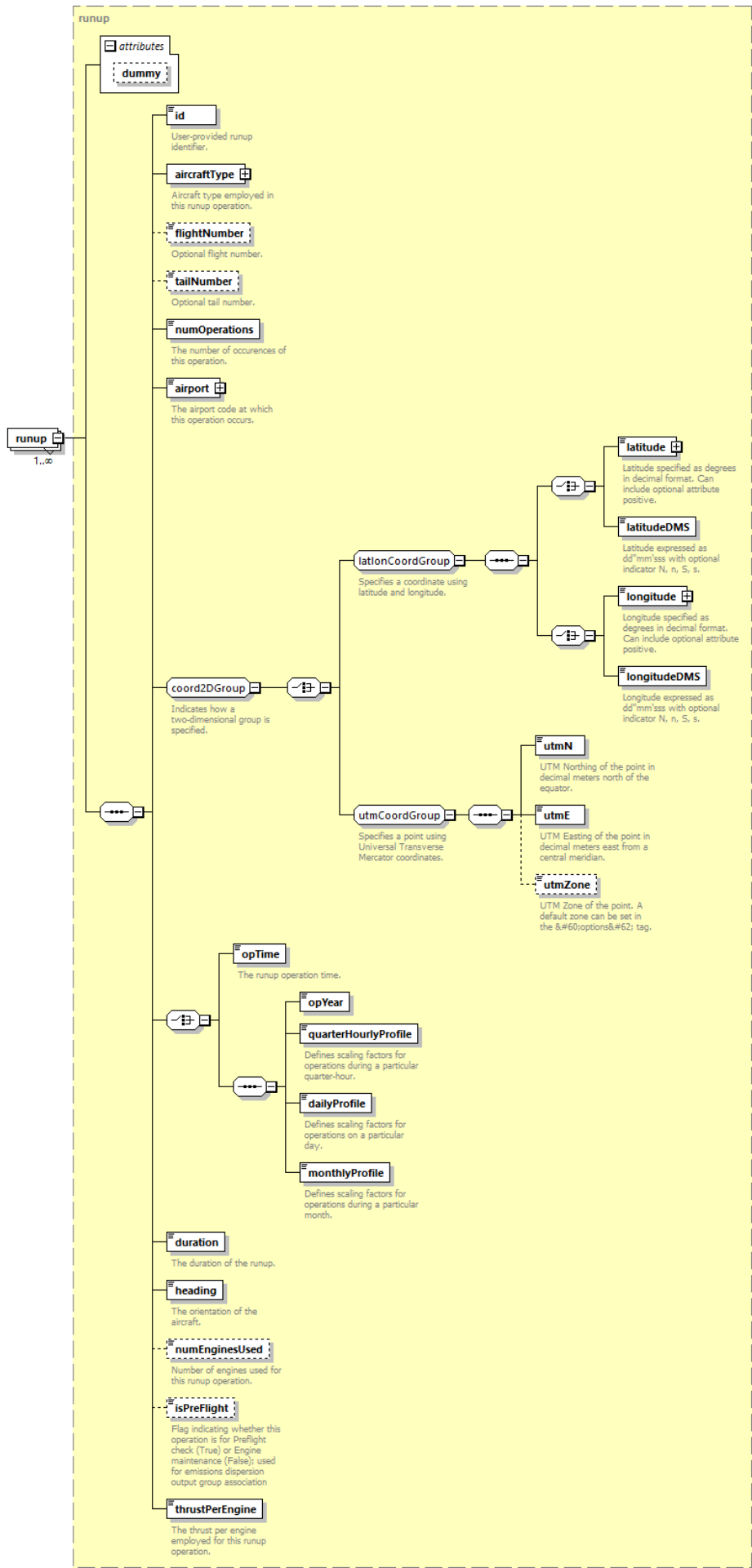
element **case/hourlyWxMD5**

diagram	 hourlyWxMD5 The weather file's MD5 checksum. If not present, the MD5 checksum will be computed for the user at the time of importing the ASIF. This element is not supported in AEDT.
type	string16
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 16
annotation	documentation The weather file's MD5 checksum. If not present, the MD5 checksum will be computed for the user at the time of importing the ASIF. This element is not supported in AEDT.

element **case/description**

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

element **case/runup**



type	runup												
properties	minOcc 1 maxOcc unbounded content complex												
children	id aircraftType flightNumber tailNumber numOperations airport latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone opTime opYear quarterHourlyProfile dailyProfile monthlyProfile duration heading numEnginesUsed isPreFlight thrustPerEngine												
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											

element [case/reference](#)

diagram	<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	documentation 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.

element [case/reference/refScenario](#)

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

element [case/reference/refCase](#)

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

element [caseSet](#)

diagram	<p>caseSet Placeholder for one or more cases.</p> <p>attributes dummy</p> <p>case 1..∞ Describes general parameters for a case.</p>												
properties	content complex												
children	case												
used by	element scenario												
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	documentation Placeholder for one or more cases.												

attribute [caseSet/@dummy](#)

type	xs:int
properties	use optional

element [categoryAircraftEngine](#)

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

element [categoryAircraftEngine/engineCode](#)

diagram	<pre> classDiagram class categoryAircraftEngine { <<abstract>> } class engineCode categoryAircraftEngine < -- engineCode </pre> <p>engineCode</p>
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255

element [categoryAircraftEngine/timePercentPower7](#)

diagram	<pre> classDiagram class categoryAircraftEngine { <<abstract>> } class timePercentPower7 { <<documentation>> Time at which engine is operating at 7% (taxi) power. Valid values: 0 to 1000. (min) } categoryAircraftEngine < -- timePercentPower7 </pre> <p>timePercentPower7 Time at which engine is operating at 7% (taxi) power. Valid values: 0 to 1000. (min)</p>
type	doubleExclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation Time at which engine is operating at 7% (taxi) power. Valid values: 0 to 1000. (min)

element [categoryAircraftEngine/timePercentPower30](#)

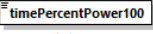
diagram	<pre> classDiagram class categoryAircraftEngine { <<abstract>> } class timePercentPower30 { <<documentation>> Time at which engine is operating at 30% (approach) power. Valid values: 0 to 1000. (min) } categoryAircraftEngine < -- timePercentPower30 </pre> <p>timePercentPower30 Time at which engine is operating at 30% (approach) power. Valid values: 0 to 1000. (min)</p>
type	doubleExclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation Time at which engine is operating at 30% (approach) power. Valid values: 0 to 1000. (min)

element [categoryAircraftEngine/timePercentPower85](#)

diagram	<pre> classDiagram class categoryAircraftEngine { <<abstract>> } class timePercentPower85 { <<documentation>> Time at which engine is operating at 85% (climbout) power. Valid values: 0 to 1000. (min) } categoryAircraftEngine < -- timePercentPower85 </pre> <p>timePercentPower85 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	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation

Time at which engine is operating at 85% (climbout) power. Valid values: 0 to 1000. (min)

element **categoryAircraftEngine/timePercentPower100**

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

element **categoryBoilerHeater**

diagram

boilerHeaterTypeCode

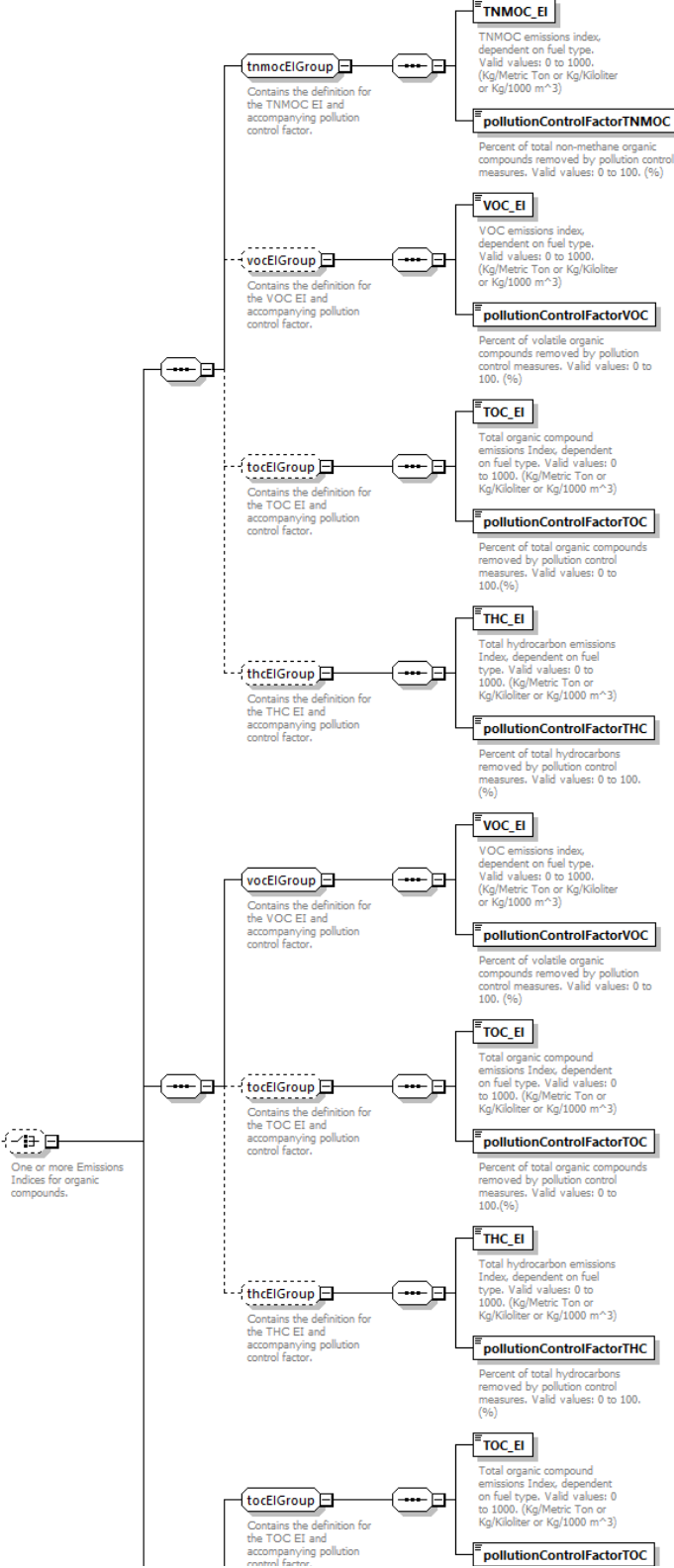
An integer value for the Boiler/Heater type represented. This value comes from the SUBCATEGORY_ID column of the STN_CATEGORY table in the AEDT FLEET database. Valid values: 1 to 27, 33 to 34, 38 to 62, 69 to 75, 80 to 91.

CO_EI

CO emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)

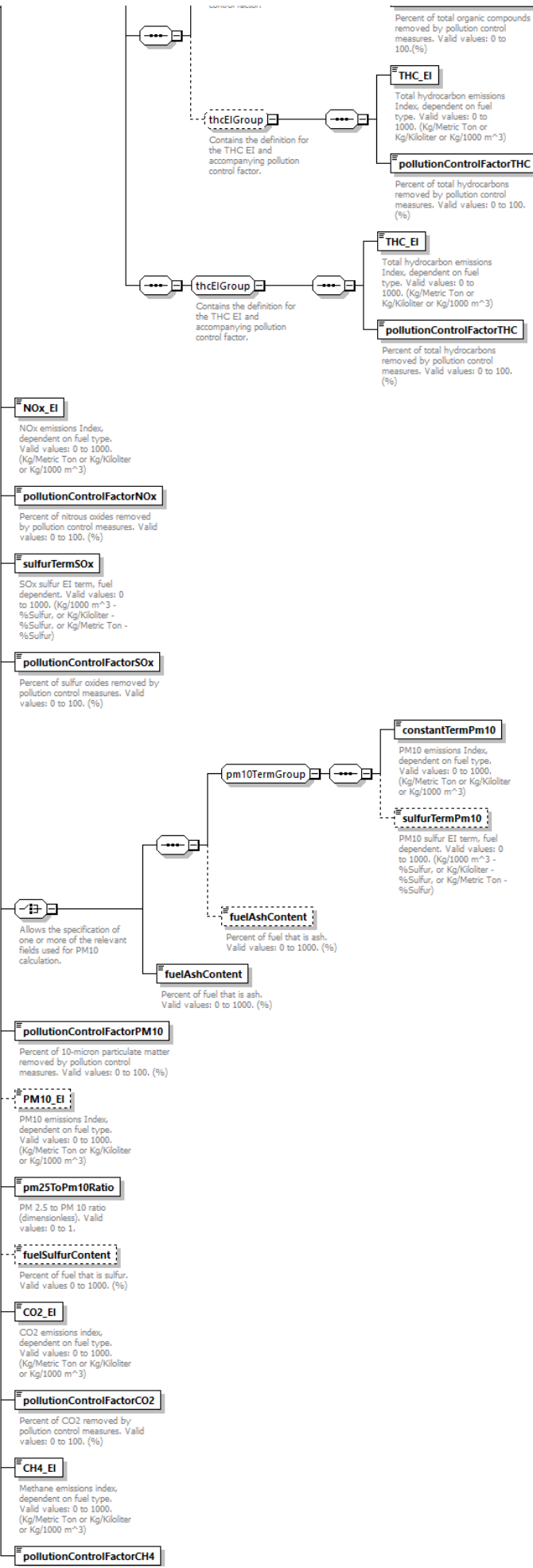
pollutionControlFactorCO

Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 100. (%)




categoryBoilerHeater

Describes the operational characteristics of a source in the boiler/heater category.




properties	content complex	Percent of CH4 removed by pollution control measures. Valid values: 0 to 100. (%)
children	boilerHeaterTypeCode CO_EI pollutionControlFactorCO TNMOC_EI pollutionControlFactorTNMOC VOC_EI pollutionControlFactorVOC TOC_EI pollutionControlFactorTOC THC_EI pollutionControlFactorTHC NOx_EI pollutionControlFactorNOx sulfurTermSOx pollutionControlFactorSOx constantTermPm10 sulfurTermPm10 fuelAshContent fuelAshContent pollutionControlFactorPM10 PM10_EI pm25ToPm10Ratio fuelSulfurContent CO2_EI pollutionControlFactorCO2 CH4_EI pollutionControlFactorCH4	
used by	element stationarySource	
annotation	documentation Describes the operational characteristics of a source in the boiler/heater category.	


element **categoryBoilerHeater/CO_EI**

diagram	 <p>CO emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)</p>	
type	doubleInclusive1000	
properties	content simple default 0	
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000	
annotation	documentation CO emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m ³)	


element **categoryBoilerHeater/pollutionControlFactorCO**

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


element **categoryBoilerHeater/NOx_EI**

diagram	 <p>NOx emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)</p>	
type	doubleInclusive1000	
properties	content simple default 0	
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000	
annotation	documentation NOx emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m ³)	

element **categoryBoilerHeater/pollutionControlFactorNOx**

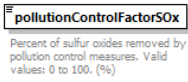
diagram	 <p>Percent of nitrous oxides removed by pollution control measures. Valid values: 0 to 100. (%)</p>	
type	doubleInclusive100	
properties	content simple default 0	
facets	Kind Value Annotation minInclusive 0 maxInclusive 100	
annotation	documentation Percent of nitrous oxides removed by pollution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

element **categoryBoilerHeater/sulfurTermSOx**

diagram	 <p>SOx sulfur EI term, fuel dependent. Valid values: 0 to 1000. (Kg/1000 m³ - %Sulfur, or Kg/Kiloliter - %Sulfur, or Kg/Metric Ton - %Sulfur)</p>	
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	
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 100. (%)

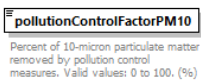
element **categoryBoilerHeater/fuelAshContent**

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

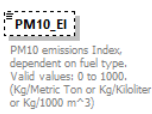
element **categoryBoilerHeater/fuelAshContent**

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

element **categoryBoilerHeater/pollutionControlFactorPM10**

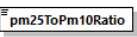
diagram	
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 100. (%)

element **categoryBoilerHeater/PM10_EI**

diagram	
type	doubleInclusive1000
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation

	minInclusive 0 maxInclusive 1000
annotation	documentation PM10 emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)


element **categoryBoilerHeater/pm25ToPm10Ratio**

diagram	 PM 2.5 to PM 10 ratio (dimensionless). Valid values: 0 to 1.
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). Valid values: 0 to 1.


element **categoryBoilerHeater/fuelSulfurContent**

diagram	 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. (%)


element **categoryBoilerHeater/CO2_EI**

diagram	 CO2 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 CO2 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)

element **categoryBoilerHeater/pollutionControlFactorCO2**

diagram	 Percent of CO2 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 CO2 removed by pollution control measures. Valid values: 0 to 100. (%)

element **categoryBoilerHeater/CH4_EI**

diagram	 Methane 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

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

element **categoryBoilerHeater/pollutionControlFactorCH4**

diagram	
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of CH4 removed by pollution control measures. Valid values: 0 to 100. (%)

element **categoryDeicingArea**

diagram	
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	
type	int1to4
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 4
annotation	documentation Equivalent to the SUBCATEGORY_ID in the FLEET STN_CATEGORY table for this particular category.

element **categoryDeicingArea/VOC_EI**

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

element **categoryDeicingArea/ethyleneGlycolDensity**

diagram	
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 horizontalFixedRoofTank verticalOrFloatingTank reidVaporPressure
used by	element stationarySource
annotation	documentation Describes the operational characteristics of a source in the fuel tank category.

element **categoryFuelTank/typeCode**

diagram	
type	int1to25
properties	content simple
facets	Kind Value Annotation minInclusive 1

	maxInclusive 25
annotation	documentation Equivalent to the SUBCATEGORY_ID in the FLEET STN_CATEGORY table for this particular category.

element **categoryFuelTank/tankDiameter**

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

element **categoryFuelTank/horizontalFixedRoofTank**

diagram	
properties	content complex
children	tankLength annualIncreaseInLiquidLevel
annotation	documentation Describes a horizontal fixed roof tank.

element **categoryFuelTank/horizontalFixedRoofTank/tankLength**

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

element **categoryFuelTank/horizontalFixedRoofTank/annualIncreaseInLiquidLevel**

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

element **categoryFuelTank/verticalOrFloatingTank**

diagram	
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properties	content complex
children	verticalFixedRoofTank maximumSolutionLevel tankHeight averageSolutionLevel meanWindSpeed
annotation	documentation Describes either a vertical fixed roof tank or a floating internal/external/domed roof tank.

element **categoryFuelTank/verticalOrFloatingTank/verticalFixedRoofTank**

diagram	
properties	minOcc 0 maxOcc 1 content complex
children	annualIncreaseInLiquidLevel coneRoof domeRoof
annotation	documentation Describes a vertical fixed roof tank.

element **categoryFuelTank/verticalOrFloatingTank/verticalFixedRoofTank/annualIncreaseInLiquidLevel**

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

element **categoryFuelTank/verticalOrFloatingTank/verticalFixedRoofTank/coneRoof**

diagram	
properties	content complex
children	roofSlope
annotation	documentation A vertical fixed tank with a cone roof


element **categoryFuelTank/verticalOrFloatingTank/verticalFixedRoofTank/coneRoof/roofSlope**

diagram	
type	doubleInclusive1
properties	content simple default 0.0625
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation Slope of the cone roof. Default of 0.0625


element **categoryFuelTank/verticalOrFloatingTank/verticalFixedRoofTank/domeRoof**

diagram	
properties	content complex
children	domeRadius
annotation	documentation A vertical fixed roof tank with a dome roof


element **categoryFuelTank/verticalOrFloatingTank/verticalFixedRoofTank/domeRoof/domeRadius**

diagram	 domeRadius Radius of the dome roof in meters. Default value can be assumed to be the tank radius.
type	doubleInclusive500
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 500
annotation	documentation Radius of the dome roof in meters. Default value can be assumed to be the tank radius.

element **categoryFuelTank/verticalOrFloatingTank/maximumSolutionLevel**

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


element **categoryFuelTank/verticalOrFloatingTank/tankHeight**

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

element **categoryFuelTank/verticalOrFloatingTank/averageSolutionLevel**

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

element **categoryFuelTank/verticalOrFloatingTank/meanWindSpeed**

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

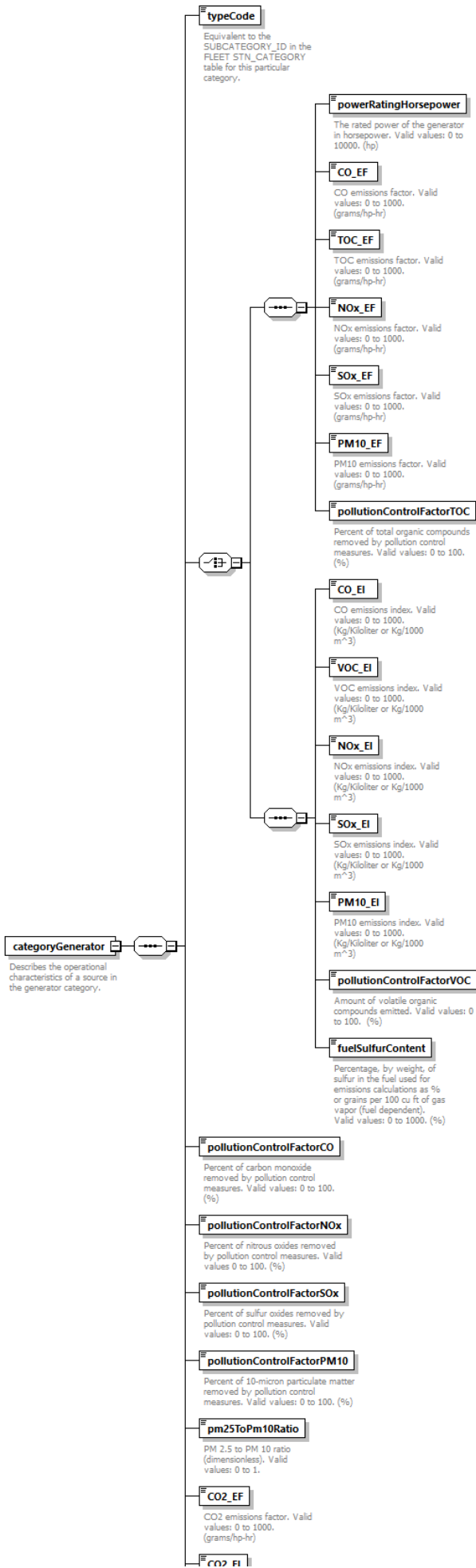
element **categoryFuelTank/reidVaporPressure**

diagram	 reidVaporPressure Reid vapor pressure. Valid values: 5 to 15. (PSI)
type	int5to15

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

element **categoryGenerator**

diagram



	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> CO2_EI CO2 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³) </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> pollutionControlFactorCO2 Percent of CO2 removed by pollution control measures. Valid values: 0 to 100. (%) </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> CH4_EF Methane emissions factor. Valid values: 0 to 1000. (grams/hp-hr) </div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;"> CH4_EI Methane emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³) </div> <div style="border: 1px solid black; padding: 5px;"> pollutionControlFactorCH4 Percent of CH4 removed by pollution control measures. Valid values: 0 to 100. (%) </div>
properties	content complex
children	typeCode powerRatingHorsepower CO_EF TOC_EF NOx_EF SOx_EF PM10_EF pollutionControlFactorTOC CO_EI VOC_EI NOx_EI SOx_EI PM10_EI pollutionControlFactorVOC fuelSulfurContent pollutionControlFactorCO pollutionControlFactorNOx pollutionControlFactorSOx pollutionControlFactorPM10 pm25ToPm10Ratio CO2_EF CO2_EI pollutionControlFactorCO2 CH4_EF CH4_EI pollutionControlFactorCH4
used by	element stationarySource
annotation	documentation Describes the operational characteristics of a source in the generator category.

element **categoryGenerator/typeCode**

diagram	<div style="border: 1px solid black; padding: 5px;"> typeCode Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category. </div>
type	int1to8
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 8
annotation	documentation Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category.

element **categoryGenerator/powerRatingHorsepower**

diagram	<div style="border: 1px solid black; padding: 5px;"> powerRatingHorsepower The rated power of the generator in horsepower. Valid values: 0 to 10000. (hp) </div>
type	doubleInclusive10000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 10000
annotation	documentation The rated power of the generator in horsepower. Valid values: 0 to 10000. (hp)

element **categoryGenerator/CO_EF**

diagram	<div style="border: 1px solid black; padding: 5px;"> CO_EF CO emissions factor. Valid values: 0 to 1000. (grams/hp-hr) </div>
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation CO emissions factor. Valid values: 0 to 1000. (grams/hp-hr)

element **categoryGenerator/TOC_EF**

diagram	<div style="border: 1px solid black; padding: 5px;"> TOC_EF TOC emissions factor. Valid values: 0 to 1000. (grams/hp-hr) </div>
type	doubleInclusive1000
properties	content simple

	default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation TOC emissions factor. Valid values: 0 to 1000. (grams/hp-hr)

element **categoryGenerator/NOx_EF**

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


element **categoryGenerator/SOx_EF**

diagram	 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 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	 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 **categoryGenerator/CO_EI**

diagram	 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)
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element **categoryGenerator/VOC_EI**

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

element **categoryGenerator/NOx_EI**

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

element **categoryGenerator/SOx_EI**

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

element **categoryGenerator/PM10_EI**

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

element **categoryGenerator/pollutionControlFactorVOC**

diagram	 Amount of volatile organic compounds emitted. Valid values: 0 to 100. (%)
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 100. (%)

element **categoryGenerator/fuelSulfurContent**

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

element **categoryGenerator/pollutionControlFactorCO**

diagram	pollutionControlFactorCO Percent of carbon monoxide 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 carbon monoxide removed by pollution control measures. Valid values: 0 to 100. (%)

element **categoryGenerator/pollutionControlFactorNOx**

diagram	pollutionControlFactorNOx Percent of nitrous oxides 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 nitrous oxides removed by pollution control measures. Valid values 0 to 100. (%)

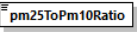
element **categoryGenerator/pollutionControlFactorSOx**

diagram	pollutionControlFactorSOx Percent of sulfur oxides 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 sulfur oxides removed by pollution control measures. Valid values: 0 to 100. (%)

element **categoryGenerator/pollutionControlFactorPM10**

diagram	pollutionControlFactorPM10 Percent of 10-micron particulate matter 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 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 100. (%)


element **categoryGenerator/pm25ToPm10Ratio**

diagram	 PM 2.5 to PM 10 ratio (dimensionless). Valid values: 0 to 1.
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). Valid values: 0 to 1.


element categoryGenerator/CO2_EF

diagram	 CO2 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 CO2 emissions factor. Valid values: 0 to 1000. (grams/hp-hr)


element categoryGenerator/CO2_EI

diagram	 CO2 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 CO2 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)


element categoryGenerator/pollutionControlFactorCO2

diagram	 Percent of CO2 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 CO2 removed by pollution control measures. Valid values: 0 to 100. (%)


element categoryGenerator/CH4_EF

diagram	 Methane 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 Methane emissions factor. Valid values: 0 to 1000. (grams/hp-hr)

element categoryGenerator/CH4_EI

diagram	 <p>CH4_EI Methane 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 Methane emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)

element **categoryGenerator/pollutionControlFactorCH4**

diagram	 <p>pollutionControlFactorCH4 Percent of CH4 removed by pollution control measures. Valid values: 0 to 100. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of CH4 removed by pollution control measures. Valid values: 0 to 100. (%)

element **categoryIncinerator**


diagram	<p>categoryIncinerator Describes the operational characteristics of a source in the incinerator category.</p> <ul style="list-style-type: none"> typeCode: Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category. CO_EI: CO emissions index. Valid values: 0 to 1000. (Kg/Metric Ton) 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 m³) NOx_EI: NOx emissions index. Valid values: 0 to 1000. (Kg/Metric Ton) SOx_EI: SOx emissions index. Valid values: 0 to 1000. (Kg/Metric Ton) PM10_EI: PM10 emissions index. Valid values: 0 to 1000. (Kg/Metric Ton) pollutionControlFactorCO: Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 100. (%) pollutionControlFactorTOC: Percent of total organic compounds removed by pollution control measures. Valid values: 0 to 100. (%) pollutionControlFactorNOx: Percent of nitrous oxides removed by pollution control measures. Valid values: 0 to 100. (%) pollutionControlFactorSOx: Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 100. (%) pollutionControlFactorPM10: Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 100. (%) pm25ToPm10Ratio: PM2.5 to PM10 ratio (dimensionless). Valid values: 0 to 1. CO2_EI: CO2 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³) pollutionControlFactorCO2: Percent of CO2 removed by pollution control measures. Valid values: 0 to 100. (%) CH4_EI: Methane emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³) pollutionControlFactorCH4: Percent of CH4 removed by pollution control measures. Valid values: 0 to 100. (%)
properties	content complex
children	typeCode CO_EI TOC_EI NOx_EI SOx_EI PM10_EI pollutionControlFactorCO pollutionControlFactorTOC pollutionControlFactorNOx pollutionControlFactorSOx pollutionControlFactorPM10 pm25ToPm10Ratio CO2_EI pollutionControlFactorCO2 CH4_EI pollutionControlFactorCH4
used by	element stationarySource
annotation	documentation Describes the operational characteristics of a source in the incinerator category.

element [categoryIncinerator/typeCode](#)


diagram	<p>typeCode Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category.</p>
type	int1to2
properties	content simple
facets	Kind Value Annotation

	minInclusive 1 maxInclusive 2
annotation	documentation Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category.

element **categoryIncinerator/CO_EI**

diagram	 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/TOC_EI**

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

element **categoryIncinerator/NOx_EI**

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


element **categoryIncinerator/PM10_EI**

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


element categoryIncinerator/pollutionControlFactorCO

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

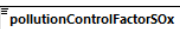
element categoryIncinerator/pollutionControlFactorTOC

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

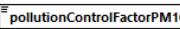
element categoryIncinerator/pollutionControlFactorNOx

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

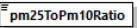
element categoryIncinerator/pollutionControlFactorSOx

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


element categoryIncinerator/pollutionControlFactorPM10

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


element categoryIncinerator/pm25ToPm10Ratio

diagram	 PM2.5 to PM10 ratio (dimensionless). Valid values: 0 to 1.
type	doubleInclusive1
properties	content simple default 1
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation PM2.5 to PM10 ratio (dimensionless). Valid values: 0 to 1.


element **categoryIncinerator/CO2_EI**

diagram	 CO2 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 CO2 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)


element **categoryIncinerator/pollutionControlFactorCO2**

diagram	 Percent of CO2 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 CO2 removed by pollution control measures. Valid values: 0 to 100. (%)

element **categoryIncinerator/CH4_EI**

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

element **categoryIncinerator/pollutionControlFactorCH4**

diagram	 Percent of CH4 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 CH4 removed by pollution control measures. Valid values: 0 to 100. (%)

element **categoryOther**

diagram




properties content complex

children [fuelUnits](#) [CO_EI](#) [THC_EI](#) [NOx_EI](#) [SOx_EI](#) [PM10_EI](#) [pollutionControlFactorCO](#) [pollutionControlFactorTHC](#) [pollutionControlFactorNOx](#) [pollutionControlFactorSOx](#) [pollutionControlFactorPM10](#) [CO2_EI](#) [pollutionControlFactorCO2](#) [CH4_EI](#) [pollutionControlFactorCH4](#) [PM25_EI](#) [pollutionControlFactorPM25](#)


used by element [stationarySource](#)

annotation documentation
Describes the operational characteristics of a source in the "other" category.


element [categoryOther/fuelUnits](#)

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

element **categoryOther/NOx_EI**

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

element **categoryOther/SOx_EI**

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

element **categoryOther/PM10_EI**

diagram	PM10_EI PM10 emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation PM10 emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit)

element categoryOther/pollutionControlFactorCO

diagram	pollutionControlFactorCO Percent of carbon monoxide 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 carbon monoxide removed by pollution control measures. Valid values: 0 to 100. (%)

element categoryOther/pollutionControlFactorTHC

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

element categoryOther/pollutionControlFactorNOx

diagram	pollutionControlFactorNOx Percent of nitrous oxides 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 nitrous oxides removed by pollution control measures. Valid values: 0 to 100. (%)

element categoryOther/pollutionControlFactorSOx


diagram	pollutionControlFactorSOx Percent of sulfur oxides 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 sulfur oxides removed by pollution control measures. Valid values: 0 to 100. (%)

element categoryOther/pollutionControlFactorPM10


diagram	pollutionControlFactorPM10 Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 100. (%)
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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 100. (%)


element **categoryOther/CO2_EI**

diagram	 CO2_EI CO2 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 CO2 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)

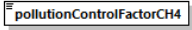
element **categoryOther/pollutionControlFactorCO2**

diagram	 pollutionControlFactorCO2 Percent of CO2 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 CO2 removed by pollution control measures. Valid values: 0 to 100. (%)


element **categoryOther/CH4_EI**

diagram	 CH4_EI Methane 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 Methane emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)

element **categoryOther/pollutionControlFactorCH4**

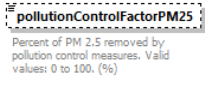
diagram	 pollutionControlFactorCH4 Percent of CH4 removed by pollution control measures. Valid values: 0 to 100. (%)
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of CH4 removed by pollution control measures. Valid values: 0 to 100. (%)

element **categoryOther/PM25_EI**

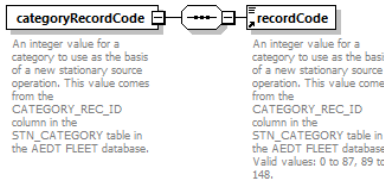
diagram	 PM25_EI PM 2.5 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)
type	doubleInclusive1000
properties	minOcc 0

	maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation PM 2.5 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)

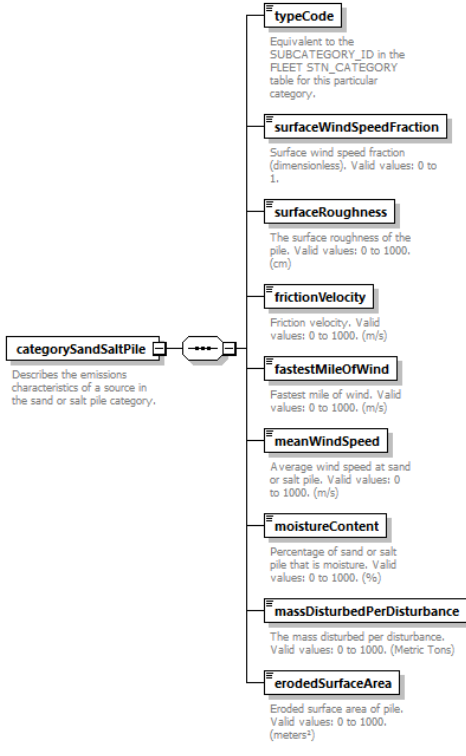
element **categoryOther/pollutionControlFactorPM25**

diagram	
type	doubleInclusive100
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of PM 2.5 removed by pollution control measures. Valid values: 0 to 100. (%)


element **categoryRecordCode**

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


element **categorySandSaltPile/surfaceWindSpeedFraction**

diagram	 surfaceWindSpeedFraction Surface wind speed fraction (dimensionless). Valid values: 0 to 1.
type	doubleInclusive1
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation Surface wind speed fraction (dimensionless). Valid values: 0 to 1.

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)
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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	
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. (%)

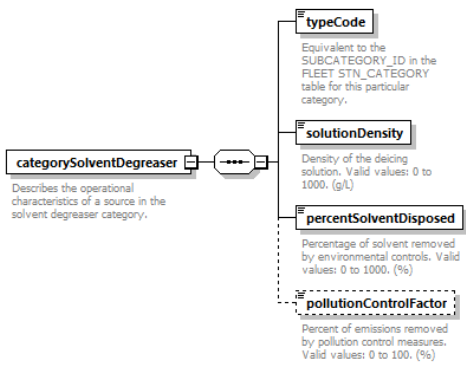
element **categorySandSaltPile/massDisturbedPerDisturbance**

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


element **categorySolventDegreaser/typeCode**

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


element **categorySolventDegreaser/solutionDensity**

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

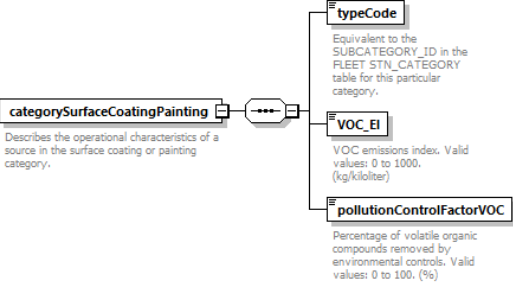
element **categorySolventDegreaser/percentSolventDisposed**

diagram	 <p>Percentage of solvent removed by environmental controls. Valid values: 0 to 1000. (%)</p>
type	xsdouble
properties	content simple default 0
annotation	documentation Percentage of solvent removed by environmental controls. Valid values: 0 to 1000. (%)

element **categorySolventDegreaser/pollutionControlFactor**

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

element **categorySurfaceCoatingPainting**

diagram	 <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**

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

element **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 100. (%)
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 100. (%)

element **categoryTrainingFire**

diagram	<p>categoryTrainingFire Supports data in the STN_TRAINING_FIRE table. This element supports the definition of training fires for scenario layouts. Training fire data are used in both emissions and dispersion analyses.</p> <p>typeCode Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category.</p> <p>CO_EI Carbon monoxide emissions index. Valid values: 0 to 10. (kg/gal)</p> <p>VOC_EI Volatile organic compounds emissions index. Valid values: 0 to 10. (kg/gal)</p> <p>NOx_EI Nitrous oxides emissions index. Valid values: 0 to 10. (kg/gal)</p> <p>SOx_EI Sulfur oxides emissions index. Valid values: 0 to 10. (kg/gal)</p> <p>PM10_EI 10-micron particulate matter emissions index. Valid values: 0 to 10. (kg/gal)</p> <p>CO2_EI CO2 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)</p> <p>CH4_EI Methane emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)</p> <p>PM25_EI PM 2.5 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)</p>
properties	content complex
children	typeCode CO_EI VOC_EI NOx_EI SOx_EI PM10_EI CO2_EI CH4_EI PM25_EI
used by	element stationarySource
annotation	documentation Supports data in the STN_TRAINING_FIRE table. This element supports the definition of training fires for scenario layouts. Training fire data are used in both emissions and dispersion analyses.

element [categoryTrainingFire/typeCode](#)

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

element [categoryTrainingFire/CO_EI](#)

diagram	<p>CO_EI Carbon monoxide emissions index. Valid values: 0 to 10. (kg/gal)</p>
type	xs:double
properties	content simple
annotation	documentation Carbon monoxide emissions index. Valid values: 0 to 10. (kg/gal)

element [categoryTrainingFire/VOC_EI](#)


diagram	<p>VOC_EI Volatile organic compounds emissions index. Valid values: 0 to 10. (kg/gal)</p>
type	xs:double
properties	content simple
annotation	documentation

Volatile organic compounds emissions index. Valid values: 0 to 10. (kg/gal)


element **categoryTrainingFire/NOx_EI**

diagram	 Nitrous oxides emissions index. Valid values: 0 to 10. (kg/gal)
type	xs:double
properties	content simple
annotation	documentation Nitrous oxides emissions index. Valid values: 0 to 10. (kg/gal)


element **categoryTrainingFire/SOx_EI**

diagram	 Sulfur oxides emissions index. Valid values: 0 to 10. (kg/gal)
type	xs:double
properties	content simple
annotation	documentation Sulfur oxides emissions index. Valid values: 0 to 10. (kg/gal)


element **categoryTrainingFire/PM10_EI**

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


element **categoryTrainingFire/CO2_EI**

diagram	 CO2 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 CO2 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m ³)

element **categoryTrainingFire/CH4_EI**

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

element **categoryTrainingFire/PM25_EI**

diagram	 PM 2.5 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 PM 2.5 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)
------------	--

element **centroid**

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

element **centroid/countyFips**

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

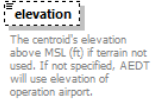
element **centroid/blockId**

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


element **centroid/bnald**

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

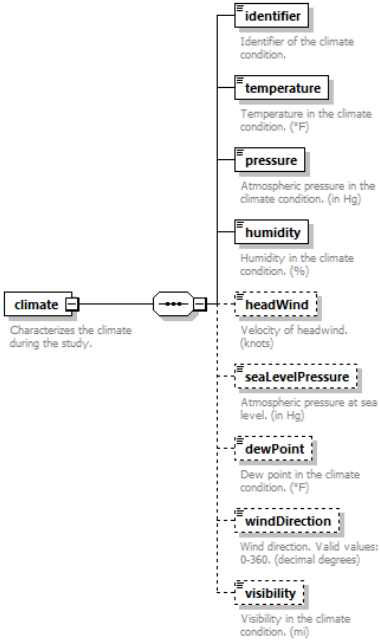
element **centroid/elevation**

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

element **climate**

diagram	
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.

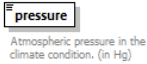
element **climate/identifier**

diagram	
type	string8
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation Identifier of the climate condition.

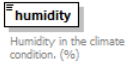
element **climate/temperature**

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


element **climate/pressure**

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

element **climate/humidity**

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

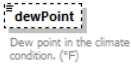
element **climate/headWind**

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

element **climate/seaLevelPressure**

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

element **climate/dewPoint**

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

annotation	documentation Dew point in the climate condition. (°F)
------------	---

element **climate/windDirection**

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

element **climate/visibility**

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

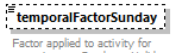
element **dailyProfile**

diagram	
properties	content complex
children	profileName temporalFactorSunday temporalFactorMonday temporalFactorTuesday temporalFactorWednesday temporalFactorThursday temporalFactorFriday temporalFactorSaturday
used by	element dailyProfileSet
annotation	documentation Supports data in the APTPROFILE_DAILY. This element supports the definition of temporal factors on a daily operational basis.

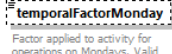
element **dailyProfile/profileName**

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

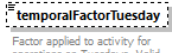
element **dailyProfile/temporalFactorSunday**

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.

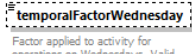
element **dailyProfile/temporalFactorMonday**

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.

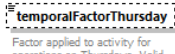
element **dailyProfile/temporalFactorTuesday**

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

element **dailyProfileSet**

diagram	<p>Supports the definition and use of data in the APTPROFILE_DAILY table for the daily variation of operations.</p> <p>Supports data in the APTPROFILE_DAILY. This element supports the definition of temporal factors on a daily operational basis.</p>												
properties	content complex												
children	dailyProfile												
used by	element operationalProfileSet complexType airportLayoutType												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	documentation Supports the definition and use of data in the APTPROFILE_DAILY table 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>The diagram shows a tree structure for dispersionWeight3Type. A root node dispersionWeight3 is connected to a dashed box containing the type structure. Inside the dashed box, the root backbone (described as 'Represents the centerline of a set of dispersed tracks.') has two children: weight1 (described as 'Specify the dispersion weight for the first left subtrack.') and weight1 (described as 'Specify the dispersion weight for the first right subtrack.').</p>
type	dispersionWeight3Type
properties	content complex
children	backbone weight1 weight1

element **dispersionWeight/dispersionWeight5**

diagram	<p>The diagram shows a tree structure for dispersionWeight5Type. A root node dispersionWeight5 is connected to a dashed box containing the type structure. Inside the dashed box, the root backbone (described as 'Represents the centerline of a set of dispersed tracks.') has three children: weight1 (described as 'Specify the dispersion weight for the first left subtrack.'), weight1 (described as 'Specify the dispersion weight for the first right subtrack.'), and weight2 (described as 'Specify the dispersion weight for the second left subtrack.'). The weight2 node has a child weight2 (described as 'Specify the dispersion weight for the second right subtrack.').</p>
type	dispersionWeight5Type
properties	content complex
children	backbone weight1 weight1 weight2 weight2

element **dispersionWeight/dispersionWeight7**

diagram	<p>The diagram shows a tree structure for dispersionWeight7Type. A root node dispersionWeight7 is connected to a dashed box containing the type structure. Inside the dashed box, the root backbone (described as 'Represents the centerline of a set of dispersed tracks.') has four children: weight1 (described as 'Specify the dispersion weight for the first left subtrack.'), weight1 (described as 'Specify the dispersion weight for the first right subtrack.'), weight2 (described as 'Specify the dispersion weight for the second left subtrack.'), and weight2 (described as 'Specify the dispersion weight for the second right subtrack.'). The weight2 node has two children: weight3 (described as 'Specify the dispersion weight for the third left subtrack.') and weight3 (described as 'Specify the dispersion weight for the third right subtrack.').</p>
type	dispersionWeight7Type
properties	content complex
children	backbone weight1 weight1 weight2 weight2 weight3 weight3

element **dispersionWeight/dispersionWeight9**

diagram	<p>The diagram shows a hierarchical structure for dispersionWeight9Type. It starts with a backbone element, which represents the centerline of a set of dispersed tracks. Below the backbone are four pairs of subtracks. Each pair is defined by a weight element (left) and a weightr element (right). The pairs are labeled weight1/weightr1, weight2/weightr2, weight3/weightr3, and weight4/weightr4. Each weight element specifies the dispersion weight for its respective subtrack.</p>
type	dispersionWeight9Type
properties	content complex
children	backbone weight1 weightr1 weight2 weightr2 weight3 weightr3 weight4 weightr4

element **emissionsUsage**

diagram	<p>The diagram illustrates the emissionsUsage element. It contains a yearlyValue element (Annualized amount of emissions), an activityProfile element (An activity profile type, e.g., reference to one of hourlyProfile, dailyProfile or weeklyProfile), and a hourlyValue element (Hourly amount of emissions). The hourlyValue element is further detailed with a byPeakQuarterHour element, which indicates if the hourly value is the peak hourly value.</p>
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	<p>The diagram shows the yearlyValue element, representing the 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>The diagram shows the hourlyValue element, representing the Hourly amount of emissions.</p>
type	xs:double

properties	content simple
annotation	documentation Hourly amount of emissions.

element **emissionsUsage/byPeakQuarterHour**

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

element **engineModeEmissionFactors**

diagram	<p>engineModeEmissionFactors</p> <p>NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of custom emission factor elements.</p> <ul style="list-style-type: none"> time: Time engine operates in a given mode. Valid values: nonnegative. (minutes) fuel: Rate of fuel burn in given mode. Valid values: nonnegative. (kg/s) CO: Amount of carbon monoxide emitted. Valid values: nonnegative. (kg/s) HC: Amount of hydrocarbons emitted. Valid values: nonnegative. (kg/s) NOx: Amount of nitrous oxide emitted. Valid values: nonnegative. (kg/s) PM: Amount of particulate matter emitted. Valid values: nonnegative. (kg/s) SN: Smoke number for the engine mode. Valid values: nonnegative. (kg/s)
properties	content complex
children	time fuel CO HC NOx PM SN
annotation	documentation NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of custom emission factor elements.

element **engineModeEmissionFactors/time**

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

element **engineModeEmissionFactors/fuel**

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

element **engineModeEmissionFactors/CO**

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


element **engineModeEmissionFactors/HC**

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


element **engineModeEmissionFactors/NOx**

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

element **engineModeEmissionFactors/PM**

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

element **engineModeEmissionFactors/SN**

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

Smoke number for the engine mode. Valid values: nonnegative. (kg/s)

element **gate**

diagram	<p>gate</p> <p>Supports data contained in the APTLAYOUT_GATE table. This element supports the definition of gates within an airport layout. In dispersion analyses, GSE, AGE, and APU emissions originate from the gate locations. Gates are needed for sequence modeling, which includes all dispersion analyses.</p> <p>name</p> <p>Identifying name of gate.</p> <p>elevation</p> <p>Gate's elevation above mean sea level in meters. 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: Variable, by airport. (m)</p> <p>sigmaY</p> <p>Horizontal dispersion parameter. For additional information, see the AEDT Technical Manual. Valid values: Variable, by airport. (m)</p> <p>sigmaZ</p> <p>Vertical dispersion parameter. For additional information, see the AEDT Technical Manual. Valid values: Variable, by airport. (m)</p> <p>oneOrThreeCoords2DGroupSet</p> <p>Type of coordinate specifying the area.</p> <p>pointCoord</p> <p>Choice of a single point coordinate.</p> <p>polygonCoords</p> <p>Choice of a 2D polygon.</p>
properties	content complex
children	name elevation releaseHeight sigmaY sigmaZ pointCoord polygonCoords
used by	element gateSet
annotation	documentation Supports data contained in the APTLAYOUT_GATE 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 **gate/name**

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


element **gate/elevation**

diagram	<p>elevation</p> <p>Gate's elevation above mean sea level in meters. Valid values: -500 to 5000. (m)</p>
type	xs:double
properties	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	<p>releaseHeight</p> <p>Height above ground level at which emissions are released into the atmosphere. Valid values: Variable, by airport. (m)</p>
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)

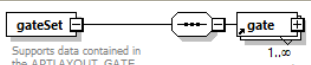
element **gate/sigmaY**

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

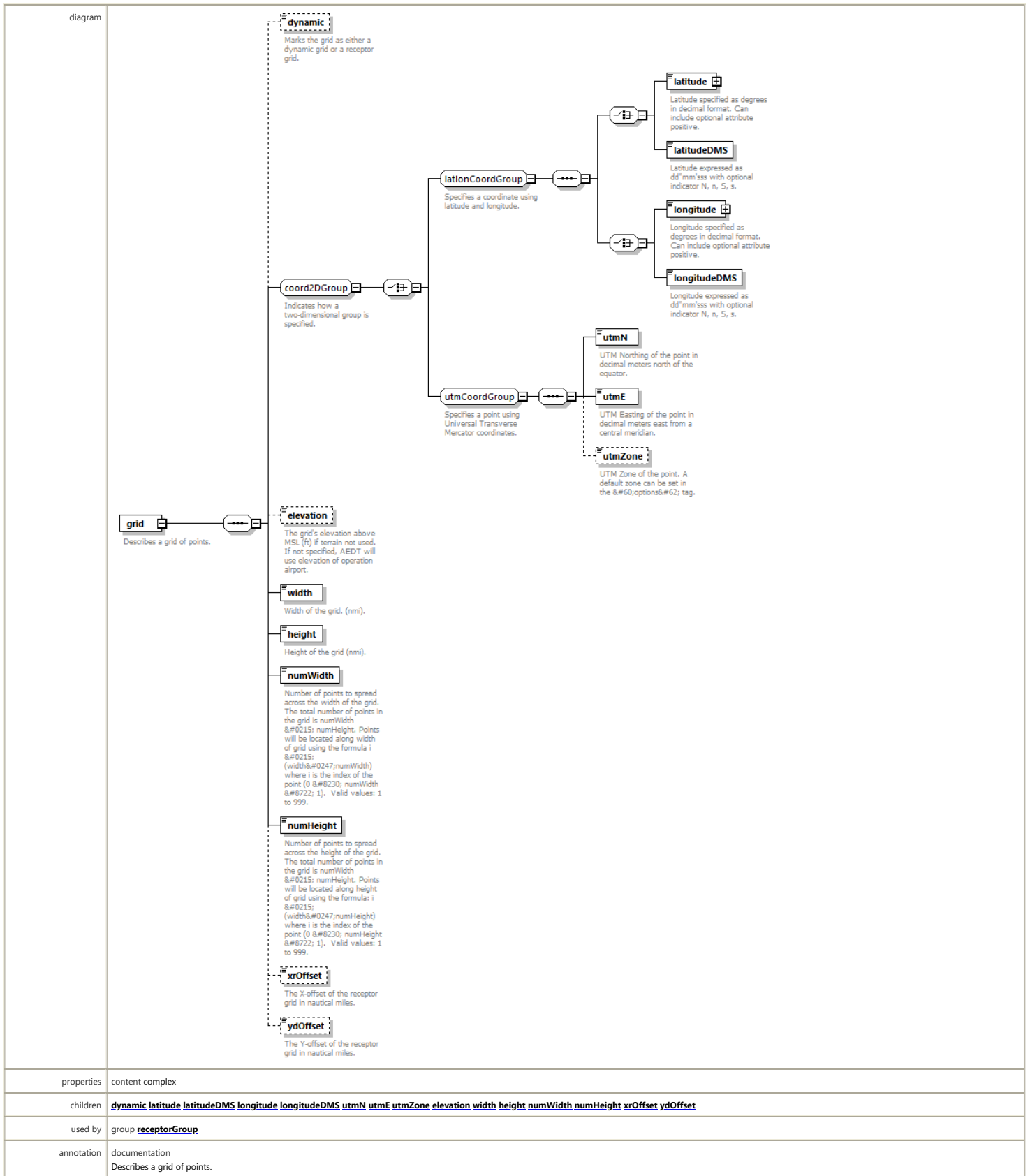
element **gate/sigmaZ**

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

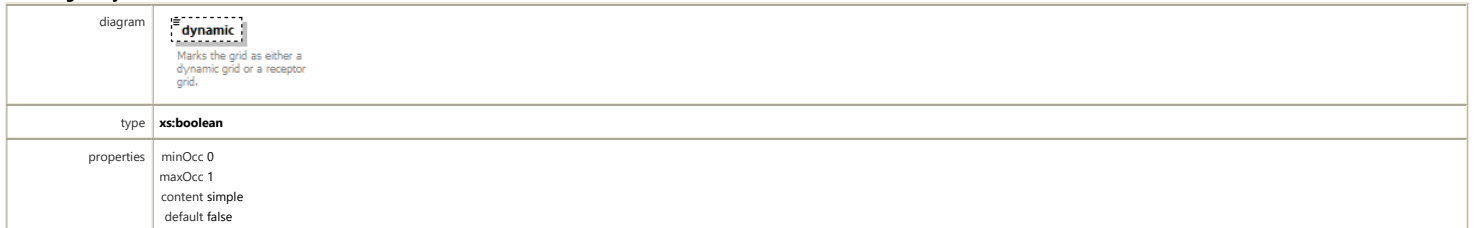
element **gateSet**

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




element **grid/dynamic**




annotation	documentation Marks the grid as either a dynamic grid or a receptor grid.
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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/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	 <p>Height of the grid (nmi).</p>
type	xs:double
properties	content simple
annotation	documentation Height of the grid (nmi).


element **grid/numWidth**

diagram	 <p>Number of points to spread across the width of the grid. The total number of points in the grid is numWidth &#x215; numHeight. Points will be located along width of grid using the formula $i \&#x215; \frac{\text{width} + 1}{\text{numWidth}}$ where i is the index of the point (0 &#x215; numWidth - 1). Valid values: 1 to 999.</p>
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 ȕ numHeight. Points will be located along width of grid using the formula $i \ȕ \frac{\text{width} + 1}{\text{numWidth}}$ where i is the index of the point (0 ȕ numWidth - 1). Valid values: 1 to 999.

element **grid/numHeight**

diagram	 <p>Number of points to spread across the height of the grid. The total number of points in the grid is numWidth &#x215; numHeight. Points will be located along height of grid using the formula: $i \&#x215; \frac{\text{height} + 1}{\text{numHeight}}$ where i is the index of the point (0 &#x215; numHeight - 1). Valid values: 1 to 999.</p>
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 ȕ numHeight. Points will be located along height of grid using the formula: $i \ȕ \frac{\text{height} + 1}{\text{numHeight}}$ where i is the index of the point (0 ȕ numHeight - 1). Valid values: 1 to 999.

element **grid/xrOffset**

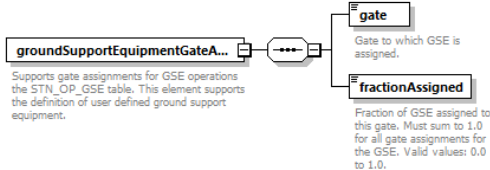
diagram	 <p>The X-offset of the receptor grid in nautical miles.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple

	default 0
annotation	documentation The X-offset of the receptor grid in nautical miles.


element **grid/ydOffset**

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

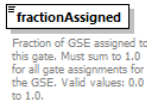
element **groundSupportEquipmentGateAssignment**

diagram	
properties	content complex
children	gate fractionAssigned
used by	element groundSupportEquipmentGateAssignmentSet
annotation	documentation Supports gate assignments for GSE operations the STN_OP_GSE table. This element supports the definition of user defined ground support equipment.

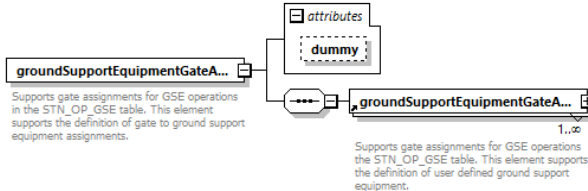
element **groundSupportEquipmentGateAssignment/gate**

diagram	
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	
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													
properties	content complex												
children	groundSupportEquipmentGateAssignment												
used by	element groundSupportEquipmentPopulationOperation												
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	documentation Supports gate assignments for GSE operations in the STN_OP_GSE table. This element supports the definition of gate to ground support equipment assignments.
------------	--

attribute **groundSupportEquipmentGateAssignmentSet/@dummy**

type	xs:int
properties	use optional

element **groundSupportEquipmentLTOOperation**

diagram	<p>The diagram shows the groundSupportEquipmentLTOOperation element (represented by a box with a dashed border) containing several child elements (represented by boxes with solid borders): gseID, fuelType, horsepower, loadFactor, manufactureYear, departureOpTime, and arrivalOpTime. Each child element has a descriptive text below it:</p> <ul style="list-style-type: none"> gseID: The GSE ID. fuelType: (No description provided in the diagram) horsepower: GSE horsepower in bore hp. Valid values: 0.00 to 10000.00. (hp) loadFactor: Load factor of GSE (will be empty for APU). Valid values: 0.00 to 100.00. manufactureYear: The manufacture year and age of the equipment, if not using system defaults. Valid values: 1940 to 2050. (Latest valid year will be the year of the study.) departureOpTime: The number of minutes used for a departure aircraft operation. Valid values: 0.00 to 480.00. (min) arrivalOpTime: The number of minutes used for an arrival aircraft operation. Valid values: 0.00 to 480.00. (min) <p>The main element is described as: Describes operation of GSE operation.</p>
properties	content complex
children	gseID fuelType horsepower loadFactor manufactureYear departureOpTime arrivalOpTime
used by	element groundSupportEquipmentLTOOperationSet
annotation	documentation Describes operation of GSE operation.

element **groundSupportEquipmentLTOOperation/gseID**

diagram	<p>The diagram shows the gseID element (represented by a box with a solid border) with the description: The GSE ID.</p>
type	xs:int
properties	content simple
annotation	documentation The GSE ID.

element **groundSupportEquipmentLTOOperation/fuelType**

diagram	<p>The diagram shows the fuelType element (represented by a box with a solid border).</p>
type	fuelType
properties	content simple
facets	Kind Value Annotation pattern G[Gasoline]D[Diesel]C[Compressed Natural Gas]L[Liquefied Petroleum Gas]E[Electric]

element **groundSupportEquipmentLTOOperation/horsepower**

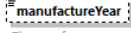
diagram	<p>The diagram shows the horsepower element (represented by a box with a dashed border) with the description: GSE horsepower in bore hp. Valid values: 0.00 to 10000.00. (hp)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation GSE horsepower in bore hp. Valid values: 0.00 to 10000.00. (hp)

element **groundSupportEquipmentLTOOperation/loadFactor**

diagram	<p>The diagram shows the loadFactor element (represented by a box with a dashed border) with the description: Load factor of GSE (will be empty for APU). Valid values: 0.00 to 100.00.</p>
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.

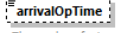
element **groundSupportEquipmentLTOOperation/manufactureYear**

diagram	 The manufacture year and age of the equipment, if not using system defaults. Valid values: 1940 to 2050. (Latest valid year will 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 year will be the year of the study.)

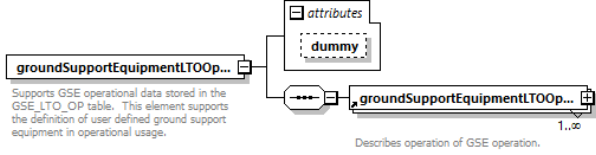
element **groundSupportEquipmentLTOOperation/departureOpTime**

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	 The number of minutes used for an arrival 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 an arrival aircraft operation. Valid values: 0.00 to 480.00. (min)

element **groundSupportEquipmentLTOOperationSet**

diagram	 Supports GSE operational data stored in the GSE_LTO_OP table. This element supports the definition of user defined ground support equipment in operational usage. Describes operation of GSE operation.												
properties	content complex												
children	groundSupportEquipmentLTOOperation												
used by	complexType aircraftType												
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	documentation Supports GSE operational data stored in the GSE_LTO_OP 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	<p>Supports GSE operational data in the STN_OP_GSE 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: 1900 to 2050. (Latest valid date will be the year of the study.)</p> <p>Supports gate assignments for GSE operations in the STN_OP_GSE 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	documentation Supports GSE operational data in the STN_OP_GSE table. This element supports the definition of user defined ground support equipment in operational usage.

element [groundSupportEquipmentPopulationOperation/gseID](#)

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

element [groundSupportEquipmentPopulationOperation/fuelType](#)

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

element [groundSupportEquipmentPopulationOperation/gseType](#)

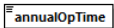
diagram	<p>The type of GSE.</p>
type	xs:string
properties	content simple
annotation	documentation The type of GSE.

element [groundSupportEquipmentPopulationOperation/numUnits](#)

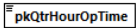
diagram	<p>GSE number of units. Valid values: 0 to 10000.</p>
type	xs:double

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

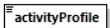
element **groundSupportEquipmentPopulationOperation/annualOpTime**

diagram	 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	 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	 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).

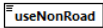
element **groundSupportEquipmentPopulationOperation/horsepower**

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)

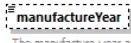
element **groundSupportEquipmentPopulationOperation/loadFactor**

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.

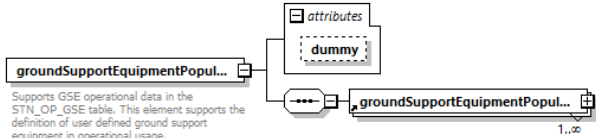
element **groundSupportEquipmentPopulationOperation/useNonRoad**

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

element **groundSupportEquipmentPopulationOperation/manufactureYear**

diagram	 <p>manufactureYear</p> <p>The manufacture year and age of the equipment, if not using system defaults. Valid values: 1900 to 2050. (Latest valid date will be the year of the study.)</p>
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The manufacture year and age of the equipment, if not using system defaults. Valid values: 1900 to 2050. (Latest valid date will be the year of the study.)

element **groundSupportEquipmentPopulationOperationSet**

diagram	 <p>groundSupportEquipmentPopul...</p> <p>Supports GSE operational data in the STN_OP_GSE table. This element supports the definition of user defined ground support equipment in operational usage.</p> <p>attributes</p> <ul style="list-style-type: none"> dummy <p>groundSupportEquipmentPopul...</p> <p>Supports GSE operational data in the STN_OP_GSE table. This element supports the definition of user defined ground support equipment in operational usage.</p> <p>1..∞</p>												
properties	content complex												
children	groundSupportEquipmentPopulationOperation												
used by	group airportActivityGroup												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	documentation Supports GSE operational data in the STN_OP_GSE table. This element supports the definition of user defined ground support equipment in operational usage.												

attribute **groundSupportEquipmentPopulationOperationSet/@dummy**

type	xs:int
properties	use optional

element **monthlyProfile**

diagram	<p>monthlyProfile</p> <p>Supports data in the APTPROFILE_MONTHLY. This element supports the definition of temporal factors on a monthly operational basis.</p> <p>profileName Name of profile.</p> <p>temporalFactorJanuary Factor applied to activity for operations during January. Valid values: 0.0000 to 1.0000.</p> <p>temporalFactorFebruary Factor applied to activity for operations during February. Valid values: 0.0000 to 1.0000.</p> <p>temporalFactorMarch Factor applied to activity for operations during March. Valid values: 0.0000 to 1.0000.</p> <p>temporalFactorApril Factor applied to activity for operations during April. Valid values: 0.0000 to 1.0000.</p> <p>temporalFactorMay Factor applied to activity for operations during May. Valid values: 0.0000 to 1.0000.</p> <p>temporalFactorJune Factor applied to activity for operations during June. Valid values: 0.0000 to 1.0000.</p> <p>temporalFactorJuly Factor applied to activity for operations during July. Valid values: 0.0000 to 1.0000.</p> <p>temporalFactorAugust Factor applied to activity for operations during August. Valid values: 0.0000 to 1.0000.</p> <p>temporalFactorSeptember Factor applied to activity for operations during September. Valid values: 0.0000 to 1.0000.</p> <p>temporalFactorOctober Factor applied to activity for operations during October. Valid values: 0.0000 to 1.0000.</p> <p>temporalFactorNovember Factor applied to activity for operations during November. Valid values: 0.0000 to 1.0000.</p> <p>temporalFactorDecember Factor applied to activity for operations during December. Valid values: 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 data in the APTPROFILE_MONTHLY. This element supports the definition of temporal factors on a monthly operational basis.

element **monthlyProfile/profileName**


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

element **monthlyProfile/temporalFactorJanuary**

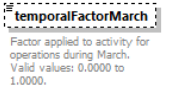
diagram	<p>temporalFactorJanuary Factor applied to activity for operations during January. Valid values: 0.0000 to 1.0000.</p>
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0

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

diagram	
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.

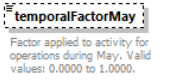
element **monthlyProfile/temporalFactorMarch**

diagram	
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.

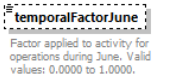
element **monthlyProfile/temporalFactorApril**

diagram	
type	doubleMin0
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.

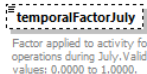
element **monthlyProfile/temporalFactorMay**

diagram	
type	doubleMin0
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.

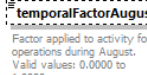
element **monthlyProfile/temporalFactorJune**

diagram	
type	doubleMin0
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.

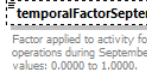
element **monthlyProfile/temporalFactorJuly**

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

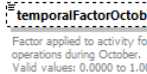
element **monthlyProfile/temporalFactorAugust**

diagram	 temporalFactorAugust Factor applied to activity for operations during August. 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 August. Valid values: 0.0000 to 1.0000.


element **monthlyProfile/temporalFactorSeptember**

diagram	 temporalFactorSeptember Factor applied to activity for operations during September. 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 September. Valid values: 0.0000 to 1.0000.

element **monthlyProfile/temporalFactorOctober**

diagram	 temporalFactorOctober Factor applied to activity for operations during October. 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 October. Valid values: 0.0000 to 1.0000.

element **monthlyProfile/temporalFactorNovember**

diagram	 temporalFactorNovember Factor applied to activity for operations during November. 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 November. Valid values: 0.0000 to 1.0000.

element **monthlyProfile/temporalFactorDecember**

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

element **monthlyProfileSet**

diagram													
properties	content complex												
children	monthlyProfile												
used by	element operationalProfileSet complexType airportLayoutType												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	documentation Supports the definition and use of data in the APTPROFILE_MONTHLY table for the monthly variation of operations.												

attribute **monthlyProfileSet/@dummy**

type	xs:int
properties	use optional

element **operation**

diagram

id

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.

aircraftType

Type of aircraft in the flight.

cruiseAltitude

Override aircraft cruise altitude MSL for this operation. UNITS: feet.

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.

arrivalID

operation
Describes an aircraft flight operation.

arrivalRunway

Airport's arrival runway ID. Required if the operation is used with a `&flightId` or a `&trackOpSet`; modeling arrivals, circuits, runups, or touch-and-goes.

arrivalGate

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

arrivalApuTime

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

offTime

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

onTime

Wheels on time. Required for any arrival operation.

enrouteStartTime

Time aircraft reaches the first en route node. Required for en route or overflight flights. Not fully supported in AEDT.

outTime

Time aircraft pushed back from the gate for a departure. When present, $\text{taxiOutDuration} = (\text{offTime} - \text{outTime})$. Not fully supported in AEDT.

taxiOutDuration

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

inTime

Time aircraft arrives at arrival gate. When present, $\text{taxiInDuration} = (\text{onTime} - \text{inTime})$.

taxiInDuration

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

activityProfile

References an existing hourly, daily, or monthly profile.

saeProfile

Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by SAE International. Applicable when the override is unambiguously arrival or departure.

saeProfiles

Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by SAE International. Applicable when it is necessary to specify both the arrival and departure profiles.

badaProfile

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.

badaProfiles

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.

stageLength

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.

actypeWeight

Aircraft's weight. (lb)

departureStageLength

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

properties	content complex		
children	<p>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</p>	<p>arrivalStageLength Overrides default arrival stage length. Arrival then AEDT will always use 1 for stage length.</p>	
used by	elements AsifXml case operations		
annotation	documentation Describes an aircraft flight operation.	<p>glideSlope Glide slope angle for this operation. (decimal degrees)</p> <p>fuelSulfurContent Sulfur content of the fuel used in this operation. (%)</p>	
element operation/id			
diagram	<p>id 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	Kind Value Annotation minLength 0 maxLength 16		
annotation	documentation 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.		

element **operation/aircraftType**

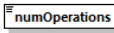
diagram	<p>aircraftType Type of aircraft in the flight.</p> <ul style="list-style-type: none"> anpAircraftId airframeModel Air frame model. engineCode Engine code. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop). engineModCode Engine modification code. (AEDT database reference table FLEET_FLT_ENGINE_MOD \$ column ENGINE_MOD_CODE.) apuName Name of auxiliary power unit used by this type of aircraft. groundSupportEquipmentLTOop... Supports GSE operational data stored in the GSE_LTO_OP table. This element supports the definition of user defined ground support equipment in operational usage. assignDefaultGse Whether the application should assign default GSE for this operation or not 		
type	aircraftType		

properties	content complex
children	anAircraftId airframeModel engineCode engineModCode apuName groundSupportEquipmentLTOOperationSet assignDefaultGse
annotation	documentation Type of aircraft in the flight.


element operation/cruiseAltitude

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

element operation/numOperations

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

element operation/opType

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


element operation/carrier

diagram	 carrier 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	 flightNumber 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	 tailNumber 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.

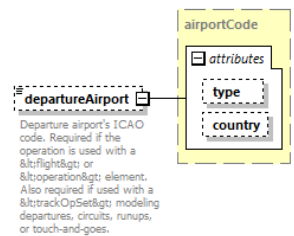
element operation/userType

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

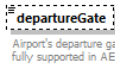
element operation/departureAirport

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

element operation/departureRunway

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

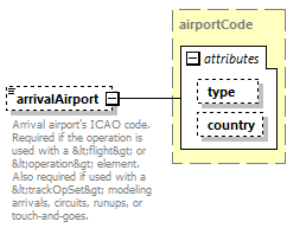
element **operation/departureGate**

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

element **operation/departureApuTime**

diagram	 departureApuTime Number of minutes the auxiliary power unit is attached to a departing aircraft. (min)
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	 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.																		
type	airportCode																		
properties	minOcc 0 maxOcc 1 content complex																		
facets	Kind Value Annotation minLength 0 maxLength 4																		
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>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	 arrivalRunway 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.
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.

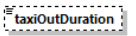
element operation/enrouteStartTime

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

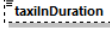
diagram	 taxiOutDuration Number of seconds during taxi-out. Required for emissions modeling, optional for noise modeling. Not fully supported in AEDT. (s)
type	xs:double

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)

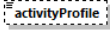
element operation/inTime

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


element operation/taxiInDuration

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

element operation/activityProfile

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

element operation/saeProfile


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

element operation/saeProfiles

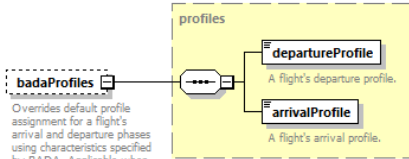
diagram	 <p>Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by SAE International. Applicable when it is necessary to specify both the arrival and departure profiles.</p>
type	profiles

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

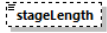
element operation/badaProfile

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

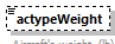
element operation/badaProfiles

diagram	 <p>badaProfiles 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> <ul style="list-style-type: none"> departureProfile A flight's departure profile. arrivalProfile A flight's arrival profile.
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 Overrides default departure and arrival stage length values. Applicable when the override is unambiguously arrival or departure. If operation type is Arrival, then AEDT will always use 1 for stage length.</p>
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Overrides default departure and arrival stage length values. Applicable when the override is unambiguously arrival or departure. If operation type is Arrival, then AEDT will always use 1 for stage length.

element operation/actypeWeight

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

element operation/departureStageLength

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

element **operation/fuelSulfurContent**

diagram	<p>fuelSulfurContent 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	<p>operationalProfileSet</p> <ul style="list-style-type: none"> quarterHourlyProfileSet Supports the definition and use of QUARTER_HOURLY_PROFILE S for the quarter hourly variation of operations. dailyProfileSet Supports the definition and use of data in the APTPROFILE_DAILY table for the daily variation of operations. monthlyProfileSet Supports the definition and use of data in the APTPROFILE_MONTHLY table for the monthly variation of operations. activityProfileSet Supports the definition and use of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES variation of operations.
properties	content complex
children	quarterHourlyProfileSet dailyProfileSet monthlyProfileSet activityProfileSet
used by	element AsifXml

element **operations**

diagram	<p>The diagram shows a box labeled 'operations' with a description 'Contains a list of aircraft flight operations.' Inside it is a dashed box labeled 'dummy'. To the right, a box labeled 'operation' with a description 'Describes an aircraft flight operation.' is connected to the 'operations' box via a line with a multiplicity of '1..∞'.</p>												
properties	content complex												
children	operation												
used by	element trackOpSet												
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	documentation Contains a list of aircraft flight operations.												

attribute [operations/@dummy](#)

type	xs:int
properties	use optional

element [options](#)

diagram	<p>The diagram shows a box labeled 'options' with a description 'Contains default option values applied to the study.' Inside it is a dashed box labeled 'utmZoneDefault' with a description 'Default UTM zone number.'</p>
properties	content complex
children	utmZoneDefault
used by	element AsifXml
annotation	documentation Contains default option values applied to the study.

element [options/utmZoneDefault](#)

diagram	<p>The diagram shows a box labeled 'utmZoneDefault' with a description 'Default UTM zone number.'</p>
type	xs:int
properties	content simple default -1
annotation	documentation Default UTM zone number.

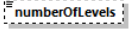
element [parkingFacility](#)

diagram	<p>The diagram shows a box labeled 'parkingFacility' with a description 'NOT currently supported in AEDT - legacy EDMS definitions for parking lots. This element supports the definition of parking lot and parking garage geometries for scenario layouts.' Inside it are several dashed boxes representing children: 'name' (Identifying name of parking facility), 'numberOfLevels' (Number of levels in the parking facility. Valid values: 1 to 20), 'topReleaseHeight' (Height AGL at which emissions are released into the atmosphere. Valid values 0 to 100 (m)), 'spacing' (Distance between two parking spaces. (m)), 'elevation' (Elevation of parking facility in MSL. Valid values: range of 0 - 328, airport specific.(m)), and 'oneOrThreeCoords2DGroupSet' (Type of coordinate specifying the area.). The 'oneOrThreeCoords2DGroupSet' box contains two sub-boxes: 'pointCoord' (Choice of a single point coordinate.) and 'polygonCoords' (Choice of a 2D polygon.).</p>
properties	content complex
children	name numberOfLevels topReleaseHeight spacing elevation pointCoord polygonCoords
used by	element parkingFacilitySet
annotation	documentation NOT currently supported in AEDT - legacy EDMS definitions for parking lots. This element supports the definition of parking lot and parking garage geometries for scenario layouts.

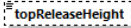
element [parkingFacility/name](#)

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


element **parkingFacility/numberOfLevels**

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

element **parkingFacility/topReleaseHeight**

diagram	 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	 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 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	<p>The diagram shows the parkingFacilityOperation element with a dashed border and a small square icon. It is connected to several other elements:</p> <ul style="list-style-type: none"> refName: Identifying name of parking facility. useAnnualFigures: Indicates if the quantities in the element are annualized. 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. fuelType: Type of fuel involved in the operation. emissionsUsage: Describes the amount of emissions for a given activity profile. averageSpeed: Average speed during the operation. Valid values: 2.5 to 40. (mph) averageDistanceTraveled: Average distance traveled during the operation. Valid values: 0 to 32808. (m) averageIdleTime: Average time vehicle is idle while conducting the operation. Valid values: 0 to 30. (min) vehicleEmissionFactors: NOT currently supported in AEDT - legacy EDMS definitions for emission factors for Roadways and Parking Lots. This element supports the definition of custom emission factor specifications for roadways and parking. <p>NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of parking lot and parking garage activities for scenario layouts.</p>
properties	content complex
children	refName useAnnualFigures vehicleType fuelType emissionsUsage averageSpeed averageDistanceTraveled averageIdleTime vehicleEmissionFactors
used by	element parkingFacilityOperationSet
annotation	documentation NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of parking lot and parking garage activities for scenario layouts.

element [parkingFacilityOperation/refName](#)

diagram	<p>The diagram shows the refName element with a dashed border and a small square icon. It is identified as the identifying name of the parking facility.</p>
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Identifying name of parking facility.


element [parkingFacilityOperation/useAnnualFigures](#)

diagram	<p>The diagram shows the useAnnualFigures element with a dashed border and a small square icon. It indicates if the quantities in the element are annualized.</p>
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	 <p>vehicleType</p> <p>Type of vehicle involved in the operation. Valid values: 0 = Default Fleet Mix, 1 = Passenger Cars, 2 = Light Trucks 1, 3 = Light Trucks 2, 4 = Light Trucks 3, 5 = Light Trucks 4, 6 = Class 2b Heavy Trucks, 7 = Class 3 Heavy Trucks, 8 = Class 4 Heavy Trucks, 9 = Class 5 Heavy Trucks, 10 = Class 6 Heavy Trucks, 11 = Class 7 Heavy Trucks, 12 = Class 8a Heavy Trucks, 13 = Class 8b Heavy Trucks, 14 = School Buses, 15 = Transit and Urban Buses, 16 = Motorcycle.</p>
type	groundVehicleType
properties	content simple
facets	<p>Kind Value</p> <p>pattern 0[Default Fleet Mix]1[Passenger Cars]2[Light Trucks 1]3[Light Trucks 2]4[Light Trucks 3]5[Light Trucks 4]6[Class 2b Heavy Trucks]7[Class 3 Heavy Trucks]8[Class 4 Heavy Trucks]9[Class 5 Heavy Trucks]10[Class 6 Heavy Trucks]11[Class 7 Heavy Trucks]12[Class 8a Heavy Trucks]13[Class 8b Heavy Trucks]14[School Buses]15[Transit and Urban Buses]16[Motorcycle]</p> <p style="text-align: right;">Annotation</p>
annotation	<p>documentation</p> <p>Type of vehicle involved in the operation. Valid values: 0 = Default Fleet Mix, 1 = Passenger Cars, 2 = Light Trucks 1, 3 = Light Trucks 2, 4 = Light Trucks 3, 5 = Light Trucks 4, 6 = Class 2b Heavy Trucks, 7 = Class 3 Heavy Trucks, 8 = Class 4 Heavy Trucks, 9 = Class 5 Heavy Trucks, 10 = Class 6 Heavy Trucks, 11 = Class 7 Heavy Trucks, 12 = Class 8a Heavy Trucks, 13 = Class 8b Heavy Trucks, 14 = School Buses, 15 = Transit and Urban Buses, 16 = Motorcycle.</p>


element parkingFacilityOperation/fuelType

diagram	 <p>fuelType</p> <p>Type of fuel involved in the operation.</p>
type	fuelType
properties	<p>minOcc 0</p> <p>maxOcc 1</p> <p>content simple</p> <p>default G</p>
facets	<p>Kind Value</p> <p>pattern G[Gasoline]D[Diesel]C[Compressed Natural Gas]L[Liquefied Petroleum Gas]E[Electric]</p> <p style="text-align: right;">Annotation</p>
annotation	<p>documentation</p> <p>Type of fuel involved in the operation.</p>

element parkingFacilityOperation/averageSpeed

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

element parkingFacilityOperation/averageDistanceTraveled

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

element parkingFacilityOperation/averageIdleTime

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

element parkingFacilityOperationSet

diagram	<p>NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of parking lot and parking garage activities for scenario layouts.</p> <p>NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of parking lot and parking garage activities for scenario layouts.</p>												
properties	content complex												
children	parkingFacilityOperation												
used by	group airportActivityGroup												
attributes	<table 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	documentation NOT currently supported in AEDT - legacy EDMS definitions. 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>NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of parking lot and parking garage activities for scenario layouts.</p> <p>NOT currently supported in AEDT - legacy EDMS definitions for parking lots. 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 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	documentation NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of parking lot and parking garage activities for scenario layouts.												

attribute **parkingFacilitySet/@dummy**

type	xs:int
properties	use optional

element **pointReceptor**

diagram	<p>The diagram illustrates the structure of the <code>pointReceptor</code> element. It is a complex content element consisting of several nested and grouped components:</p> <ul style="list-style-type: none"> name: A simple content element representing the name of the point receptor. coord2DGroup: A group element that contains: <ul style="list-style-type: none"> elevation: A simple content element representing the elevation of the receptor above MSL (ft.). noiseOffsetHeight: A simple content element representing the height of the receptor above ground (ft.). Choice: A choice element that selects between two coordinate groups: <ul style="list-style-type: none"> latlonCoordGroup: A group element that contains: <ul style="list-style-type: none"> latitude: A simple content element representing latitude specified as degrees in decimal format. Can include optional attribute positive. latitudeDMS: A simple content element representing latitude expressed as dd°mm'sss with optional indicator N, n, S, s. longitude: A simple content element representing longitude specified as degrees in decimal format. Can include optional attribute positive. longitudeDMS: A simple content element representing longitude expressed as dd°mm'sss with optional indicator N, n, S, s. utmCoordGroup: A group element that contains: <ul style="list-style-type: none"> utmN: A simple content element representing UTM Northing of the point in decimal meters north of the equator. utmE: A simple content element representing UTM Easting of the point in decimal meters east from a central meridian. utmZone: A simple content element representing UTM Zone of the point. A default zone can be set in the <code>&#60;options&#62;</code> tag.
properties	content complex
children	name latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation noiseOffsetHeight
used by	group receptorGroup
annotation	documentation Element specification for a point receptor.

element `pointReceptor/name`

diagram	<p>The diagram shows the <code>pointReceptor/name</code> element as a simple content element labeled <code>name</code>.</p>
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255

element `pointReceptor/elevation`

diagram	<p>The diagram shows the <code>pointReceptor/elevation</code> element as a simple content element labeled <code>elevation</code>.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Elevation of the receptor above MSL (ft.)

element `pointReceptor/noiseOffsetHeight`

diagram	<p>The diagram shows the <code>pointReceptor/noiseOffsetHeight</code> element as a simple content element labeled <code>noiseOffsetHeight</code>.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Height of the receptor above ground (ft.)

element `pointStationarySource`

diagram	
properties	content complex
children	pointCoord baseElevation releaseHeight gasVelocity stackDiameter temperature aboveAmbientTemperature
used by	element stationarySource
annotation	documentation Specifies the point in space occupied by a stationary source of emissions.

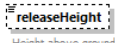
element [pointStationarySource](#)/[pointCoord](#)

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

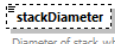
element [pointStationarySource](#)/[releaseHeight](#)

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

element **pointStationarySource/gasVelocity**

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

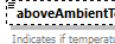
element **pointStationarySource/stackDiameter**

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

element **pointStationarySource/temperature**

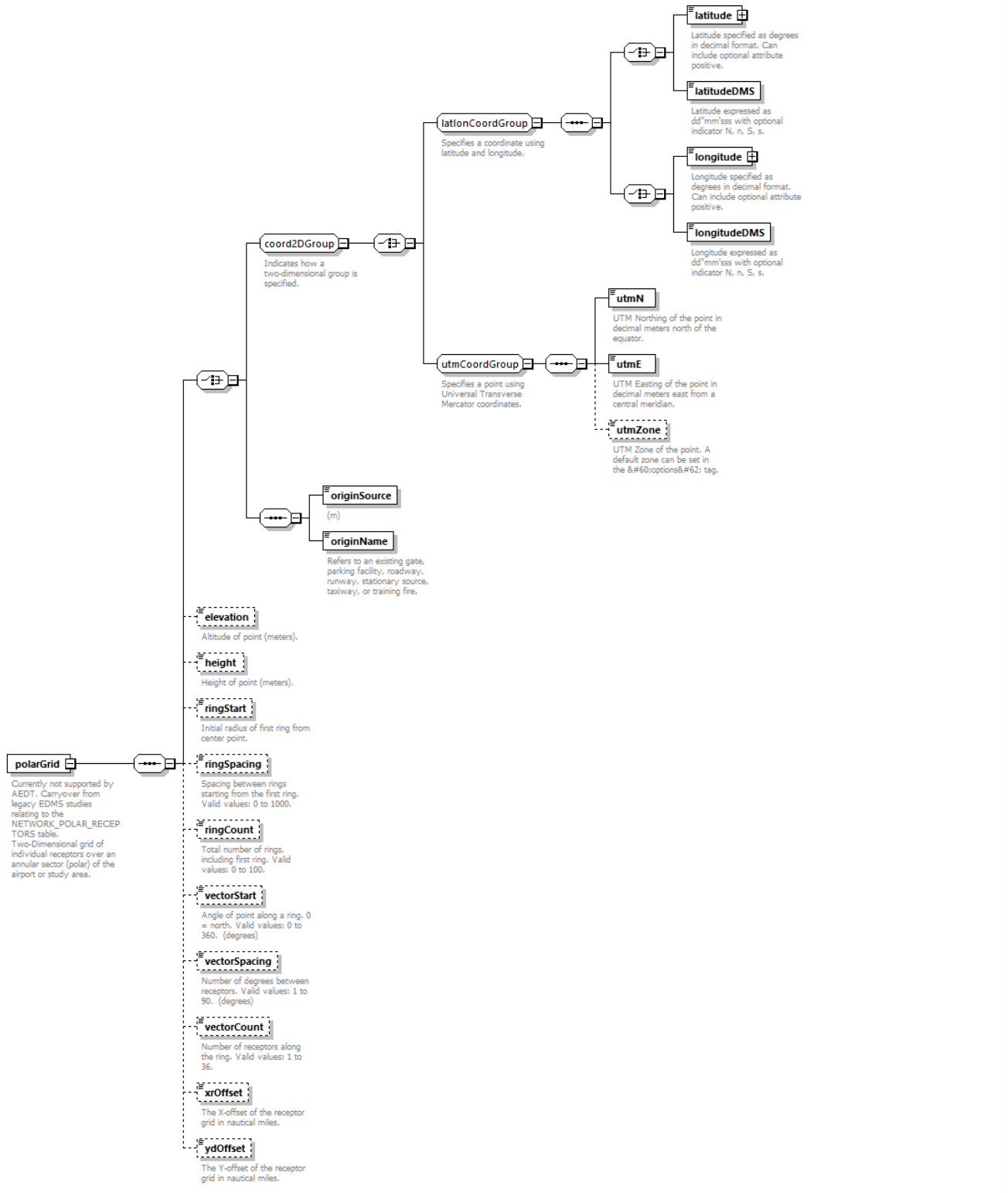
diagram	 temperature Temperature at point (°F)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 32
annotation	documentation Temperature at point (°F)

element **pointStationarySource/aboveAmbientTemperature**

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

element **polarGrid**

diagram



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 documentation
Currently not supported by AEDT. Carryover from legacy EDMS studies relating to the NETWORK_POLAR_RECEPTORS table. Two-Dimensional grid of individual receptors over an annular sector (polar) of the airport or study area.

element **polarGrid/originSource**


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

annotation	documentation (m)
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
element **polarGrid/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 **polarGrid/elevation**

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

Total number of rings, including first ring. Valid values: 0 to 100.

element **polarGrid/vectorStart**

diagram	
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	
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	
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	
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	
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	<p>latlonCoordGroup Specifies a coordinate using latitude and longitude.</p> <p>latitude Latitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>latitudeDMS Latitude expressed as dd°mm'sss 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'sss with optional indicator N, n, S, s.</p> <p>utmCoordGroup Specifies a point using Universal Transverse Mercator coordinates.</p> <p>utmN UTM Northing of the point in decimal meters north of the equator.</p> <p>utmE UTM Easting of the point in decimal meters east from a central meridian.</p> <p>utmZone UTM Zone of the point. A default zone can be set in the 6.#60/options8.#62; tag.</p> <p>coord2DGroup Indicates how a two-dimensional group is specified.</p> <p>originSource originName Refers to an existing gate, parking facility, roadway, runway, stationary source, taxiway, or training fire.</p> <p>distanceFromSource Distance of point from polar origin. Valid values: 0 through 999999.999999. (ft)</p> <p>directionFromSource Direction of point from polar origin. Valid values: 0 through 360. (degrees)</p> <p>elevation Altitude of point. (meters).</p> <p>height Height of point. (meters).</p> <p>polarReceptor Currently not supported by AEDT. Carryover from legacy EDMS studies relating to the NETWORK_POLAR_RECEPTORS and DISCRETE_POLAR_RECEPTORS table. Defines receptor points within a polar grid.</p>
properties	content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone originSource originName distanceFromSource directionFromSource elevation height
used by	group receptorGroup
annotation	documentation Currently not supported by AEDT. Carryover from 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	originSource
type	originSourceType
properties	content simple
facets	Kind Value Annotation pattern Gate Parking Facility Roadway Runway Stionary Source Taxiway Training Fire

element **polarReceptor/originName**

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

element **polarReceptor/distanceFromSource**

diagram	distanceFromSource Distance of point from polar origin. Valid values: 0 through 999999.999999. (ft)
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type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Distance of point from polar origin. Valid values: 0 through 999999.999999. (ft)

element **polarReceptor/directionFromSource**

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

element **polarReceptor/elevation**

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

element **polarReceptor/height**

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

element **quarterHourlyProfile**

diagram	
properties	content complex
children	profileName temporalFactor
used by	element quarterHourlyProfileSet
annotation	documentation Supports data in the APTPROFILE_QUARTER_HOURLY table. This element supports the definition of temporal factors on a quarter-hourly operational basis.

element **quarterHourlyProfile/profileName**

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

element **quarterHourlyProfile/temporalFactor**

diagram						
type	extension of doubleMin0					
properties	minOcc 0 maxOcc unbounded content complex					
facets	Kind Value Annotation minInclusive 0					
attributes	Name	Type	Use	Default	Fixed	Annotation
	startHour	int0to23	required			documentation The starting hour as an integer between 0 and 23.
	startMinutes	quarterHourMinutes	required			documentation The starting quarter-hourly minute value as either 0, 15, 30, or 45.
annotation	documentation Factor applied to activity for operations during the indicated quarter hour. Valid values: 0.0000 to 1.0000.					

attribute [quarterHourlyProfile/temporalFactor/@startHour](#)

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

attribute [quarterHourlyProfile/temporalFactor/@startMinutes](#)

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

element [quarterHourlyProfileSet](#)

diagram						
properties	content complex					
children	quarterHourlyProfile					
used by	element operationalProfileSet complexType airportLayoutType					
attributes	Name	Type	Use	Default	Fixed	Annotation
	dummy	xs:int	optional			
annotation	documentation Supports the definition and use of QUARTER_HOURLY_PROFILES for the quarter hourly variation of operations.					

attribute [quarterHourlyProfileSet/@dummy](#)

type	xs:int
properties	use optional

element [receptorSet](#)

diagram	<p>receptorSet Contains one or more receptor sets at various locations.</p> <p>receptorGroup Description of a receptor group.</p> <p>name Descriptive name of the receptor set.</p> <p>centroid 1..∞ Describes the geometric center of a polygon.</p> <p>pointReceptor 1..∞ Element specification for a point receptor.</p> <p>grid Describes a grid of points.</p> <p>polarReceptor 1..∞ Currently not supported by AEDT. Carryover from legacy EDMS studies relating to the NETWORK_POLAR_RECEPTORS and DISCRETE_POLAR_RECEPTORS table. Defines receptor points within a polar grid.</p> <p>polarGrid Currently not supported by AEDT. Carryover from legacy EDMS studies relating to the NETWORK_POLAR_RECEPTORS table. Two-Dimensional grid of individual receptors over an annular sector (polar) of the airport or study area.</p>
properties	content complex
children	name centroid pointReceptor grid polarReceptor polarGrid
used by	elements AsifXml study
annotation	documentation Contains one or more receptor sets at various locations.

element [receptorSet/name](#)

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

element [recordCode](#)

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

element [roadway](#)

diagram	<p>roadway NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of vehicle geometry on roadways for scenario layouts.</p> <p>name Identifying name for the roadway.</p> <p>width Roadway's width. Valid values: 1 to 99. (m)</p> <p>coordinates Set of three-dimensional coordinates describing the roadway.</p>
properties	content complex
children	name width coordinates

used by	element roadwaySet
annotation	documentation NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of vehicle geometry on roadways for scenario layouts.

element **roadway/name**

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

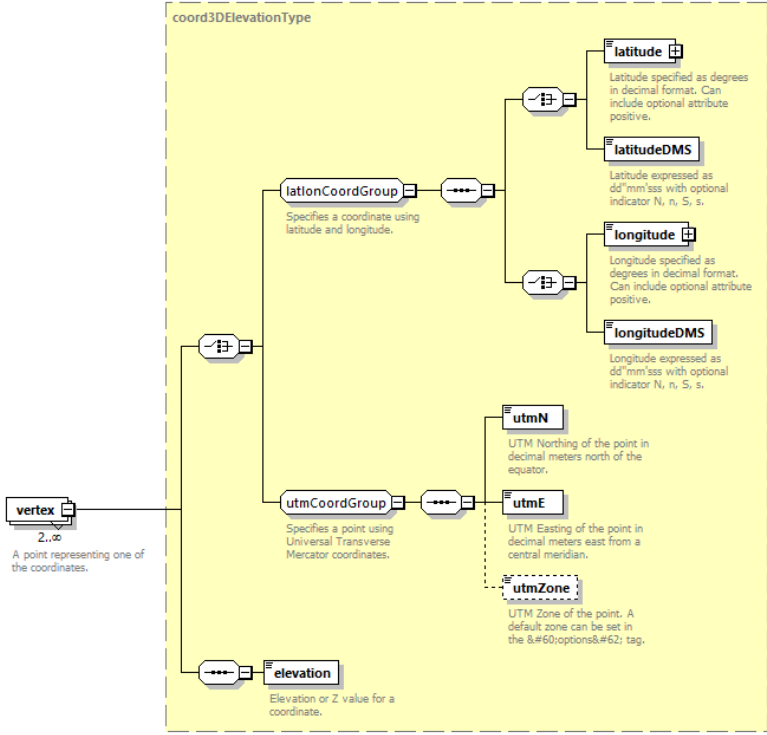
element **roadway/width**

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

element **roadway/coordinates**

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

element **roadway/coordinates/vertex**

diagram	
type	coord3DElevationType
properties	minOcc 2 maxOcc unbounded content complex

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

element **roadwayOperation**

diagram	<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 Buses, 15 = Transit and Urban Buses, 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 NOT currently supported in AEDT - legacy EDMS definitions for Roadways and Parking Lots. 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	documentation NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of vehicle activity on roadways for scenario layouts.


element **roadwayOperation/refName**

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

element **roadwayOperation/useAnnualFigures**

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

element roadwayOperation/fuelType

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

element roadwayOperation/speed

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

element roadwayOperation/roundTripDistance

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

element roadwayOperationSet

diagram	<p>roadwayOperationSet</p> <p>NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of vehicle activity on roadways for scenario layouts.</p> <p>attributes</p> <p>dummy</p> <p>roadwayOperation 1..∞</p> <p>NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of vehicle activity on roadways for scenario layouts.</p>												
properties	content complex												
children	roadwayOperation												
used by	group airportActivityGroup												
attributes	<table 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	documentation NOT currently supported in AEDT - legacy EDMS definitions. 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	<p>roadwaySet</p> <p>NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of vehicle activity on roadways for scenario layouts.</p> <p>attributes</p> <p>dummy</p> <p>roadway 1..∞</p> <p>NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of vehicle geometry on roadways for scenario layouts.</p>												
properties	content complex												
children	roadway												
used by	complexType airportLayoutType												
attributes	<table 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	documentation NOT currently supported in AEDT - legacy EDMS definitions. 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	<p>runway</p> <p>Describes dimensions of a runway.</p> <p>length</p> <p>Length of runway. Valid values: nonnegative. (feet)</p> <p>width</p> <p>Width of runway. Valid values: nonnegative. (feet)</p> <p>runwayEnd 1..2</p> <p>Characterizes the runway's endpoint.</p>
properties	content complex
children	length width runwayEnd
used by	element runwaySet
annotation	documentation Describes dimensions of a runway.

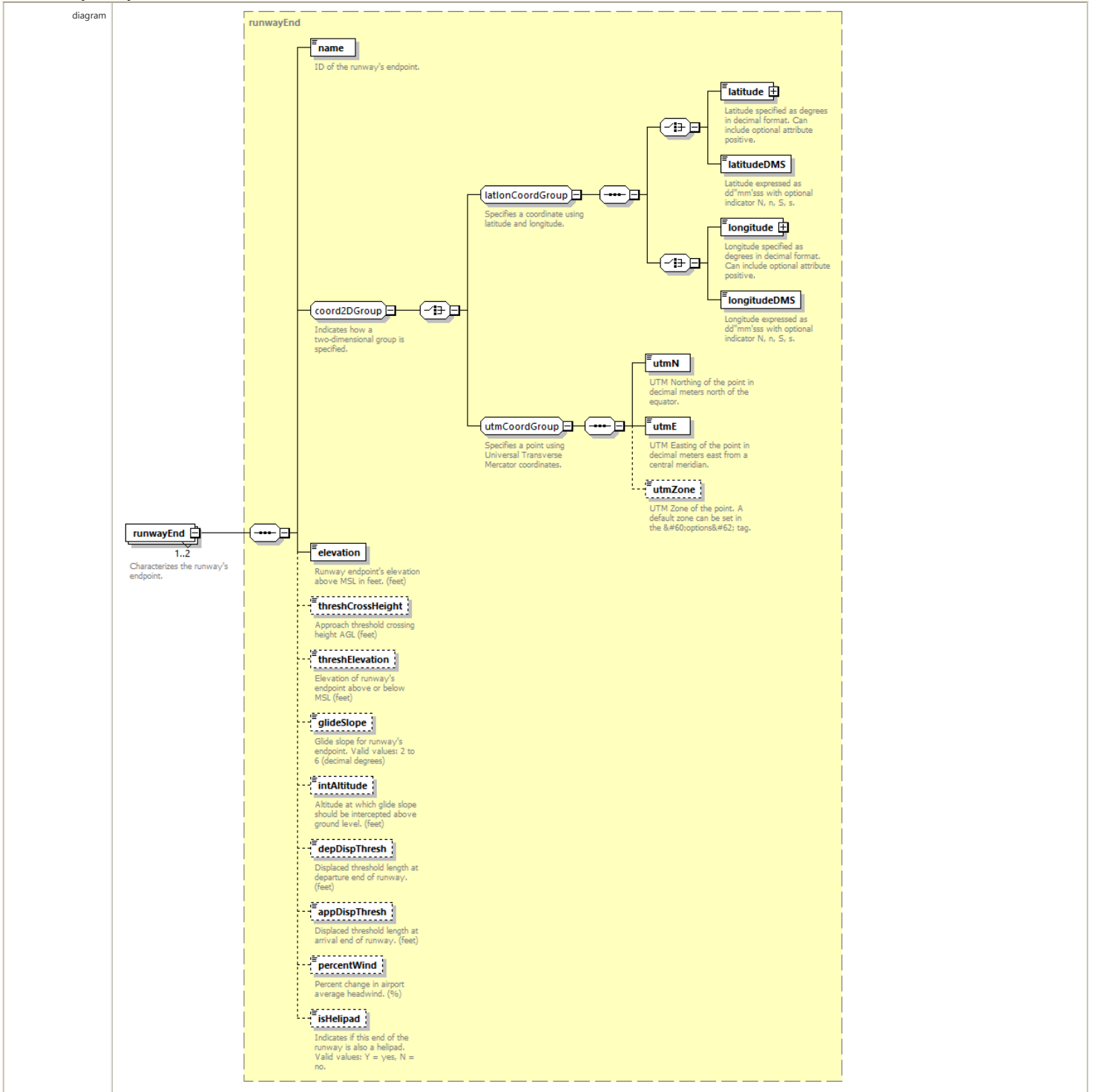
element [runway/length](#)

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

element [runway/width](#)

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

element **runway/runwayEnd**



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

element **runwayAssignment**

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

element **runwayAssignment/aircraftSize**

diagram	
type	AircraftSizeType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation enumeration S enumeration L enumeration H

element **runwayAssignment/runway**

diagram	
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	
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	
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 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>runwayAssignmentSet Contains a set of runway assignments.</p> <p>runwayAssignment Defines a assignment of operations to runways, by aircraft size.</p> <p>1..∞</p>
properties	content complex
children	runwayAssignment
used by	element airportConfig
annotation	documentation Contains a set of runway assignments.

element **runwaySet**

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

element **scenario**

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


element **scenario/startTime**

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

element **scenario/duration**

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

element **scenario/taxiModel**

diagram	 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/timelnModeBasis**

diagram	
type	timelnModeBasisType
properties	minOcc 0 maxOcc 1 content simple default ICAO
facets	Kind Value Annotation enumeration Performance enumeration ICAO

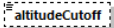
element **scenario/acftPerfModel**

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

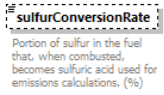
element **scenario/bankAngle**

diagram	 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.

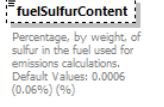
element **scenario/altitudeCutoff**

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


element **scenario/sulfurConversionRate**

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

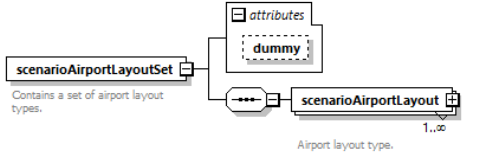
element **scenario/fuelSulfurContent**

diagram	 <p>fuelSulfurContent 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>description 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**

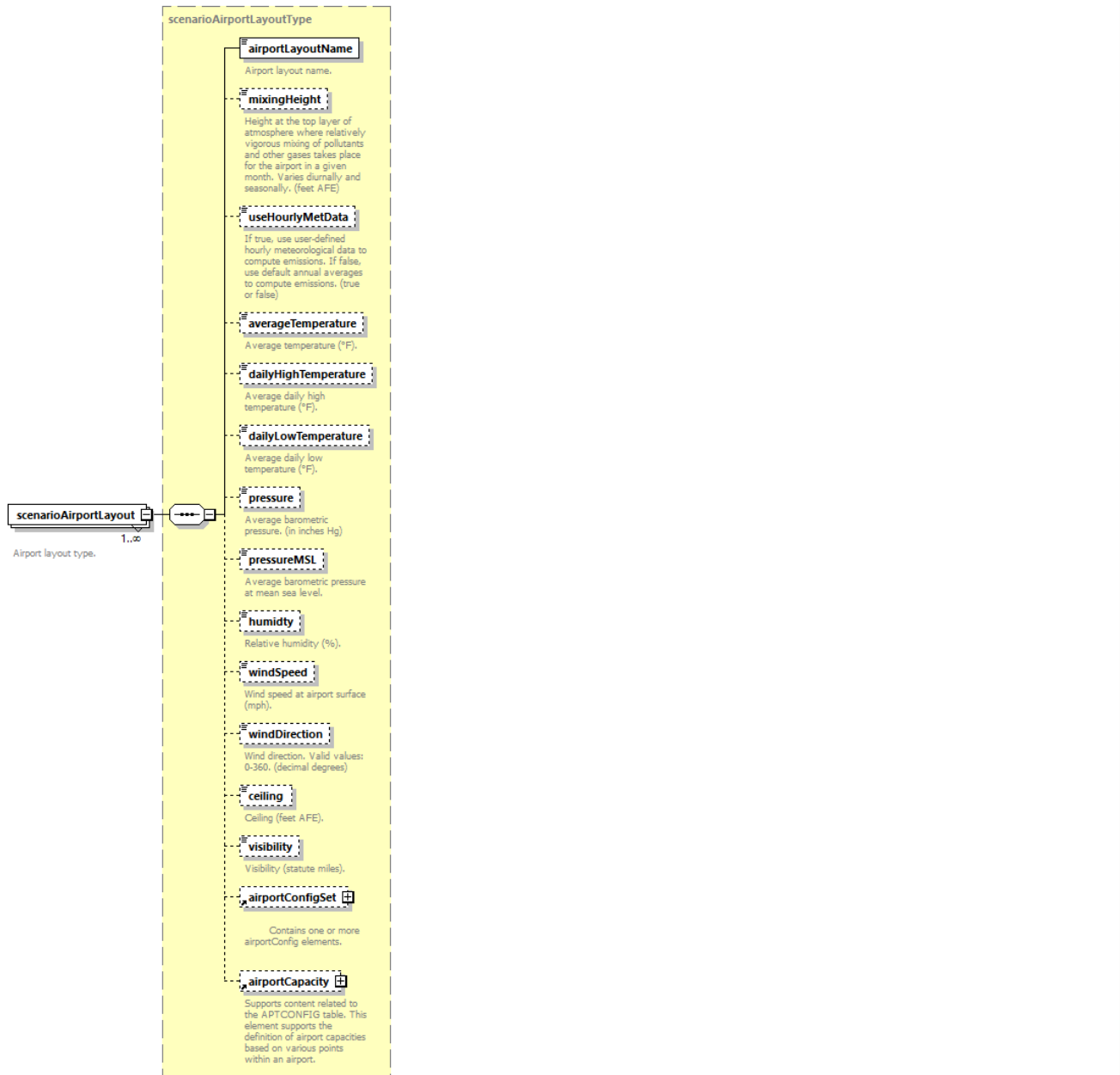
diagram	 <p>scenarioAirportLayoutSet Contains a set of airport layout types.</p> <p>attributes dummy</p> <p>scenarioAirportLayout Airport layout type. 1..∞</p>												
properties	content complex												
children	scenarioAirportLayout												
used by	element scenario												
attributes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

attribute **scenarioAirportLayoutSet/@dummy**

type	xs:int
properties	use optional

element **scenarioAirportLayoutSet/scenarioAirportLayout**

diagram



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>The diagram shows a sensorNode element (represented by a rectangle with a small square on the left) connected to a dashed-line container. Inside this container are eight child elements, each in a box with a small square on the left: lat, long, altitude, messageTime, sequenceNum, speed, thrust, and source. The thrust and source elements are enclosed in dashed-line boxes.</p> <p>Describes a single node of a radar flight path.</p> <p>lat Latitude for this location (decimal degrees).</p> <p>long Longitude for this location (decimal degrees).</p> <p>altitude Altitude in MSL at this location. UNITS: feet</p> <p>messageTime Time aircraft reaches this location. NOTE: Not used in AEDT.</p> <p>sequenceNum Order of this location in node list.</p> <p>speed Ground speed of aircraft at this location. UNITS: knots.</p> <p>thrust Thrust of aircraft at this location. NOTE: Not used in AEDT. (b)</p> <p>source Source of the data for this node. NOTE: Not used in AEDT.</p>
properties	content complex
children	lat long altitude messageTime sequenceNum speed thrust source
used by	element sensorPath
annotation	documentation Describes a single node of a radar flight path.

element **sensorNode/lat**

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

element **sensorNode/long**

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

element **sensorNode/altitude**

diagram	<p>altitude Altitude in MSL at this location. UNITS: feet</p>
type	xs:double
properties	content simple
annotation	documentation Altitude in MSL at this location. UNITS: feet

element **sensorNode/messageTime**

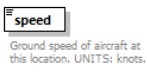
diagram	<p>messageTime Time aircraft reaches this location. NOTE: Not used in AEDT.</p>
type	xs:dateTime
properties	content simple
annotation	documentation Time aircraft reaches this location. NOTE: Not used in AEDT.

element **sensorNode/sequenceNum**

diagram	<p>sequenceNum Order of this location in node list.</p>
---------	--

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

element **sensorNode/speed**

diagram	
type	xs:double
properties	content simple
annotation	documentation Ground speed of aircraft at this location. UNITS: knots.

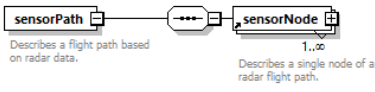
element **sensorNode/thrust**

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

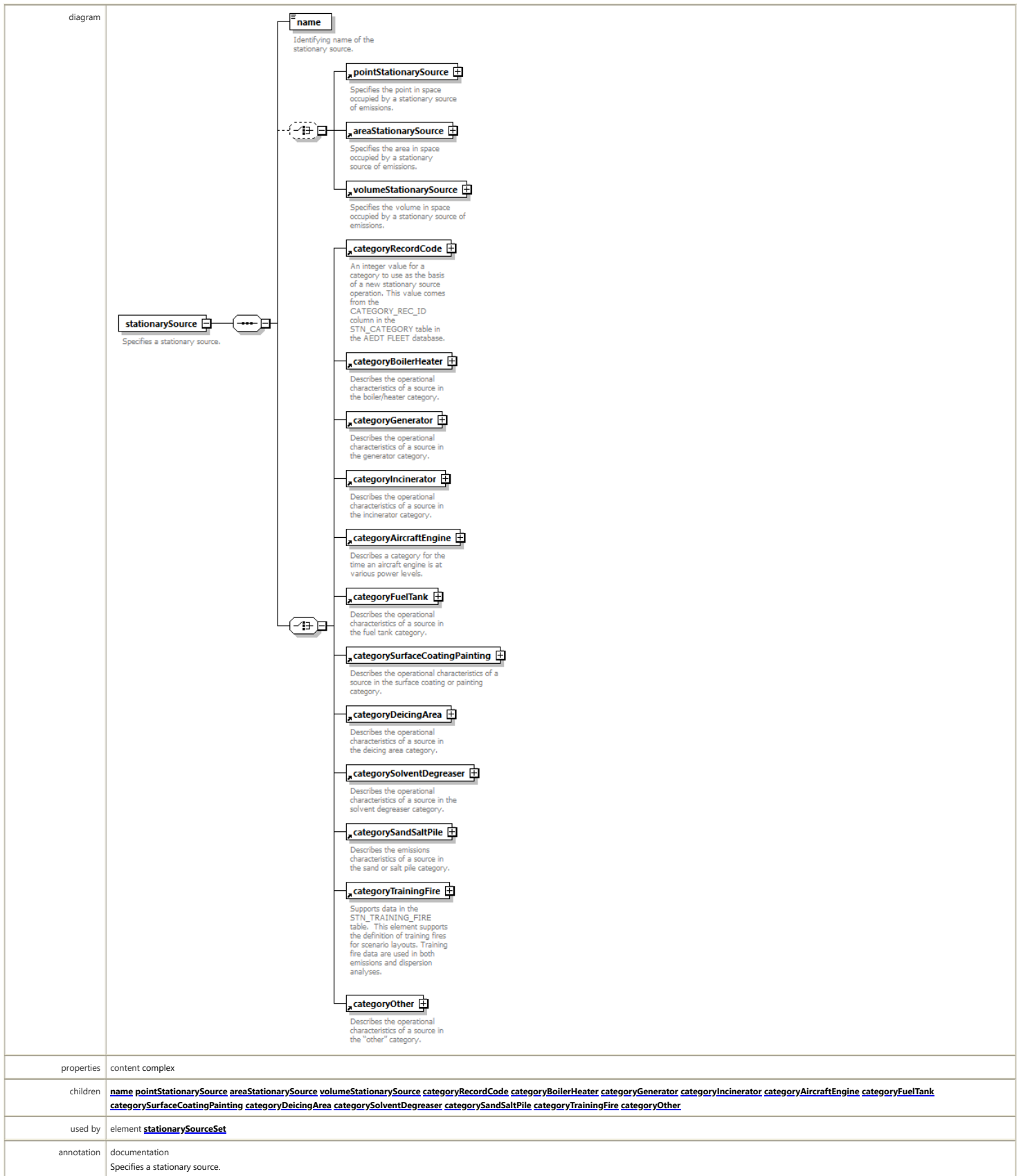
element **sensorNode/source**

diagram	
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	
properties	content complex
children	sensorNode
used by	element trackOpSet
annotation	documentation Describes a flight path based on radar data.

element **stationarySource**



element **stationarySource/name**



	maxLength 40
annotation	documentation Identifying name of the stationary source.

element **stationarySourceOperation**

diagram	<p>The diagram shows the stationarySourceOperation element as a container for several children: refName, elevation, pointCoord, and emissionsUsage. The refName child is described as the 'Identifier of the operation.' The elevation child is described as 'Describes the amount of emissions for a given activity profile.' The pointCoord child is described as 'Describes the amount of emissions for a given activity profile.' The emissionsUsage child is described as 'Describes the amount of emissions for a given activity profile.'</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>The diagram shows the refName element as a simple container for the 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	<p>The diagram shows the elevation element as a simple container for the amount of emissions for a given activity profile.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple

element **stationarySourceOperation/pointCoord**

diagram	<p>The diagram shows the pointCoord element as a container for several children: latlonCoordGroup, utmCoordGroup, latitude, latitudeDMS, longitude, longitudeDMS, utmN, utmE, and utmZone. The latlonCoordGroup child is described as 'Specifies a coordinate using latitude and longitude.' The utmCoordGroup child is described as 'Specifies a point using Universal Transverse Mercator coordinates.' The latitude child is described as 'Latitude specified as degrees in decimal format. Can include optional attribute positive.' The latitudeDMS child is described as 'Latitude expressed as dd°mm' sss with optional indicator N, n, S, s.' The longitude child is described as 'Longitude specified as degrees in decimal format. Can include optional attribute positive.' The longitudeDMS child is described as 'Longitude expressed as dd°mm' sss with optional indicator N, n, S, s.' The utmN child is described as 'UTM Northing of the point in decimal meters north of the equator.' The utmE child is described as 'UTM Easting of the point in decimal meters east from a central meridian.' The utmZone child is described as 'UTM Zone of the point. A default zone can be set in the &#60;options&#62; tag.'</p>
type	coord2DType
properties	minOcc 0 maxOcc 1 content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone

element **stationarySourceOperationSet**

diagram													
properties	content complex												
children	stationarySourceOperation												
used by	group airportActivityGroup												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	documentation Container of operations conducted at a stationary source contributing emissions.												

attribute **stationarySourceOperationSet/@dummy**

type	xs:int
properties	use optional

element **stationarySourceSet**

diagram													
properties	content complex												
children	stationarySource												
used by	element AsifXml complexType airportLayoutType												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	documentation Container of stationary sources contributing emissions.												

attribute **stationarySourceSet/@dummy**

type	xs:int
properties	use optional

element **study**

diagram	<p>study Contains specific information about a study.</p> <ul style="list-style-type: none"> name Name of the study. studyType emissionsUnits description Optional description of the study. boundary 0..∞ 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. climate 0..∞ Characterizes the climate during the study. userDefinedAirportSet Contains user-defined airports. airportLayoutSet Contains layouts for ASIF partial import into an existing study. terrainFiles List of files containing descriptions of terrain. receptorSet 0..∞ Contains one or more receptor sets at various locations. fleet Defines aircraft fleet participating in the study. userGroundSupportEquipmentSet Supports user-created GSE stored in the STN_GSE table. This element supports the definition of user defined ground support equipment. scenario 0..∞ Encapsulates a scenario - such as Baseline or Alternative
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 Name of the study.</p>
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Name of the study.

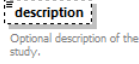
element [study/studyType](#)

diagram	<p>studyType</p>
type	studyType
properties	content simple
facets	Kind Value Annotation enumeration Emissions enumeration Dispersion enumeration Noise and Emissions enumeration Noise and Dispersion

element [study/emissionsUnits](#)

diagram	
type	emissionsUnitsType
properties	content simple
facets	Kind Value Annotation enumeration MetricTonnes enumeration Kilograms enumeration Grams enumeration ImperialTons enumeration Pounds

element **study/description**

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


element **study/terrainFiles**

diagram	
type	string255
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation List of files containing descriptions of terrain.

element **study/fleet**

diagram

fleet

auxiliaryPowerUnit 

0..∞

Describes a custom auxiliary power unit (APU). These are typically on-board generators providing power to a parked aircraft.

airframe 


0..∞

Supports the definition of custom airframes.

engine 


0..∞

User defined engine information containing custom parameters that reflect an aircraft engine. This engine definition can then be used within a user-defined aircraft.

engineMod 


0..∞

User defined engine modification information containing custom parameters that reflect an aircraft engine modification. This engine modification definition can that be used within a user defined aircraft.

spectralClass 


0..∞

This element contains user-defined spectral class data.

anpNoiseGroup 


0..∞

This element contains the three spectral class references for a given aircraft noise group with the corresponding thrust setting type and model type.

anpAirplane 


0..∞

Creates a new ANP aircraft.

anpFlapsSet 


0..∞

Flap settings for an ANP aircraft type.

anpThrustSet 


0..∞

Specifies a set of thrust records for an ANP aircraft.

anpProfileSet 

0..∞

The profile set for an ANP aircraft.

anpHeloNoiseGroup 


0..∞

This element contains the three spectral class references for a given helicopter noise group with the corresponding thrust setting type and model type.

anpHelicopter 


0..∞

Creates a new ANP helicopter.

anpHeloDirectivitySet 


0..∞

A set of helicopter directivities.

anpHeloProfileSet 


0..∞

A profile set for an ANP helicopter.

badaAirplane 


0..∞

Describes a new user-defined BADA airplane.

badaAltitudeDistributionSet 


0..∞

A block for defining a BADA altitude distribution set.

badaDefaultAltitudeDistribution... 

0..∞

A block for defining the BADA default altitude distribution set.

badaProfileSet 

0..∞

A block used to define a custom BADA profile set.

fleet 

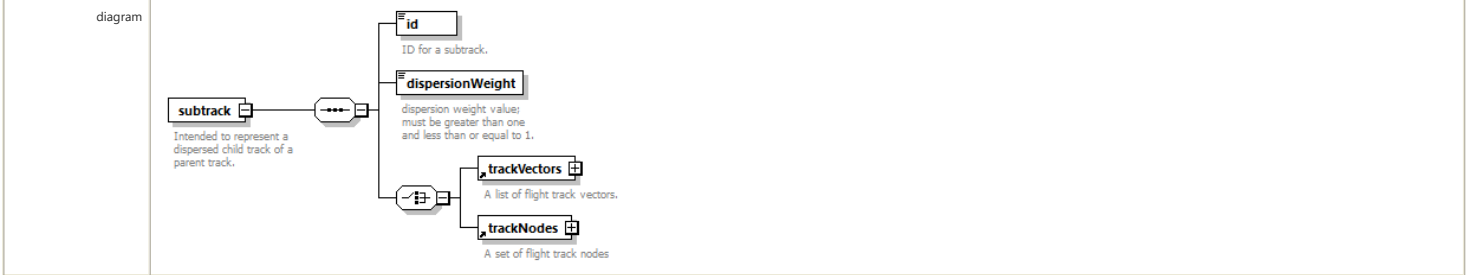
Defines aircraft fleet participating in the study.





type	fleet
properties	minOcc 0 maxOcc 1 content complex
children	auxiliaryPowerUnit airframe engine engineMod spectralClass appNoiseGroup appAirplane appElapsSet appThrustSet appProfileSet appHeloNoiseGroup appHelicopter appHeloDirectivitySet appHeloProfileSet badaAirplane badaAltitudeDistributionSet badaDefaultAltitudeDistributionSet badaProfileSet badaConfigSet badaFuel badaThrust bada4ProfileSet aircraft energyShare
annotation	documentation Defines aircraft fleet participating in the study.

element **subtrack**



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 ID for a subtrack.
type	xs:int
properties	content simple
annotation	documentation ID for a subtrack.

element **subtrack/dispersionWeight**

diagram	dispersionWeight 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 Supports data in the APTLAYOUT_TAXIWAY_P OINTS table. Taxi nodes define the points for a given taxiway.</p> <p>coord2DGroup Indicates how a two-dimensional group is specified.</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>lationCoordGroup Specifies a coordinate using latitude and longitude.</p> <p>latitude Latitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>latitudeDMS Latitude expressed as dd°mm'sss 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'sss with optional indicator N, n, S, s.</p> <p>utmCoordGroup Specifies a point using Universal Transverse Mercator coordinates.</p> <p>utmN UTM Northing of the point in decimal meters north of the equator.</p> <p>utmE UTM Easting of the point in decimal meters east from a central meridian.</p> <p>utmZone UTM Zone of the point. A default zone can be set in the &#60;options&#62; tag.</p>
properties	content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation speed
used by	element taxiNodeSet
annotation	documentation Supports data in the APTLAYOUT_TAXIWAY_POINTS table. Taxi nodes define the points for a given taxiway.

element [taxiNode/elevation](#)

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

element [taxiNode/speed](#)

diagram	<p>speed Speed of aircraft at node. Valid values: 1.00 to 60.00. (mph)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Speed of aircraft at node. Valid values: 1.00 to 60.00. (mph)

element [taxiNodeSet](#)

diagram	<p>taxiNodeSet Supports data in the APTLAYOUT_TAXIWAY_P OINTS table. Taxi nodes define the points for a given taxiway.</p> <p>2..∞</p> <p>taxiNode Supports data in the APTLAYOUT_TAXIWAY_P OINTS table. Taxi nodes define the points for a given taxiway.</p>
properties	content complex
children	taxiNode
used by	element taxiway

annotation	documentation Supports data in the APTLAYOUT_TAXIWAY_POINTS table. Taxi nodes define the points for a given taxiway.
------------	---

element **taxipath**

diagram	<p>Supports data contained in the APTLAYOUT_TAXIPATH 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	gateName runwayName direction taxiwayName
used by	element taxipathSet
annotation	documentation Supports data contained in the APTLAYOUT_TAXIPATH table. A taxipath is a sequence of taxiways, possibly just one, that connects a gate to a runway or vice versa. Taxipaths are used to do the modeling of aircraft ground movement. They are needed for sequence modeling, which includes all dispersion analyses. Gates, taxiways and runways must be defined before taxipaths can be specified.

element **taxipath/gateName**

diagram	
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation References an existing gate.

element **taxipath/runwayName**

diagram	
type	string8
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation References an existing runway.

element **taxipath/direction**

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

element **taxipath/taxiwayName**

diagram	
type	string20
properties	minOcc 1 maxOcc unbounded content simple

facets	Kind Value Annotation minLength 0 maxLength 20
annotation	documentation References an existing taxiway.

element **taxiPathSet**

diagram	<p>Supports data contained in the APTLAYOUT_TAXIPATH 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 data contained in the APTLAYOUT_TAXIPATH 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	documentation Supports data contained in the APTLAYOUT_TAXIPATH table. A taxiPath is a sequence of taxiways, possibly just one, that connects a gate to a runway or vice versa. TaxiPaths are used to do the modeling of aircraft ground movement. They are needed for sequence modeling, which includes all dispersion analyses. Gates, taxiways and runways must be defined before taxiPaths can be specified.

element **taxiTime**

diagram	
properties	content complex
children	source taxiIn taxiOut
used by	complexType airport

element **taxiTime/source**

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

element **taxiTime/taxiIn**

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

element **taxiTime/taxiOut**

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

element **taxiway**

diagram	<p>taxiway Supports data in the APTLAYOUT_TAXIWAY table. Taxiways determine the ground segments where the aircraft operates.</p> <p>name Identifying name for taxiway.</p> <p>dispersionWidth Width of emission dispersion around taxiway. Valid values: 0 to 100. (m)</p> <p>taxiNodeSet Supports data in the APTLAYOUT_TAXIWAY_POINTS table. Taxi nodes define the points for a given taxiway.</p>
properties	content complex
children	name dispersionWidth taxiNodeSet
used by	element taxiwaySet
annotation	documentation Supports data in the APTLAYOUT_TAXIWAY table. Taxiways determine the ground segments where the aircraft operates.

element [taxiway/name](#)

diagram	<p>name Identifying name for taxiway.</p>
type	string20
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 20
annotation	documentation Identifying name for taxiway.

element [taxiway/dispersionWidth](#)

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

element [taxiwaySet](#)

diagram	<p>taxiwaySet Supports data in the APTLAYOUT_TAXIWAY table. Taxiways determine the ground segments where the aircraft operates.</p> <p>taxiway Supports data in the APTLAYOUT_TAXIWAY table. Taxiways determine the ground segments where the aircraft operates.</p>
properties	content complex
children	taxiway
used by	complexType airportLayoutType
annotation	documentation Supports data in the APTLAYOUT_TAXIWAY table. Taxiways determine the ground segments where the aircraft operates.

element [track](#)

diagram	<pre> classDiagram class track { name } class optype { <<enum>> A = arrival, D = departure, V = overflight, T = Touch and Go } class wingtype { <<enum>> F = fixed wing, R = rotary wing } class airport { IATA airport code } class runway { name of the runway } class vectorCourseHelipad { direction for helicopter operations of vector type (angle from North) } class backbone { centerline of a set of dispersed tracks } class subtrack { 1..∞ dispersed child track of a parent track } track --> optype track --> wingtype track --> airport track --> runway track --> vectorCourseHelipad track --> backbone track --> subtrack </pre>
properties	content complex
children	name optype wingtype airport runway vectorCourseHelipad backbone subtrack
used by	elements trackOpSet trackSet
annotation	documentation A flight track that can be used for flight operations.

element track/name

diagram	<pre> classDiagram class name { <<string64>> } </pre>
type	string64
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 64
annotation	documentation The name of the track.

element track/optype

diagram	<pre> classDiagram class optype { <<enum>> A = arrival, D = departure, V = overflight, T = Touch and Go } </pre>
type	trackType
properties	content simple
facets	Kind Value Annotation pattern A Arrival D Departure V Overflight T TouchAndGo X ArrivalHelix O DepartureHelix
annotation	documentation Type of track. (A = arrival, D = departure, V = overflight, T = Touch and Go)

element track/wingtype

diagram	<pre> classDiagram class wingtype { <<enum>> F = fixed wing, R = rotary wing } </pre>
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	<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>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 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	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Direction for helicopter operations of vector type (angle from North).

element **trackNode**

diagram	
properties	content complex
children	id description latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone altitude speed
used by	elements backboneNode trackNodes
annotation	documentation A flight track node.

element **trackNode/altitude**

diagram													
type	extension of xs:double												
properties	minOcc 0 maxOcc 1 content complex												
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>control</td> <td>nodeControlType</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	control	nodeControlType	optional			
Name	Type	Use	Default	Fixed	Annotation								
control	nodeControlType	optional											
annotation	documentation Node's altitude above or below MSL (feet). Includes attribute node.												

attribute **trackNode/altitude/@control**

type	nodeControlType						
properties	use optional						
facets	<table border="1"> <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	
type	extension of xs:double
properties	minOcc 0 maxOcc 1

	content complex					
attributes	Name control	Type nodeControlType	Use optional	Default	Fixed	Annotation
annotation	documentation Speed of aircraft at node (KCAS). Includes attribute node. Valid values: nonnegative, Units: knots					

attribute **trackNode/speed/@control**

type	nodeControlType
properties	use optional
facets	Kind Value Annotation pattern 0 None 1 AtOrBelow 2 Match 3 AtOrAbove

element **trackNodes**

diagram	
properties	content complex
children	trackNode
used by	element subtract
annotation	documentation A set of flight track nodes

element **trackOpSet**

diagram	
properties	content complex
children	track trackref sensorPath operations
used by	elements AsifXml case
annotation	documentation Lists tracks and associated operations.

element **trackref**

diagram	
properties	content complex
children	airportLayoutName trackName optype runway
used by	element trackOpSet
annotation	documentation Reference to a flight track.


element **trackref/airportLayoutName**

diagram	
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airport layout associated with this track.


element **trackref/trackName**

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

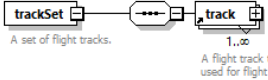
element **trackref/optype**

diagram	
type	trackType
properties	content simple
facets	Kind Value Annotation pattern A Arrival D Departure V Overflight T TouchAndGo X ArrivalHelixTaxi O DepartureHelixTaxi

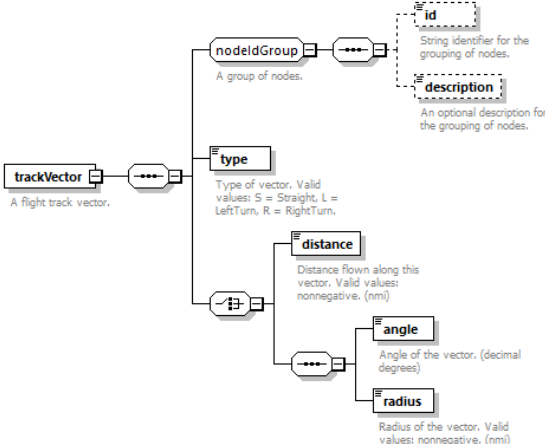
element **trackref/runway**

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


element **trackSet**

diagram	
properties	content complex
children	track
used by	complexType airportLayoutType
annotation	documentation A set of flight tracks.


element **trackVector**

diagram	
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	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.

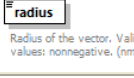
element trackVector/distance

diagram	
type	xs:double
properties	content simple
annotation	documentation Distance flown along this vector. Valid values: nonnegative. (nm)


element trackVector/angle

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

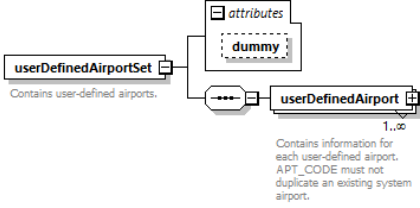
element trackVector/radius

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

element trackVectors

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

element userDefinedAirportSet

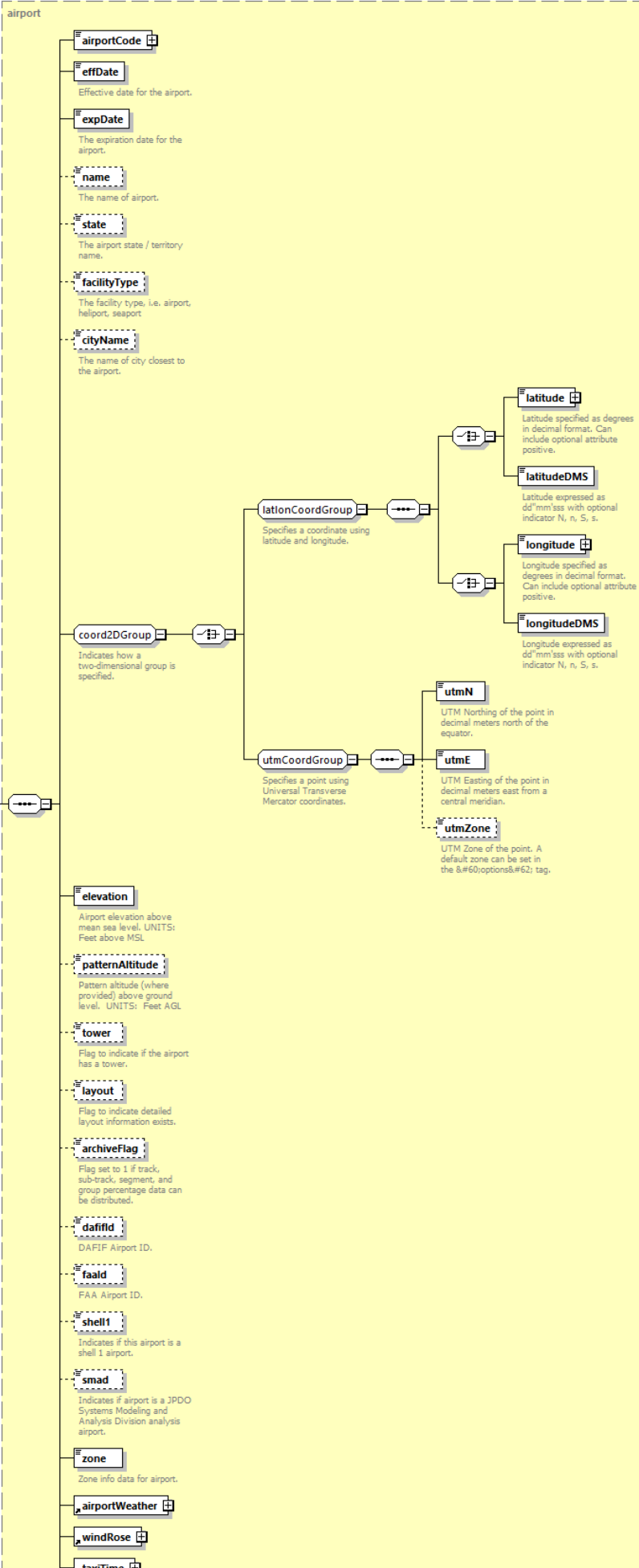
diagram	
properties	content complex
children	userDefinedAirport
used by	element study
attributes	Name Type Use Default Fixed Annotation dummy xs:int optional
annotation	documentation Contains user-defined airports.

attribute userDefinedAirportSet/@dummy

type	xs:int
properties	use optional

element **userDefinedAirportSet/userDefinedAirport**

diagram



userDefinedAirport
 1..∞
 Contains information for each user-defined airport. APT_CODE must not duplicate an existing system airport.

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 dafifld faald 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	<p>userGroundSupportEquipment Supports user-created GSE stored in the STN_GSE table. This element supports the definition of user defined ground support equipment.</p> <ul style="list-style-type: none"> gseID User GSE ID (used as identifier (System GSE ID) in AIRCRAFT_GSE_ASSIGNMENTS, GSE_POPULATION, GSE_POPULATION_GATE_ASSIGNMENTS). gseName Custom GSE name. defaultLoadFactor GSE default load factor (dimensionless). Valid values: 0 (0%) to 1 (100%). defaultHorsepower GSE default horsepower. Valid values: 0 to 10000. (hp) defaultOpTimeDepartures GSE default operation time departures. Valid values: 0 to 1000. (min/LTO) defaultOpTimeArrivals GSE default operation time arrivals. Valid values: 0 to 1000. (min/LTO) defaultAnnualOpTime GSE default operation time annual. Valid values: 0 to 8784. (min/LTO) userEmissionFactors Describes user-defined fuel emission factors.
properties	content complex
children	gseID gseName defaultLoadFactor defaultHorsepower defaultOpTimeDepartures defaultOpTimeArrivals defaultAnnualOpTime userEmissionFactors
used by	element userGroundSupportEquipmentSet
annotation	documentation Supports user-created GSE stored in the STN_GSE table. This element supports the definition of user defined ground support equipment.


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	documentation User GSE ID (used as identifier (System GSE ID) in AIRCRAFT_GSE_ASSIGNMENTS, GSE_POPULATION, GSE_POPULATION_GATE_ASSIGNMENTS).


element **userGroundSupportEquipment/gseName**

diagram	<p>gseName Custom GSE name.</p>
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Custom GSE name.


element **userGroundSupportEquipment/defaultLoadFactor**

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

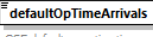
element **userGroundSupportEquipment/defaultHorsepower**

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

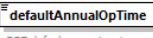
element **userGroundSupportEquipment/defaultOpTimeDepartures**

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

element **userGroundSupportEquipment/defaultOpTimeArrivals**

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

element **userGroundSupportEquipment/defaultAnnualOpTime**

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

element **userGroundSupportEquipment/userEmissionFactors**

diagram	 <p>userEmissionFactors Describes user-defined fuel emission factors.</p> <ul style="list-style-type: none"> emissionFactorsDiesel User-defined fuel emission factor for diesel. emissionFactorsGas User-defined fuel emission factor for gasoline. emissionFactorsCNG User-defined fuel emission factor for compressed natural gas. emissionFactorsLPG User-defined fuel emission factor for liquefied petroleum gas.
properties	content complex
children	emissionFactorsDiesel emissionFactorsGas emissionFactorsCNG emissionFactorsLPG
annotation	documentation Describes user-defined fuel emission factors.

element **userGroundSupportEquipment/userEmissionFactors/emissionFactorsDiesel**

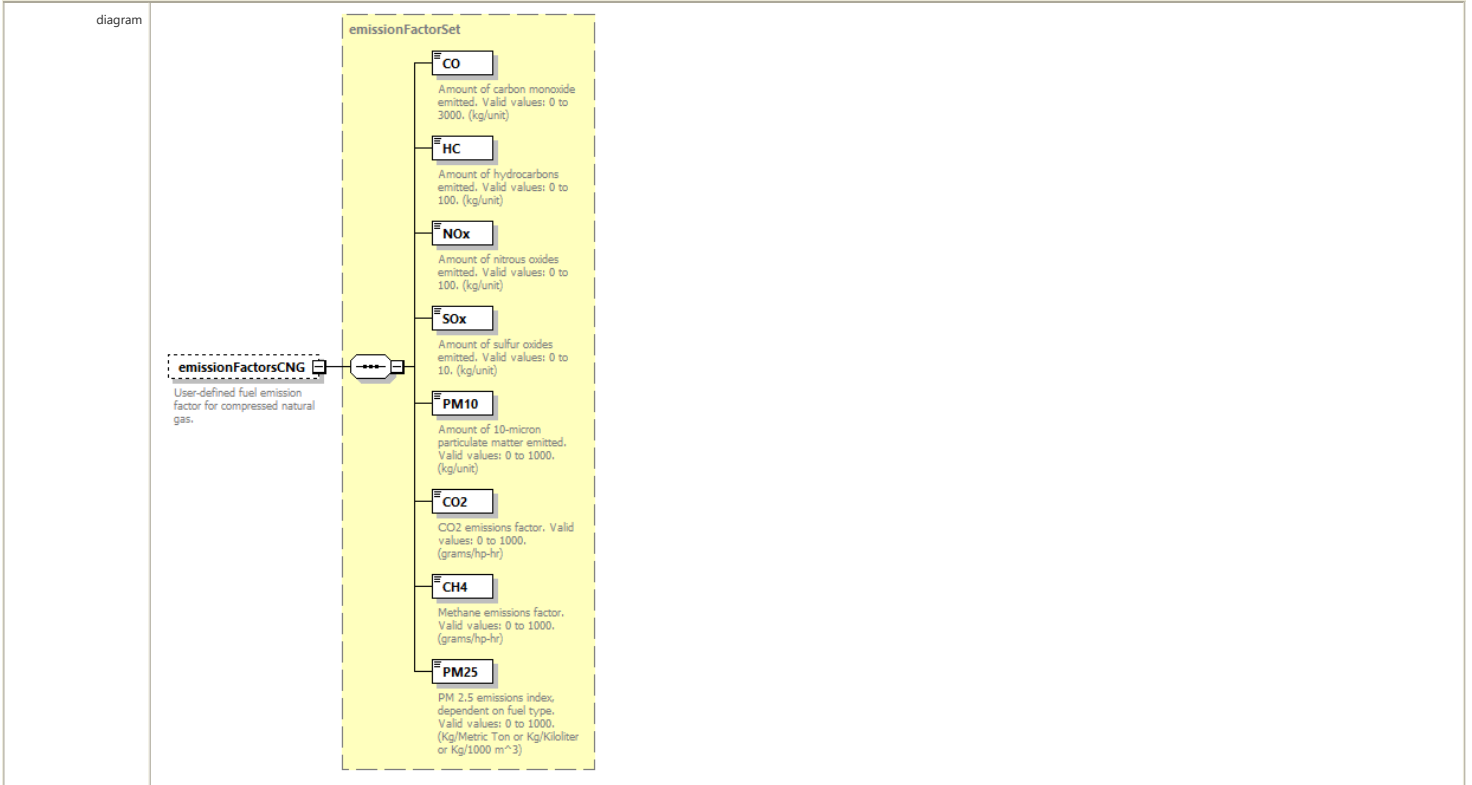
<p>diagram</p>	<p>emissionFactorSet</p> <ul style="list-style-type: none"> CO: Amount of carbon monoxide emitted. Valid values: 0 to 3000. (kg/unit) HC: Amount of hydrocarbons emitted. Valid values: 0 to 100. (kg/unit) NOx: Amount of nitrous oxides emitted. Valid values: 0 to 100. (kg/unit) SOx: Amount 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) CO2: CO2 emissions factor. Valid values: 0 to 1000. (grams/hp-hr) CH4: Methane emissions factor. Valid values: 0 to 1000. (grams/hp-hr) PM25: PM 2.5 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³) <p>emissionFactorsDiesel: User-defined fuel emission factor for diesel.</p>
<p>type</p>	<p>emissionFactorSet</p>
<p>properties</p>	<p>minOcc 0 maxOcc 1 content complex</p>
<p>children</p>	<p>CO HC NOx SOx PM10 CO2 CH4 PM25</p>
<p>annotation</p>	<p>documentation User-defined fuel emission factor for diesel.</p>

element **userGroundSupportEquipment/userEmissionFactors/emissionFactorsGas**

<p>diagram</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) CO2: CO2 emissions factor. Valid values: 0 to 1000. (grams/hp-hr) CH4: Methane emissions factor. Valid values: 0 to 1000. (grams/hp-hr) PM25: PM 2.5 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³) <p>emissionFactorsGas: User-defined fuel emission factor for gasoline.</p>
<p>type</p>	<p>emissionFactorSet</p>
<p>properties</p>	<p>minOcc 0 maxOcc 1 content complex</p>
<p>children</p>	<p>CO HC NOx SOx PM10 CO2 CH4 PM25</p>

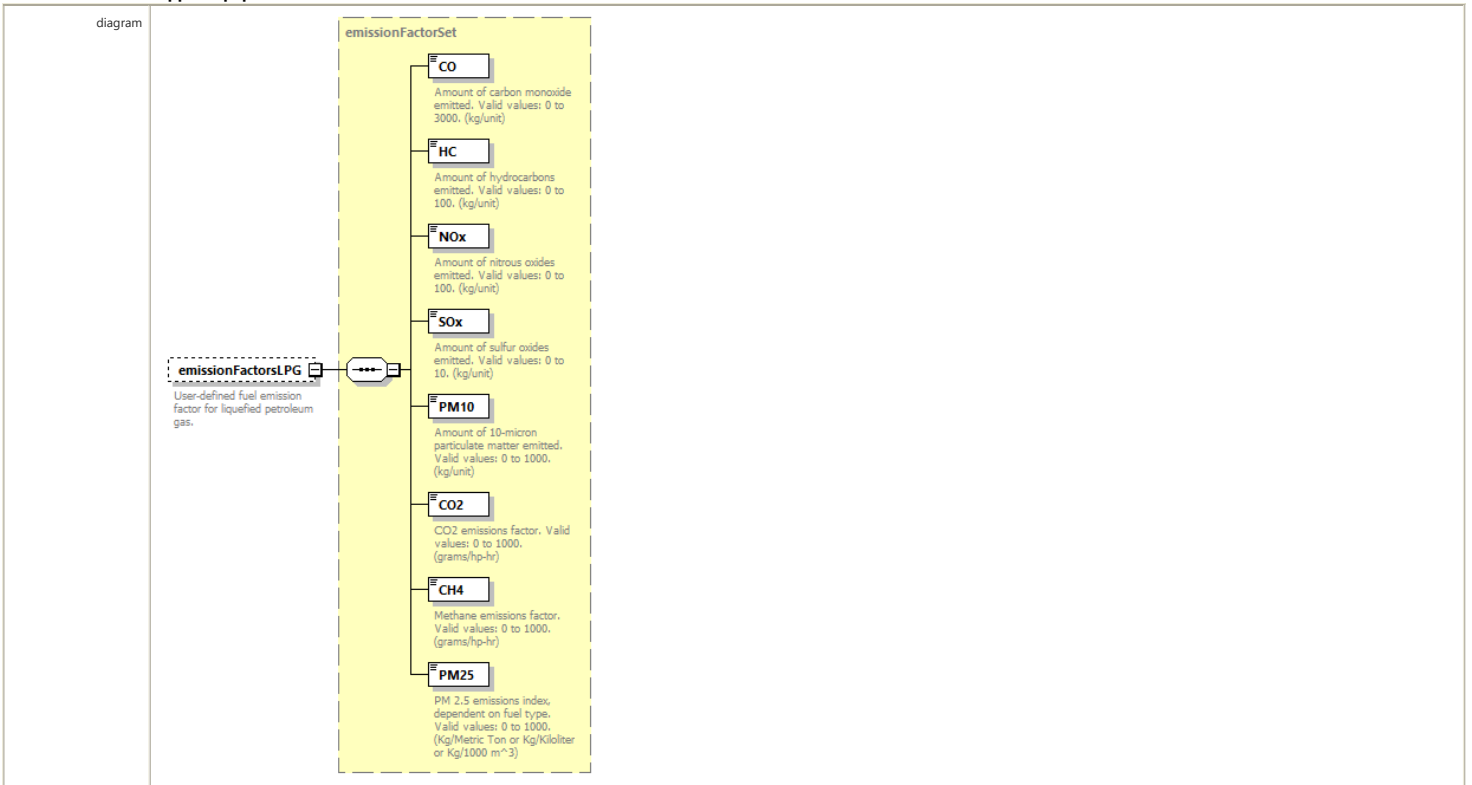
annotation	documentation User-defined fuel emission factor for gasoline.
------------	--

element **userGroundSupportEquipment/userEmissionFactors/emissionFactorsCNG**



type	emissionFactorSet
properties	minOcc 0 maxOcc 1 content complex
children	CO HC NOx SOx PM10 CO2 CH4 PM25
annotation	documentation User-defined fuel emission factor for compressed natural gas.

element **userGroundSupportEquipment/userEmissionFactors/emissionFactorsLPG**



type	emissionFactorSet
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properties	minOcc 0 maxOcc 1 content complex
children	CO HC NOx SOx PM10 CO2 CH4 PM25
annotation	documentation User-defined fuel emission factor for liquefied petroleum gas.

element **userGroundSupportEquipmentSet**

diagram	<pre> classDiagram class userGroundSupportEquipmentSet { +attributes +dummy } class userGroundSupportEquipment { } userGroundSupportEquipmentSet "1" -- "1..∞" userGroundSupportEquipment </pre>												
properties	content complex												
children	userGroundSupportEquipment												
used by	elements AsifXml study												
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	documentation Supports user-created GSE stored in the STN_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	<p>vehicleEmissionFactors</p> <p>NOT currently supported in AEDT - legacy EDMS definitions for emission factors for Roadways and Parking Lots. This element supports the definition of custom emission factor specifications for roadways and parking.</p> <ul style="list-style-type: none"> CO Amount of carbon monoxide emitted. Valid Values: 0 to 20000. (grams/vehicle-mile) NMHC Amount of non-methane hydrocarbons emitted. Valid Values: 0 to 20000. (grams/vehicle-mile) VOC Amount of volatile organic compounds emitted. Valid Values: 0 to 20000. (grams/vehicle-mile) THC Amount of total hydrocarbons emitted. Valid Values: 0 to 20000. (grams/vehicle-mile) TOG Amount of total organic gasses emitted. Valid Values: 0 to 20000. (grams/vehicle-mile) NOx Amount of nitrous oxides emitted. Valid Values: 0 to 20000. (grams/vehicle-mile) SOx Amount of sulfur oxides emitted. Valid Values: 0 to 20000. (grams/vehicle-mile) PM-10 Amount of 10-micron particulate matter emitted. (grams/vehicle-mile) PM-2.5 Amount of 2.5-micron particulate matter emitted. Valid Values: 0 to 20000. (grams/vehicle-mile) Benzene Amount of benzene emitted. (grams/vehicle-mile) MTBE Amount of methyl tertiary butyl ether emitted. (grams/vehicle-mile) Butadiene Amount of butadiene emitted. (grams/vehicle-mile) Formaldehyde Amount of formaldehyde emitted. (grams/vehicle-mile) Acetaldehyde Amount of acetaldehyde emitted. (grams/vehicle-mile) Acrolein Amount of acrolein emitted. (grams/vehicle-mile)
properties	content complex
children	CO NMHC VOC THC TOG NOx SOx PM-10 PM-2.5 Benzene MTBE Butadiene Formaldehyde Acetaldehyde Acrolein
used by	elements parkingFacilityOperation roadwayOperation
annotation	documentation NOT currently supported in AEDT - legacy EDMS definitions for emission factors for Roadways and Parking Lots. This element supports the definition of custom emission factor specifications for roadways and parking.

element **vehicleEmissionFactors/CO**


diagram	<p>CO Amount of carbon monoxide emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)</p>
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	<p>NMHC Amount of non-methane hydrocarbons emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)</p>
type	xs:double
properties	content simple

annotation	documentation Amount of non-methane hydrocarbons emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)
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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)
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/vehide-mile)


element **vehicleEmissionFactors/Butadiene**

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>The diagram shows the structure of the volumeStationarySource element. It is a complex content type containing several child elements: pointCoord, baseElevation, releaseHeight, sigmaZ, and sigmaY. The pointCoord element is a complex type containing latlonCoordGroup and utmCoordGroup. latlonCoordGroup contains latitude and longitude. utmCoordGroup contains utmN, utmE, and utmZone. The releaseHeight element is shown as a dashed box, indicating it is optional.</p>
properties	content complex
children	pointCoord baseElevation releaseHeight sigmaZ sigmaY
used by	element stationarySource
annotation	documentation Specifies the volume in space occupied by a stationary source of emissions.

element **volumeStationarySource/pointCoord**

diagram	<p>The diagram shows the structure of the pointCoord element. It is a complex content type containing two child elements: latlonCoordGroup and utmCoordGroup. latlonCoordGroup contains latitude and longitude. utmCoordGroup contains utmN, utmE, and utmZone. The utmZone element is shown as a dashed box, indicating it is optional.</p>
type	coord2DType
properties	content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone
annotation	documentation Type of 2D coordinates specifying the volume.

element **volumeStationarySource/baseElevation**


diagram	<p>The diagram shows the structure of the baseElevation element. It is a simple content type containing a single child element: xsdouble.</p>
type	xsdouble
properties	content simple
annotation	documentation Height of volume. (m)

element **volumeStationarySource/releaseHeight**


diagram	<p>The diagram shows the structure of the releaseHeight element. It is a simple content type containing a single child element: doubleInclusive100.</p>
type	doubleInclusive100

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

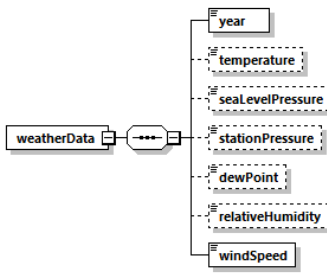
element **volumeStationarySource/sigmaZ**

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

element **volumeStationarySource/sigmaY**

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

element **weatherData**

diagram	
properties	content complex
children	year temperature seaLevelPressure stationPressure dewPoint relativeHumidity windSpeed
used by	element airportWeatherStation

element **weatherData/year**

diagram	
type	weatherDataYear
properties	content simple

element **weatherData/temperature**

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

element **weatherData/seaLevelPressure**

diagram	
type	xs:decimal
properties	minOcc 0 maxOcc 1

content simple

element **weatherData/stationPressure**

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

element **weatherData/dewPoint**

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

element **weatherData/relativeHumidity**

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

element **weatherData/windSpeed**

diagram	
type	xs:decimal
properties	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 S01T004KTS S04T007KTS S07T011KTS S11T017KTS S17T022KTS S22T028KTS S28T034KTS S34T041KTS S41PLUSKTS DIRTOTAL

used by	element windRoseStation
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element **windRoseData/directionRange**

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

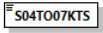
element **windRoseData/centerDirection**

diagram	
type	xs:int
properties	content simple

element **windRoseData/S01T004KTS**

diagram	
type	xs:int
properties	content simple

element **windRoseData/S04T007KTS**

diagram	
type	xs:int
properties	content simple

element **windRoseData/S07T011KTS**

diagram	
type	xs:int
properties	content simple

element **windRoseData/S11T017KTS**

diagram	
type	xs:int
properties	content simple

element **windRoseData/S17T022KTS**

diagram	
type	xs:int
properties	content simple

element **windRoseData/S22T028KTS**

diagram	
type	xs:int
properties	content simple

element **windRoseData/S28T034KTS**

diagram	
type	xs:int
properties	content simple

element **windRoseData/S34T041KTS**

diagram	
type	xs:int
properties	content simple

element **windRoseData/S41PLUSKTS**

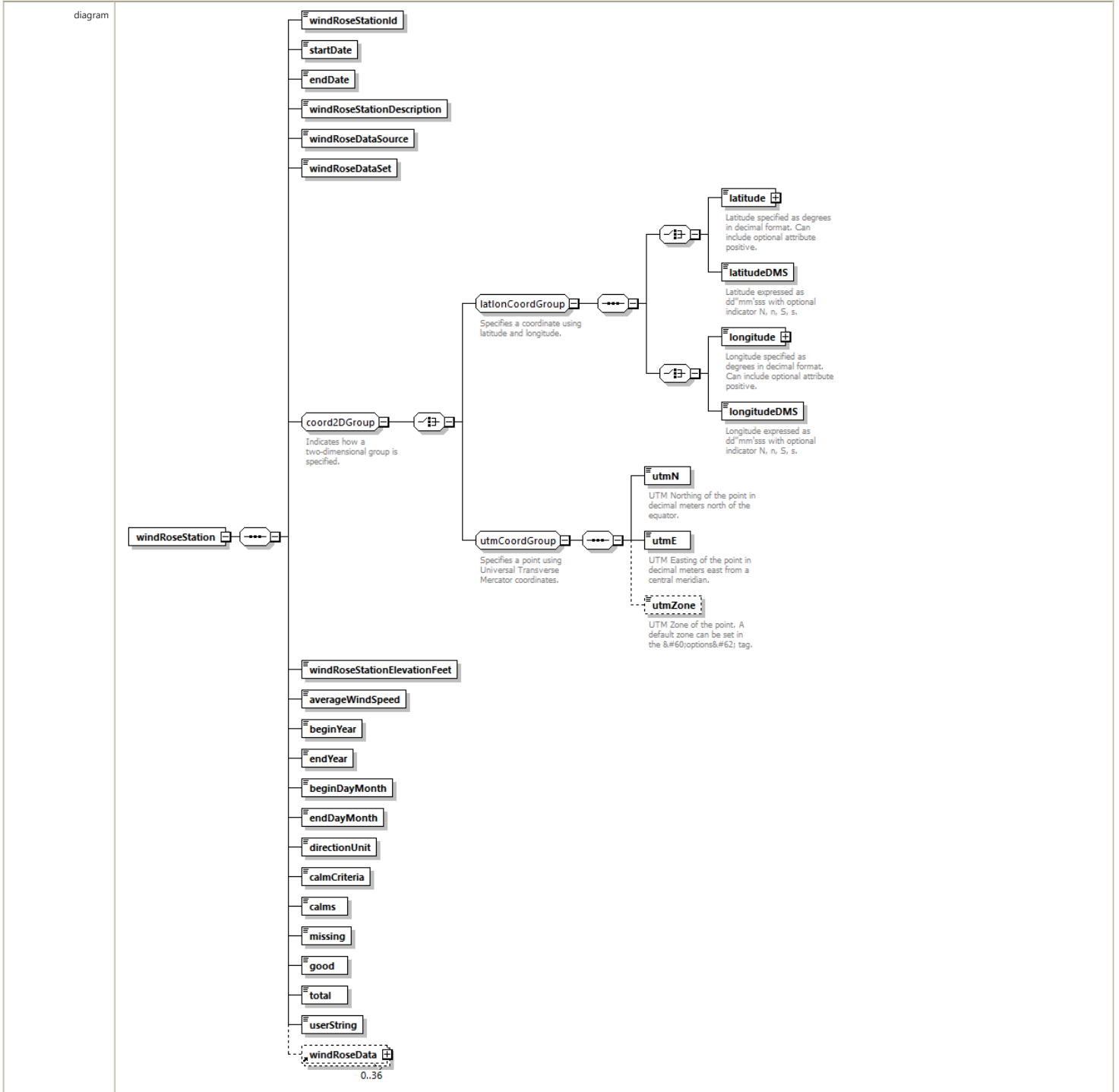
diagram	
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type	xs:int
properties	content simple

element **windRoseData/DIRTOTAL**

diagram	
type	xs:int
properties	content simple

element **windRoseStation**




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

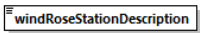
element **windRoseStation/startDate**

diagram	
type	xs:date
properties	content simple

element **windRoseStation/endDate**

diagram	
type	xs:date
properties	content simple

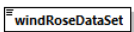
element **windRoseStation/windRoseStationDescription**

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

element **windRoseStation/windRoseDataSource**

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

element **windRoseStation/windRoseDataSet**

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

element **windRoseStation/windRoseStationElevationFeet**

diagram	
type	xs:int
properties	content simple

element **windRoseStation/averageWindSpeed**

diagram	
type	xs:double
properties	content simple

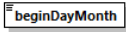
element **windRoseStation/beginYear**

diagram	
type	xs:int
properties	content simple

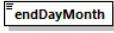
element **windRoseStation/endYear**

diagram	
type	xs:int
properties	content simple

element **windRoseStation/beginDayMonth**

diagram	
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>airportActivityGroup Contains a set of activities conducted at an airport.</p> <p>parkingFacilityOperationSet NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of parking lot and parking garage activities for scenario layouts.</p> <p>roadwayOperationSet NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of vehicle activity on roadways for scenario layouts.</p> <p>stationarySourceOperationSet Container of operations conducted at a stationary source contributing emissions.</p> <p>groundSupportEquipmentPopul... Supports GSE operational data in the STN_OP_GSE table. This element supports the definition of user defined ground support equipment in operational usage.</p>
children	parkingFacilityOperationSet roadwayOperationSet stationarySourceOperationSet groundSupportEquipmentPopulationOperationSet
used by	element case
annotation	documentation Contains a set of activities conducted at an airport.

group annualizationGroupCase

diagram	<p>annualizationGroupCase Allows for grouping cases into groups, and groups into parent groups.</p> <p>annualizationGroup 0..∞ Contains one or more weighted annualization group cases.</p> <p>annualizationCase 0..∞ Collection of study cases whose results are weighted in the scenario annualization rollup.</p>
children	annualizationGroup annualizationCase
used by	element annualizationGroup
annotation	documentation Allows for grouping cases into groups, and groups into parent groups.

group coord2DGroup

diagram	<p>coord2DGroup Indicates how a two-dimensional group is specified.</p> <p>latlonCoordGroup Specifies a coordinate using latitude and longitude.</p> <p>latitude Latitude 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>longitude Longitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>longitudeDMS Longitude expressed as dd°mm'sss with optional indicator N, n, S, s.</p> <p>utmCoordGroup Specifies a point using Universal Transverse Mercator coordinates.</p> <p>utmN UTM Northing of the point in decimal meters north of the equator.</p> <p>utmE UTM Easting of the point in decimal meters east from a central meridian.</p> <p>utmZone UTM Zone of the point. A default zone can be set in the &#60;options&#62; tag.</p>
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone
used by	elements airportWeatherStation centroid grid pointReceptor polarGrid polarReceptor taxiNode trackNode windRoseStation complexTypes airport airportLayoutType runway runwayEnd
annotation	documentation Indicates how a two-dimensional group is specified.

group latlonCoordGroup

group **nodeIdGroup**

diagram	<p>The diagram shows a rounded rectangle labeled nodeIdGroup with the text "A group of nodes." below it. To its right is a dashed box containing two fields: id and description. The id field is connected to the main element by a solid line, and the description field is connected by a dashed line. Text next to id says "String identifier for the grouping of nodes." and text next to description says "An optional description for the grouping of nodes."</p>
children	id description
used by	elements trackNode trackVector
annotation	documentation A group of nodes.

element **nodeIdGroup/id**

diagram	<p>The diagram shows a dashed box containing the field id. Text below it says "String identifier for the grouping of nodes."</p>
type	string16
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 16
annotation	documentation String identifier for the grouping of nodes.

element **nodeIdGroup/description**

diagram	<p>The diagram shows a dashed box containing the field description. Text below it says "An optional description for the grouping of nodes."</p>
type	string16
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 16
annotation	documentation An optional description for the grouping of nodes.

group **oneOrThreeCoords2DGroupSet**

diagram	<p>The diagram shows a rounded rectangle labeled oneOrThreeCoords2DGroupSet with the text "Type of coordinate specifying the area." below it. To its right is a dashed box containing two fields: pointCoord and polygonCoords. The pointCoord field is connected to the main element by a solid line, and the polygonCoords field is connected by a dashed line. Text next to pointCoord says "Choice of a single point coordinate." and text next to polygonCoords says "Choice of a 2D polygon."</p>
children	pointCoord polygonCoords
used by	elements areaStationarySource building gate parkingFacility
annotation	documentation Type of coordinate specifying the area.

element **oneOrThreeCoords2DGroupSet/pointCoord**

diagram	<p>The diagram shows a choice between pointCoord and a group containing latlonCoordGroup and utmCoordGroup. latlonCoordGroup contains latitude, latitudeDMS, longitude, and longitudeDMS. utmCoordGroup contains utmN, utmE, and utmZone.</p>
type	coord2DType
properties	content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone
annotation	documentation Choice of a single point coordinate.

element **oneOrThreeCoords2DGroupSet/polygonCoords**

diagram	<p>The diagram shows a choice between dummy and vertex.</p>
type	polygon2DType
properties	content complex
children	dummy vertex
annotation	documentation Choice of a 2D polygon.

group **pm10TermGroup**

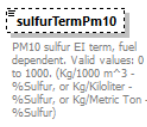
diagram	<p>The diagram shows a choice between constantTermPm10 and sulfurTermPm10.</p>
children	constantTermPm10 sulfurTermPm10
used by	element categoryBoilerHeater

element **pm10TermGroup/constantTermPm10**

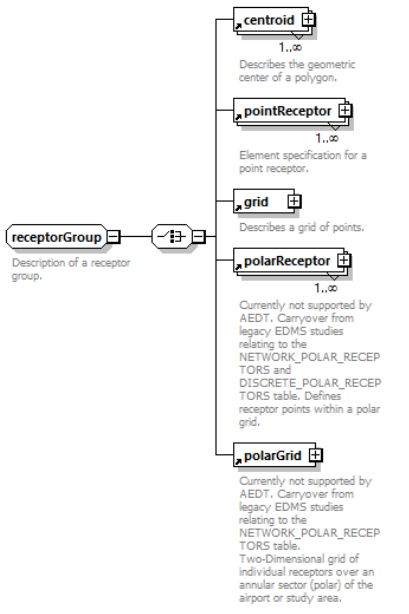
diagram	<p>constantTermPm10 PM10 emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)</p>
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000

annotation	documentation PM10 emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloiter or Kg/1000 m^3)
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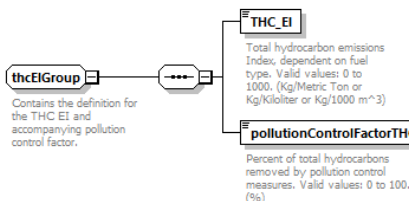
element **pm10TermGroup/sulfurTermPm10**

diagram	
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/Kiloiter - %Sulfur, or Kg/Metric Ton - %Sulfur)

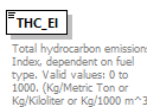
group **receptorGroup**

diagram	
children	centroid pointReceptor grid polarReceptor polarGrid
used by	element receptorSet
annotation	documentation Description of a receptor group.

group **thcEIGroup**

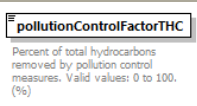
diagram	
children	THC_EI pollutionControlFactorTHC
used by	element categoryBoilerHeater
annotation	documentation Contains the definition for the THC EI and accompanying pollution control factor.

element **thcEIGroup/THC_EI**

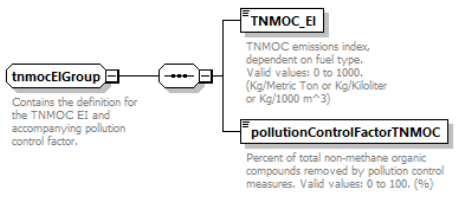
diagram	
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation

	minInclusive 0 maxInclusive 1000
annotation	documentation Total hydrocarbon emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloiter or Kg/1000 m^3)

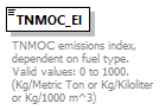
element **thcEIGroup/pollutionControlFactorTHC**

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

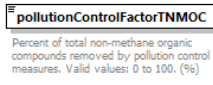
group **tnmocEIGroup**

diagram	 <p>tnmocEIGroup Contains the definition for the TNMOC EI and accompanying pollution control factor.</p> <p>TNMOC_EI TNMOC emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloiter or Kg/1000 m^3)</p> <p>pollutionControlFactorTNMOC Percent of total non-methane organic compounds removed by pollution control measures. Valid values: 0 to 100. (%)</p>
children	TNMOC_EI pollutionControlFactorTNMOC
used by	element categoryBoilerHeater
annotation	documentation Contains the definition for the TNMOC EI and accompanying pollution control factor.

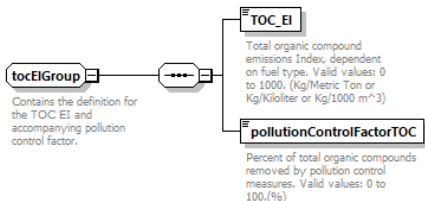
element **tnmocEIGroup/TNMOC_EI**

diagram	 <p>TNMOC_EI TNMOC emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloiter 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/Kiloiter or Kg/1000 m^3)

element **tnmocEIGroup/pollutionControlFactorTNMOC**


diagram	 <p>pollutionControlFactorTNMOC Percent of total non-methane organic compounds removed by pollution control measures. Valid values: 0 to 100. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of total non-methane organic compounds removed by pollution control measures. Valid values: 0 to 100. (%)

group **tocEIGroup**


diagram	 <p>tocEIGroup Contains the definition for the TOC EI and accompanying pollution control factor.</p> <p>TOC_EI Total organic compound emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloiter or Kg/1000 m^3)</p> <p>pollutionControlFactorTOC Percent of total organic compounds removed by pollution control measures. Valid values: 0 to 100. (%)</p>
children	TOC_EI pollutionControlFactorTOC
used by	element categoryBoilerHeater

annotation	documentation Contains the definition for the TOC EI and accompanying pollution control factor.
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element **tocEIGroup/TOC_EI**

diagram	 <p>Total organic compound emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)</p>
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation Total organic compound emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m ³)


element **tocEIGroup/pollutionControlFactorTOC**

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


group **utmCoordGroup**

diagram	 <p>Specifies a point using Universal Transverse Mercator coordinates.</p> <p>utmN: UTM Northing of the point in decimal meters north of the equator.</p> <p>utmE: UTM Easting of the point in decimal meters east from a central meridian.</p> <p>utmZone: UTM Zone of the point. A default zone can be set in the &#60;options&#62; tag.</p>
children	utmN utmE utmZone
used by	complexType coord2DType group coord2DGroup
annotation	documentation Specifies a point using Universal Transverse Mercator coordinates.

element **utmCoordGroup/utmN**

diagram	 <p>UTM Northing of the point in decimal meters north of the equator.</p>
type	xs:double
properties	content simple
annotation	documentation UTM Northing of the point in decimal meters north of the equator.

element **utmCoordGroup/utmE**

diagram	 <p>UTM Easting of the point in decimal meters east from a central meridian.</p>
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	 <p>UTM Zone of the point. A default zone can be set in the &#60;options&#62; tag.</p>
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type	xsint
properties	minOcc 0 maxOcc 1 content simple default -1
annotation	documentation UTM Zone of the point. A default zone can be set in the <code>&#60;options&#62;</code> tag.

group **vocEIGroup**

diagram	
children	VOC_EI pollutionControlFactorVOC
used by	element categoryBoilerHeater
annotation	documentation Contains the definition for the VOC EI and accompanying pollution control factor.

element **vocEIGroup/VOC_EI**

diagram	
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 **vocEIGroup/pollutionControlFactorVOC**

diagram	
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 100. (%)

complexType **aircraft**

diagram	
children	description airframeModel engineCode engineModCode anpAirplaneId badaAirplaneId anpHelicopterId bada4AirplaneModel bada4Engine bada4Suffix bada4FlapsMapSourceAnpld
used by	element fleet/aircraft
annotation	documentation Main block for creating new user defined AEDT aircraft.

element [aircraft/description](#)

diagram	
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	
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	
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	 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.

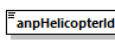
element **aircraft/anpAirplaneId**

diagram	 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	 The BADA airplane linked to this user defined aircraft.
type	badaAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The BADA airplane linked to this user defined aircraft.

element **aircraft/anpHelicopterId**

diagram	 The ANP helicopter linked to this user defined helicopter.
type	anpHeloid
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The ANP helicopter linked to this user defined helicopter.

element **aircraft/bada4AirplaneModel**

diagram	 Airplane's BADA 4 model.
type	bada4AirplaneModel
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's BADA 4 model.

element **aircraft/bada4Engine**

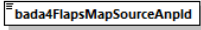
diagram	 Airplane's BADA 4 engine.
type	bada4Engine
properties	content simple
facets	Kind Value Annotation minLength 0

	maxLength 255
annotation	documentation Airplane's BADA 4 engine.


element **aircraft/bada4Suffix**

diagram	 bada4Suffix User-defined BADA 4 model suffix.
type	bada4Suffix
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation User-defined BADA 4 model suffix.

element **aircraft/bada4FlapsMapSourceAnpld**

diagram	 bada4FlapsMapSourceAnpld Source ANP airplane ID for mapping ANP flaps to BADA 4.
type	anpAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Source ANP airplane ID for mapping ANP flaps to BADA 4.

complexType **aircraftEngine**

<p>diagram</p>  <p>aircraftEngine 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> <ul style="list-style-type: none"> code: Unique ICAO UID. model: Engine model. engineType: Engine type. Valid values: J (jet), T (turboprop), P (piston). notes: Free-text notes for the engine. emissionsEngineModel: ICAO emissions model for the engine. performanceEngineModel: ICAO performance model for the engine. manufacturer: Engine manufacturer. combustor: Combustor used on engine. superseded: ICAO UID of engine that supersedes the given engine. ratedEngineOut: Rated engine output (in kN). Valid values: Nonnegative. source: Source of engine data. bypassRatio: Engine's bypass ratio. Valid values: Nonnegative. pressureRatio: Engine's pressure ratio. Valid values: Nonnegative. tfmtFlag: Turbo-fan or Mixed turn-fan flag. Valid values: TF (turbofan) or MTF (mixed turbofan). defaultSOx: Sulfur oxides emitted (grams per kilogram of fuel). Valid values: Nonnegative. taxiIdleEmissionFactors: Emission factor when aircraft is idling. takeOffEmissionFactors: Emission factor when aircraft is taking off. climbEmissionFactors: Emission factor when aircraft is climbing. approachEmissionFactors: Emission factor when aircraft is on approach. 	
children	code model engineType notes emissionsEngineModel performanceEngineModel manufacturer combustor superseded ratedEngineOut source bypassRatio pressureRatio tfmtFlag defaultSOx taxiIdleEmissionFactors takeOffEmissionFactors climbEmissionFactors approachEmissionFactors
used by	element fleet/engine
annotation	documentation User defined engine information containing custom parameters that reflect an aircraft engine. This engine definition can that be used within a user defined aircraft.

element **aircraftEngine/code**


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

element **aircraftEngine/model**


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

element **aircraftEngine/engineType**

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

element **aircraftEngine/notes**

diagram	 notes Free-text notes for the engine.
type	string1024
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1024
annotation	documentation Free-text notes for the engine.


element **aircraftEngine/emissionsEngineModel**

diagram	 emissionsEngineModel ICAO emissions model for the engine.
type	string25
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 25
annotation	documentation ICAO emissions model for the engine.

element **aircraftEngine/performanceEngineModel**

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

element **aircraftEngine/manufacturer**

diagram	 manufacturer Engine manufacturer.
type	string100
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 100

annotation	documentation Engine manufacturer.
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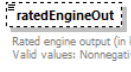
element **aircraftEngine/combustor**

diagram	 Combustor used on engine.
type	string50
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation Combustor used on engine.


element **aircraftEngine/superseded**

diagram	 ICAO UID of engine that supersedes the given engine.
type	string10
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 10
annotation	documentation ICAO UID of engine that supersedes the given engine.

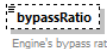
element **aircraftEngine/ratedEngineOut**

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

element **aircraftEngine/source**

diagram	 Source of engine data.
type	string100
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Source of engine data.

element **aircraftEngine/bypassRatio**

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

element **aircraftEngine/pressureRatio**

diagram	 Engine's pressure ratio. Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1

	content simple
annotation	documentation Engine's pressure ratio. Valid values: Nonnegative.

element **aircraftEngine/tfmtFlag**

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

element **aircraftEngine/defaultSOx**

diagram	<p>defaultSOx 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>taxiIdleEmissionFactors Emission factor when aircraft is idling.</p> <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.
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	<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>approachEmissionFactors Emission factor when aircraft is on approach.</p>
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	<p>aircraftEngineMod 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> <ul style="list-style-type: none"> code: Unique ICAO UID. description: Description of engine modifications.
children	code description
used by	element 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	<p>code Unique ICAO UID.</p>
type	engineModCode
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation Unique ICAO UID.

element **aircraftEngineMod/description**

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

complexType **aircraftType**

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

element aircraftType/anpAircraftId

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

element aircraftType/airframeModel

diagram	
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Air frame model.

element aircraftType/engineCode

diagram	
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Engine code. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop).

element aircraftType/engineModCode

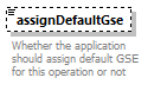
diagram	
type	engineModCode
properties	minOcc 0 maxOcc 1 content simple default NONE
facets	Kind Value Annotation

	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	
type	xs:string
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Name of auxiliary power unit used by this type of aircraft.

element **aircraftType/assignDefaultGse**


diagram	
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation Whether the application should assign default GSE for this operation or not

complexType **airframe**

diagram	
children	model engineCount engineLocation designationCode maxSeats maxRange introYear euroGroupCode usageCode sizeCode engineType auxiliaryPowerUnitId

used by	element fleet/airframe
annotation	documentation This element supports the definition of custom airframes.

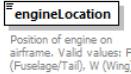
element [airframe/model](#)

diagram	
type	airframeModel
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Unique description of airframe.

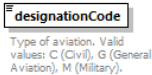
element [airframe/engineCount](#)

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

element [airframe/engineLocation](#)

diagram	
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).

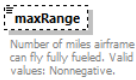
element [airframe/designationCode](#)

diagram	
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/maxSeats](#)


diagram	
type	int1to9999
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 9999
annotation	documentation Maximum seats the airframe can hold including pilots and passengers.

element [airframe/maxRange](#)


diagram	
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	 Year airframe was introduced. Valid values: Nonnegative.
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Year airframe was introduced. Valid values: Nonnegative.

element **airframe/euroGroupCode**

diagram	 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	string2
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 2
annotation	documentation European group code for this airframe. Valid values: H1 (Helicopter Light), H2 (Helicopter Heavy), JB (Jet Business), JL (Jet Large), JM (Jet Medium), JR (Jet Regional), JS (Jet Small), PP (Propeller), SS (Supersonic), TP (Turboprop).


element **airframe/usageCode**

diagram	 Usage code for this airframe. Valid values: H (Heavy), L (Large), M (Medium), S (Small), T (Light), V (Very Light).
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Usage code for this airframe. Valid values: H (Heavy), L (Large), M (Medium), S (Small), T (Light), V (Very Light).

element **airframe/sizeCode**

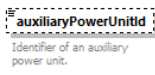
diagram	 Size code for this airframe. Valid values: H (Heavy), L (Large), M (Medium), S (Small), T (Light), V (Very Light).
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Size code for this airframe. Valid values: H (Heavy), L (Large), M (Medium), S (Small), T (Light), V (Very Light).

element **airframe/engineType**

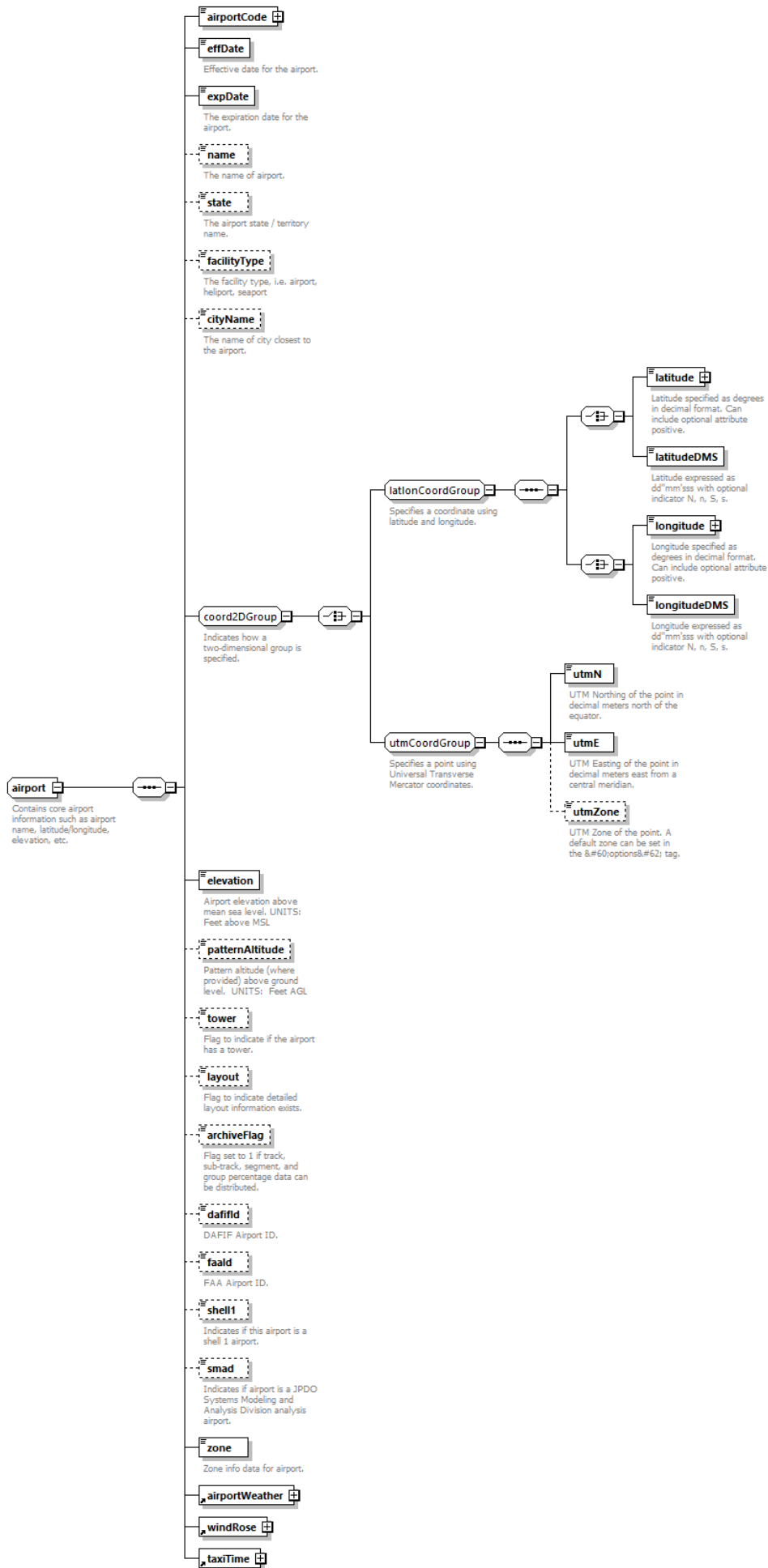
diagram	 Type of engine on this airframe. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop).
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1

annotation	documentation Type of engine on this airframe. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop).
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element **airframe/auxiliaryPowerUnitId**

diagram	
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**



children	airportCode effDate expDate name state facilityType cityName latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation patternAltitude tower layout archiveFlag dafiffd faald shell1 smad zone airportWeather windRose taxiTime
used by	element userDefinedAirportSet/userDefinedAirport
annotation	documentation Contains core airport information such as airport name, latitude/longitude, elevation, etc.

element [airport/airportCode](#)

diagram						
type	airportCode					
properties	content complex					
facets	Kind	Value	Annotation			
	minLength	0				
	maxLength	4				
attributes	Name	Type	Use	Default	Fixed	Annotation
	type	airportCodeType	optional	ANY		
	country	string3	optional	ANY		

element [airport/effDate](#)

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

element [airport/expDate](#)

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

element [airport/name](#)

diagram						
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](#)

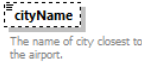
diagram						
type	string50					
properties	minOcc	0	maxOcc	1	content simple	
facets	Kind	Value	Annotation			
	minLength	0				
	maxLength	50				
annotation	documentation The airport state / territory name.					

element [airport/facilityType](#)


diagram						
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type	string25
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 25
annotation	documentation The facility type, i.e. airport, heliport, seaport

element **airport/cityName**

diagram	
type	string50
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation The name of city closest to the airport.

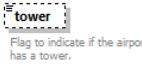
element **airport/elevation**

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


element **airport/patternAltitude**

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


element **airport/tower**

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

element **airport/layout**


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

element **airport/faald**

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

element **airport/shell1**

diagram	
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	
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	
type	string100
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Zone info data for airport.

complexType **airportCode**

diagram						
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](#)

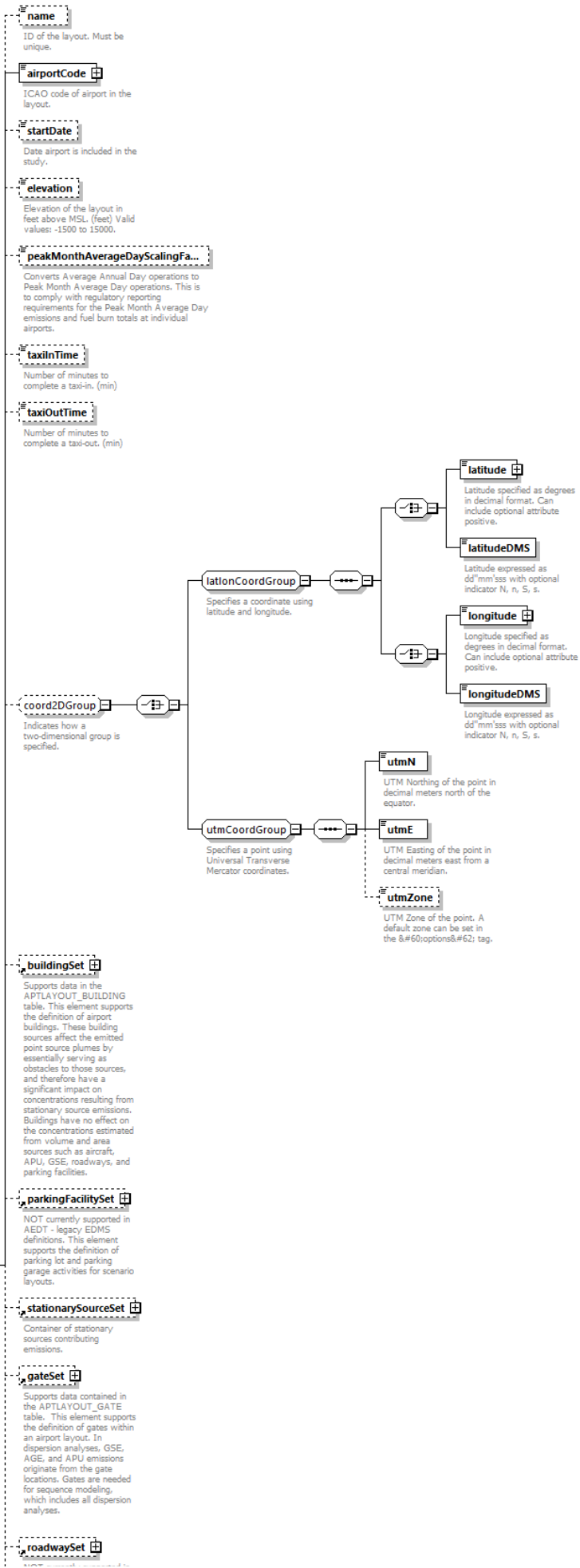
type	airportCodeType					
properties	use optional default ANY					
facets	Kind	Value	Annotation			
	enumeration	ICAO				
	enumeration	IATA				
	enumeration	FAA				
	enumeration	OTHER				
	enumeration	ANY				

attribute [airportCode/@country](#)

type	string3					
properties	use optional default ANY					
facets	Kind	Value	Annotation			
	minLength	0				
	maxLength	3				

complexType [airportLayoutType](#)

diagram



airportLayoutType
Fields defining an airport and its layout.

NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of vehicle activity on roadways for scenario layouts.

taxiwaySet

Supports data in the APTLAYOUT_TAXIWAY table. Taxiways determine the ground segments where the aircraft operates.

runwaySet

Container for runways.

taxipathSet

Supports data contained in the APTLAYOUT_TAXIPATH 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.

trackSet

A set of flight tracks.

airportConfigSet

Contains one or more airportConfig elements.

airportCapacity

Supports content related to the APTCONFIG table. This element supports the definition of airport capacities based on various points within an airport.

quarterHourlyProfileSet

Supports the definition and use of QUARTER_HOURLY_PROFILE S for the quarter hourly variation of operations.

dailyProfileSet

Supports the definition and use of data in the APTPROFILE_DAILY table for the daily variation of operations.

monthlyProfileSet

Supports the definition and use of data in the APTPROFILE_MONTHLY table for the monthly variation of operations.

activityProfileSet

Supports the definition and use of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES variation of operations.

children	name airportCode startDate elevation peakMonth AverageDayScalingFactor 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	
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>The diagram shows an element named airportCode with a description: "ICAO code of airport in the layout." To its right is a container labeled attributes which contains two sub-elements: type and country.</p>																		
type	airportCode																		
properties	content complex																		
facets	Kind Value Annotation minLength 0 maxLength 4																		
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>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	<p>The diagram shows an element named startDate with a description: "Date airport is included in the study."</p>
type	xs:date
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Date airport is included in the study.

element **airportLayoutType/elevation**

diagram	<p>The diagram shows an element named elevation with a description: "Elevation of the layout in feet above MSL. (feet) Valid values: -1500 to 15000."</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Elevation of the layout in feet above MSL. (feet) Valid values: -1500 to 15000.

element **airportLayoutType/peakMonthAverageDayScalingFactor**

diagram	<p>The diagram shows an element named peakMonthAverageDayScalingFactor with a description: "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."</p>
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	<p>The diagram shows an element named taxiInTime with a description: "Number of minutes to complete a taxi-in. (min)"</p>
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	<p>The diagram shows an element named taxiOutTime with a description: "Number of minutes to complete a taxi-out. (min)"</p>
type	xs:double
properties	minOcc 0 maxOcc 1

	content simple
annotation	documentation Number of minutes to complete a taxi-out. (min)

complexType **anpAirplane**



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	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	 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	 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	 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	 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	 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	 Maximum gross weight on landing (min = 0, max = 999999, lbs).
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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).

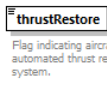
element **anpAirplane/depThrustCoeffType**

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).

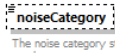
element **anpAirplane/thrustRestore**

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	 The noise category stage number.
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The noise category stage number.


element **anpAirplane/minBurn**

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

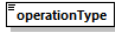
complexType **anpFlaps**

diagram	 Flaps data element.
children	flapId operationType coeff_R coeff_CD coeff_B
used by	element anpFlapsSet/flaps
annotation	documentation Flaps data element.

element **anpFlaps/flapId**

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


element **anpFlaps/operationType**

diagram	 Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFit), V (OverFit)
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	 The drag-over-lift ratio. Valid values: 0.0 to 1.34.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The drag-over-lift ratio. Valid values: 0.0 to 1.34.

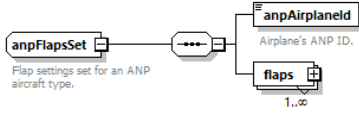
element **anpFlaps/coeff_CD**

diagram	 The takeoff and landing calibrated airspeed coefficient. Valid values: 0.0 to 1.34. (knots/lb ^{1/2}).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The takeoff and landing calibrated airspeed coefficient. Valid values: 0.0 to 1.34. (knots/lb ^{1/2}).

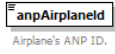
element **anpFlaps/coeff_B**

diagram	 The takeoff distance coefficient. Valid values: empty or 0.0 to 1.34. (feet/lb).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The takeoff distance coefficient. Valid values: empty or 0.0 to 1.34. (feet/lb).

complexType **anpFlapsSet**

diagram	 Flap settings set for an ANP aircraft type.
children	anpAirplaneId flaps
used by	element fleet/anpFlapsSet
annotation	documentation Flap settings set for an ANP aircraft type.

element **anpFlapsSet/anpAirplaneId**

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

element **anpFlapsSet/flaps**

<p>diagram</p>	
<p>type</p>	<p>anpFlaps</p>
<p>properties</p>	<p>minOcc 1 maxOcc unbounded content complex</p>
<p>children</p>	<p>flapId operationType coeff_R coeff_CD coeff_B</p>

complexType **anpHelicopter**

diagram



- anpHelicopterId**
Unique ID number of ANP Helicopter.
- noiseId**
ID of a Noise Group.
- directivityId**
Noise directivity ID for ANP helicopter.
- description**
Description of ANP Helicopter.
- owner**
The owner category. Valid values: C (commercial), G (general aviation), M (military).
- engineTypeCode**
The engine type code. Valid values: P (piston), J (jet), T (turboprop).
- numberRotors**
The number of rotors. Valid values: 1 to 9.
- diameter**
The helicopter diameter (feet). Valid values: 0 to 1000.
- rpm**
The helicopter rotor speed (revolutions per minute). Valid values: 0 to 1000.
- maxTakeoffWeight**
The max gross takeoff weight (pounds). Valid values: 0 to 50000.
- hasWheels**
Flag indicating if the helicopter has wheels. Valid values: Y (yes), N (no).
- modelType**
The helicopter model type. Valid values: I (INM), N (NoiseMap).
- bLeft0**
Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.
- bLeft1**
Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.
- bLeft2**
Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.
- bCenter0**
Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.
- bCenter1**
Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.
- bCenter2**
Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.
- bRight0**
Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.
- bRight1**
Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.
- bRight2**
Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.
- dbVerticalAscent**
Decibels offset added to NPD.

levels, vertical ascent (dB).
Valid values: Min = -50 Max = 50.

dbVerticalDescent

Decibel offset added to NPD levels, vertical descent (dB).
Valid values: Min = -50 Max = 50.

dbHorizontalAcceleration

Decibel offset added to NPD levels, depart horizontal acceleration (dB). Valid values: Min = -50 Max = 50.

dbClimbAcceleration

Decibel offset added to NPD levels, depart with climbing acceleration (dB). Valid values: Min = -50 Max = 50.

dbHorizontalDeceleration

Decibel offset added to NPD levels, approach with horizontal deceleration (dB). Valid values: Min = -50 Max = 50.

dbDescendDeceleration

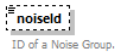
Decibel offset added to NPD levels, approach with descending deceleration (dB). Valid values: Min = -50 Max = 50.

children	anpHelicopterId noiseId directivityId description owner engineTypeCode numberRotors diameter rpm maxTakeoffWeight hasWheels modelType bLeft0 bLeft1 bLeft2 bCenter0 bCenter1 bCenter2 bRight0 bRight1 bRight2 dbVerticalAscent dbVerticalDescent dbHorizontalAcceleration dbClimbAcceleration dbHorizontalDeceleration dbDescendDeceleration
used by	element fleet/anpHelicopter


element **anpHelicopter/anpHelicopterId**

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

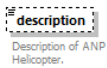
element **anpHelicopter/noiseId**

diagram	
type	anpHeloNoiseId
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	
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	
type	string255
properties	minOcc 0 maxOcc 1 content simple

facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Description of ANP Helicopter.


element **anpHelicopter/owner**

diagram	 owner The owner category. Valid values: C (commercial), G (general aviation), M (military).
type	anpOwnerType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern Commercial C Military M General G
annotation	documentation The owner category. Valid values: C (commercial), G (general aviation), M (military).

element **anpHelicopter/engineTypeCode**

diagram	 engineTypeCode The engine type code. Valid values: P (piston), J (jet), T (turboprop).
type	engineType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern Jet J Turbo Turboprop T Prop Piston P
annotation	documentation The engine type code. Valid values: P (piston), J (jet), T (turboprop).


element **anpHelicopter/numberRotors**

diagram	 numberRotors The number of rotors. Valid values: 1 to 9.
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The number of rotors. Valid values: 1 to 9.

element **anpHelicopter/diameter**

diagram	 diameter The helicopter diameter (feet). Valid values: 0 to 1000.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The helicopter diameter (feet). Valid values: 0 to 1000.

element **anpHelicopter/rpm**

diagram	 rpm The helicopter rotor speed (revolutions per minute). Valid values: 0 to 1000.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The helicopter rotor speed (revolutions per minute). Valid values: 0 to 1000.

element **anpHelicopter/maxTakeoffWeight**

diagram	 maxTakeoffWeight The max gross takeoff weight (pounds). Valid values: 0 to 50000.
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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	 Flag indicating if the helicopter has wheels. Valid values: Y (yes), N (no).
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	 The helicopter model type. Valid values: I (INM), N (NoiseMap).
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	 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/bLeft1**

diagram	 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	 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	 <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/bCenter1**

diagram	 <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/bCenter2**

diagram	 <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.

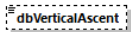
element **anpHelicopter/bRight1**

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>dbVerticalAscent 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.

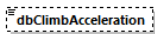
element **anpHelicopter/dbVerticalDescent**

diagram	 <p>dbVerticalDescent Decibel offset added to NPD levels, vertical descent (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 descent (dB). Valid values: Min = -50 Max = 50.

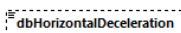
element **anpHelicopter/dbHorizontalAcceleration**

diagram	 <p>dbHorizontalAcceleration Decibel offset added to NPD levels, depart horizontal acceleration (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, depart horizontal acceleration (dB). Valid values: Min = -50 Max = 50.

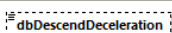
element **anpHelicopter/dbClimbAcceleration**

diagram	 <p>dbClimbAcceleration Decibel offset added to NPD levels, depart with climbing acceleration (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, depart with climbing acceleration (dB). Valid values: Min = -50 Max = 50.

element **anpHelicopter/dbHorizontalDeceleration**

diagram	 <p>dbHorizontalDeceleration Decibel offset added to NPD levels, approach with horizontal deceleration (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, approach with horizontal deceleration (dB). Valid values: Min = -50 Max = 50.

element **anpHelicopter/dbDescendDeceleration**

diagram	 <p>dbDescendDeceleration Decibel offset added to NPD levels, approach with descending deceleration (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, approach with descending deceleration (dB). Valid values: Min = -50 Max = 50.

complexType **anpHeloDirectivity**

diagram

groundType

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

opMode

Operational Mode. Valid values: A (approach), D (departure).

L180

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

L165

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

L150

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

L135

Decibel adjustment at 135 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

L120

Decibel adjustment at 120 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

L105

Decibel adjustment at 105 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

L090

Decibel adjustment at 90 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

L075

Decibel adjustment at 75 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

L060

Decibel adjustment at 60 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

L045

Decibel adjustment at 45 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

L030

Decibel adjustment at 30 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

L015

Decibel adjustment at 0 degrees along the nose (dB). Valid values: Min = -99.9 Max = 999.9.

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

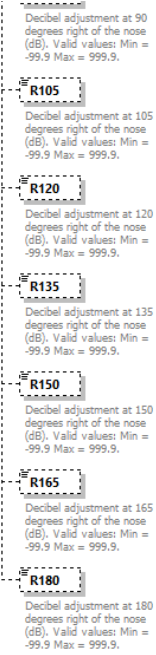
Decibel adjustment at 60 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

R075


Decibel adjustment at 75 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

R090


anpHeloDirectivity

	
children	groundType opMode L180 L165 L150 L135 L120 L105 L090 L075 L060 L045 L030 L015 C000 R015 R030 R045 R060 R075 R090 R105 R120 R135 R150 R165 R180
used by	element anpHeloDirectivitySet/anpHeloDirectivity


element **anpHeloDirectivity/groundType**

diagram	 <p>Type of ground resistivity. Valid values: H (hard), S (soft), F (file), N (none).</p>
type	anpHeloGroundType
properties	content simple
facets	Kind Value Annotation pattern Hard H Software S File F None N
annotation	documentation Type of ground resistivity. Valid values: H (hard), S (soft), F (file), N (none).


element **anpHeloDirectivity/opMode**

diagram	 <p>Operational Mode. Valid values: A (approach), D (departure).</p>
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Operational Mode. Valid values: A (approach), D (departure).

element **anpHeloDirectivity/L180**

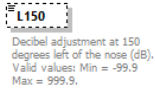
diagram	 <p>Decibel adjustment at 180 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 180 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/L165**

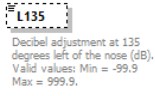
diagram	 <p>Decibel adjustment at 165 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1

	content simple
annotation	documentation Decibel adjustment at 165 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

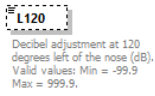
element **anpHeloDirectivity/L150**

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

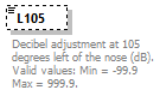
element **anpHeloDirectivity/L135**

diagram	 <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.

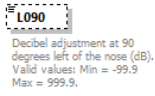
element **anpHeloDirectivity/L120**

diagram	 <p>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>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>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>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	 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	 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	 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	 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	 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	 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	 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	 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	 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	 Decibel adjustment at 75 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 75 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.


element **anpHeloDirectivity/R090**

diagram	 Decibel adjustment at 90 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 90 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.


element **anpHeloDirectivity/R105**

diagram	 Decibel adjustment at 105 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 105 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.


element **anpHeloDirectivity/R120**

diagram	 <p>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>Decibel adjustment at 135 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 135 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.


element **anpHeloDirectivity/R150**

diagram	 <p>Decibel adjustment at 150 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 150 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

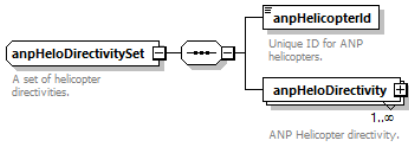
element **anpHeloDirectivity/R165**

diagram	 <p>Decibel adjustment at 165 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 165 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

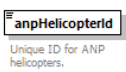
element **anpHeloDirectivity/R180**

diagram	 <p>Decibel adjustment at 180 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 180 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

complexType **anpHeloDirectivitySet**

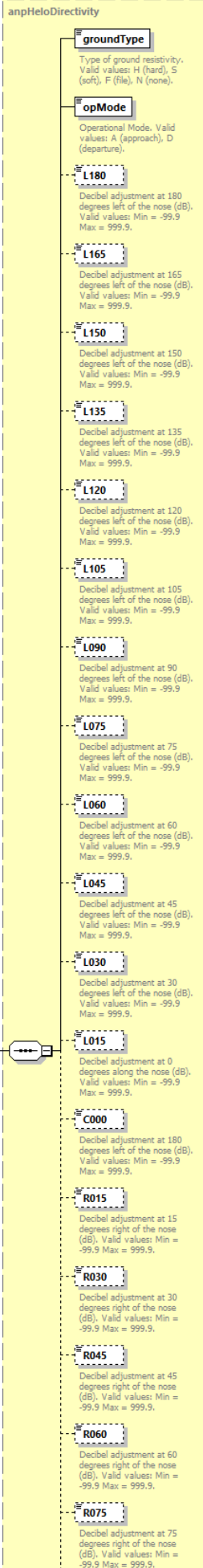
diagram	 <p>A set of helicopter directivities.</p> <p>Unique ID for ANP helicopters.</p> <p>ANP Helicopter directivity.</p>
children	anpHeloDirectivity anpHeloDirectivity
used by	element fleet/anpHeloDirectivitySet
annotation	documentation A set of helicopter directivities.

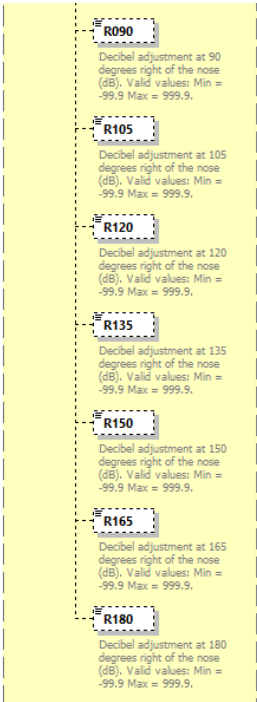
element **anpHeloDirectivitySet/anpHelicopterId**

diagram	 <p>The diagram shows a rectangular box with the text anpHelicopterId inside. Below the box, there is a small text label: "Unique ID for ANP helicopters."</p>
type	anpHeloDirectId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 12
annotation	documentation Unique ID for ANP helicopters.

element **anpHeloDirectivitySet/anpHeloDirectivity**

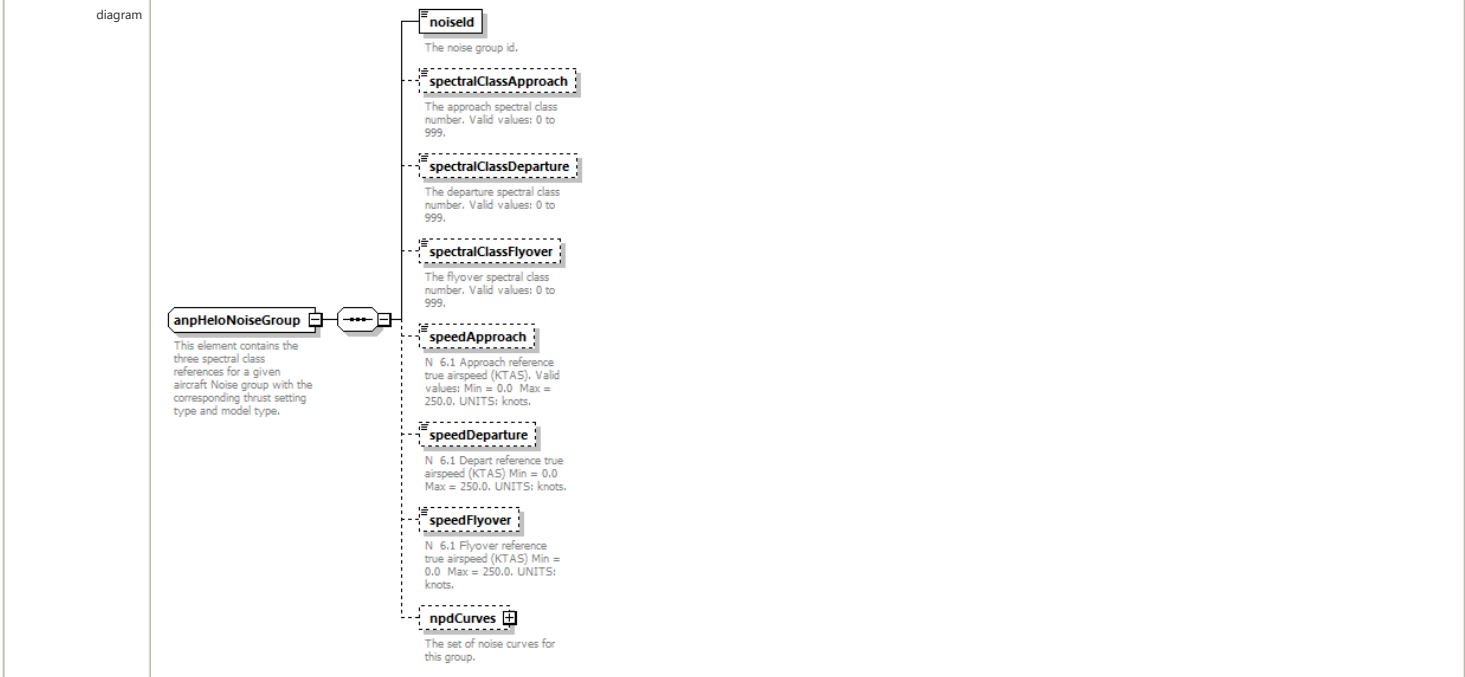
diagram





type	anpHeloDirectivity
properties	minOcc 1 maxOcc unbounded content complex
children	groundType opMode L180 L165 L150 L135 L120 L105 L090 L075 L060 L045 L030 L015 C000 R015 R030 R045 R060 R075 R090 R105 R120 R135 R150 R165 R180
annotation	documentation ANP Helicopter directivity.

complexType [anpHeloNoiseGroup](#)



children	noiseld 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/noiseld](#)

diagram	
type	anpHeloNoiseId
properties	content simple

facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The noise group id.

element **anpHeloNoiseGroup/spectralClassApproach**

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

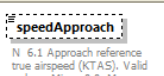
element **anpHeloNoiseGroup/spectralClassDeparture**

diagram	 The departure spectral class number. Valid values: 0 to 999.
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	 The flyover spectral class number. Valid values: 0 to 999.
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	 N 6.1 Approach reference true airspeed (KTAS). Valid values: Min = 0.0 Max = 250.0. UNITS: knots.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation N 6.1 Approach reference true airspeed (KTAS). Valid values: Min = 0.0 Max = 250.0. UNITS: knots.

element **anpHeloNoiseGroup/speedDeparture**

diagram	 N 6.1 Depart reference true airspeed (KTAS) Min = 0.0 Max = 250.0. UNITS: knots.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation N 6.1 Depart reference true airspeed (KTAS) Min = 0.0 Max = 250.0. UNITS: knots.

element **anpHeloNoiseGroup/speedFlyover**

diagram	 N 6.1 Flyover reference true airspeed (KTAS) Min = 0.0 Max = 250.0. UNITS: knots.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple

annotation	documentation N 6.1 Flyover reference true airspeed (KTAS) Min = 0.0 Max = 250.0, UNITS: knots.
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element **anpHeloNoiseGroup/npdCurves**

diagram	
type	anpHeloNPDCurves
properties	minOcc 0 maxOcc 1 content complex
children	npdCurve
annotation	documentation The set of noise curves for this group.

complexType **anpHeloNPDCurve**


diagram	
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	
type	anpNpdNoiseType

properties	content simple
facets	Kind Value Annotation pattern S M E P
annotation	documentation Type of noise described by this curve. Valid values: S (SEL), M (LAMAX), E (EPNL), P (PNLTM).

element **anpHeloNPDCurve/opMode**

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

element **anpHeloNPDCurve/sideType**

diagram	 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	 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	 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	 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	 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.
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element **anpHeloNPDCurve/L_2000**

diagram	 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	 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	 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	 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.

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	
children	npdCurve
used by	element anpHeloNoiseGroup/npdCurves
annotation	documentation The set of noise curves.

element [anpHeloNPDCurves/npdCurve](#)

diagram	
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	<p>The diagram shows the anpHeloProcedureStep element as a container for several attributes. The attributes are:</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 (CircuitFit), V (OverFit). 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). stepType: Type of step. (A) Approach at constant speed, (D) Depart at constant speed, (L) Level flyover at constant speed, (G) Ground idle, (H) Flight idle, (I) Hover in ground effect, (J) Hover out of ground effect, (V) Vertical ascent in ground effect, (W) Vertical ascent out of ground effect, (Y) Vertical descent in ground effect, (Z) Vertical descent out of ground effect, (G) Approach with horizontal deceleration, (C) Approach with descending deceleration, (E) Depart with horizontal acceleration, (F) Depart with climbing acceleration, (X) Taxi at constant speed, (S) Start altitude at constant speed. duration: Procedure's duration (seconds). distance: Length of a particular segment (min = -9999999.9, max = 9999999.9, feet). altitude: Altitude above runway elevation (ARE) of aircraft (min = -9999, max = 60000). UNITS: feet. speed: True airspeed (KTAS) at this point (min = 0, max = 600). UNITS: knots. <p>Procedure data element.</p>
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 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 Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFit), V (OverFit)</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/profileGroupld**

diagram	 Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).


element **anpHeloProcedureStep/profileStageLength**

diagram	 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. (A) Approach at constant speed, (D) Depart at constant speed, (L) Level flyover at constant speed, (G) Ground idle, (H) Flight idle, (I) Hover in ground effect, (J) Hover out of ground effect, (V) Vertical ascent in ground effect, (W) Vertical ascent out of ground effect, (Y) Vertical descent in ground effect, (Z) Vertical descent out of ground effect, (B) Approach with horizontal deceleration, (C) Approach with descending deceleration, (E) Depart with horizontal acceleration, (F) Depart with climbing acceleration, (X) Taxi at constant speed, (S) Start altitude at constant speed
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of step. (A) Approach at constant speed, (D) Depart at constant speed, (L) Level flyover at constant speed, (G) Ground idle, (H) Flight idle, (I) Hover in ground effect, (J) Hover out of ground effect, (V) Vertical ascent in ground effect, (W) Vertical ascent out of ground effect, (Y) Vertical descent in ground effect, (Z) Vertical descent out of ground effect, (B) Approach with horizontal deceleration, (C) Approach with descending deceleration, (E) Depart with horizontal acceleration, (F) Depart with climbing acceleration, (X) Taxi at constant speed, (S) Start altitude at constant speed


element **anpHeloProcedureStep/duration**

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

element **anpHeloProcedureStep/distance**

diagram	 Length of a particular segment (min = -9999999.9, max = 9999999.9, feet).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Length of a particular segment (min = -9999999.9, max = 9999999.9, feet).

element **anpHeloProcedureStep/altitude**

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

element **anpHeloProcedureStep/speed**

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

complexType **anpHeloProfile**

diagram	<p>The diagram shows the anpHeloProfile element, which is a profile data element. It is connected to a list of properties:</p> <ul style="list-style-type: none"> operationType: Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFit), V (OverFit) profileGroupId: Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data). profileStageLength: Profile stage number (min = 1, max = 5). 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). weight: Aircraft weight during this operation type. Valid values: 0 through 999999. (lb) useDirectivity: Use directivity? Y=Yes N=No. useTrack: Use track (static heading is relative to track)? Y=Yes N=No. headingTakeoffGround: Takeoff ground heading. Valid values: -180 through 360. (decimal degrees) headingTakeoffHover: Takeoff hover heading. Valid values: -180 through 360. (decimal degrees) headingLandGround: Landing ground heading. Valid values: -180 through 360. (decimal degrees) headingLandHover: Landing hover heading. Valid values: -180 through 360. (decimal degrees) step: The procedure steps. Valid values: 0, ∞
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	<p>operationType Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFit), V (OverFit)</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 **anpHeloProfile/profileGroupId**

diagram	<p>profileGroupId Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).</p>
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation

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

element **anpHeloProfile/profileStageLength**

diagram	 <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	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	 <p>Aircraft weight during this operation type. Valid values: 0 through 999999. (lb)</p>
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	 <p>Use directivity? 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 Use directivity? Y=Yes N=No.


element **anpHeloProfile/useTrack**

diagram	 <p>Use track (static heading is relative to track)? 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 Use track (static heading is relative to track)? Y=Yes N=No.

element **anpHeloProfile/headingTakeoffGround**

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

element **anpHeloProfile/headingTakeoffHover**

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

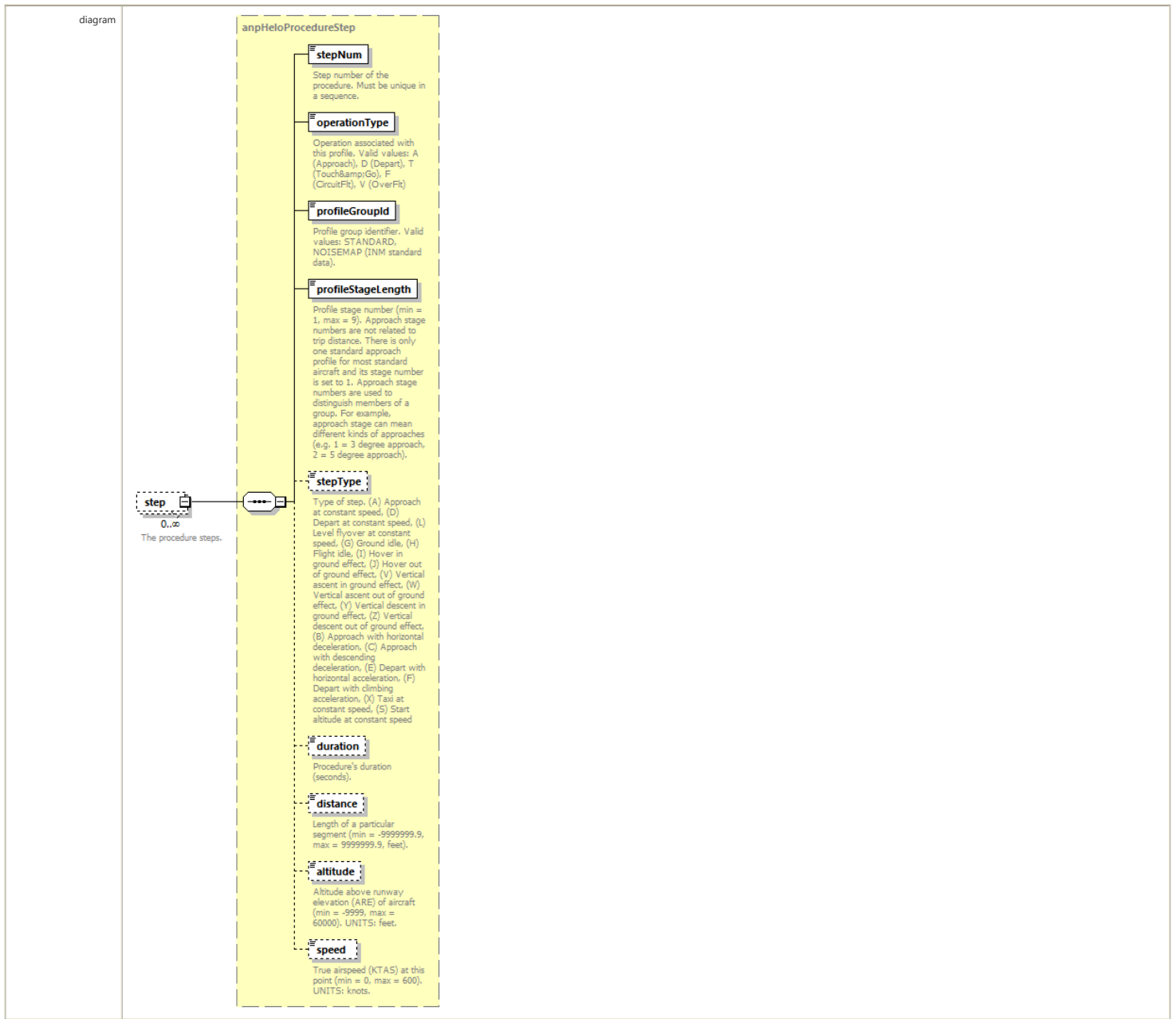
element **anpHeloProfile/headingLandGround**

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

element **anpHeloProfile/headingLandHover**

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

element **anpHeloProfile/step**



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**



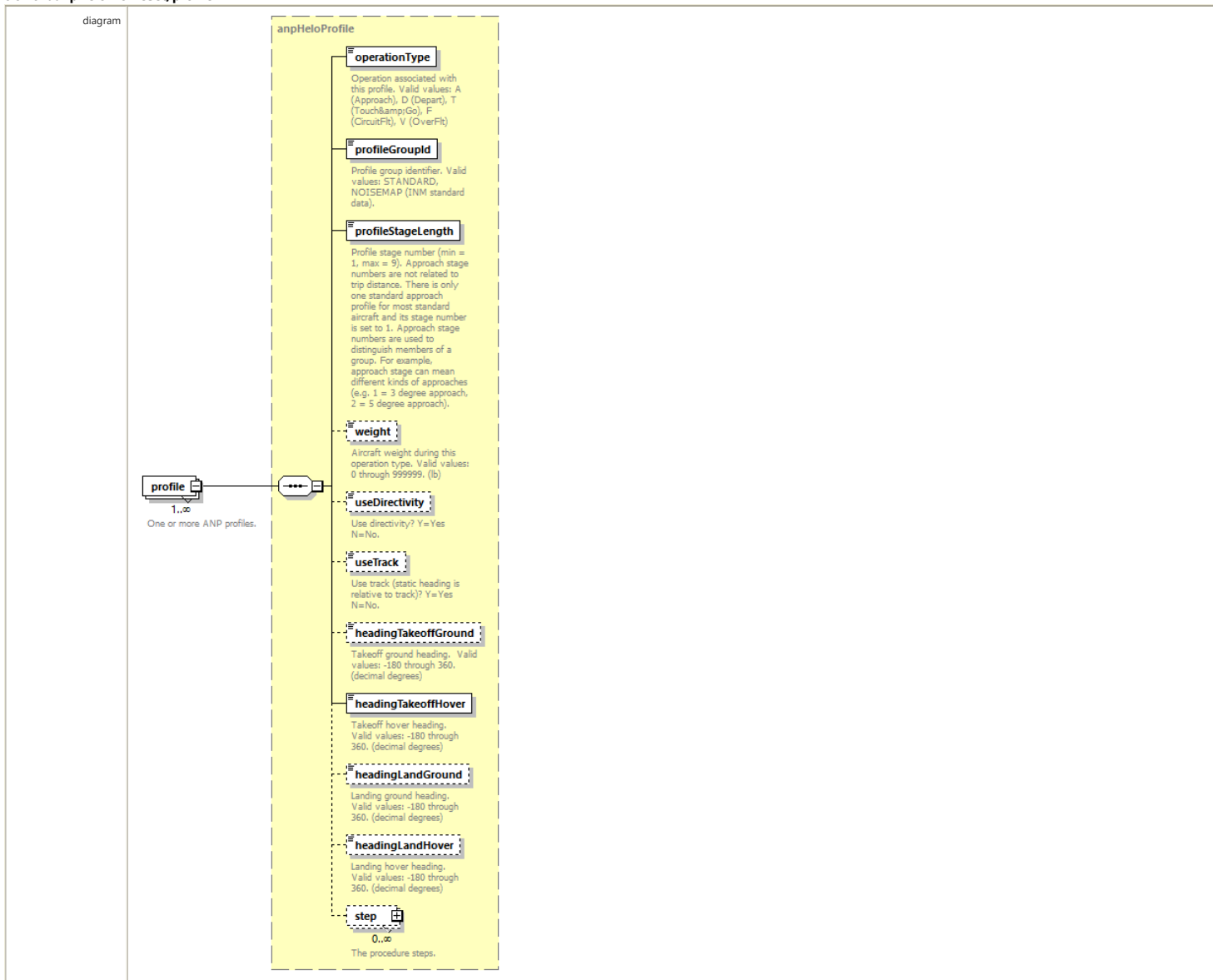
children	anpHelicopterId profile
used by	element fleet/anpHeloProfileSet
annotation	documentation A profile set for an ANP helicopter.

element **anpHeloProfileSet/anpHelicopterId**

diagram	anpHelicopterId The anp helicopter id.
type	anpHeloid

properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The anp helicopter id.

element **anpHeloProfileSet/profile**



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	<p>noiseld Noise group's ID.</p> <p>spectralClassApproach Spectral class number for approach (min = 0, max = 30000).</p> <p>spectralClassDeparture Spectral class number for departure (min = 0, max = 30000).</p> <p>spectralClassAfterburner Spectral class number for afterburner (min = 0, max = 30000).</p> <p>thrustSetType Type of thrust setting. Valid values: L (pounds), P (percent), X (other). The following are typically used for military airplane: A (Power Lever Angle), B (Pounds Thrust), C (Turbine Inlet Temperature (Deg C)), E (Engine Pressure Ratio), F (Fan Speed), H (Equivalent Shaft Power), I (Manifold Pressure (Inches Mercury)), M (Propeller or Compressor RPM), N (Percent Corrected Rotor Speed), O (Percent Low Pressure Compressor Speed), R (Percent Propeller or Compressor RPM), S (Pounds per Hour of Fuel Flow), V (Percent Fan Speed).</p> <p>modelType Type of distance-duration model. Valid values: I (INM), N (NoiseMap).</p> <p>npdCurves The set of noise curves for ANP aircraft.</p> <p>anpNoiseGroup This element contains the three spectral class references for a given aircraft Noise group with the corresponding thrust setting type and model type.</p>
children	noiseld spectralClassApproach spectralClassDeparture spectralClassAfterburner thrustSetType modelType npdCurves
used by	element fleet/anpNoiseGroup
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 **anpNoiseGroup/noiseld**

diagram	<p>noiseld Noise group's ID.</p>
type	anpNoiseld
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Noise group's ID.

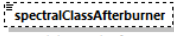
element **anpNoiseGroup/spectralClassApproach**

diagram	<p>spectralClassApproach Spectral class number for approach (min = 0, max = 30000).</p>
type	xs:short
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Spectral class number for approach (min = 0, max = 30000).


element **anpNoiseGroup/spectralClassDeparture**

diagram	<p>spectralClassDeparture Spectral class number for departure (min = 0, max = 30000).</p>
type	xs:short
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Spectral class number for departure (min = 0, max = 30000).

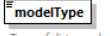
element **anpNoiseGroup/spectralClassAfterburner**

diagram	 Spectral class number for afterburner (min = 0, max = 30000).
type	xs:short
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Spectral class number for afterburner (min = 0, max = 30000).

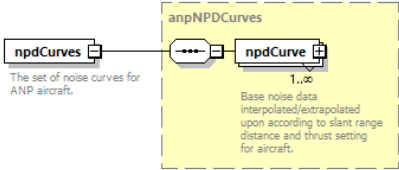
element **anpNoiseGroup/thrustSetType**

diagram	 Type of thrust setting. Valid values: L (pounds), P (percent), X (other). The following are typically used for military airplane: A (Power Lever Angle), B (Pounds Thrust), C (Turbine Inlet Temperature (Deg C)), E (Engine Pressure Ratio), F (Fan Speed), H (Equivalent Shaft Power), I (Manifold Pressure (Inches Mercury)), M (Propeller or Compressor RPM), N (Percent Corrected Rotor Speed), O (Percent Low Pressure Compressor Speed), R (Percent Propeller or Compressor RPM), S (Pounds per Hour of Fuel Flow), V (Percent Fan Speed).
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of thrust setting. Valid values: L (pounds), P (percent), X (other). The following are typically used for military airplane: A (Power Lever Angle), B (Pounds Thrust), C (Turbine Inlet Temperature (Deg C)), E (Engine Pressure Ratio), F (Fan Speed), H (Equivalent Shaft Power), I (Manifold Pressure (Inches Mercury)), M (Propeller or Compressor RPM), N (Percent Corrected Rotor Speed), O (Percent Low Pressure Compressor Speed), R (Percent Propeller or Compressor RPM), S (Pounds per Hour of Fuel Flow), V (Percent Fan Speed).

element **anpNoiseGroup/modelType**

diagram	 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	 The set of noise curves for ANP aircraft.
type	anpNPDCurves
properties	content complex
children	npdCurve
annotation	documentation The set of noise curves for ANP aircraft.

complexType **anpNPDCurve**

diagram	<p>The diagram shows the anpNPDcurve element connected to several other elements:</p> <ul style="list-style-type: none"> noiseType: Type of noise described by this curve. Valid values: S (SEL), M (LAMAX), E (EPNL), P (PNLTM). opMode: Engine operation mode. Valid values: A (Approach), D (Depart), X (Afterburner). netThrustPerEngine: Net thrust per engine (min = 0.10, max = 99999.00, lbs. or percentage depending on parent noise group THRUST_SET_TYPE value). L_200: Decibel level at 200 feet AGL. Valid values: Min = -50.0 Max = 999.9. L_400: Decibel level at 400 feet AGL. Valid values: Min = -50.0 Max = 999.9. L_630: Decibel level at 630 feet AGL. Valid values: Min = -50.0 Max = 999.9. L_1000: Decibel level at 1000 feet AGL. Valid values: Min = -50.0 Max = 999.9. L_2000: Decibel level at 2000 feet AGL. Valid values: Min = -50.0 Max = 999.9. L_4000: Decibel level at 4000 feet AGL. Valid values: Min = -50.0 Max = 999.9. L_6300: Decibel level at 6300 feet AGL. Valid values: Min = -50.0 Max = 999.9. L_10000: Decibel level at 10000 feet AGL. Valid values: Min = -50.0 Max = 999.9. L_16000: Decibel level at 16000 feet AGL. Valid values: Min = -50.0 Max = 999.9. L_25000: Decibel level at 25000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
children	noiseType opMode netThrustPerEngine L_200 L_400 L_630 L_1000 L_2000 L_4000 L_6300 L_10000 L_16000 L_25000
used by	element anpNPDcurves/npdCurve
annotation	documentation The Noise Power Distance curve table for a specified noise ID, noise type, operation mode, and thrust setting.

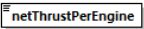
element [anpNPDcurve/noiseType](#)

diagram	<p>noiseType Type of noise described by this curve. Valid values: S (SEL), M (LAMAX), E (EPNL), P (PNLTM).</p>
type	anpNpdNoiseType
properties	content simple
facets	Kind Value Annotation pattern S M E P
annotation	documentation Type of noise described by this curve. Valid values: S (SEL), M (LAMAX), E (EPNL), P (PNLTM).


element [anpNPDcurve/opMode](#)

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


element **anpNPDCurve/netThrustPerEngine**

diagram	 <p>Net thrust per engine (min = 0.10, max = 99999.00, lbs. or percentage depending on parent noise group THRUST_SET_TYPE value).</p>
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	 <p>Decibel level at 200 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p>
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	 <p>Decibel level at 400 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p>
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	 <p>Decibel level at 630 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p>
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	 <p>Decibel level at 1000 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p>
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	 <p>Decibel level at 2000 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p>
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	 <p>Decibel level at 4000 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p>
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	 <p>Decibel level at 6300 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p>
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	 <p>Decibel level at 10000 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p>
type	xs:double
properties	content simple
annotation	documentation Decibel level at 10000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

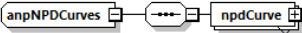
element **anpNPDCurve/L_16000**

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

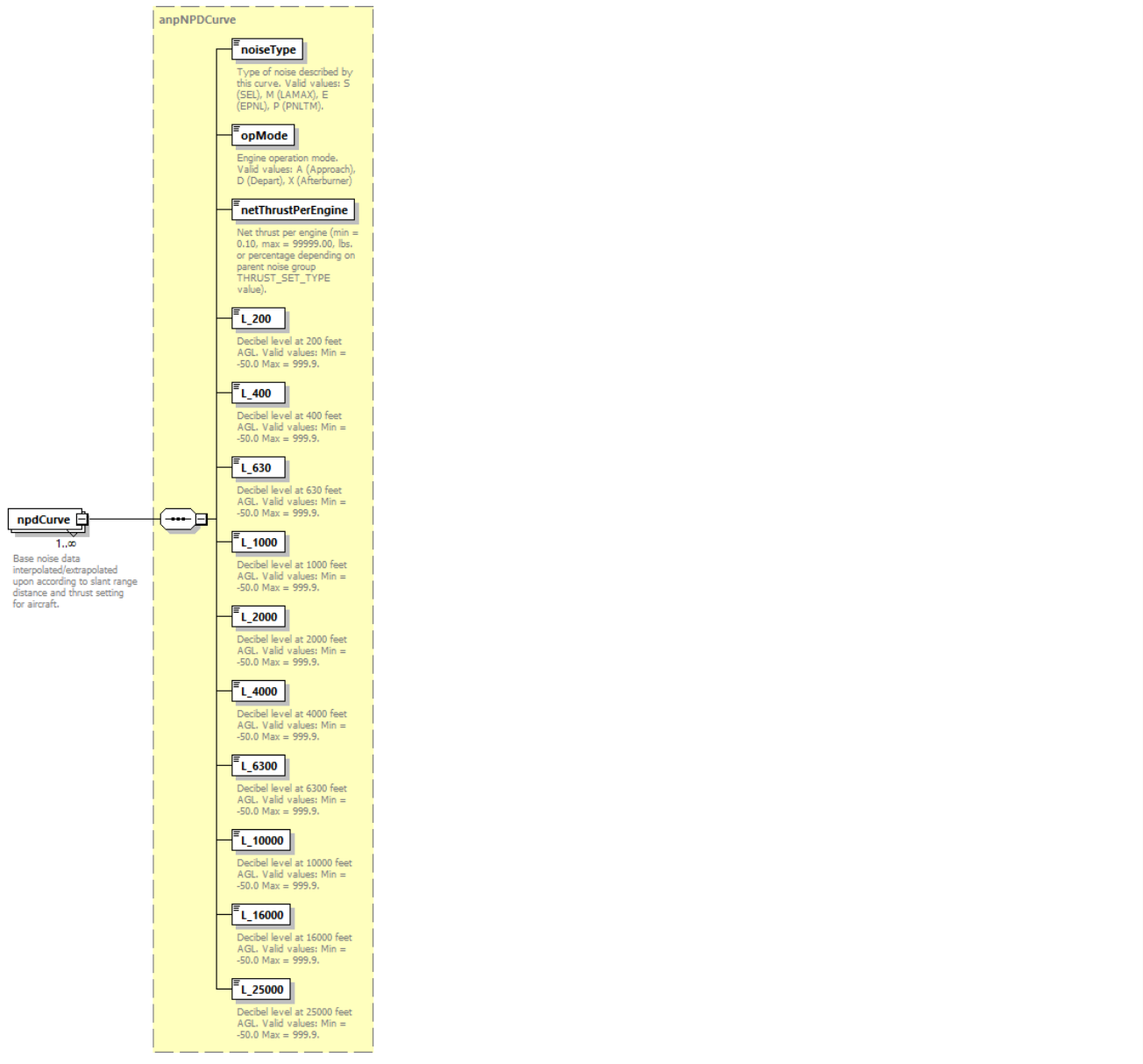
diagram	 <p>Decibel level at 25000 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p>
type	xs:double
properties	content simple
annotation	documentation Decibel level at 25000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

complexType **anpNPDCurves**

diagram	 <p>The set of defined noise curves.</p> <p>Base noise data interpolated/extrapolated upon according to slant range distance and thrust setting for aircraft.</p> <p>1..∞</p>
children	npdCurve
used by	element anpNoiseGroup/npdCurves
annotation	documentation The set of defined noise curves.

element **anpNPDCurves/npdCurve**

diagram



type **anpNPDCurve**

properties
minOcc 1
maxOcc unbounded
content complex

children **noiseType opMode netThrustPerEngine L_200 L_400 L_630 L_1000 L_2000 L_4000 L_6300 L_10000 L_16000 L_25000**

annotation
documentation
Base noise data interpolated/extrapolated upon according to slant range distance and thrust setting for aircraft.

complexType **anpProcedureStep**

diagram	<p>anpProcedureStep A single procedure step datum for the profile.</p> <ul style="list-style-type: none"> stepNum Step number of the procedure. Must be unique in a sequence. flapId Flap-setting identifier. stepType Type of step, (T) Takeoff, (C) Climb, (M) Cruise-Climb, (A) Accelerate, (P) Accel-Percent, (V) Level, (U) Level-Decel, (W) Level-Idle, (S) Level-Stretch, (D) Descend, (E) Descend-Decel, (F) Decend-Idle, (L) Land, (B) Decelerate thrustType Type of thrust: (T) MaxTakeoff, (C) MaxClimb, (N) MaxContinuous, (H) ReduceTakeoff, (Q) ReduceClimb, (S) MaxTakeoffHITemp, (B) MaxClimbHITemp, (M) MaxContinuousHITemp, (G) ReduceClimbHITemp, (P) ReduceClimbHITemp, (I) IdleApproach, (J) IdleApproachHITemp, (R) MinimumThrust, (K) UserCutback, (U) UserValue param1 Parameter particular for this step type (min = 9999.0, max = 60000.0). param2 Parameter particular for this step type (min = 0, max = 600.0). param3 Parameter particular for this step type (min = 0.0, max = 9999999.9).
children	stepNum flapId stepType thrustType param1 param2 param3
used by	element anpProcedureSteps/step
annotation	documentation A single procedure step datum for the profile.

element [anpProcedureStep/stepNum](#)

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

element [anpProcedureStep/flapId](#)

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

element [anpProcedureStep/stepType](#)

diagram	<p>stepType Type of step, (T) Takeoff, (C) Climb, (M) Cruise-Climb, (A) Accelerate, (P) Accel-Percent, (V) Level, (U) Level-Decel, (W) Level-Idle, (S) Level-Stretch, (D) Descend, (E) Descend-Decel, (F) Decend-Idle, (L) Land, (B) Decelerate</p>
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1

annotation	documentation Type of step. (T) Takeoff, (C) Climb, (M) Cruise-Climb, (A) Accelerate, (P) Accel-Percent, (V) Level, (U) Level-Decel, (W) Level-Idle, (S) Level-Stretch, (D) Descend, (E) Descend- Decel, (F) Decend-Idle, (L) Land, (B) Decelerate
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element **anpProcedureStep/thrustType**

diagram	
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of thrust. (T) MaxTakeoff, (C) MaxClimb, (N) MaxContinuous, (H) ReduceTakeoff, (Q) ReduceClimb, (S) MaxTakeoffHiTemp, (B) MaxClimbHiTemp, (M) MaxContinuousHiTemp, (G) ReduceClimbHiTemp, (P) ReduceClimbHiTemp, (I) IdleApproach, (J) IdleApproachHiTemp, (R) MinimumThrust, (K) UserCutback, (U) UserValue

element **anpProcedureStep/param1**

diagram	
type	xs:double
properties	content simple
annotation	documentation Parameter particular for this step type (min = 9999.0, max = 60000.0).

element **anpProcedureStep/param2**

diagram	
type	xs:double
properties	content simple
annotation	documentation Parameter particular for this step type (min = 0, max = 600.0).

element **anpProcedureStep/param3**

diagram	
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	
children	step
used by	element anpProfile/procedureSteps
annotation	documentation A set of procedure steps for the profile.

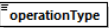
element **anpProcedureSteps/step**

diagram	<p>stepNum Step number of the procedure. Must be unique in a sequence.</p> <p>flapId Flap-setting identifier.</p> <p>stepType Type of step, (T) Takeoff, (C) Climb, (M) Cruise-Climb, (A) Accelerate, (P) Accel-Percent, (V) Level, (U) Level-Decel, (W) Level-Idle, (S) Level-Stretch, (D) Descend, (E) Descend-Decel, (F) Descend-Idle, (L) Land, (B) Decelerate</p> <p>thrustType Type of thrust, (T) MaxTakeoff, (C) MaxClimb, (N) MaxContinuous, (H) ReduceTakeoff, (Q) ReduceClimb, (S) MaxTakeoffHiTemp, (B) MaxClimbHiTemp, (M) MaxContinuousHiTemp, (G) ReduceClimbHiTemp, (P) ReduceClimbHiTemp, (I) IdleApproach, (J) IdleApproachHiTemp, (R) MinimumThrust, (K) UserCutback, (U) UserValue</p> <p>param1 Parameter particular for this step type (min = 9999.0, max = 60000.0).</p> <p>param2 Parameter particular for this step type (min = 0, max = 600.0).</p> <p>param3 Parameter particular for this step type (min = 0.0, max = 999999.9).</p> <p>step 1..∞ An ANP procedure step.</p>
type	anpProcedureStep
properties	minOcc 1 maxOcc unbounded content complex
children	stepNum flapId stepType thrustType param1 param2 param3
annotation	documentation An ANP procedure step.


complexType **anpProfile**

diagram	<p>operationType Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFix), V (OverFix)</p> <p>profileGroupId Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).</p> <p>profileStageLength Profile stage number (min = 1, max = 9). Approach stage numbers are not related to trip distance. There is only one standard approach profile for most standard aircraft and its stage number is set to 1. Approach stage numbers are used to distinguish members of a group. For example, approach stage can mean different kinds of approaches (e.g. 1 = 3 degree approach, 2 = 5 degree approach).</p> <p>weight Aircraft weight during this operation type (min = 0, max = 999999, lbs).</p> <p>procedureSteps Set of procedure steps associated with this profile.</p> <p>profilePoints Set of points associated with this profile.</p> <p>anpProfile Profile data element.</p>
children	operationType profileGroupId profileStageLength weight procedureSteps profilePoints
used by	element anpProfileSet/profile
annotation	documentation Profile data element.


element **anpProfile/operationType**

diagram	 <p>Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFit), V (OverFit)</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 **anpProfile/profileGroupId**

diagram	 <p>Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).</p>
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).

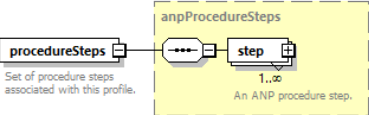
element **anpProfile/profileStageLength**

diagram	 <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	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Profile stage number (min = 1, max = 9). Approach stage numbers are not related to trip distance. There is only one standard approach profile for most standard aircraft and its stage number is set to 1. Approach stage numbers are used to distinguish members of a group. For example, approach stage can mean different kinds of approaches (e.g. 1 = 3 degree approach, 2 = 5 degree approach).

element **anpProfile/weight**

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

element **anpProfile/procedureSteps**

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

element **anpProfile/profilePoints**

diagram	
type	anpProfilePoints
properties	content complex
children	point
annotation	documentation Set of points associated with this profile.

complexType **anpProfilePoint**

diagram	
children	pointNum distance altitude speed thrustSet opMode
used by	element anpProfilePoints/point
annotation	documentation A single profile point data element.

element **anpProfilePoint/pointNum**

diagram	
type	xs:short
properties	content simple
annotation	documentation Point index number. Must be sequential and unique, starting at 1.


element **anpProfilePoint/distance**

diagram	
type	xs:double
properties	content simple
annotation	documentation Distance along the ground relative to start (min = -9999999.9, max = 9999999.9, feet).


element **anpProfilePoint/altitude**

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

element **anpProfilePoint/speed**

diagram	 <p>True air speed (TAS) at this point (min = 0, max = 600, knots).</p>
type	xs:double
properties	content simple
annotation	documentation True air speed (TAS) at this point (min = 0, max = 600, knots).

element **anpProfilePoint/thrustSet**

diagram	 <p>Corrected net thrust per engine at this point (min = 0.1, max = 99999, lbs or % max thrust).</p>
type	xs:double
properties	content simple
annotation	documentation Corrected net thrust per engine at this point (min = 0.1, max = 99999, lbs or % max thrust).

element **anpProfilePoint/opMode**

diagram	 <p>Operational mode. Valid values: A (Approach), D (Departure), X (Overflight).</p>
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	 <p>A set of point profile data.</p>
children	point
used by	element anpProfile/profilePoints
annotation	documentation A set of point profile data.

element **anpProfilePoints/point**

diagram	 <p>The diagram shows the structure of the anpProfilePoint element. It is a container for several child elements: pointNum, distance, altitude, speed, thrustSet, and opMode. Each child element is represented by a box with its name and a brief description of its content and constraints. The point element is shown as a container for these child elements, with a multiplicity of 1..∞.</p>
type	anpProfilePoint
properties	minOcc 1 maxOcc unbounded content complex
children	pointNum distance altitude speed thrustSet opMode

complexType **anpProfileSet**

diagram	
children	anpAirplaneId profile
used by	element fleet/anpProfileSet
annotation	documentation A profile set for an ANP airplane.

element **anpProfileSet/anpAirplaneId**

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

element **anpProfileSet/profile**

diagram	
type	anpProfile
properties	minOcc 1 maxOcc unbounded content complex
children	operationType profileGroupid profileStageLength weight procedureSteps profilePoints
annotation	documentation One or more ANP profiles.

complexType **anpThrustGeneral**

diagram	<p>anpThrustGeneral General thrust data for an ANP aircraft.</p> <ul style="list-style-type: none"> thrustType The type of generalized thrust-setting. coeff_E Corrected net thrust per engine coefficient. Valid values: -199999.9 through 99999.9. (lb). coeff_F Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F) coeff_GA Altitude adjustment coefficient at MSL. (lb/ft) coeff_GB Altitude-squared adjustment coefficient at MSL. (lb/ft²) coeff_H Temperature adjustment coefficient. (lb/°C) coeff_K1 EPR or $N1/\sqrt{\text{theta}}$ adjustment coefficient. (lb/EPR) coeff_K2 EPR- or $N1/\sqrt{\text{theta}}$-squared adjustment coefficient. (lb/EPR²)
children	thrustType coeff_E coeff_F coeff_GA coeff_GB coeff_H coeff_K1 coeff_K2
used by	element anpThrustSet/thrustGeneral
annotation	documentation General thrust data for an ANP aircraft.

element [anpThrustGeneral/thrustType](#)

diagram	<p>thrustType The type of generalized thrust-setting.</p>
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation The type of generalized thrust-setting.

element [anpThrustGeneral/coeff_E](#)

diagram	<p>coeff_E Corrected net thrust per engine coefficient. Valid values: -199999.9 through 99999.9. (lb).</p>
type	xs:double
properties	content simple
annotation	documentation Corrected net thrust per engine coefficient. Valid values: -199999.9 through 99999.9. (lb).

element [anpThrustGeneral/coeff_F](#)


diagram	<p>coeff_F Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F)</p>
type	xs:double
properties	content simple
annotation	documentation Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F)

element [anpThrustGeneral/coeff_GA](#)

diagram	<p>coeff_GA Altitude adjustment coefficient at MSL. (lb/ft)</p>
type	xs:double
properties	content simple
annotation	documentation

Altitude adjustment coefficient at MSL. (lb/ft)


element **anpThrustGeneral/coeff_GB**

diagram	 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	 Temperature adjustment coefficient. (lb/°C)
type	xs:double
properties	content simple
annotation	documentation Temperature adjustment coefficient. (lb/°C)

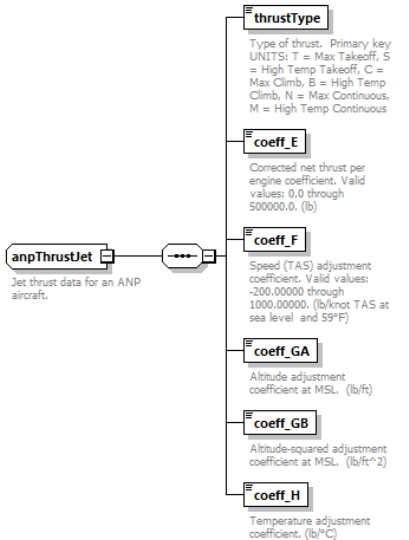
element **anpThrustGeneral/coeff_K1**

diagram	 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	 EPR- or N1/sqrt(theta)-squared adjustment coefficient. (lb/EPR ²)
type	xs:double
properties	content simple
annotation	documentation EPR- or N1/sqrt(theta)-squared adjustment coefficient. (lb/EPR ²)


complexType **anpThrustJet**

diagram	 The diagram shows the structure of the anpThrustJet complex type. It consists of a root element anpThrustJet (labeled "Jet thrust data for an ANP aircraft.") which contains several child elements: thrustType (Type of thrust. Primary key UNITS: T = Max Takeoff, S = High Temp Takeoff, C = Max Climb, B = High Temp Climb, N = Max Continuous, M = High Temp Continuous), coeff_E (Corrected net thrust per engine coefficient. Valid values: 0.0 through 500000.0. (lb)), coeff_F (Speed (TAS) adjustment coefficient. Valid values: -200.000000 through 1000.000000. (lb/knot TAS at sea level and 59°F)), coeff_GA (Altitude adjustment coefficient at MSL. (lb/ft)), coeff_GB (Altitude-squared adjustment coefficient at MSL. (lb/ft ²)), and coeff_H (Temperature adjustment coefficient. (lb/°C)).
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	 <p>Type of thrust. Primary key UNITS: T = Max Takeoff, S = High Temp Takeoff, C = Max Climb, B = High Temp Climb, N = Max Continuous, M = High Temp Continuous</p>
type	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	 <p>Corrected net thrust per engine coefficient. Valid values: 0.0 through 500000.0. (lb)</p>
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	 <p>Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F)</p>
type	xs:double
properties	content simple
annotation	documentation Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F)


element **anpThrustJet/coeff_GA**

diagram	 <p>Altitude adjustment coefficient at MSL. (lb/ft)</p>
type	xs:double
properties	content simple
annotation	documentation Altitude adjustment coefficient at MSL. (lb/ft)

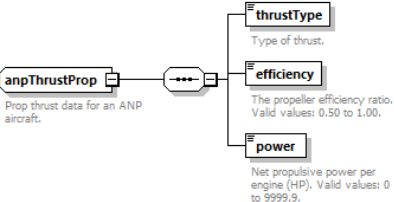
element **anpThrustJet/coeff_GB**

diagram	 <p>Altitude-squared adjustment coefficient at MSL. (lb/ft^2)</p>
type	xs:double
properties	content simple
annotation	documentation Altitude-squared adjustment coefficient at MSL. (lb/ft^2)

element **anpThrustJet/coeff_H**

diagram	 <p>Temperature adjustment coefficient. (lb/°C)</p>
type	xs:double
properties	content simple
annotation	documentation Temperature adjustment coefficient. (lb/°C)

complexType **anpThrustProp**

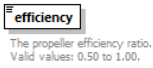
diagram	 <p>Prop thrust data for an ANP aircraft.</p> <p>thrustType Type of thrust.</p> <p>efficiency The propeller efficiency ratio. Valid values: 0.50 to 1.00.</p> <p>power Net propulsive power per engine (HP). Valid values: 0 to 9999.9.</p>
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children	thrustType efficiency power
used by	element anpThrustSet/thrustProp
annotation	documentation Prop thrust data for an ANP aircraft.

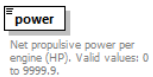
element [anpThrustProp/thrustType](#)

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

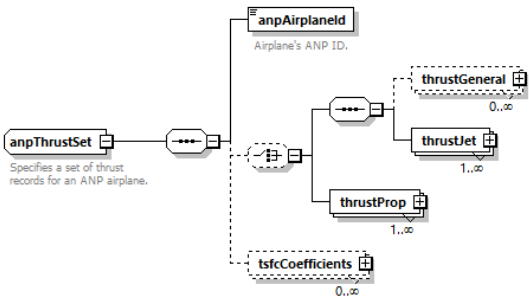
element [anpThrustProp/efficiency](#)

diagram	
type	xs:double
properties	content simple
annotation	documentation The propeller efficiency ratio. Valid values: 0.50 to 1.00.

element [anpThrustProp/power](#)

diagram	
type	xs:double
properties	content simple
annotation	documentation Net propulsive power per engine (HP). Valid values: 0 to 9999.9.

complexType [anpThrustSet](#)

diagram	
children	anpAirplaneId thrustGeneral thrustJet thrustProp tsfcCoefficients
used by	element fleet/anpThrustSet
annotation	documentation Specifies a set of thrust records for an ANP airplane.

element [anpThrustSet/anpAirplaneId](#)

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

element [anpThrustSet/thrustGeneral](#)

<p>diagram</p>	<p>anpThrustGeneral</p> <ul style="list-style-type: none"> thrustType: The type of generalized thrust-setting. coeff_E: Corrected net thrust per engine coefficient. Valid values: -19999.9 through 99999.9. (lb) coeff_F: Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F) coeff_GA: Altitude adjustment coefficient at MSL. (lb/ft) coeff_GB: Altitude-squared adjustment coefficient at MSL. (lb/ft²) coeff_H: Temperature adjustment coefficient. (lb/°C) coeff_K1: EPR or N1/sqrt(theta) adjustment coefficient. (lb/EPR) coeff_K2: EPR- or N1/sqrt(theta)-squared adjustment coefficient. (lb/EPR²) <p>thrustGeneral 0..∞</p>
<p>type</p>	<p>anpThrustGeneral</p>
<p>properties</p>	<p>minOcc 0 maxOcc unbounded content complex</p>
<p>children</p>	<p>thrustType coeff_E coeff_F coeff_GA coeff_GB coeff_H coeff_K1 coeff_K2</p>

element **anpThrustSet/thrustJet**

<p>diagram</p>	<p>anpThrustJet</p> <ul style="list-style-type: none"> thrustType: Type of thrust. Primary key UNITS: T = Max Takeoff, S = High Temp Takeoff, C = Max Climb, B = High Temp Climb, N = Max Continuous, M = High Temp Continuous coeff_E: Corrected net thrust per engine coefficient. Valid values: 0.0 through 500000.0. (lb) coeff_F: Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F) coeff_GA: Altitude adjustment coefficient at MSL. (lb/ft) coeff_GB: Altitude-squared adjustment coefficient at MSL. (lb/ft²) coeff_H: Temperature adjustment coefficient. (lb/°C) <p>thrustJet 1..∞</p>
<p>type</p>	<p>anpThrustJet</p>
<p>properties</p>	<p>minOcc 1 maxOcc unbounded content complex</p>
<p>children</p>	<p>thrustType coeff_E coeff_F coeff_GA coeff_GB coeff_H</p>

element **anpThrustSet/thrustProp**

diagram	
type	anpThrustProp
properties	minOcc 1 maxOcc unbounded content complex
children	thrustType efficiency power

element [anpThrustSet/tsfcCoefficients](#)

diagram	
type	anpTsfcCoefficients
properties	minOcc 0 maxOcc unbounded content complex
children	mode k1 k2 k3 k4 beta1 beta2 beta3 alpha

complexType [anpTsfcCoefficients](#)

diagram	<p>The diagram shows the anpTsfcCoefficients element, which is a container for TSFC coefficient data for an ANP aircraft. It is connected to a list of children elements: mode, k1, k2, k3, k4, beta1, beta2, beta3, and alpha. Each child element has a specific description of its role in the TSFC model.</p> <ul style="list-style-type: none"> mode: Arrival or departure mode. k1: Departure thrust specific fuel consumption constant coefficient. k2: Departure thrust specific fuel consumption Mach number coefficient. k3: Departure thrust specific fuel consumption altitude coefficient. k4: Departure thrust specific fuel consumption thrust coefficient. beta1: Arrival thrust specific fuel consumption Mach number coefficient. beta2: Arrival thrust specific fuel consumption altitude coefficient. beta3: Arrival thrust specific fuel consumption thrust coefficient. alpha: Arrival thrust specific fuel consumption constant coefficient.
children	mode k1 k2 k3 k4 beta1 beta2 beta3 alpha
used by	element anpThrustSet/tsfcCoefficients
annotation	documentation TSFC coefficient data for an ANP aircraft.

element [anpTsfcCoefficients/mode](#)

diagram	<p>The diagram shows the mode element, which represents the arrival or departure mode.</p>
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Arrival or departure mode.

element [anpTsfcCoefficients/k1](#)

diagram	<p>The diagram shows the k1 element, which represents the departure thrust specific fuel consumption constant coefficient.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Departure thrust specific fuel consumption constant coefficient.

element [anpTsfcCoefficients/k2](#)

diagram	<p>The diagram shows the k2 element, which represents the departure thrust specific fuel consumption Mach number coefficient.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Departure thrust specific fuel consumption Mach number coefficient.

element [anpTsfcCoefficients/k3](#)

diagram	<p>The diagram shows the k3 element, which represents the departure thrust specific fuel consumption altitude coefficient.</p>
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type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Departure thrust specific fuel consumption altitude coefficient.

element **anpTsfCoefficients/k4**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Departure thrust specific fuel consumption thrust coefficient.

element **anpTsfCoefficients/beta1**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Arrival thrust specific fuel consumption Mach number coefficient.

element **anpTsfCoefficients/beta2**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Arrival thrust specific fuel consumption altitude coefficient.

element **anpTsfCoefficients/beta3**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Arrival thrust specific fuel consumption thrust coefficient.

element **anpTsfCoefficients/alpha**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Arrival thrust specific fuel consumption constant coefficient.

complexType **auxiliaryPowerUnit**

diagram	<p>name Identifying name of APU.</p> <p>baseAuxiliaryPowerUnit Base reference name, typically a system name.</p> <p>defaultTimeArrivals Default length of time APU used for powering arrival aircraft (minutes). Valid values: Nonnegative.</p> <p>defaultTimeDepartures Default length of time APU used for powering departure aircraft (minutes). Valid values: Nonnegative.</p> <p>CO Amount of carbon monoxide emitted (kg/hour). Valid values [0&#8230;1,000].</p> <p>HC Amount of hydrocarbons emitted (kg/hour). Valid values [0&#8230;1,000].</p> <p>NOx Amount of nitrous oxide emitted (kg/hour). Valid values [0&#8230;1,000].</p> <p>SOx Amount of sulfur oxide emitted (kg/hour). Valid values [0&#8230;1,000].</p> <p>PM Amount of particulate matter emitted (kg/hour). Valid values [0&#8230;1,000].</p> <p>auxiliaryPowerUnit 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	<p>name Identifying name of APU.</p>
type	apuName
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 30
annotation	documentation Identifying name of APU.

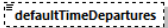
element [auxiliaryPowerUnit/baseAuxiliaryPowerUnit](#)

diagram	<p>baseAuxiliaryPowerUnit Base reference name, typically a system name.</p>
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	<p>defaultTimeArrivals Default length of time APU used for powering arrival aircraft (minutes). Valid values: Nonnegative.</p>
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	 Default length of time APU used for powering departure aircraft (minutes). Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Default length of time APU used for powering departure aircraft (minutes). Valid values: Nonnegative.

element **auxiliaryPowerUnit/CO**

diagram	 Amount of carbon monoxide emitted (kg/hour). Valid values [0…1,000].
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**

diagram	 Amount of hydrocarbons emitted (kg/hour). Valid values [0…1,000].
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**

diagram	 Amount of nitrous oxide emitted (kg/hour). Valid values [0…1,000].
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of nitrous oxide emitted (kg/hour). Valid values [0…1,000].


element **auxiliaryPowerUnit/SOx**

diagram	 Amount of sulfur oxide emitted (kg/hour). Valid values [0…1,000].
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**

diagram	 Amount of particulate matter emitted (kg/hour). Valid values [0…1,000].
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 **bada4ProcedureStep**

<p>diagram</p>  <p>bada4ProcedureStep A single procedure step for the BADA 4 profile.</p> <ul style="list-style-type: none"> stepNumber: Step number of the procedure. Must be unique in a sequence. configId: AFPM configuration ID. anpAirplaneId: Airplane's ANP ID. anpFlapId: Flap-setting identifier. stepType: Step types: (L) Level, (D) Descend, (I) Land, (B) Landing decelerate, (T) Takeoff, (C) Climb, (A) Accelerate, (M) Cruise climb, (S) Fit-to-track distance, (U) Level decelerate (U), (W) Level idle, (E) Descend decelerate, (F) Descend idle, (P) Percent accelerate. thrustType: Thrust types: (T) MaxTakeoff, (S) MaxTakeoffHITemp, (F) MaxTakeoffReduce05, (E) MaxTakeoffReduce05HITemp, (X) MaxTakeoffReduce10, (W) MaxTakeoffReduce10HITemp, (Z) MaxTakeoffReduce15, (Y) MaxTakeoffReduce15HITemp, (C) MaxClimb, (B) MaxClimbHITemp, (D) MaxClimbReduce10, (A) MaxClimbReduce10HITemp, (N) MaxCont, (M) MaxContHITemp, (H) ReducedTakeoff, (S) ReducedTakeoffHITemp, (Q) ReducedClimb, (P) ReducedClimbHITemp, (R) MinimumThrust, (K) UserCutback, (U) UserValue, (V) ReversedThrust, (I) NormalThrust, (J) IdleApproach, (J) IdleApproachHITemp, (*) UnknownThrust. altitude: Altitude above runway elevation (ARE) for the procedure step. UNITS: feet. calibratedAirspeed: Calibrated airspeed (KCAS). UNITS: knots. mach: Mach number for procedure step. Min= 0.0 Max= 10.0 UNITS: Dimensionless. thrust: Thrust in pounds. angle: Climb or descend angle in degrees. Valid values: 0.00 to 180.00. UNITS: decimal degrees. climbRate: Climb rate in feet per minute. distance: Flight segment length in feet. percent: Defines how much energy is spent on acceleration. gearDown: Flag representing if the landing gear is down(1) or not down(0). 	<p>children stepNumber configId anpAirplaneId anpFlapId stepType thrustType altitude calibratedAirspeed mach thrust angle climbRate distance percent gearDown</p> <p>used by element bada4ProcedureSteps/step</p> <p>annotation documentation A single procedure step for the BADA 4 profile.</p>
<p>children</p>	<p>stepNumber configId anpAirplaneId anpFlapId stepType thrustType altitude calibratedAirspeed mach thrust angle climbRate distance percent gearDown</p>
<p>used by</p>	<p>element bada4ProcedureSteps/step</p>
<p>annotation</p>	<p>documentation A single procedure step for the BADA 4 profile.</p>

element **bada4ProcedureStep/stepNumber**


<p>diagram</p>  <p>stepNumber Step number of the procedure. Must be unique in a sequence.</p>	
<p>type</p>	<p>xs:int</p>
<p>properties</p>	<p>content simple</p>
<p>annotation</p>	<p>documentation</p>

Step number of the procedure. Must be unique in a sequence.


element **bada4ProcedureStep/configId**

diagram	 AFCM configuration ID.
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation AFCM configuration ID.


element **bada4ProcedureStep/anpAirplaneId**

diagram	 Airplane's ANP ID.
type	anpAirplaneId
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's ANP ID.

element **bada4ProcedureStep/anpFlapId**

diagram	 Flap-setting identifier.
type	anpFlapId
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 6
annotation	documentation Flap-setting identifier.


element **bada4ProcedureStep/stepType**

diagram	 Step type: (L) Level, (D) Descend, (L) Land, (B) Landing decelerate, (T) Takeoff, (C) Climb, (A) Accelerate, (M) Cruise climb, (S) Fit-to-track distance, (U) Level decelerate (U), (W) Level idle, (E) Descend decelerate, (F) Descend idle, (P) Percent accelerate.
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Step type: (L) Level, (D) Descend, (L) Land, (B) Landing decelerate, (T) Takeoff, (C) Climb, (A) Accelerate, (M) Cruise climb, (S) Fit-to-track distance, (U) Level decelerate (U), (W) Level idle, (E) Descend decelerate, (F) Descend idle, (P) Percent accelerate.

element **bada4ProcedureStep/thrustType**

diagram	 <p>Thrust type: (T) MaxTakeoff, (S) MaxTakeoffHiTemp, (F) MaxTakeoffReduce05, (E) MaxTakeoffReduce05HiTemp, (X) MaxTakeoffReduce10, (W) MaxTakeoffReduce10HiTemp, (Z) MaxTakeoffReduce15, (Y) MaxTakeoffReduce15HiTemp, (C) MaxClimb, (B) MaxClimbHiTemp, (D) MaxClimbReduce10, (A) MaxClimbReduce10HiTemp, (N) MaxCont, (M) MaxContHiTemp, (H) ReducedTakeoff, (G) ReducedTakeoffHiTemp, (Q) ReducedClimb, (P) ReducedClimbHiTemp, (R) MinimumThrust, (K) UserCutback, (U) UserValue, (V) ReversedThrust, (L) NormalThrust, (I) IdleApproach, (J) IdleApproachHiTemp, (*) UnknownThrust.</p>
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Thrust type: (T) MaxTakeoff, (S) MaxTakeoffHiTemp, (F) MaxTakeoffReduce05, (E) MaxTakeoffReduce05HiTemp, (X) MaxTakeoffReduce10, (W) MaxTakeoffReduce10HiTemp, (Z) MaxTakeoffReduce15, (Y) MaxTakeoffReduce15HiTemp, (C) MaxClimb, (B) MaxClimbHiTemp, (D) MaxClimbReduce10, (A) MaxClimbReduce10HiTemp, (N) MaxCont, (M) MaxContHiTemp, (H) ReducedTakeoff, (G) ReducedTakeoffHiTemp, (Q) ReducedClimb, (P) ReducedClimbHiTemp, (R) MinimumThrust, (K) UserCutback, (U) UserValue, (V) ReversedThrust, (L) NormalThrust, (I) IdleApproach, (J) IdleApproachHiTemp, (*) UnknownThrust.

element **bada4ProcedureStep/altitude**

diagram	 <p>Altitude above runway elevation (ARE) for the procedure step. UNITS: feet.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Altitude above runway elevation (ARE) for the procedure step. UNITS: feet.


element **bada4ProcedureStep/calibratedAirspeed**

diagram	 <p>Calibrated airspeed (KCAS). UNITS: knots.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Calibrated airspeed (KCAS). UNITS: knots.


element **bada4ProcedureStep/mach**

diagram	 <p>Mach number for procedure step. Min= 0.0 Max= 10.0 UNITS: Dimensionless.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Mach number for procedure step. Min= 0.0 Max= 10.0 UNITS: Dimensionless.


element **bada4ProcedureStep/thrust**

diagram	 <p>Thrust in pounds.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Thrust in pounds.

element **bada4ProcedureStep/angle**

diagram	 <p>angle Climb or descend angle in degrees. Valid values: 0.00 to 180.00. UNITS: decimal degrees.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Climb or descend angle in degrees. Valid values: 0.00 to 180.00. UNITS: decimal degrees.


element **bada4ProcedureStep/climbRate**

diagram	 <p>climbRate Climb rate in feet per minute.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Climb rate in feet per minute.

element **bada4ProcedureStep/distance**

diagram	 <p>distance Flight segment length in feet.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Flight segment length in feet.


element **bada4ProcedureStep/percent**

diagram	 <p>percent Defines how much energy is spent on acceleration.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Defines how much energy is spent on acceleration.

element **bada4ProcedureStep/gearDown**

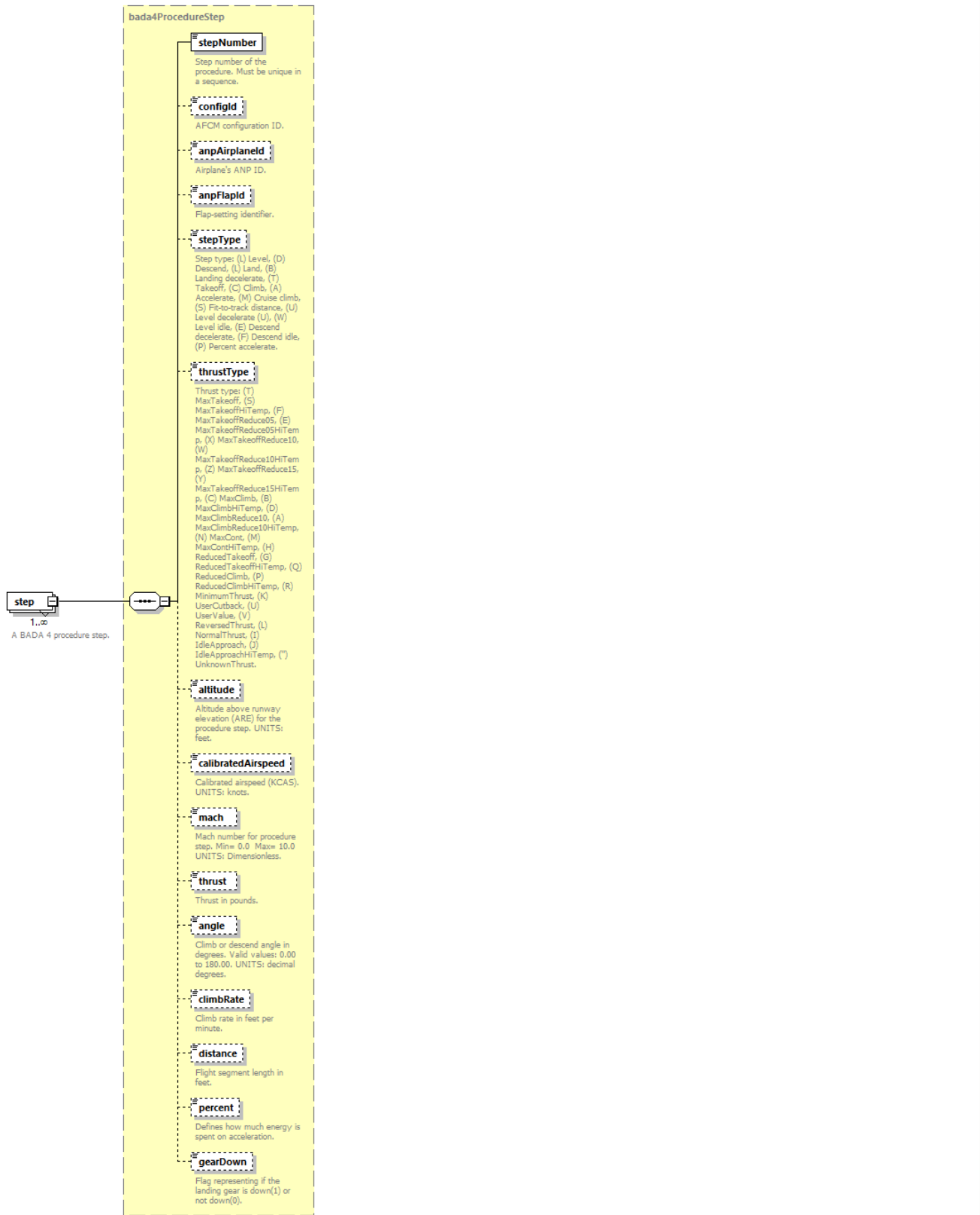
diagram	 <p>gearDown Flag representing if the landing gear is down(1) or not down(0).</p>
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Flag representing if the landing gear is down(1) or not down(0).

complexType **bada4ProcedureSteps**

diagram	 <p>bada4ProcedureSteps 1..∞ Set of procedure steps associated with this BADA 4 profile. step 1 A BADA 4 procedure step.</p>
children	step
used by	element bada4Profile/bada4ProcedureSteps
annotation	documentation Set of procedure steps associated with this BADA 4 profile.

element **bada4ProcedureSteps/step**

diagram



type **bada4ProcedureStep**

properties
minOcc 1
maxOcc unbounded
content complex

children **stepNumber configId anpAirplaneId anpFlapId stepType thrustType altitude calibratedAirspeed mach thrust angle climbRate distance percent gearDown**

annotation
documentation
A BADA 4 procedure step.

complexType **bada4Profile**

diagram	<p>operationType Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFit), V (OverFit)</p> <p>flightProcedure Flight procedure identifier. Typically STANDARD, ICAO A, ICAO B or user defined.</p> <p>weightClass Formerly known as STAGE LENGTH.</p> <p>weight Weight in pounds.</p> <p>bada4ProcedureSteps Set of procedure steps associated with this BADA 4 profile.</p>
children	operationType flightProcedure weightClass weight bada4ProcedureSteps
used by	element bada4ProfileSet/bada4profile
annotation	documentation BADA 4 profile data element.

element [bada4Profile/operationType](#)

diagram	<p>operationType Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFit), V (OverFit)</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 [bada4Profile/flightProcedure](#)

diagram	<p>flightProcedure Flight procedure identifier. Typically STANDARD, ICAO A, ICAO B or user defined.</p>
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Flight procedure identifier. Typically STANDARD, ICAO A, ICAO B or user defined.

element [bada4Profile/weightClass](#)

diagram	<p>weightClass Formerly known as STAGE LENGTH.</p>
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Formerly known as STAGE LENGTH.

element [bada4Profile/weight](#)

diagram	<p>weight Weight in pounds.</p>
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Weight in pounds.

element [bada4Profile/bada4ProcedureSteps](#)

diagram	
type	bada4ProcedureSteps
properties	content complex
children	step
annotation	documentation Set of procedure steps associated with this BADA 4 profile.

complexType [bada4ProfileSet](#)

diagram	
children	anpAirplaneId bada4AirplaneModel bada4Engine bada4Suffix bada4profile
used by	element fleet/bada4ProfileSet
annotation	documentation A profile set for an BADA4 airplane.

element [bada4ProfileSet/anpAirplaneId](#)

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

element [bada4ProfileSet/bada4AirplaneModel](#)

diagram	
type	bada4AirplaneModel
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's BADA 4 model.

element [bada4ProfileSet/bada4Engine](#)

diagram	
type	bada4Engine
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's BADA 4 engine.

element [bada4ProfileSet/bada4Suffix](#)


diagram	
type	bada4Suffix

properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation User-defined BADA 4 model suffix.

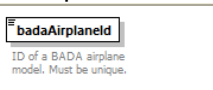
element **bada4ProfileSet/bada4profile**

diagram	<p>The diagram illustrates the structure of the bada4Profile element. It is a container element (indicated by a dashed border) that contains five sub-elements:</p> <ul style="list-style-type: none"> operationType: Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFt), V (OverFt). flightProcedure: Flight procedure identifier. Typically STANDARD, ICAO A, ICAO B or user defined. weightClass: Formerly known as STAGE LENGTH. weight: Weight in pounds. bada4ProcedureSteps: Set of procedure steps associated with this BADA 4 profile. <p>The container bada4Profile is linked to the external element bada4profile with a multiplicity of 1..∞, indicating one or more BADA 4 profiles.</p>
type	bada4Profile
properties	minOcc 1 maxOcc unbounded content complex
children	operationType flightProcedure weightClass weight bada4ProcedureSteps
annotation	documentation One or more BADA 4 profiles.


complexType **badaAirplane**

<p>diagram</p> 	<p>badaAirplaneId ID of a BADA airplane model. Must be unique.</p> <p>mfgDescription Manufacturer description.</p> <p>numEngines The number of engines.</p> <p>engineTypeCode The engine type code: J/T/P.</p> <p>wakeCategory The wake category.</p> <p>referenceAircraftMass Minimum aircraft mass (min = 0.0, max = 455.0, metric ton).</p> <p>minAircraftMass Minimum aircraft mass (min = 0.0, max = 455.0, metric ton).</p> <p>maxAircraftMass Maximum aircraft mass (min = 0.0, max = 455.0, metric ton).</p> <p>maxPayloadMass Maximum payload mass (min = 0.0, max = 455.0, metric ton).</p> <p>weightGradient Weight gradient on maximum altitude (min = 0.0, max = 10.0, feet/kg).</p> <p>maxOperatingSpeed Maximum operating speed (KCAS) (min = 0.0, max = 600.0, UNITS: knots).</p> <p>maxOperatingMachNumber Maximum operating Mach number (min = 0.0, max = 10.0, UNITS: dimensionless).</p> <p>maxOperatingAltitude Maximum operating altitude (min = -9999.0, max = 60000.0, UNITS: feet, pressure altitude).</p> <p>maxAltitudeAtMaxTakeoffWeight Maximum altitude at maximum takeoff weight and ISA (Min = -9999.0, Max = 60000.0, UNITS: feet, pressure altitude).</p> <p>temperatureGradientOnMaximum... Temperature gradient on maximum altitude.</p> <p>wingSurfaceArea Wing surface area (min = 0.0, max = 1000.0, square meters).</p> <p>buffetOnsetLiftCoeff Buffet onset lift coefficient (jet only) (min = 0.0, max = 10.0).</p> <p>buffetingGradient Buffeting gradient (jet only).</p> <p>machDragCoeff Mach drag coefficient (min = 0.0, max = 10.0).</p>
<p>children</p>	<p>badaAirplaneId mfgDescription numEngines engineTypeCode wakeCategory referenceAircraftMass minAircraftMass maxAircraftMass maxPayloadMass weightGradient maxOperatingSpeed maxOperatingMachNumber maxOperatingAltitude maxAltitudeAtMaxTakeoffWeight temperatureGradientOnMaximumAltitude wingSurfaceArea buffetOnsetLiftCoeff buffetingGradient machDragCoeff</p>
<p>used by</p>	<p>element fleet/badaAirplane</p>
<p>annotation</p>	<p>documentation Block used to create a user defined BADA airplane.</p>

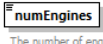
element **badaAirplane/badaAirplaneId**

<p>diagram</p> 	<p>badaAirplaneId ID of a BADA airplane model. Must be unique.</p>
<p>type</p>	<p>badaAirplaneId</p>
<p>properties</p>	<p>content simple</p>
<p>facets</p>	<p>Kind Value Annotation min.Length 0 max.Length 255</p>
<p>annotation</p>	<p>documentation ID of a BADA airplane model. Must be unique.</p>

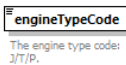
element **badaAirplane/mfgDescription**

diagram	 mfgDescription Manufacturer description.
type	string255
properties	content simple
facets	Kind Value Annotation min.Length 0 max.Length 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.

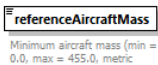
element **badaAirplane/engineTypeCode**

diagram	 engineTypeCode The engine type code: J/T/P.
type	engineType
properties	content simple
facets	Kind Value Annotation pattern Jet J Turbo Turbo prop T P Piston P
annotation	documentation The engine type code: J/T/P.

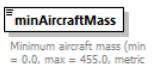
element **badaAirplane/wakeCategory**

diagram	 wakeCategory The wake category.
type	badaWakeType
properties	content simple
facets	Kind Value Annotation pattern Heavy H Light L Medium M SuperHeavy J
annotation	documentation The wake category.

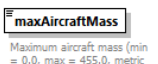
element **badaAirplane/referenceAircraftMass**

diagram	 referenceAircraftMass Minimum aircraft mass (min = 0.0, max = 455.0, metric ton).
type	xs:double
properties	content simple
annotation	documentation Minimum aircraft mass (min = 0.0, max = 455.0, metric ton).

element **badaAirplane/minAircraftMass**

diagram	 minAircraftMass Minimum aircraft mass (min = 0.0, max = 455.0, metric ton).
type	xs:double
properties	content simple
annotation	documentation Minimum aircraft mass (min = 0.0, max = 455.0, metric ton).

element **badaAirplane/maxAircraftMass**


diagram	 maxAircraftMass Maximum aircraft mass (min = 0.0, max = 455.0, metric ton).
type	xs:double
properties	content simple
annotation	documentation

Maximum aircraft mass (min = 0.0, max = 455.0, metric ton).


element badaAirplane/maxPayloadMass

diagram	 maxPayloadMass Maximum payload mass (min = 0.0, max = 455.0, (metric ton)).
type	xs:double
properties	content simple
annotation	documentation Maximum payload mass (min = 0.0, max = 455.0, (metric ton)).


element badaAirplane/weightGradient

diagram	 weightGradient Weight gradient on maximum altitude (min = 0.0, max = 10.0, feet/kg).
type	xs:double
properties	content simple
annotation	documentation Weight gradient on maximum altitude (min = 0.0, max = 10.0, feet/kg).


element badaAirplane/maxOperatingSpeed

diagram	 maxOperatingSpeed Maximum operating speed (KCAS) (min = 0.0, max = 600.0, UNITS: knots).
type	xs:double
properties	content simple
annotation	documentation Maximum operating speed (KCAS) (min = 0.0, max = 600.0, UNITS: knots).


element badaAirplane/maxOperatingMachNumber

diagram	 maxOperatingMachNumber Maximum operating Mach number (min = 0.0, max = 10.0, UNITS: dimensionless).
type	xs:double
properties	content simple
annotation	documentation Maximum operating Mach number (min = 0.0, max = 10.0, UNITS: dimensionless).


element badaAirplane/maxOperatingAltitude

diagram	 maxOperatingAltitude Maximum operating altitude (min = -9999.0, max = 60000.0, UNITS: feet, pressure altitude).
type	xs:double
properties	content simple
annotation	documentation Maximum operating altitude (min = -9999.0, max = 60000.0, UNITS: feet, pressure altitude).

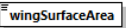
element badaAirplane/maxAltitudeAtMaxTakeoffWeight

diagram	 maxAltitudeAtMaxTakeoffWeight Maximum altitude at maximum takeoff weight and ISA (Min = -9999.0, Max = 60000.0, UNITS: feet, pressure altitude).
type	xs:double
properties	content simple
annotation	documentation Maximum altitude at maximum takeoff weight and ISA (Min = -9999.0, Max = 60000.0, UNITS: feet, pressure altitude).


element badaAirplane/temperatureGradientOnMaximumAltitude

diagram	 temperatureGradientOnMaximum... Temperature gradient on maximum altitude.
type	xs:double
properties	content simple
annotation	documentation Temperature gradient on maximum altitude.


element badaAirplane/wingSurfaceArea

diagram	 Wing surface area (min = 0.0, max = 1000.0, square meters).
type	xs:double
properties	content simple
annotation	documentation Wing surface area (min = 0.0, max = 1000.0, square meters).


element **badaAirplane/buffetOnsetLiftCoeff**

diagram	 Buffet onset lift coefficient (jet only) (min = 0.0, max = 10.0).
type	xs:double
properties	content simple
annotation	documentation Buffet onset lift coefficient (jet only) (min = 0.0, max = 10.0).

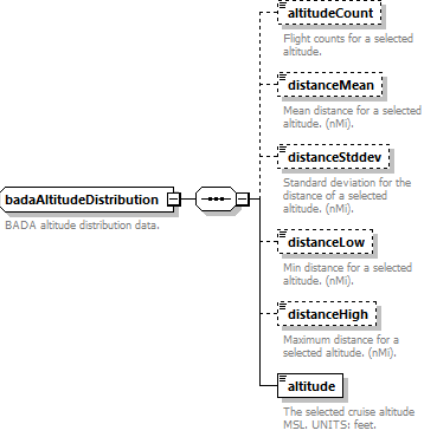
element **badaAirplane/buffetingGradient**

diagram	 Buffeting gradient (jet only).
type	xs:double
properties	content simple
annotation	documentation Buffeting gradient (jet only).

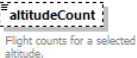
element **badaAirplane/machDragCoeff**

diagram	 Mach drag coefficient (min = 0.0, max = 10.0).
type	xs:double
properties	content simple
annotation	documentation Mach drag coefficient (min = 0.0, max = 10.0).

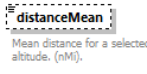
complexType **badaAltitudeDistribution**

diagram	 BADA altitude distribution data.
children	altitudeCount distanceMean distanceStddev distanceLow distanceHigh altitude
used by	element badaAltitudeDistributionSet/altitudeDistribution
annotation	documentation BADA altitude distribution data.

element **badaAltitudeDistribution/altitudeCount**

diagram	 Flight counts for a selected altitude.
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Flight counts for a selected altitude.

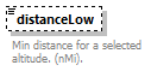
element **badaAltitudeDistribution/distanceMean**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Mean distance for a selected altitude. (nMi).

element **badaAltitudeDistribution/distanceStddev**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Standard deviation for the distance of a selected altitude. (nMi).

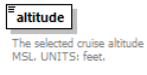
element **badaAltitudeDistribution/distanceLow**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Min distance for a selected altitude. (nMi).

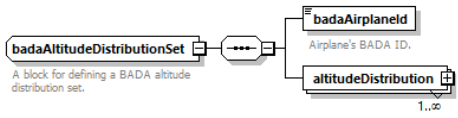
element **badaAltitudeDistribution/distanceHigh**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Maximum distance for a selected altitude. (nMi).


element **badaAltitudeDistribution/altitude**

diagram	
type	xs:int
properties	content simple
annotation	documentation The selected cruise altitude MSL. UNITS: feet.

complexType **badaAltitudeDistributionSet**

diagram	
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	
type	badaAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0

	maxLength 255
annotation	documentation Airplane's BADA ID.

element **badaAltitudeDistributionSet/altitudeDistribution**

diagram	
type	badaAltitudeDistribution
properties	minOcc 1 maxOcc unbounded content complex
children	altitudeCount distanceMean distanceStddev distanceLow distanceHigh altitude

complexType **badaConfig**

diagram	
children	phase configName stallSpeed parasiticDrag inducedDrag
used by	element badaConfigSet/badaConfig
annotation	documentation BADA Configuration Coefficient data.

element **badaConfig/phase**

diagram	
type	badaPhaseType
properties	content simple
facets	Kind Value Annotation pattern InitialClimb C Takeoff TO Approach AP Landing LD Cruise CR
annotation	documentation .The phase of flight (IC=initial climb, TO=take-off, AP= approach, LD=landing).

element **badaConfig/configName**

diagram	
type	string10
properties	minOcc 0 maxOcc 1 content simple

facets	Kind Value Annotation minLength 0 maxLength 10
annotation	documentation The configuration identifier.

element **badaConfig/stallSpeed**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Stall speed, CAS. Valid values: 0.0 through 600.0. UNITS: knots.

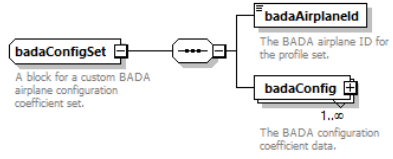
element **badaConfig/parasiticDrag**

diagram	
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	
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	
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	<p>badaConfig The BADA configuration coefficient data.</p> <ul style="list-style-type: none"> phase: The phase of flight (IC=initial climb, TO=take-off, AP=approach, LD=landing). configName: The configuration identifier. stallSpeed: Stall speed, CAS. Valid values: 0.0 through 600.0. UNITS: knots. parasiticDrag: The parasitic drag coefficient. Valid values: 0.0 through 10.0. inducedDrag: The induced drag coefficient. Valid values: 0.0 through 10.0.
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	<p>badaFuel A BADA Fuel data record.</p> <ul style="list-style-type: none"> badaAirplaneId: The BADA aircraft ID coeff_CF1: 1st thrust specific fuel consumption coefficient. Valid values: 0.0 through 10.0. Variable units. (kg/(min*kN) (jet); kg/(min*kN*knot); (turbo-prop); kg/min (piston)) coeff_CF2: 2nd thrust specific fuel consumption coefficient. Valid values: 0.0 through 1. UNITS: knots. coeff_CF3: 1st descent fuel flow coefficient. Min: Valid values: 0.0 through 100.0.(kg/min) coeff_CF4: 2nd descent fuel flow coefficient. Valid values: 0.0 through 1. (feet) coeff_CR: Cruise fuel flow correction coefficient. Valid values: 0.0 through 10.0.
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	<p>badaAirplaneId 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>coeff_CF1 1st thrust specific fuel consumption coefficient. Valid values: 0.0 through 10.0. Variable units. (kg/(min*kN) (jet); kg/(min*kN*knot); (turbo-prop); kg/min (piston))</p>
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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); (turbo prop); kg/min (piston))


element **badaFuel/coeff_CF2**

diagram	 <p>2nd thrust specific fuel consumption coefficient. Valid values: 0.0 through 1. UNITS: knots.</p>
type	xs:double
properties	content simple
annotation	documentation 2nd thrust specific fuel consumption coefficient. Valid values: 0.0 through 1. UNITS: knots.


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. (feet)</p>
type	xs:double
properties	content simple
annotation	documentation 2nd descent fuel flow coefficient. Valid values: 0.0 through 1. (feet)

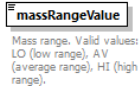
element **badaFuel/coeff_CR**

diagram	 <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	<p>badaProfile A BADA profile APF (airline procedures file) record.</p> <ul style="list-style-type: none"> massRangeValue Mass range. Valid values: LO (low range), AV (average range), HI (high range). companyCode1 Three-letter company code. companyCode2 Two-letter company code. companyName Name of airline that uses this procedure. aircraftVersion Aircraft version to which this procedure applies. engine Engine identifier. climbSpeedBelowTransitionAltitude Standard climb calibrated speed (KCAS) between 1,500 / 5,000 and 10,000 ft (MSL). Min= 0.0 Max= 600.0; UNITS: knots. climbSpeedAboveTransitionAltitude Standard climb speed (KCAS) between 10,000 ft (MSL) and Mach transition altitude. Min= 0.0 Max= 600.0; UNITS: knots. climbMachNumber Standard climb Mach number above Mach transition altitude (MSL). Min= 0.0 Max= 10.0; UNITS: Dimensionless. cruiseSpeedBelowTransitionAltitude Standard cruise speed (KCAS) between 3,000 and 10,000 ft (MSL). Min= 0.0 Max= 600.0; UNITS: knots. cruiseSpeedAboveTransitionAltitude Standard cruise speed (KCAS) above 10,000 ft (MSL) until Mach transition altitude. Min= 0.0 Max= 600.0; UNITS: knots. cruiseMachNumber Standard cruise Mach number above transition altitude (MSL). Min= 0.0 Max= 10.0; UNITS: Dimensionless. descentSpeedUnderTransitionAltitude Standard descent speed (KCAS) between 3,000 / 5,000 and 10,000 ft (MSL). Min= 0.0 Max= 600.0; UNITS: knots. descentSpeedOverTransitionAltitude Standard descent speed (KCAS) above 10,000 ft (MSL) until Mach transition. Min= 0.0 Max= 600.0; UNITS: knots. descentMachNumber Standard descent Mach number above transition altitude (MSL). Min= 0.0 Max= 10.0; UNITS: Dimensionless.
children	massRangeValue companyCode1 companyCode2 companyName aircraftVersion engine climbSpeedBelowTransitionAltitude climbSpeedAboveTransitionAltitude climbMachNumber cruiseSpeedBelowTransitionAltitude cruiseSpeedAboveTransitionAltitude cruiseMachNumber descentSpeedUnderTransitionAltitude descentSpeedOverTransitionAltitude descentMachNumber
used by	element badaProfileSet/profile
annotation	documentation A BADA profile APF (airline procedures file) record.

element badaProfile/massRangeValue


diagram	 <p>massRangeValue Mass range. Valid values: LO (low range), AV (average range), HI (high range).</p>
type	string2
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 2
annotation	documentation Mass range. Valid values: LO (low range), AV (average range), HI (high range).

element badaProfile/companyCode1

diagram	 <p>companyCode1 Three-letter company code.</p>
type	string3

properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 3
annotation	documentation Three-letter company code.

element **badaProfile/companyCode2**

diagram	
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	
type	string15
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 15
annotation	documentation Name of airline that uses this procedure.

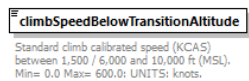
element **badaProfile/aircraftVersion**

diagram	
type	string12
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 12
annotation	documentation Aircraft version to which this procedure applies.


element **badaProfile/engine**

diagram	
type	string12
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 12
annotation	documentation Engine identifier.


element **badaProfile/climbSpeedBelowTransitionAltitude**

diagram	
type	xs:short
properties	content simple
annotation	documentation Standard climb calibrated speed (KCAS) between 1,500 / 6,000 and 10,000 ft (MSL). Min= 0.0 Max= 600.0; UNITS: knots.


element **badaProfile/climbSpeedAboveTransitionAltitude**

diagram	 climbSpeedAboveTransitionAltitu... Standard climb speed (KCAS) between 10,000 ft (MSL) and Mach transition altitude. Min= 0.0 Max= 600.0 UNITS: knots.
type	xs:short
properties	content simple
annotation	documentation Standard climb speed (KCAS) between 10,000 ft (MSL) and Mach transition altitude. Min= 0.0 Max= 600.0 UNITS: knots.


element **badaProfile/climbMachNumber**

diagram	 climbMachNumber Standard climb Mach number above Mach transition altitude (MSL). Min= 0.0 Max= 10.0 UNITS: Dimensionless.
type	xs:double
properties	content simple
annotation	documentation Standard climb Mach number above Mach transition altitude (MSL). Min= 0.0 Max= 10.0 UNITS: Dimensionless.


element **badaProfile/cruiseSpeedBelowTransitionAltitude**

diagram	 cruiseSpeedBelowTransitionAltitu... Standard cruise speed (KCAS) between 3,000 and 10,000 ft (MSL). Min= 0.0 Max= 600.0 UNITS: knots.
type	xs:short
properties	content simple
annotation	documentation Standard cruise speed (KCAS) between 3,000 and 10,000 ft (MSL). Min= 0.0 Max= 600.0 UNITS: knots.


element **badaProfile/cruiseSpeedAboveTransitionAltitude**

diagram	 cruiseSpeedAboveTransitionAltitu... Standard cruise speed (KCAS) above 10,000 ft (MSL) until Mach transition altitude. Min= 0.0 Max= 600.0 UNITS: knots.
type	xs:short
properties	content simple
annotation	documentation Standard cruise speed (KCAS) above 10,000 ft (MSL) until Mach transition altitude. Min= 0.0 Max= 600.0 UNITS: knots.


element **badaProfile/cruiseMachNumber**

diagram	 cruiseMachNumber Standard cruise Mach number above transition altitude (MSL). Min= 0.0 Max= 10.0 UNITS: Dimensionless.
type	xs:double
properties	content simple
annotation	documentation Standard cruise Mach number above transition altitude (MSL). Min= 0.0 Max= 10.0 UNITS: Dimensionless.

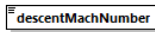
element **badaProfile/descentSpeedUnderTransitionAltitude**

diagram	 descentSpeedUnderTransitionAltit... Standard descent speed (KCAS) between 3,000 / 6,000 and 10,000 ft (MSL). Min= 0.0 Max= 600.0 UNITS: knots.
type	xs:short
properties	content simple
annotation	documentation Standard descent speed (KCAS) between 3,000 / 6,000 and 10,000 ft (MSL). Min= 0.0 Max= 600.0 UNITS: knots.

element **badaProfile/descentSpeedOverTransitionAltitude**

diagram	 descentSpeedOverTransitionAltitu... Standard descent speed (KCAS) above 10,000 ft (MSL) until Mach transition. Min= 0.0 Max= 600.0 UNITS: knots.
type	xs:short
properties	content simple
annotation	documentation Standard descent speed (KCAS) above 10,000 ft (MSL) until Mach transition. Min= 0.0 Max= 600.0 UNITS: knots.

element **badaProfile/descentMachNumber**

diagram	 <p>descentMachNumber Standard descent Mach number above transition altitude (MSL). Min= 0.0 Max= 10.0 UNITS: Dimensionless.</p>
type	xs:double
properties	content simple
annotation	documentation Standard descent Mach number above transition altitude (MSL). Min= 0.0 Max= 10.0 UNITS: Dimensionless.

complexType **badaProfileSet**

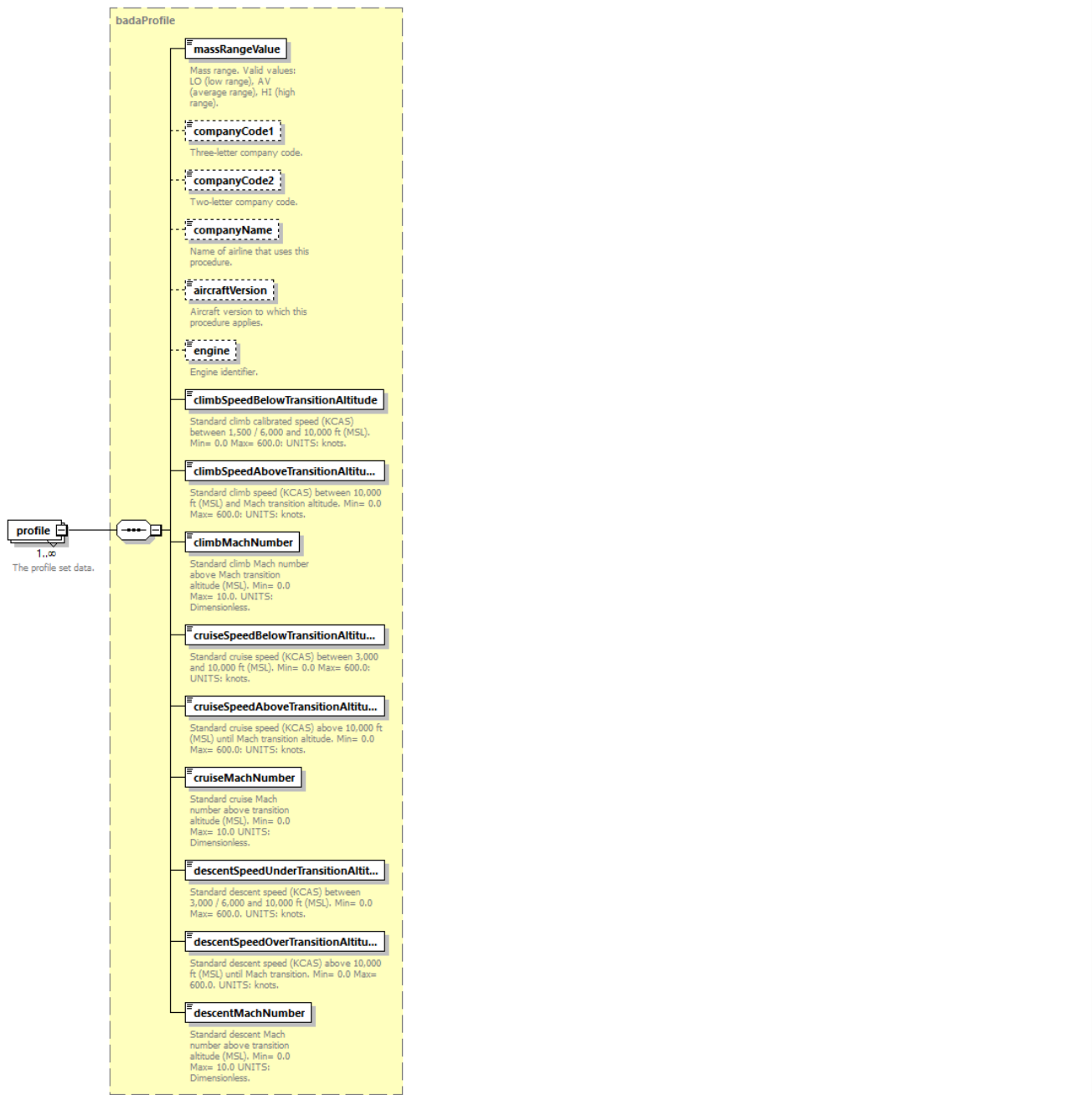
diagram	 <p>badaProfileSet A block used to define a custom BADA profile set.</p> <p>badaAirplaneId The BADA airplane ID for the profile set.</p> <p>profile 1..∞ The profile set data.</p>
children	badaAirplaneId profile
used by	element fleet/badaProfileSet
annotation	documentation A block used to define a custom BADA profile set.

element **badaProfileSet/badaAirplaneId**

diagram	 <p>badaAirplaneId The BADA airplane ID for the profile set.</p>
type	badaAirplaneId
properties	content simple
facets	Kind Value Annotation min.Length 0 max.Length 255
annotation	documentation The BADA airplane ID for the profile set.

element **badaProfileSet/profile**

diagram



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	<p>The diagram illustrates the structure of a badaThrust data record. It is a custom BADA thrust data record. The record consists of the following fields:</p> <ul style="list-style-type: none"> badaAirplaneId: The BADA airplane ID. coeff_TC1: 1st max climb thrust coefficient. Valid values: 0.0 through 1. coeff_TC2: 2nd max climb thrust coefficient. Valid values: 0.0 through 1e9, (feet) coeff_TC3: 3rd max climb thrust coefficient. Valid values: -1034000 to 665880. Variable units. (1/feet² (jet); Newton (turbo-prop); knot-Newton (piston)) coeff_TC4: 1st thrust temperature coefficient. Valid values: -45 through 50. (K) coeff_TC5: 2nd thrust temperature coefficient. Valid values: 0.0 through 10.0. (1/K) coeff_TDL: Low altitude descent thrust coefficient. Valid values: 0.0 through 10.0 coeff_TDH: High altitude descent thrust coefficient. Valid values: 0.0 through 10.0 coeff_APP: Approach thrust coefficient. Valid values: 0.0 through 10.0. coeff_LD: Landing thrust coefficient. Valid values: 0.0 through 10.0. descentAlt: Transition altitude for calculation of descent thrust. Min=-9999.0 Max=60000.0 UNITS: Feet, pressure altitude descentSpeed: Reference descent speed (KCAS). Min=0.0 Max=600.0. UNITS: knots. descentMach: Reference descent Mach number. Valid values: 0.0 through 10.0. UNITS: dimensionless. notes: User notes.
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	<p>The diagram shows the badaAirplaneId element, which is a simple value annotation representing 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 [badaThrust/coeff_TC1](#)

diagram	<p>The diagram shows the coeff_TC1 element, which is a double value annotation representing the 1st max climb thrust coefficient.</p>
type	xs:double
properties	content simple
annotation	documentation 1st max climb thrust coefficient. Valid values: 0.0 through 1.


element **badaThrust/coeff_TC2**

diagram	 <p>2nd max climb thrust coefficient. Valid values: 0.0 through 1e9. (feet)</p>
type	xs:double
properties	content simple
annotation	documentation 2nd max climb thrust coefficient. Valid values: 0.0 through 1e9. (feet)


element **badaThrust/coeff_TC3**

diagram	 <p>3rd max climb thrust coefficient. Valid values: -1034000 to 665880. Variable units. (1/feet^2 (jet); Newton (turboprop); knot-Newton (piston))</p>
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	 <p>1st thrust temperature coefficient. Valid values: -45 through 50. (K)</p>
type	xs:double
properties	content simple
annotation	documentation 1st thrust temperature coefficient. Valid values: -45 through 50. (K)


element **badaThrust/coeff_TC5**

diagram	 <p>2nd thrust temperature coefficient. Valid values: 0.0 through 10.0. (1/K)</p>
type	xs:double
properties	content simple
annotation	documentation 2nd thrust temperature coefficient. Valid values: 0.0 through 10.0. (1/K)


element **badaThrust/coeff_TDL**

diagram	 <p>Low altitude descent thrust coefficient. Valid values: 0.0 through 10.0</p>
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	 <p>High altitude descent thrust coefficient. Valid values: 0.0 through 10.0</p>
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	 <p>Approach thrust coefficient. Valid values: 0.0 through 10.0.</p>
type	xs:double
properties	content simple
annotation	documentation Approach thrust coefficient. Valid values: 0.0 through 10.0.

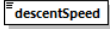
element **badaThrust/coeff_LD**

diagram	 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	 Transition altitude for calculation of descent thrust. Min= -9999.0 Max= 60000.0 UNITS: Feet, pressure altitude
type	xs:double
properties	content simple
annotation	documentation Transition altitude for calculation of descent thrust. Min= -9999.0 Max= 60000.0 UNITS: Feet, pressure altitude


element **badaThrust/descentSpeed**

diagram	 Reference descent speed (KCAS). Min= 0.0 Max= 600.0. UNITS: knots.
type	xs:double
properties	content simple
annotation	documentation Reference descent speed (KCAS). Min= 0.0 Max= 600.0. UNITS: knots.

element **badaThrust/descentMach**

diagram	 Reference descent Mach number. Valid values: 0.0 through 10.0. UNITS: dimensionless.
type	xs:float
properties	content simple
annotation	documentation Reference descent Mach number. Valid values: 0.0 through 10.0. UNITS: dimensionless.

element **badaThrust/notes**

diagram	 User notes.
type	string255
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation User notes.

complexType **coord2DType**

diagram	
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone
used by	elements stationarySource/operation/pointCoord pointStationarySource/pointCoord volumeStationarySource/pointCoord oneOrThreeCoords2DGroupSet/pointCoord polygon2DType/vertex complexType coord3DElevationType
annotation	documentation A 2D point coordinate.

complexType [coord3DElevationType](#)

diagram	
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	
type	xs:float

properties	content simple
annotation	documentation Elevation or Z value for a coordinate.

complexType **dispersionWeight1Type**

diagram	<p>Abstract type used to specify the dispersion weight for the backbone subtrack. This type is intended only to be a base class and will not be used in ASIF files directly.</p> <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>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>Specify the dispersion weight for a backbone with 2 subtracks..</p> <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	extension of dispersionWeight1Type
properties	base dispersionWeight1Type
children	backbone weight1 weight1
used by	element dispersionWeight/dispersionWeight3 complexType dispersionWeight5Type
annotation	documentation Specify the dispersion weight for a backbone with 2 subtracks..

element **dispersionWeight3Type/weight1**

diagram	<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/weight1**

diagram	<p>Specify the dispersion weight for the first right subtrack.</p>
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the first right subtrack.

complexType **dispersionWeight5Type**

diagram	<p>dispersionWeight5Type (extension)</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> <p>weightl2 Specify the dispersion weight for the second left subtrack.</p> <p>weightr2 Specify the dispersion weight for the second right subtrack.</p> <p>dispersionWeight5Type Specify the dispersion weight for a backbone with 4 subtracks.</p>
type	extension of dispersionWeight3Type
properties	base dispersionWeight3Type
children	backbone weightl1 weightr1 weightl2 weightr2
used by	element dispersionWeight/dispersionWeight5 complexType dispersionWeight7Type
annotation	documentation Specify the dispersion weight for a backbone with 4 subtracks.

element [dispersionWeight5Type/weightl2](#)

diagram	<p>weightl2 Specify the dispersion weight for the second left subtrack.</p>
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the second left subtrack.

element [dispersionWeight5Type/weightr2](#)


diagram	<p>weightr2 Specify the dispersion weight for the second right subtrack.</p>
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the second right subtrack.

complexType [dispersionWeight7Type](#)


diagram	<p>dispersionWeight7Type (extension)</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> <p>weightl2 Specify the dispersion weight for the second left subtrack.</p> <p>weightr2 Specify the dispersion weight for the second right subtrack.</p> <p>weightl3 Specify the dispersion weight for the third left subtrack.</p> <p>weightr3 Specify the dispersion weight for the third right subtrack.</p> <p>dispersionWeight7Type Specify the dispersion weight for a backbone with 6 subtracks.</p>
type	extension of dispersionWeight5Type

properties	base dispersionWeight5Type
children	backbone weight1 weightr1 weight2 weight3 weightr3
used by	element dispersionWeight/dispersionWeight7 complexType dispersionWeight9Type
annotation	documentation Specify the dispersion weight for a backbone with 6 subtracks.

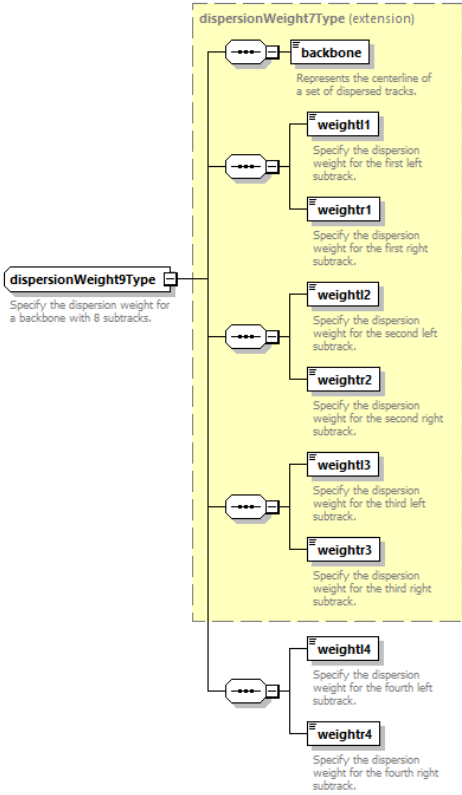
element [dispersionWeight7Type/weight3](#)

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	
type	extension of dispersionWeight7Type
properties	base dispersionWeight7Type
children	backbone weight1 weightr1 weight2 weightr2 weight3 weightr3 weight4 weightr4
used by	element dispersionWeight/dispersionWeight9
annotation	documentation Specify the dispersion weight for a backbone with 8 subtracks.

element [dispersionWeight9Type/weight4](#)

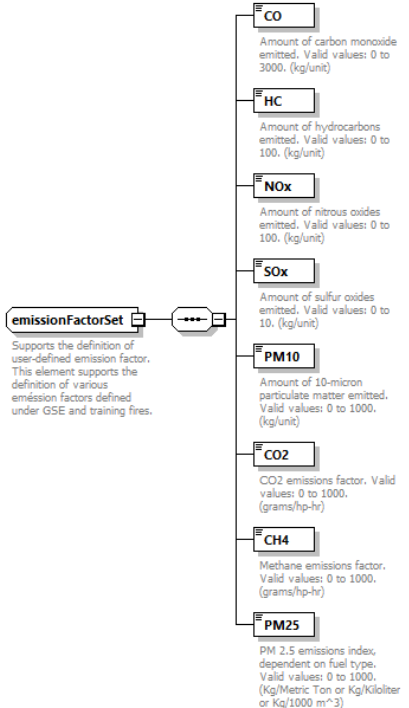
diagram	
type	xs:double

properties	content simple
annotation	documentation Specify the dispersion weight for the fourth left subtrack.

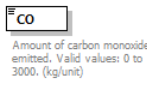
element **dispersionWeight9Type/weight4**

diagram	
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the fourth right subtrack.

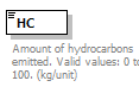
complexType **emissionFactorSet**

diagram	 <p>emissionFactorSet Supports the definition of user-defined emission factor. This element supports the definition of various emission factors defined under GSE and training fires.</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) CO2: CO2 emissions factor. Valid values: 0 to 1000. (grams/hp-hr) CH4: Methane emissions factor. Valid values: 0 to 1000. (grams/hp-hr) PM25: PM 2.5 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m³)
children	CO HC NOx SOx PM10 CO2 CH4 PM25
used by	elements userGroundSupportEquipment/userEmissionFactors/emissionFactorsCNG userGroundSupportEquipment/userEmissionFactors/emissionFactorsDiesel userGroundSupportEquipment/userEmissionFactors/emissionFactorsGas userGroundSupportEquipment/userEmissionFactors/emissionFactorsLPG
annotation	documentation Supports the definition of user-defined emission factor. This element supports the definition of various emission factors defined under GSE and training fires.

element **emissionFactorSet/CO**

diagram	
type	xs:double
properties	content simple
annotation	documentation Amount of carbon monoxide emitted. Valid values: 0 to 3000. (kg/unit)

element **emissionFactorSet/HC**


diagram	
type	xs:double
properties	content simple
annotation	documentation Amount of hydrocarbons emitted. Valid values: 0 to 100. (kg/unit)

element **emissionFactorSet/NOx**


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


element **emissionFactorSet/SOx**

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

element **emissionFactorSet/PM10**

diagram	 <p>Amount of 10-micron particulate matter emitted. Valid values: 0 to 1000. (kg/unit)</p>
type	xs:double
properties	content simple
annotation	documentation Amount of 10-micron particulate matter emitted. Valid values: 0 to 1000. (kg/unit)


element **emissionFactorSet/CO2**

diagram	 <p>CO2 emissions factor. Valid values: 0 to 1000. (grams/hp-hr)</p>
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation CO2 emissions factor. Valid values: 0 to 1000. (grams/hp-hr)

element **emissionFactorSet/CH4**

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

element **emissionFactorSet/PM25**

diagram	 <p>PM 2.5 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 PM 2.5 emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)

complexType **energyShare**

diagram	<p>The diagram shows a central element energyShare (A custom BADA energy share) connected to three other elements: anpAirplaneId (The ANP airplane ID.), badaAirplaneId (The BADA airplane ID.), and transEnergyShare (The proportion of available energy used for acceleration compared to altitude change in the ANP to BADA transition region.).</p>
children	anpAirplaneId badaAirplaneId transEnergyShare
used by	element fleet/energyShare
annotation	documentation A custom BADA energy share.

element [energyShare/anpAirplaneId](#)

diagram	<p>The diagram shows the anpAirplaneId element (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 the badaAirplaneId element (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 diagram shows the transEnergyShare element (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>engineModeEmissions Describes custom emission factors user-defined aircraft engines.</p> <p>time Time engine operates in a given mode (minutes). Valid values: Nonnegative.</p> <p>fuel Fuel emission factor (g/kg). Valid values: Nonnegative.</p> <p>CO Amount of carbon monoxide emitted (g/kg). Valid values: Nonnegative.</p> <p>HC Amount of hydrocarbons emitted (g/kg). Valid values: Nonnegative.</p> <p>NOx Amount of nitrous oxide emitted (g/kg). Valid values: Nonnegative.</p> <p>SOx Amount of sulfur oxide emitted (g/kg). Valid values: Nonnegative.</p> <p>SN Smoke number for the engine mode (g/kg). Valid values: Nonnegative.</p> <p>PM Amount of particulate matter emitted (g/kg). Valid values: Nonnegative.</p>
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 Time engine operates in a given mode (minutes). Valid values: Nonnegative.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Time engine operates in a given mode (minutes). Valid values: Nonnegative.

element engineModeEmissions/fuel

diagram	<p>fuel Fuel emission factor (g/kg). Valid values: Nonnegative.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Fuel emission factor (g/kg). Valid values: Nonnegative.

element engineModeEmissions/CO


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

element engineModeEmissions/HC


diagram	<p>HC Amount of hydrocarbons emitted (g/kg). Valid values: Nonnegative.</p>
type	xs:double

properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Amount of hydrocarbons emitted (g/kg). Valid values: Nonnegative.

element **engineModeEmissions/NOx**

diagram	 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**

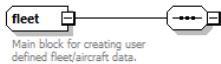
diagram	 Smoke number for the engine mode (g/kg). Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Smoke number for the engine mode (g/kg). Valid values: Nonnegative.

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



auxiliaryPowerUnit

0..∞

Describes a custom auxiliary power unit (APU). These are typically on-board generators providing power to a parked aircraft.

airframe

0..∞

Supports the definition of custom airframes.

engine

0..∞

User defined engine information containing custom parameters that reflect an aircraft engine. This engine definition can then be used within a user-defined aircraft.

engineMod

0..∞

User defined engine modification information containing custom parameters that reflect an aircraft engine modification. This engine modification definition can then be used within a user defined aircraft.

spectralClass

0..∞

This element contains user-defined spectral class data.

anpNoiseGroup

0..∞

This element contains the three spectral class references for a given aircraft noise group with the corresponding thrust setting type and model type.

anpAirplane

0..∞

Creates a new ANP aircraft.

anpFlapsSet

0..∞

Flap settings for an ANP aircraft type.

anpThrustSet

0..∞

Specifies a set of thrust records for an ANP aircraft.

anpProfileSet

0..∞

The profile set for an ANP aircraft.

anpHeloNoiseGroup

0..∞

This element contains the three spectral class references for a given helicopter noise group with the corresponding thrust setting type and model type.

anpHelicopter

0..∞

Creates a new ANP helicopter.

anpHeloDirectivitySet

0..∞

A set of helicopter directivities.

anpHeloProfileSet

0..∞

A profile set for an ANP helicopter.

badaAirplane

0..∞

Describes a new user-defined BADA airplane.

badaAltitudeDistributionSet

0..∞

A block for defining a BADA altitude distribution set.

badaDefaultAltitudeDistribution...

0..∞

A block for defining the BADA default altitude distribution set.

badaProfileSet

0..∞

A block used to define a custom BADA profile set.

badaConfigSet

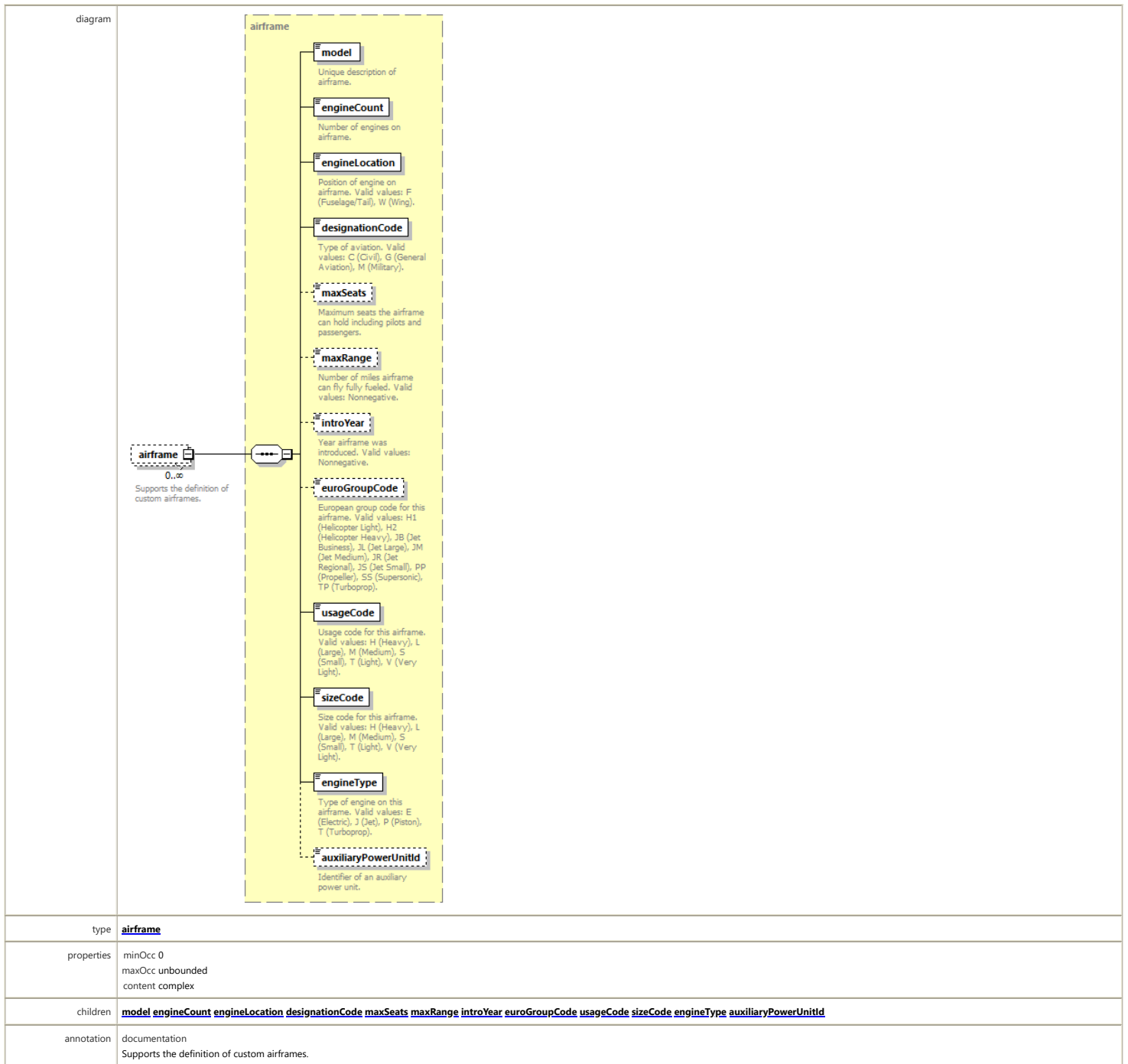
0..∞

	<p>A block for a custom BADA airplane configuration coefficient set.</p> <p>badaFuel 0..∞ A BADA fuel data record.</p> <p>badaThrust 0..∞ Custom BADA airplane thrust data sets.</p> <p>bada4ProfileSet 0..∞ A profile set for an BADA4 airplane.</p> <p>aircraft 0..∞ A block, used to create new user defined AEDT aircraft.</p> <p>energyShare 0..∞ A custom BADA aircraft energy share set.</p>
children	auxiliaryPowerUnit airframe engine engineMod spectralClass anpNoiseGroup anpAirplane anpFlapsSet anpThrustSet anpProfileSet anpHeloNoiseGroup anpHelicopter anpHeloDirectivitySet anpHeloProfileSet badaAirplane badaAltitudeDistributionSet badaDefaultAltitudeDistributionSet badaProfileSet badaConfigSet badaFuel badaThrust bada4ProfileSet aircraft energyShare
used by	elements AsifXmi/fleet study/fleet
annotation	documentation Main block for creating user defined fleet/aircraft data.

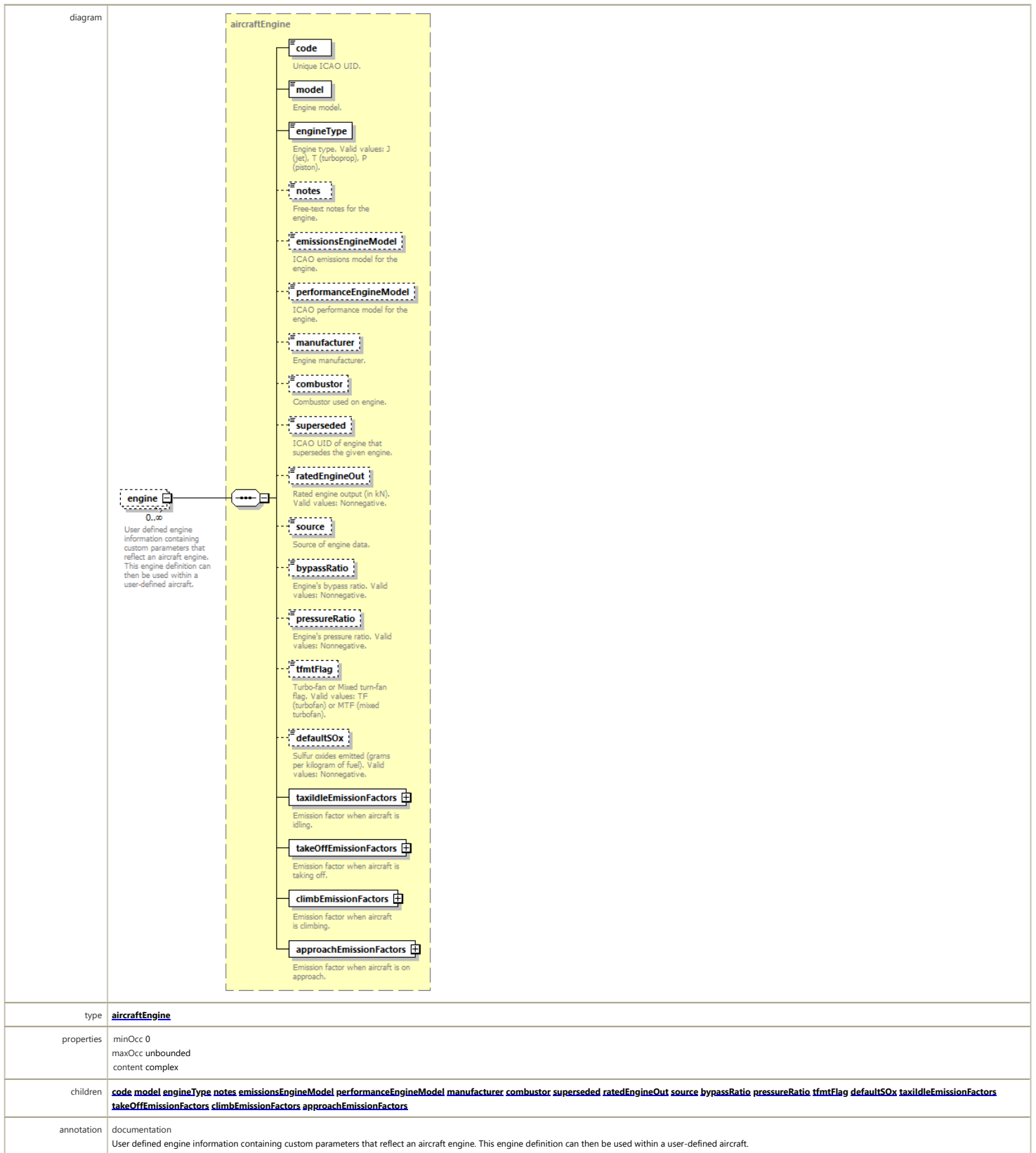
element **fleet/auxiliaryPowerUnit**

diagram	
type	auxiliaryPowerUnit
properties	minOcc 0 maxOcc unbounded content complex
children	name baseAuxiliaryPowerUnit defaultTimeArrivals defaultTimeDepartures CO HC NOx SOx PM
annotation	documentation Describes a custom auxiliary power unit (APU). These are typically on-board generators providing power to a parked aircraft.

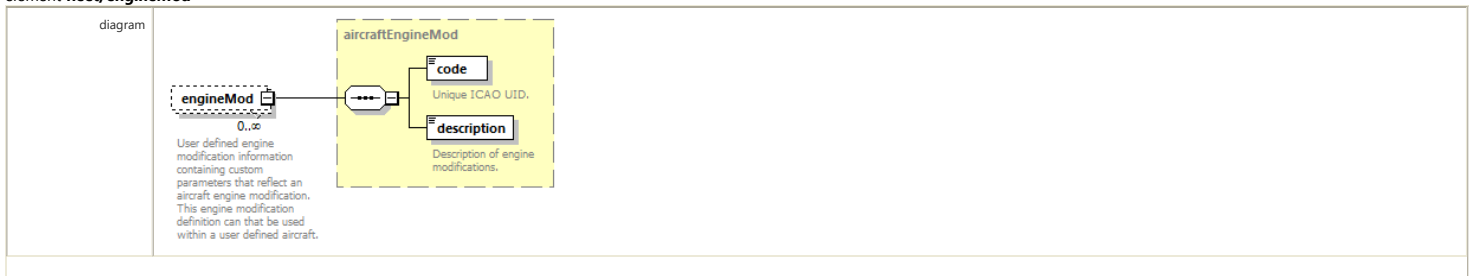
element **fleet/airframe**



element **fleet/engine**



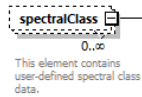
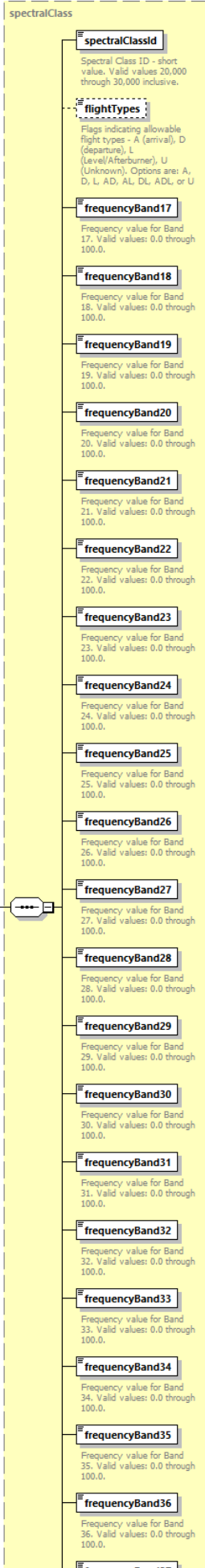
element **fleet/engineMod**



type	aircraftEngineMod
properties	minOcc 0 maxOcc unbounded content complex
children	code description
annotation	documentation User defined engine modification information containing custom parameters that reflect an aircraft engine modification. This engine modification definition can that be used within a user defined aircraft.

element **fleet/spectralClass**

diagram

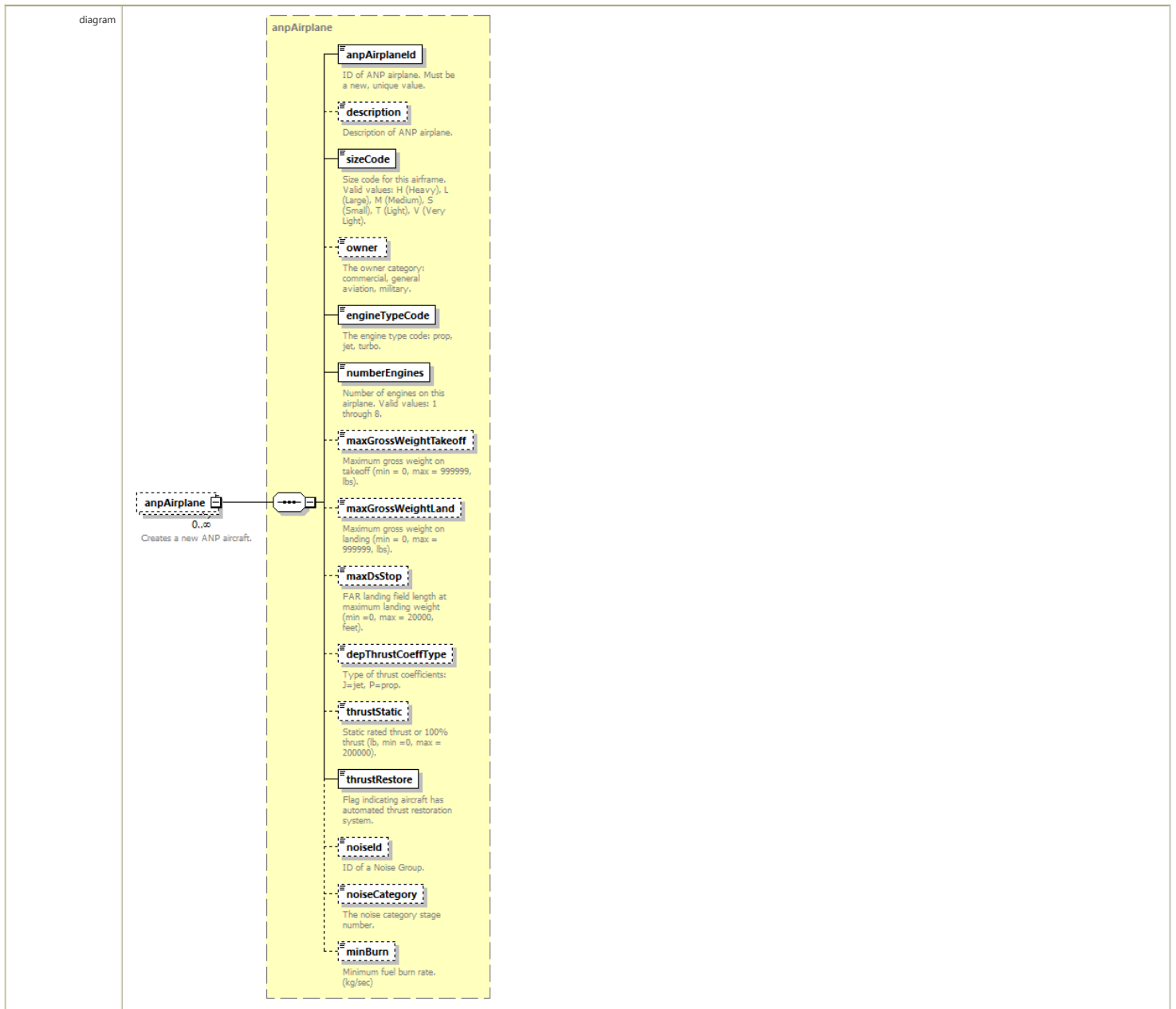


	<pre> graph TD subgraph spectralClass frequencyBands37[frequencyBands 37] frequencyBands38[frequencyBand38] frequencyBands39[frequencyBand39] frequencyBands40[frequencyBand40] end </pre> <p>frequencyBands 37 Frequency value for Band 37. Valid values: 0.0 through 100.0.</p> <p>frequencyBand38 Frequency value for Band 38. Valid values: 0.0 through 100.0.</p> <p>frequencyBand39 Frequency value for Band 39. Valid values: 0.0 through 100.0.</p> <p>frequencyBand40 Frequency value for Band 40. Valid values: 0.0 through 100.0.</p>
type	spectralClass
properties	minOcc 0 maxOcc unbounded content complex
children	spectralClassId flightTypes frequencyBand17 frequencyBand18 frequencyBand19 frequencyBand20 frequencyBand21 frequencyBand22 frequencyBand23 frequencyBand24 frequencyBand25 frequencyBand26 frequencyBand27 frequencyBand28 frequencyBand29 frequencyBand30 frequencyBand31 frequencyBand32 frequencyBand33 frequencyBand34 frequencyBand35 frequencyBand36 frequencyBand37 frequencyBand38 frequencyBand39 frequencyBand40
annotation	documentation This element contains user-defined spectral class data.

element **fleet/anpNoiseGroup**

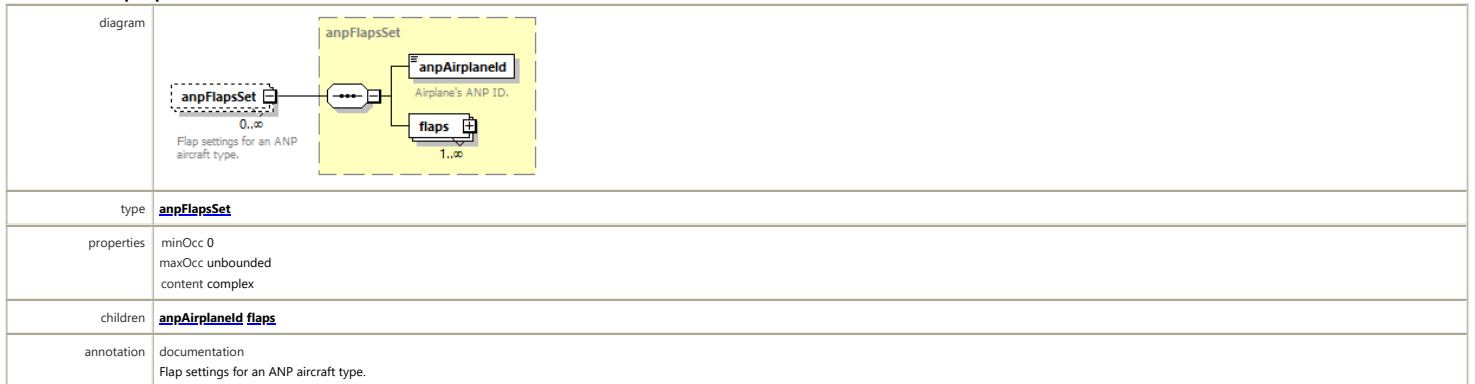
diagram	<pre> graph TD anpNoiseGroup[anpNoiseGroup] noiseId[noiseId] spectralClassApproach[spectralClassApproach] spectralClassDeparture[spectralClassDeparture] spectralClassAfterburner[spectralClassAfterburner] thrustSetType[thrustSetType] modelType[modelType] npdCurves[npdCurves] anpNoiseGroup --- noiseId anpNoiseGroup --- spectralClassApproach anpNoiseGroup --- spectralClassDeparture anpNoiseGroup --- spectralClassAfterburner anpNoiseGroup --- thrustSetType anpNoiseGroup --- modelType anpNoiseGroup --- npdCurves </pre> <p>anpNoiseGroup</p> <p>noiseId Noise group's ID.</p> <p>spectralClassApproach Spectral class number for approach (min = 0, max = 30000).</p> <p>spectralClassDeparture Spectral class number for departure (min = 0, max = 30000).</p> <p>spectralClassAfterburner Spectral class number for afterburner (min = 0, max = 30000).</p> <p>thrustSetType Type of thrust setting. Valid values: L (pounds), P (percent), X (other). The following are typically used for military airplanes: A (Power Lever Angle), B (Pounds Thrust), C (Turbine Inlet Temperature (Deg C)), E (Engine Pressure Ratio), F (Fan Speed), H (Equivalent Shaft Power), I (Manifold Pressure (Inches Mercury)), M (Propeller or Compressor RPM), N (Percent Corrected Rotor Speed), O (Percent Low Pressure Compressor Speed), R (Percent Propeller or Compressor RPM), S (Pounds per Hour of Fuel Flow), V (Percent Fan Speed).</p> <p>modelType Type of distance-duration model. Valid values: I (INM), N (NoiseMap).</p> <p>npdCurves The set of noise curves for ANP aircraft.</p> <p>anpNoiseGroup 0..∞ This element contains the three spectral class references for a given aircraft noise group with the corresponding thrust setting type and model type.</p>
type	anpNoiseGroup
properties	minOcc 0 maxOcc unbounded content complex
children	noiseId 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**



type	anpAirplane
properties	minOcc 0 maxOcc unbounded content complex
children	anpAirplaneId description sizeCode owner engineTypeCode numberEngines maxGrossWeightTakeoff maxGrossWeightLand maxDsStop depThrustCoeffType thrustStatic thrustRestore noiseId noiseCategory minBurn
annotation	documentation Creates a new ANP aircraft.

element **fleet/anpFlapsSet**



type	anpFlapsSet
properties	minOcc 0 maxOcc unbounded content complex
children	anpAirplaneId flaps
annotation	documentation Flap settings for an ANP aircraft type.

element **fleet/anpThrustSet**

diagram	
type	<u>anpThrustSet</u>
properties	minOcc 0 maxOcc unbounded content complex
children	<u>anpAirplaneId</u> <u>thrustGeneral</u> <u>thrustJet</u> <u>thrustProp</u> <u>tsfcCoefficients</u>
annotation	documentation Specifies a set of thrust records for an ANP aircraft.

element **fleet/anpProfileSet**

diagram	
type	<u>anpProfileSet</u>
properties	minOcc 0 maxOcc unbounded content complex
children	<u>anpAirplaneId</u> <u>profile</u>
annotation	documentation The profile set for an ANP aircraft.

element **fleet/anpHeloNoiseGroup**

diagram	
type	<u>anpHeloNoiseGroup</u>
properties	minOcc 0 maxOcc unbounded content complex
children	<u>noiseId</u> <u>spectralClassApproach</u> <u>spectralClassDeparture</u> <u>spectralClassFlyover</u> <u>speedApproach</u> <u>speedDeparture</u> <u>speedFlyover</u> <u>npdCurves</u>

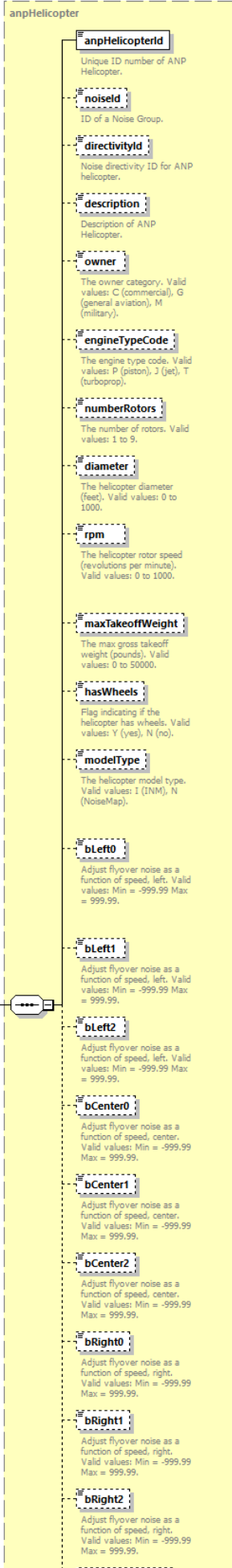
annotation

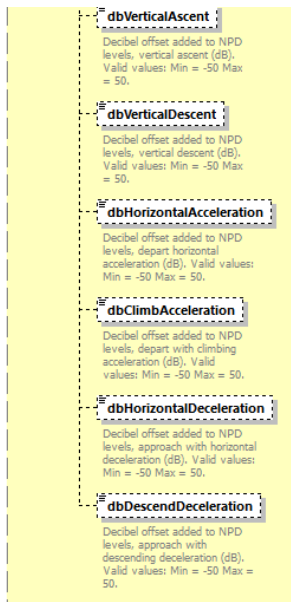
documentation

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





type	anpHelicopter
properties	minOcc 0 maxOcc unbounded content complex
children	anpHelicopterId noiseId directivityId description owner engineTypeCode numberRotors diameter rpm maxTakeoffWeight hasWheels modelType bLeft0 bLeft1 bLeft2 bCenter0 bCenter1 bCenter2 bRight0 bRight1 bRight2 dbVerticalAscent dbVerticalDescent dbHorizontalAcceleration dbClimbAcceleration dbHorizontalDeceleration dbDescendDeceleration
annotation	documentation Creates a new ANP helicopter.

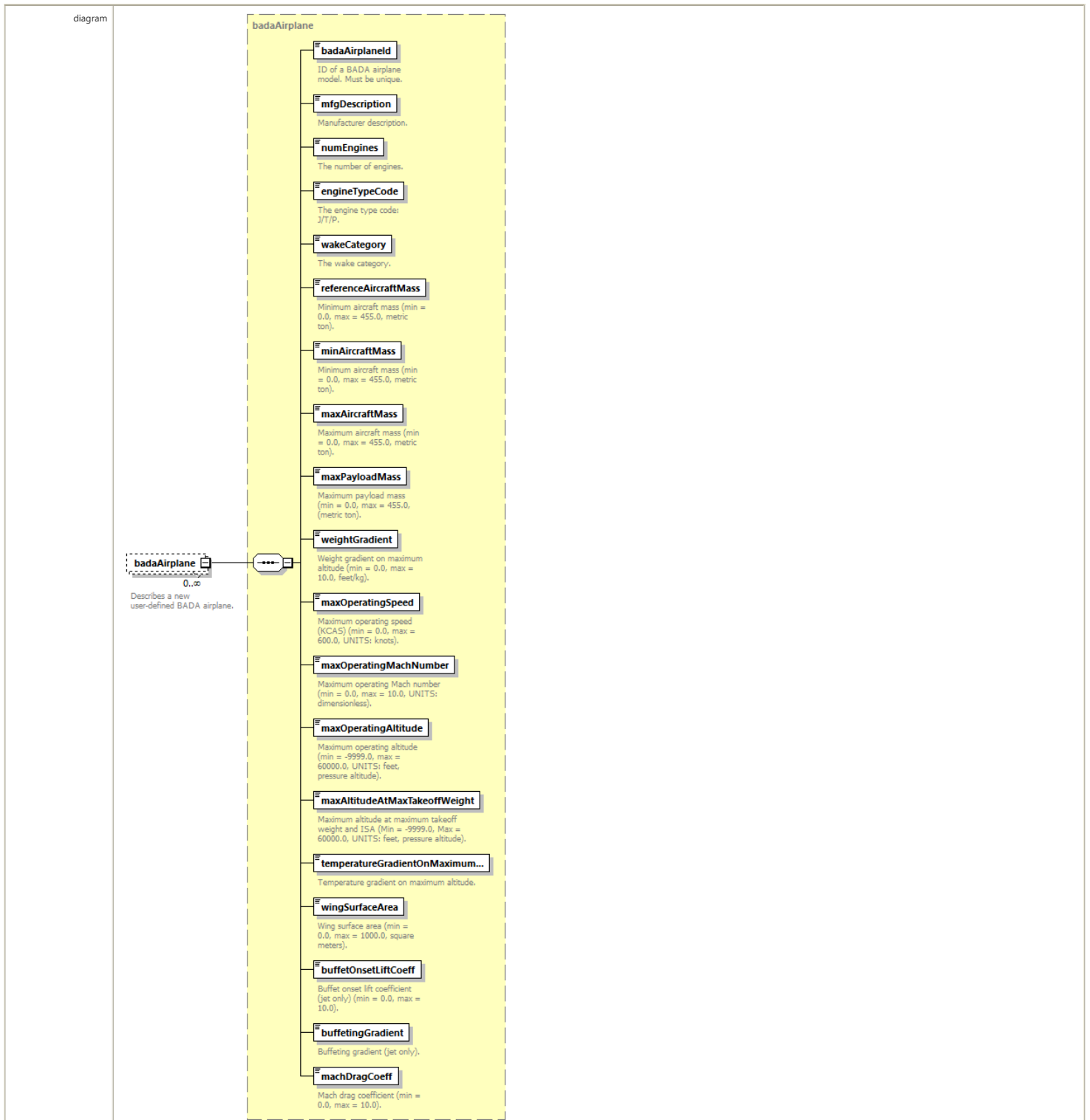
element **fleet/anpHeloDirectivitySet**

diagram	
type	anpHeloDirectivitySet
properties	minOcc 0 maxOcc unbounded content complex
children	anpHelicopterId anpHeloDirectivity
annotation	documentation A set of helicopter directivities.

element **fleet/anpHeloProfileSet**

diagram	
type	anpHeloProfileSet
properties	minOcc 0 maxOcc unbounded content complex
children	anpHelicopterId profile
annotation	documentation A profile set for an ANP helicopter.

element **fleet/badaAirplane**



type	badaAirplane
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.

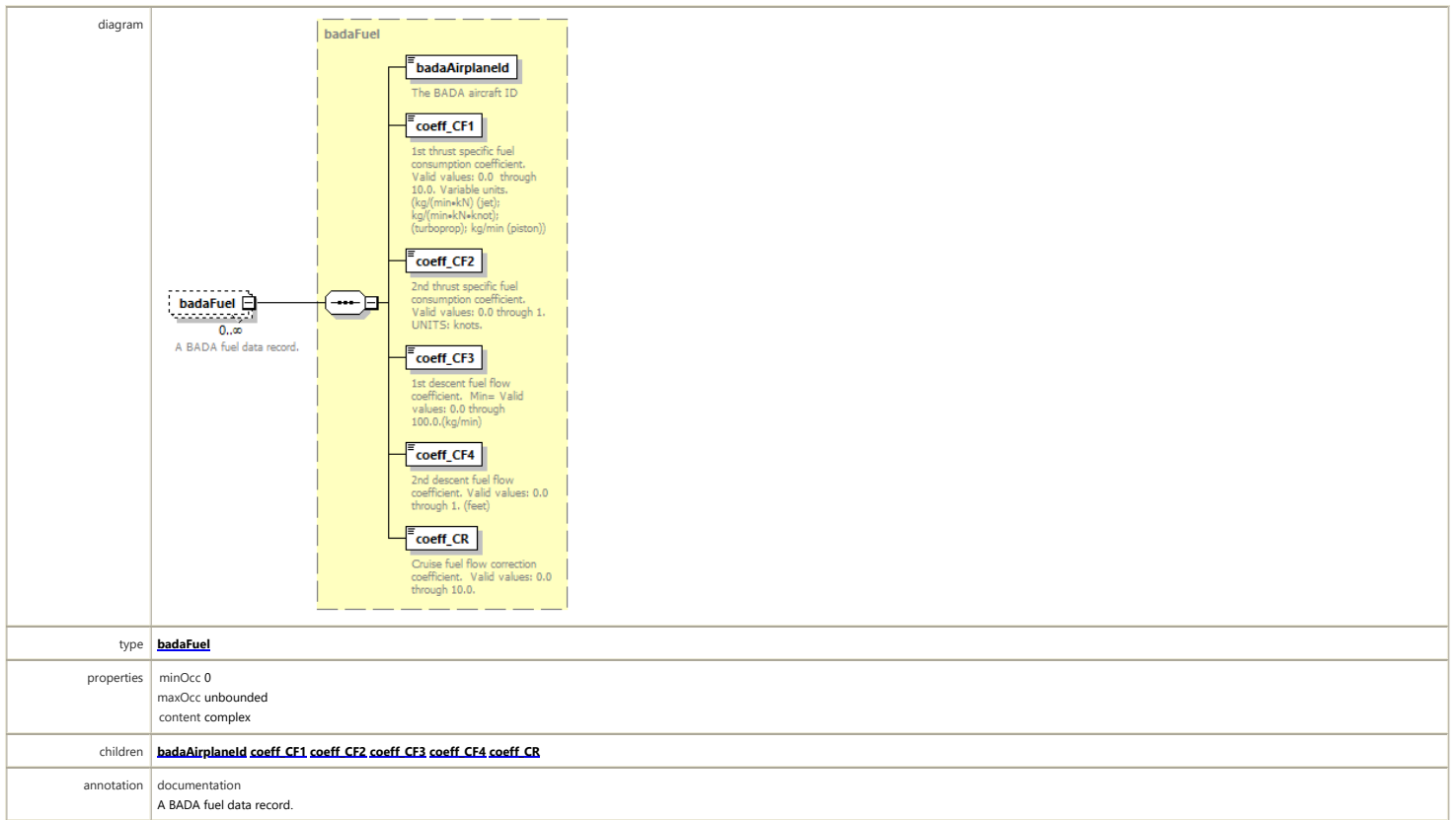
element **fleet/badaProfileSet**

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.

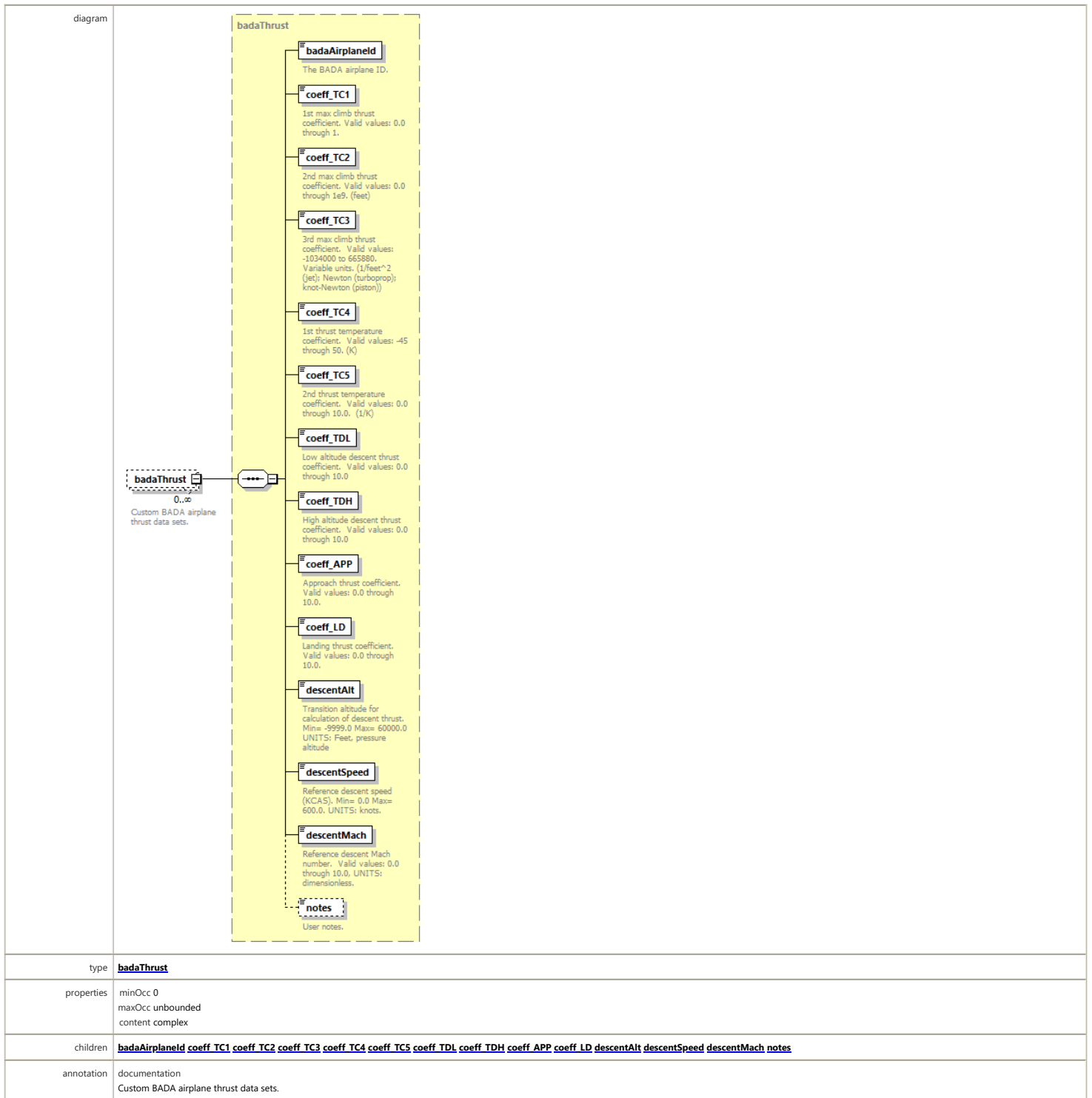
element **fleet/badaConfigSet**

diagram	
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**



element **fleet/badaThrust**

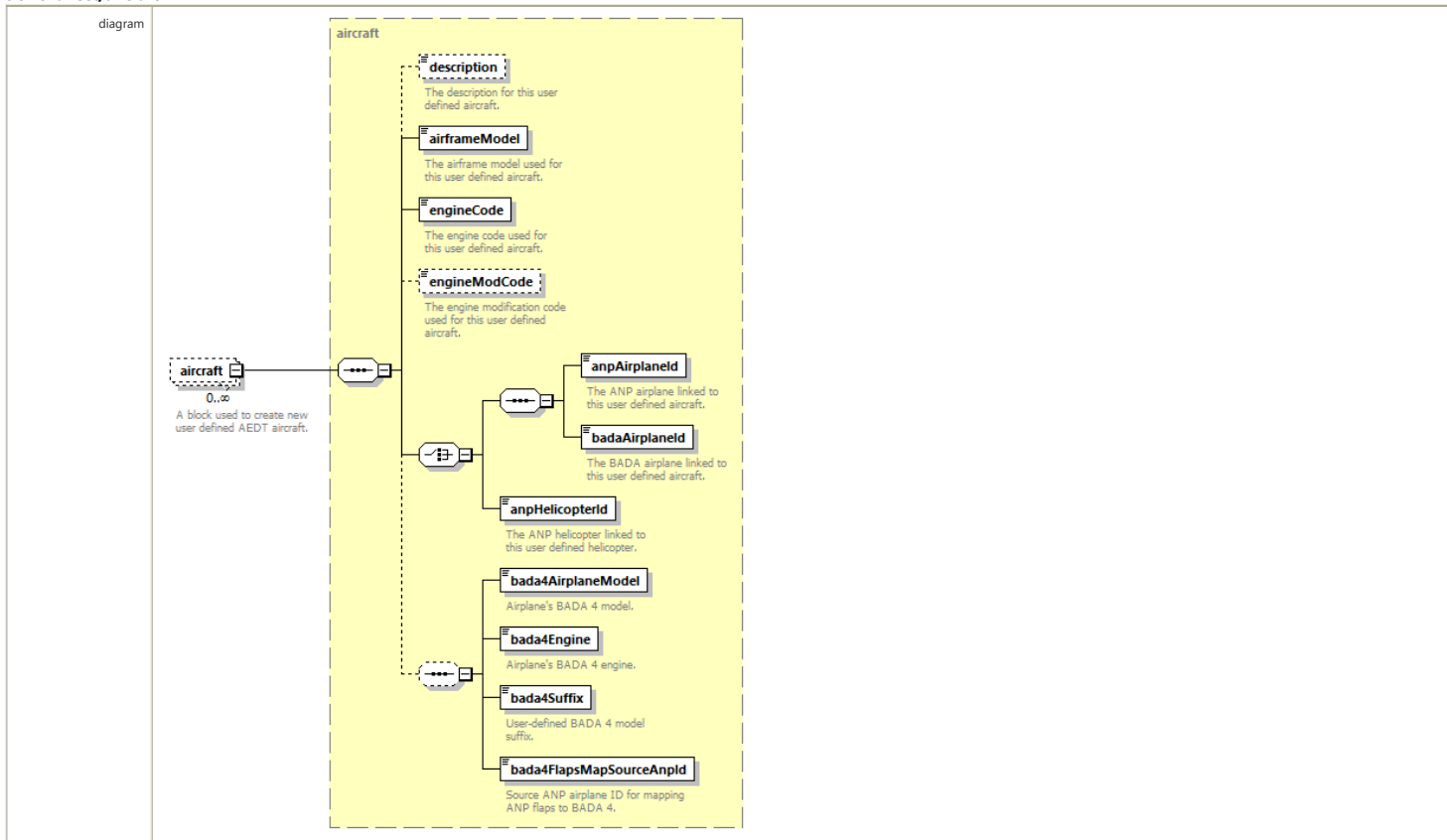


element **fleet/bada4ProfileSet**



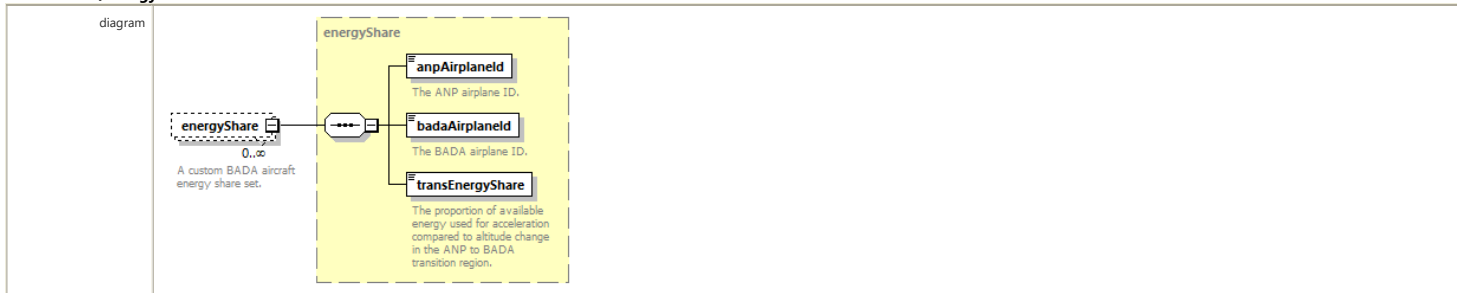
type	bada4ProfileSet
properties	minOcc 0 maxOcc unbounded content complex
children	anpAirplaneId bada4AirplaneModel bada4Engine bada4Suffix bada4profile
annotation	documentation A profile set for an BADA4 airplane.

element **fleet/aircraft**



type	aircraft
properties	minOcc 0 maxOcc unbounded content complex
children	description airframeModel engineCode engineModCode anpAirplaneId badaAirplaneId anpHelicopterId bada4AirplaneModel bada4Engine bada4Suffix bada4FlapsMapSourceAnpId
annotation	documentation A block used to create new user defined AEDT aircraft.

element **fleet/energyShare**



type	energyShare
properties	minOcc 0 maxOcc unbounded content complex
children	anpAirplaneId badaAirplaneId transEnergyShare
annotation	documentation A custom BADA aircraft energy share set.

complexType **latitudeDecimalType**

diagram	<p>latitudeDecimalType Latitude specified as degrees in decimal format. Can include optional attribute positive. (decimal degrees)</p>					
type	extension of xs:double					
properties	base xs:double					
used by	element latlonCoordGroup/latitude					
attributes	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. (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	<p>longitudeDecimalType Longitude specified as degrees in decimal format. Can include optional attribute positive. (decimal degrees)</p>					
type	extension of xs:double					
properties	base xs:double					
used by	element latlonCoordGroup/longitude					
attributes	Name	Type	Use	Default	Fixed	Annotation
	positive	derived by: xs:string	optional	E		
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	<p>polygon2DType Describes a 2 dimensional polygon.</p> <p>dummy vertex 3..∞ A list of vertices defining the polygon.</p>					
children	dummy , vertex					
used by	elements boundary/polygon , oneOrThreeCoords2DGroupSet/polygonCoords					
annotation	documentation Describes a 2 dimensional polygon.					

element **polygon2DType/dummy**

diagram	<p>dummy</p>					
type	xs:int					
properties	minOcc 0 maxOcc 1 content simple					

element **polygon2DType/vertex**

diagram	
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	
children	dummy vertex
annotation	documentation The elevation or Z value for a polygon.

element **polygon3DElevationType/dummy**

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

element **polygon3DElevationType/vertex**

diagram	<p>The diagram shows a complex type coord3DElevationType. It starts with a vertex element (3..∞) which is a list of vertices defining the polygon. This leads to a choice between latlonCoordGroup and utmCoordGroup. latlonCoordGroup specifies a coordinate using latitude and longitude, which further branches into latitude and longitude. utmCoordGroup specifies a point using Universal Transverse Mercator coordinates, which branches into utmN, utmE, and utmZone. Both latitude and longitude have two sub-elements: a decimal format (e.g., latitude) and a DMS format (e.g., latitudeDMS). elevation is also a child element representing the elevation or Z value for a coordinate.</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	<p>The diagram shows a complex type profiles (3..∞) which contains an arrival and departure profile. It branches into departureProfile (A flight's departure profile.) and 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

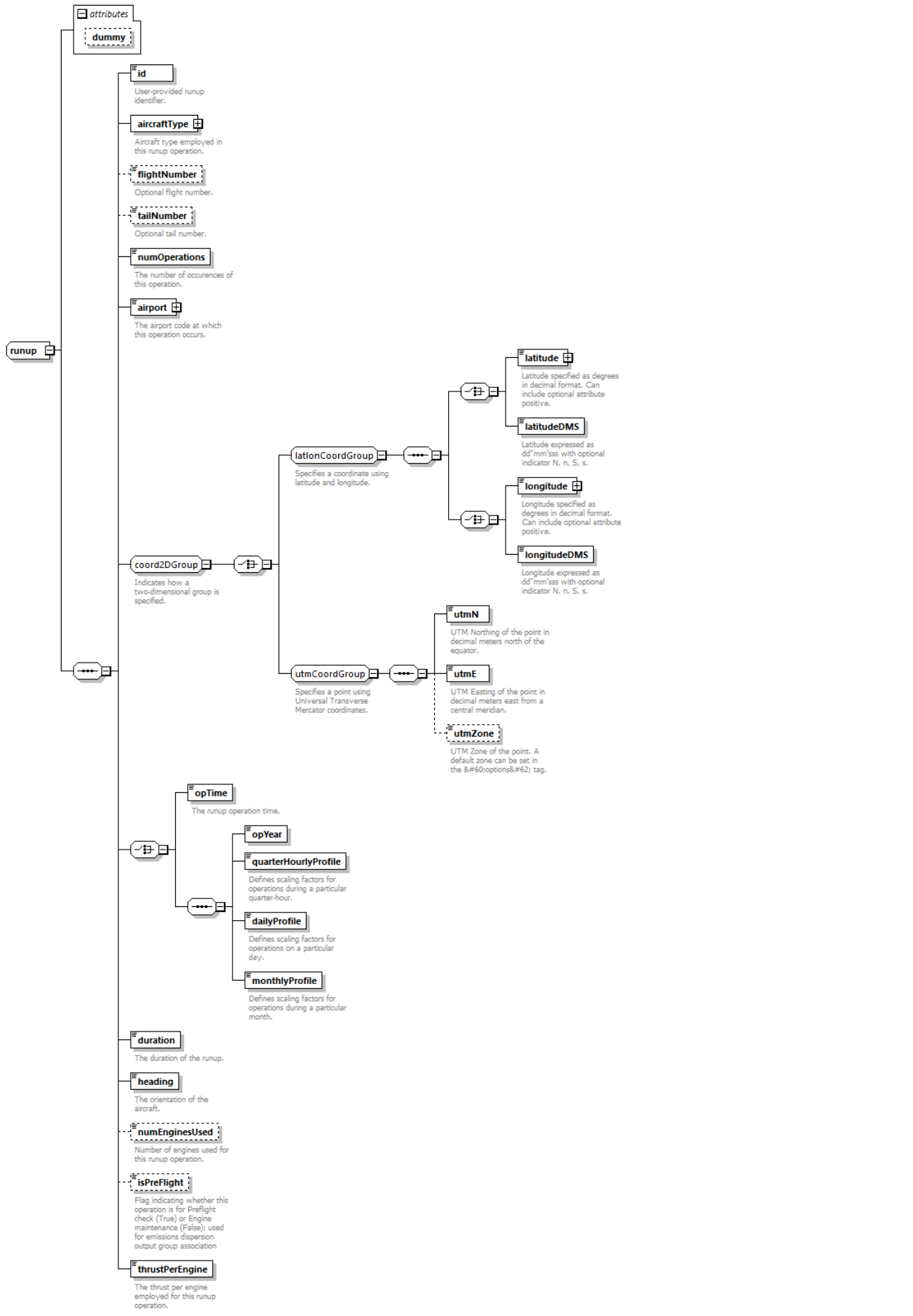
diagram	<p>The diagram shows the departureProfile element, which is a flight's departure profile.</p>
type	profileType
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation A flight's departure profile.

element profiles/arrivalProfile

diagram	<p>The diagram shows the arrivalProfile element, which is a flight's arrival profile.</p>
type	profileType
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation A flight's arrival profile.

complexType runup

diagram



children

[id](#) [aircraftType](#) [flightNumber](#) [tailNumber](#) [numOperations](#) [airport](#) [latitude](#) [latitudeDMS](#) [longitude](#) [longitudeDMS](#) [utmN](#) [utmE](#) [utmZone](#) [opTime](#) [opYear](#) [quarterHourlyProfile](#) [dailyProfile](#) [monthlyProfile](#) [duration](#) [heading](#) [numEnginesUsed](#) [isPreFlight](#) [thrustPerEngine](#)

used by	elements AsifXml/runup case/runup					
attributes	Name	Type	Use	Default	Fixed	Annotation
	dummy	xs:int	optional			

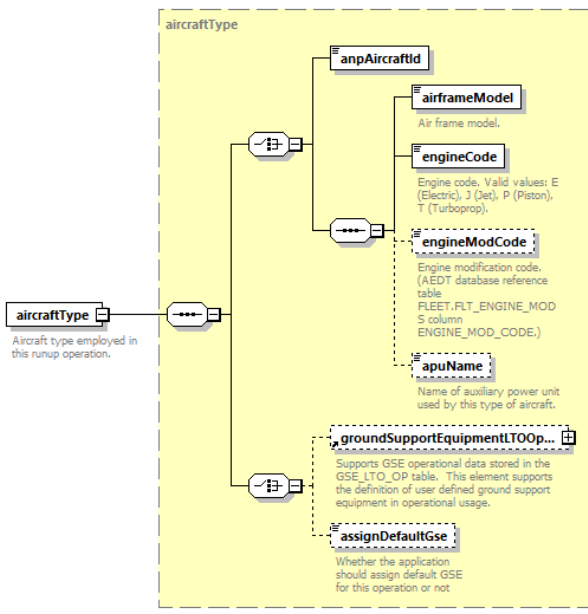
attribute **runup/@dummy**

type	xs:int
properties	use optional

element **runup/id**

diagram	
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation User-provided runup identifier.

element **runup/aircraftType**

diagram	
type	aircraftType
properties	content complex
children	anpAircraftId airframeModel engineCode engineModCode apuName groundSupportEquipmentLTOp... assignDefaultGse
annotation	documentation Aircraft type employed in this runup operation.

element **runup/flightNumber**

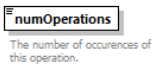
diagram	
type	string16
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 16
annotation	documentation Optional flight number.

element **runup/tailNumber**

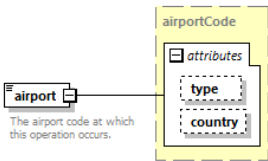
diagram	
type	string8
properties	minOcc 0 maxOcc 1 content simple

facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation Optional tail number.

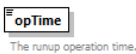
element **runup/numOperations**

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	<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>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 The airport code at which this operation occurs.																		

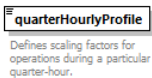
element **runup/opTime**

diagram	
type	xs:dateTime
properties	content simple
annotation	documentation The runup operation time.


element **runup/opYear**

diagram	
type	xs:int
properties	content simple

element **runup/quarterHourlyProfile**


diagram	
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 **runup/dailyProfile**


diagram	
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 **runup/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.

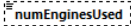
element **runup/duration**

diagram	 duration The duration of the runup.
type	xs:double
properties	content simple
annotation	documentation The duration of the runup.


element **runup/heading**

diagram	 heading The orientation of the aircraft.
type	xs:double
properties	content simple
annotation	documentation The orientation of the aircraft.


element **runup/numEnginesUsed**

diagram	 numEnginesUsed Number of engines used for this runup operation.
type	int1to9999
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 9999
annotation	documentation Number of engines used for this runup operation.

element **runup/isPreFlight**

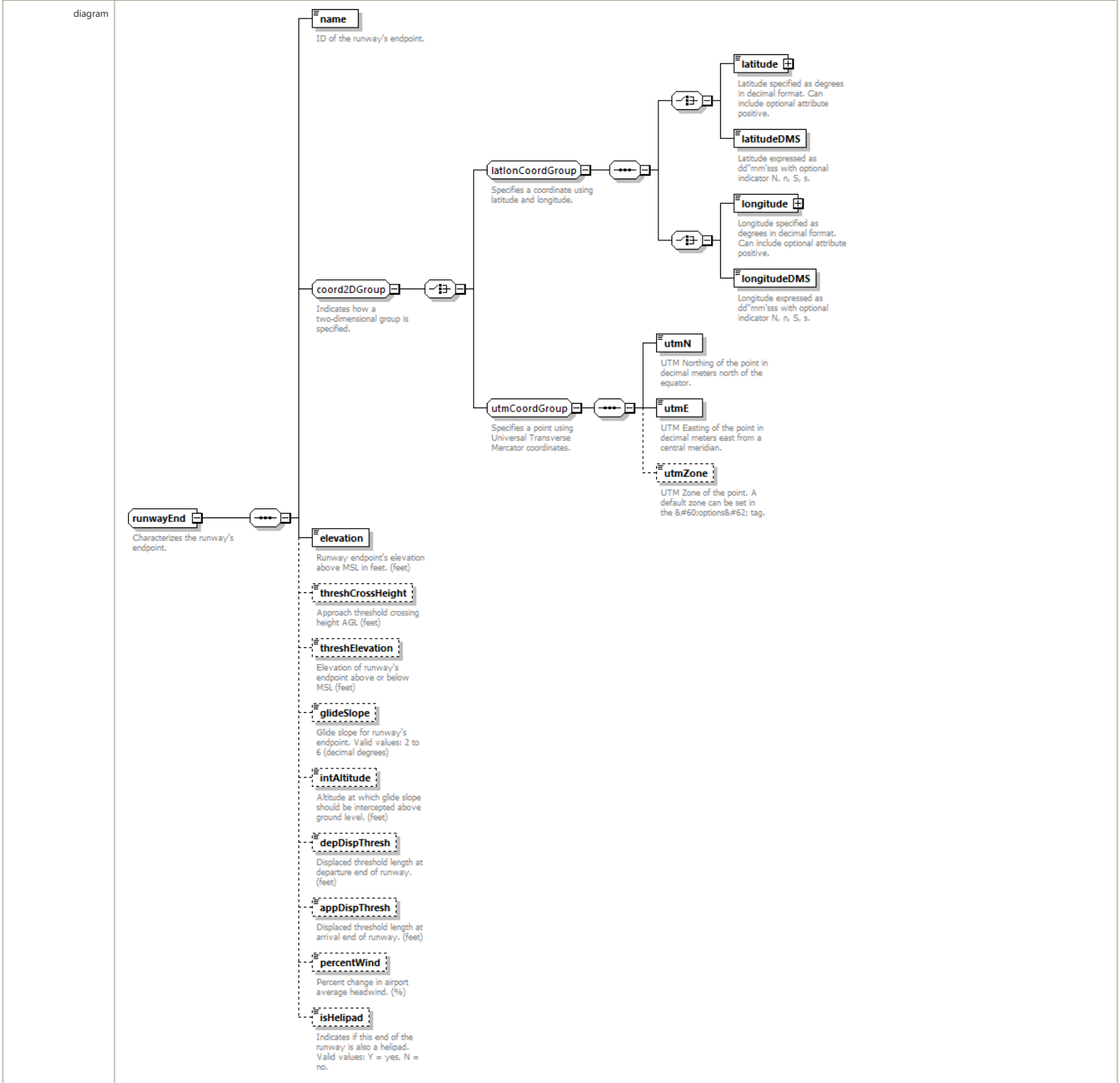
diagram	 isPreFlight Flag indicating whether this operation is for Preflight check (True) or Engine maintenance (False); used for emissions dispersion output group association
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation Flag indicating whether this operation is for Preflight check (True) or Engine maintenance (False); used for emissions dispersion output group association

element **runup/thrustPerEngine**

diagram	 thrustPerEngine The thrust per engine employed for this runup operation.
type	xs:double
properties	content simple

annotation	documentation The thrust per engine employed for this runup operation.
------------	---

complexType **runwayEnd**



children	name latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation threshCrossHeight threshElevation glideSlope intAltitude depDispThresh appDispThresh percentWind isHelipad
----------	---

used by	element runway/runwayEnd
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annotation	documentation Characterizes the runway's endpoint.
------------	---

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	
type	xs:double
properties	content simple
annotation	documentation Runway endpoint's elevation above MSL in feet. (feet)

element **runwayEnd/threshCrossHeight**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Approach threshold crossing height AGL (feet)

element **runwayEnd/threshElevation**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Elevation of runway's endpoint above or below MSL (feet)

element **runwayEnd/gleideSlope**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Glide slope for runway's endpoint. Valid values: 2 to 6 (decimal degrees)

element **runwayEnd/intAltitude**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Altitude at which glide slope should be intercepted above ground level. (feet)

element **runwayEnd/depDispThresh**

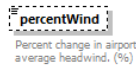
diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Displaced threshold length at departure end of runway. (feet)

element **runwayEnd/appDispThresh**

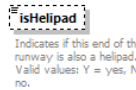
diagram	
type	xs:double

properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Displaced threshold length at arrival end of runway. (feet)

element **runwayEnd/percentWind**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Percent change in airport average headwind. (%)

element **runwayEnd/isHelipad**

diagram	
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	<p>airportLayoutName Airport layout name.</p> <p>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. (feet AFE)</p> <p>useHourlyMetData If true, use user-defined hourly meteorological data to compute emissions. If false, use default annual averages to compute emissions. (true or false)</p> <p>averageTemperature Average temperature (°F).</p> <p>dailyHighTemperature Average daily high temperature (°F).</p> <p>dailyLowTemperature Average daily low temperature (°F).</p> <p>pressure Average barometric pressure. (in inches Hg)</p> <p>pressureMSL Average barometric pressure at mean sea level.</p> <p>humidity Relative humidity (%).</p> <p>windSpeed Wind speed at airport surface (mph).</p> <p>windDirection Wind direction. Valid values: 0-360. (decimal degrees)</p> <p>ceiling Ceiling (feet AFE).</p> <p>visibility Visibility (statute miles).</p> <p>airportConfigSet Contains one or more airportConfig elements.</p> <p>airportCapacity Supports content related to the APTCONFIG table. This element supports the definition of airport capacities based on various points within an airport.</p> <p>scenarioAirportLayoutType 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	documentation Describes weather conditions.

element [scenarioAirportLayoutType/airportLayoutName](#)

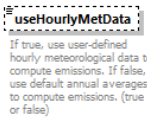
diagram	<p>airportLayoutName Airport layout name.</p>
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airport layout name.

element [scenarioAirportLayoutType/mixingHeight](#)

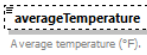
diagram	<p>mixingHeight Height at the top layer of atmosphere where relatively vigorous mixing of pollutants and other gases takes place for the airport in a given month. Varies diurnally and seasonally. (feet AFE)</p>
type	xs:double
properties	minOcc 0

	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. (feet AFE)

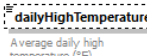
element **scenarioAirportLayoutType/useHourlyMetData**

diagram	
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	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Average temperature (°F).

element **scenarioAirportLayoutType/dailyHighTemperature**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Average daily high temperature (°F).

element **scenarioAirportLayoutType/dailyLowTemperature**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Average daily low temperature (°F).

element **scenarioAirportLayoutType/pressure**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Average barometric pressure. (in inches Hg)

element **scenarioAirportLayoutType/pressureMSL**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1

	content simple default 0
annotation	documentation Average barometric pressure at mean sea level.

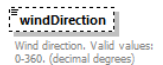
element **scenarioAirportLayoutType/humidity**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Relative humidity (%).

element **scenarioAirportLayoutType/windSpeed**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Wind speed at airport surface (mph).

element **scenarioAirportLayoutType/windDirection**

diagram	
type	int0to360
properties	minOcc 0 maxOcc 1 content simple default 1
facets	Kind Value Annotation minInclusive 0 maxExclusive 360
annotation	documentation Wind direction. Valid values: 0-360. (decimal degrees)

element **scenarioAirportLayoutType/ceiling**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Ceiling (feet AFE).

element **scenarioAirportLayoutType/visibility**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Visibility (statute miles).

complexType **spectralClass**

diagram

- spectralClassID**
Spectral Class ID - short value. Valid values 20,000 through 30,000 inclusive.
- flightTypes**
Flags indicating allowable flight types - A (arrival), D (departure), L (Level/Afterburner), U (Unknown). Options are: A, D, L, AD, AL, DL, ADL, or U
- frequencyBand17**
Frequency value for Band 17. Valid values: 0.0 through 100.0.
- frequencyBand18**
Frequency value for Band 18. Valid values: 0.0 through 100.0.
- frequencyBand19**
Frequency value for Band 19. Valid values: 0.0 through 100.0.
- frequencyBand20**
Frequency value for Band 20. Valid values: 0.0 through 100.0.
- frequencyBand21**
Frequency value for Band 21. Valid values: 0.0 through 100.0.
- frequencyBand22**
Frequency value for Band 22. Valid values: 0.0 through 100.0.
- frequencyBand23**
Frequency value for Band 23. Valid values: 0.0 through 100.0.
- frequencyBand24**
Frequency value for Band 24. Valid values: 0.0 through 100.0.
- frequencyBand25**
Frequency value for Band 25. Valid values: 0.0 through 100.0.
- frequencyBand26**
Frequency value for Band 26. Valid values: 0.0 through 100.0.
- frequencyBand27**
Frequency value for Band 27. Valid values: 0.0 through 100.0.
- frequencyBand28**
Frequency value for Band 28. Valid values: 0.0 through 100.0.
- frequencyBand29**
Frequency value for Band 29. Valid values: 0.0 through 100.0.
- frequencyBand30**
Frequency value for Band 30. Valid values: 0.0 through 100.0.
- frequencyBand31**
Frequency value for Band 31. Valid values: 0.0 through 100.0.
- frequencyBand32**
Frequency value for Band 32. Valid values: 0.0 through 100.0.
- frequencyBand33**
Frequency value for Band 33. Valid values: 0.0 through 100.0.
- frequencyBand34**
Frequency value for Band 34. Valid values: 0.0 through 100.0.
- frequencyBand35**
Frequency value for Band 35. Valid values: 0.0 through 100.0.
- frequencyBand36**
Frequency value for Band 36. Valid values: 0.0 through 100.0.
- frequencyBand37**
Frequency value for Band

spectralClass
This element contains the definition for a single user-defined spectral class with 24 bands.



	<p>37. Valid values: 0.0 through 100.0.</p> <p>frequencyBand38</p> <p>Frequency value for Band 38. Valid values: 0.0 through 100.0.</p> <p>frequencyBand39</p> <p>Frequency value for Band 39. Valid values: 0.0 through 100.0.</p> <p>frequencyBand40</p> <p>Frequency value for Band 40. Valid values: 0.0 through 100.0.</p>
children	spectralClassId flightTypes frequencyBand17 frequencyBand18 frequencyBand19 frequencyBand20 frequencyBand21 frequencyBand22 frequencyBand23 frequencyBand24 frequencyBand25 frequencyBand26 frequencyBand27 frequencyBand28 frequencyBand29 frequencyBand30 frequencyBand31 frequencyBand32 frequencyBand33 frequencyBand34 frequencyBand35 frequencyBand36 frequencyBand37 frequencyBand38 frequencyBand39 frequencyBand40
used by	element fleet/spectralClass
annotation	documentation This element contains the definition for a single user-defined spectral class with 24 bands.

element **spectralClass/spectralClassId**

diagram	<p>spectralClassId</p> <p>Spectral Class ID - short value. Valid values 20,000 through 30,000 inclusive.</p>
type	spectralClassId
properties	content simple
facets	Kind Value Annotation minInclusive 20000 maxInclusive 30000
annotation	documentation Spectral Class ID - short value. Valid values 20,000 through 30,000 inclusive.

element **spectralClass/flightTypes**

diagram	<p>flightTypes</p> <p>Flags indicating allowable flight types - A (arrival), D (departure), L (Level/Afterburner), U (Unknown). Options are: A, D, L, AD, AL, DL, ADL, or U</p>
type	spectralFlightType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern A D L AD AL DL ADL U
annotation	documentation Flags indicating allowable flight types - A (arrival), D (departure), L (Level/Afterburner), U (Unknown). Options are: A, D, L, AD, AL, DL, ADL, or U

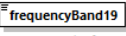
element **spectralClass/frequencyBand17**

diagram	<p>frequencyBand17</p> <p>Frequency value for Band 17. Valid values: 0.0 through 100.0.</p>
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 17. Valid values: 0.0 through 100.0.

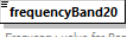
element **spectralClass/frequencyBand18**

diagram	<p>frequencyBand18</p> <p>Frequency value for Band 18. Valid values: 0.0 through 100.0.</p>
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 18. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand19**

diagram	 frequencyBand19 Frequency value for Band 19. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 19. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand20**

diagram	 frequencyBand20 Frequency value for Band 20. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 20. Valid values: 0.0 through 100.0.

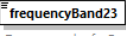
element **spectralClass/frequencyBand21**

diagram	 frequencyBand21 Frequency value for Band 21. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 21. Valid values: 0.0 through 100.0.

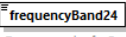
element **spectralClass/frequencyBand22**

diagram	 frequencyBand22 Frequency value for Band 22. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 22. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand23**


diagram	 frequencyBand23 Frequency value for Band 23. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 23. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand24**

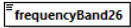
diagram	 frequencyBand24 Frequency value for Band 24. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100

annotation	documentation Frequency value for Band 24. Valid values: 0.0 through 100.0.
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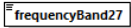
element **spectralClass/frequencyBand25**

diagram	 Frequency value for Band 25. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 25. Valid values: 0.0 through 100.0.


element **spectralClass/frequencyBand26**

diagram	 Frequency value for Band 26. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 26. Valid values: 0.0 through 100.0.

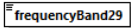
element **spectralClass/frequencyBand27**

diagram	 Frequency value for Band 27. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 27. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand28**

diagram	 Frequency value for Band 28. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 28. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand29**

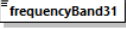
diagram	 Frequency value for Band 29. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 29. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand30**

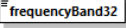
diagram	 Frequency value for Band 30. Valid values: 0.0 through 100.0.
type	floatInclusive100

properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 30. Valid values: 0.0 through 100.0.

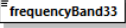
element **spectralClass/frequencyBand31**

diagram	 Frequency value for Band 31. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 31. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand32**

diagram	 Frequency value for Band 32. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 32. Valid values: 0.0 through 100.0.

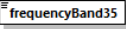
element **spectralClass/frequencyBand33**

diagram	 Frequency value for Band 33. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 33. Valid values: 0.0 through 100.0.

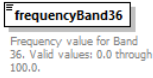
element **spectralClass/frequencyBand34**

diagram	 Frequency value for Band 34. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 34. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand35**

diagram	 Frequency value for Band 35. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 35. Valid values: 0.0 through 100.0.

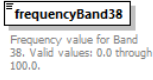
element **spectralClass/frequencyBand36**

diagram	
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 36. Valid values: 0.0 through 100.0.

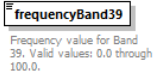
element **spectralClass/frequencyBand37**

diagram	
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 37. Valid values: 0.0 through 100.0.

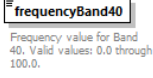
element **spectralClass/frequencyBand38**

diagram	
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 38. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand39**

diagram	
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 39. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand40**

diagram	
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 40. Valid values: 0.0 through 100.0.

simpleType **aircraftPerformanceModelType**

type	restriction of xs:string
properties	base xs:string
used by	element scenario/acftPerfModel
facets	Kind Value Annotation enumeration ICAO enumeration SAE1845
annotation	documentation Type of aircraft performance model. Valid values: ICAO, SAE1845.

simpleType **AircraftSizeType**

type	restriction of xs:string
properties	base xs:string
used by	element runwayAssignment/aircraftSize
facets	Kind Value Annotation enumeration S enumeration L enumeration H
annotation	documentation Aircraft size.

simpleType **airframeModel**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraft/airframeModel airframe/model
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Refers to an existing airframe model.

simpleType **airportCodeType**

type	restriction of xs:string
properties	base xs:string
used by	attribute airportCode/@type
facets	Kind Value Annotation enumeration ICAO enumeration IATA enumeration FAA enumeration OTHER enumeration ANY
annotation	documentation The type of an airport code.

simpleType **anpAirplaneId**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraftType/anpAircraftId aircraft/anpAirplaneId anpAirplane/anpAirplaneId anpThrustSet/anpAirplaneId anpFlapsSet/anpAirplaneId anpProfileSet/anpAirplaneId energyShare/anpAirplaneId bada4ProfileSet/anpAirplaneId bada4ProcedureStep/anpAirplaneId aircraft/bada4FlapsMapSourceAnpId
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation ID of ANP airplane. Must be a new, unique value.

simpleType **anpCoeffType**

type	restriction of xs:string
properties	base xs:string
used by	element anpAirplane/depThrustCoeffType
facets	Kind Value Annotation pattern JetJJPropJ

simpleType **anpFlapId**

type	restriction of xs:string
properties	base xs:string
used by	elements bada4ProcedureStep/anpFlapId anpFlaps/flapId anpProcedureStep/flapId
facets	Kind Value Annotation minLength 0 maxLength 6

simpleType **anpHeloDirectId**

type	restriction of xs:string
properties	base xs:string
used by	element anpHeloDirectivitySet/anpHelicopterId
facets	Kind Value Annotation minLength 0 maxLength 12

simpleType **anpHeloDirectivityId**

type	restriction of xs:string
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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 **anpHeloNoiseId**

type	restriction of xs:string
properties	base xs:string
used by	elements anpHelicopter/noiseId anpHeloNoiseGroup/noiseId
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 **anpNoiseId**

type	restriction of xs:string
properties	base xs:string
used by	elements anpNoiseGroup/noiseId anpAirplane/noiseId
facets	Kind Value Annotation minLength 0 maxLength 255

simpleType **anpNpdNoiseType**

type	restriction of xs:string
properties	base xs:string
used by	elements anpNPDCurve/noiseType anpHeloNPDCurve/noiseType
facets	Kind Value Annotation pattern S M E P

simpleType **anpNpdOpMode**

type	restriction of xs:string
properties	base xs:string
used by	elements anpNPDCurve/opMode anpHeloNPDCurve/opMode
facets	Kind Value Annotation pattern A D L G H I J V W Y Z B C E F X S

simpleType **anpOwnerType**

type	restriction of xs:string
properties	base xs:string
used by	elements anpHelicopter/owner anpAirplane/owner
facets	Kind Value Annotation pattern Commercial C Military M General G

simpleType **anpSizeCode**

type	restriction of xs:string
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properties	base xs:string
used by	element anpAirplane/sizeCode
facets	Kind Value Annotation pattern Heavy H Large L Small S

simpleType **apuName**

type	restriction of xs:string
properties	base xs:string
used by	elements airframe/auxiliaryPowerUnitId auxiliaryPowerUnit/baseAuxiliaryPowerUnit auxiliaryPowerUnit/name
facets	Kind Value Annotation minLength 0 maxLength 30
annotation	documentation Name of the auxiliary power unit.

simpleType **bada4AirplaneModel**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraft/bada4AirplaneModel bada4ProfileSet/bada4AirplaneModel
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Model of BADA 4 airplane.

simpleType **bada4Engine**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraft/bada4Engine bada4ProfileSet/bada4Engine
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane BADA 4 engine.

simpleType **bada4Suffix**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraft/bada4Suffix bada4ProfileSet/bada4Suffix
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation User-defined BADA 4 model suffix.

simpleType **badaAirplaneId**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraft/badaAirplaneId badaAirplane/badaAirplaneId badaAltitudeDistributionSet/badaAirplaneId badaProfileSet/badaAirplaneId badaConfigSet/badaAirplaneId badaFuel/badaAirplaneId badaThrust/badaAirplaneId energyShare/badaAirplaneId
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation ID of a BADA airplane model. Must be unique.

simpleType **badaPhaseType**

type	restriction of xs:string
properties	base xs:string
used by	element badaConfig/phase
facets	Kind Value Annotation pattern InitialClimb 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 I Inbound O Outbound
annotation	documentation Supports the direction type of a taxi path. Direction type can be either arrival, departure, inbound, or outbound.

simpleType **doubleExclusive0Inclusive10**

type	restriction of xs:double
properties	base xs:double
used by	element pointStationarySource/stackDiameter
facets	Kind Value Annotation maxInclusive 10 minExclusive 0
annotation	documentation A double value in the range (0,10).

simpleType **doubleExclusive10**

type	restriction of xs:double
properties	base xs:double
facets	Kind Value Annotation minInclusive 0 maxExclusive 10
annotation	documentation A double value in the range [0,10).

simpleType **doubleExclusive100**

type	restriction of xs:double
properties	base xs:double
used by	elements taxiway/dispersionWidth categorySandSaltPile/fastestMileOfWind categorySandSaltPile/frictionVelocity categoryBoilerHeater/fuelAshContent categoryBoilerHeater/fuelAshContent categoryBoilerHeater/fuelSulfurContent categoryGenerator/fuelSulfurContent airportConfig/maxWindSpeed categoryFuelTank/verticalOrFloatingTank/meanWindSpeed categorySandSaltPile/meanWindSpeed airportConfig/minWindSpeed categoryDeicingArea/solutionConcentrationPercent
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation A double value in the range [0,100).

simpleType **doubleExclusive1000**

type	restriction of xs:double
properties	base xs:double
used by	elements categoryFuelTank/verticalOrFloatingTank/averageSolutionLevel categorySandSaltPile/massDisturbedPerDisturbance categoryFuelTank/verticalOrFloatingTank/maximumSolutionLevel categoryFuelTank/tankDiameter categoryFuelTank/verticalOrFloatingTank/tankHeight categoryFuelTank/horizontalFixedRoofTank/tankLength categoryAircraftEngine/timePercentPower100 categoryAircraftEngine/timePercentPower30 categoryAircraftEngine/timePercentPower7 categoryAircraftEngine/timePercentPower85
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation A double value in the range [0,1000).

simpleType **doubleExclusive10000**

type	restriction of xs:double
properties	base xs:double
used by	element categorySandSaltPile/erodedSurfaceArea
facets	Kind Value Annotation minInclusive 0 maxExclusive 10000
annotation	documentation A double value in the range [0,10000).

simpleType **doubleExclusive2000**

type	restriction of xs:double
properties	base xs:double
used by	elements categoryDeicingArea/ethyleneGlycolDensity categoryDeicingArea/propyleneGlycolDensity categorySolventDegreaser/solutionDensity
facets	Kind Value Annotation minInclusive 0 maxExclusive 2000
annotation	documentation

A double value in the range [0,2000].

simpleType **doubleInclusive24**

type	restriction of xs:double
properties	base xs:double
used by	elements airportConfig/endHour airportConfig/startHour
facets	Kind Value Annotation minInclusive 0 maxInclusive 24
annotation	documentation A double value in the range [0,24].

simpleType **doubleInclusive4000**

type	restriction of xs:double
properties	base xs:double
used by	element roadwayOperation/roundTripDistance
facets	Kind Value Annotation minInclusive 0 maxInclusive 4000
annotation	documentation A double value in the range [0,4000].

simpleType **doubleInclusive500**

type	restriction of xs:double
properties	base xs:double
used by	element categoryFuelTank/verticalOrFloatingTank/verticalFixedRoofTank/domeRoof/domeRadius
facets	Kind Value Annotation minInclusive 0 maxInclusive 500
annotation	documentation A double value in the range [0,500].

simpleType **doubleInclusiveRange0to600**

type	restriction of xs:double
properties	base xs:double
facets	Kind Value Annotation minInclusive 0 maxInclusive 600
annotation	documentation A double value in the range [0,600].

simpleType **doubleInclusiveRange1to30**

type	restriction of xs:double
properties	base xs:double
facets	Kind Value Annotation minInclusive 1 maxInclusive 30
annotation	documentation A double value in the range [1,30].

simpleType **doubleMin0**

type	restriction of xs:double
properties	base xs:double
used by	elements categoryFuelTank/horizontalFixedRoofTank/annualIncreaseInLiquidLevel categoryFuelTank/verticalOrFloatingTank/verticalFixedRoofTank/annualIncreaseInLiquidLevel quarterHourlyProfile/temporalFactorMonthlyProfile/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 **empty-string**

type	restriction of xs:string
properties	base xs:string
facets	Kind Value Annotation enumeration

simpleType **engineCode**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraftEngine/code aircraft/engineCode
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Code for an airframe's engine.

simpleType **engineModCode**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraftEngineMod/code 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 appHelicopter/engineTypeCode appAirplane/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
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properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxExclusive 10
annotation	documentation A real number in the range [0,10).

simpleType floatExclusive100

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation A real number in the range [0,100).

simpleType floatExclusive1000

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation A real number in the range [0,1,000).

simpleType floatExclusive10000

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxExclusive 10000
annotation	documentation A real number in the range [0,10,000).

simpleType floatExclusive2000

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxExclusive 2000
annotation	documentation A real number in the range [0,2,000).

simpleType floatExclusiveRange100

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minExclusive 0 maxExclusive 100
annotation	documentation A real number in the range (0,100).

simpleType floatInclusive1

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation A real number in the range [0,1).

simpleType floatInclusive100

type	restriction of xs:float
properties	base xs:float
used by	elements spectralClass/frequencyBand17 spectralClass/frequencyBand18 spectralClass/frequencyBand19 spectralClass/frequencyBand20 spectralClass/frequencyBand21 spectralClass/frequencyBand22 spectralClass/frequencyBand23 spectralClass/frequencyBand24 spectralClass/frequencyBand25 spectralClass/frequencyBand26 spectralClass/frequencyBand27 spectralClass/frequencyBand28 spectralClass/frequencyBand29 spectralClass/frequencyBand30 spectralClass/frequencyBand31 spectralClass/frequencyBand32 spectralClass/frequencyBand33 spectralClass/frequencyBand34 spectralClass/frequencyBand35 spectralClass/frequencyBand36 spectralClass/frequencyBand37 spectralClass/frequencyBand38 spectralClass/frequencyBand39 spectralClass/frequencyBand40
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation A real number in the range [0,100).

simpleType **floatInclusive1000**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation A real number in the range [0,1,000].

simpleType **floatInclusive10000**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxInclusive 10000
annotation	documentation A real number in the range [0,10,000].

simpleType **floatInclusive2000**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxInclusive 2000
annotation	documentation A real number in the range [0,2,000].

simpleType **floatInclusive24**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxInclusive 24
annotation	documentation A real number in the range [0,24].

simpleType **floatInclusive4000**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxInclusive 4000
annotation	documentation A real number in the range [0,4,000].

simpleType **floatInclusiveRange1to30**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 1 maxInclusive 30
annotation	documentation A real number in the range [1,30].

simpleType **floatInclusiveRange32to600**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 32 maxInclusive 600
annotation	documentation A real number in the range [32,600].

simpleType **fuelType**

type	restriction of xs:string
properties	base xs:string
used by	elements parkingFacilityOperation/fuelType roadwayOperation/fuelType groundSupportEquipmentPopulationOperation/fuelType groundSupportEquipmentLT00Operation/fuelType
facets	Kind Value Annotation pattern G[Gasoline D Diesel C Compressed Natural Gas L Liquefied Petroleum Gas E Electric
annotation	documentation Supports data relating to 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 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 data relating to the use of ground vehicles - NOT currently used in AEDT. 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
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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 int1to9999

type	restriction of xs:int
properties	base xs:int
used by	elements airframe/maxSeats runup/numEnginesUsed
facets	Kind Value Annotation minInclusive 1 maxInclusive 9999
annotation	documentation An integer in the range [1,9999].

simpleType int5to15

type	restriction of xs:int
properties	base xs:int

used by	element categoryFuelTank/reidVaporPressure
facets	Kind Value Annotation minInclusive 5 maxInclusive 15
annotation	documentation An integer in the range [5,15].

simpleType **int5to65**

type	restriction of xs:int
properties	base xs:int
used by	element roadwayOperation/speed
facets	Kind Value Annotation minInclusive 5 maxInclusive 65
annotation	documentation An integer in the range [5,65].

simpleType **int6to13**

type	restriction of xs:int
properties	base xs:int
facets	Kind Value Annotation minInclusive 6 maxInclusive 13
annotation	documentation An integer in the range [6,13].

simpleType **int89to148**

type	restriction of xs:int
properties	base xs:int
facets	Kind Value Annotation minInclusive 89 maxInclusive 148
annotation	documentation An integer in the range [89,148].

simpleType **latitudeDMSType**

type	restriction of xs:string
properties	base xs:string
used by	element latlonCoordGroup/latitudeDMS
facets	Kind Value Annotation pattern [0-9]{2}[\- "][0-9]{2}[\- '][0-9]{2}([0-9]{3})?[NnSs]
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})?[EeWw]
annotation	documentation Longitude expressed as dd°mm'sss with optional indicator N, n, S, s. (degrees)

simpleType **nodeControlType**

type	restriction of xs:string
properties	base xs:string
used by	attributes trackNode/altitude/@control trackNode/speed/@control
facets	Kind Value Annotation pattern 0 None 1 AtOrBelow 2 Match 3 AtOrAbove
annotation	documentation Type of altitude clearance at this point.

simpleType **opType**

type	restriction of xs:string
properties	base xs:string
used by	element operation/opType
facets	Kind Value Annotation pattern A Arrival D Departure V Overflight F Circuit T TouchAndGo R Runup W RunwayToRunway L LTO LandingTakeoff 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 Stionary Source Taxiway Training Fire
annotation	documentation Supports the polarReceptor source type. Original source type can be either gate, parking facility, roadway, runway, stationary source, taxiway, and training fire.

simpleType **profileType**

type	string255
properties	base string255
used by	elements profiles/arrivalProfile operation/badaProfile profiles/departureProfile operation/saeProfile
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation An aircraft's flight profile.

simpleType **quarterHourMinutes**

type	restriction of xs:int
properties	base xs:int
used by	attribute quarterHourlyProfile/temporalFactor/@startMinutes
facets	Kind Value Annotation enumeration 0 enumeration 15 enumeration 30 enumeration 45
annotation	documentation Either 0, 15, 30, or 45.

simpleType **spectralClassId**

type	restriction of xs:short
properties	base xs:short
used by	element spectralClass/spectralClassId
facets	Kind Value Annotation minInclusive 20000 maxInclusive 30000
annotation	documentation User-defined Spectral Class ID in the range 20,000 to 30,000 - inclusive.

simpleType **spectralFlightType**

type	restriction of xs:string
properties	base xs:string
used by	element spectralClass/flightTypes
facets	Kind Value Annotation pattern A D L AD AL DL ADL U
annotation	documentation Flags indicating allowable flight types - A (arrival), D (departure), L (Level/Afterburner), U (Unknown).

simpleType **string1**

type	restriction of xs:string
properties	base xs:string
used by	elements operation/arrivalStageLength operation/departureStageLength airframe/designationCode airframe/engineLocation airframe/engineType anpTsfCoefficients/mode anpNoiseGroup/modelType anpHelicopter/modelType anpHeloProfile/operationType anpHeloProcedureStep/operationType anpFlaps/operationType anpProfile/operationType bada4Profile/operationType anpHeloDirectivity/opMode anpProfilePoint/opMode anpHeloProfile/profileStageLength anpHeloProcedureStep/profileStageLength anpProfile/profileStageLength airframe/sizeCode operation/stageLength anpHeloProcedureStep/stepType anpProcedureStep/stepType bada4ProcedureStep/stepType anpNoiseGroup/thrustSetType anpThrustGeneral/thrustType anpThrustJet/thrustType anpThrustProp/thrustType anpProcedureStep/thrustType bada4ProcedureStep/thrustType airframe/usageCode bada4Profile/weightClass
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation A string up to one character long.

simpleType **string10**

type	restriction of xs:string
properties	base xs:string
used by	elements badaConfig/configName aircraftEngine/superseded
facets	Kind Value Annotation minLength 0 maxLength 10

annotation	documentation A string up to 10 characters long.
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simpleType **string100**

type	restriction of xs:string
properties	base xs:string
used by	elements operation/activityProfile airportConfig/configurationName activityProfile/dailyProfile runup/dailyProfile aircraftEngine/manufacturer activityProfile/monthlyProfile runup/monthlyProfile airport/nameQuarterHourlyProfile/profileName dailyProfile/profileName monthlyProfile/profileName activityProfile/quarterHourlyProfile runup/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 **string1024**

type	restriction of xs:string
properties	base xs:string
used by	element aircraftEngine/notes
facets	Kind Value Annotation minLength 0 maxLength 1024
annotation	documentation A string up to 1024 characters long.

simpleType **string11**

type	restriction of xs:string
properties	base xs:string
used by	elements windRoseStation/calmCriteria windRoseStation/endDayMonth windRoseStation/userString
facets	Kind Value Annotation minLength 0 maxLength 11

simpleType **string12**

type	restriction of xs:string
properties	base xs:string
used by	elements badaProfile/aircraftVersion windRoseStation/beginDayMonth badaProfile/engine operation/userType
facets	Kind Value Annotation minLength 0 maxLength 12
annotation	documentation A string up to 12 characters long.

simpleType **string14**

type	restriction of xs:string
properties	base xs:string
used by	element windRoseData/directionRange
facets	Kind Value Annotation minLength 0 maxLength 14

simpleType **string15**

type	restriction of xs:string
properties	base xs:string
used by	elements badaProfile/companyName airport/faald
facets	Kind Value Annotation minLength 0 maxLength 15
annotation	documentation A string up to 15 characters long.

simpleType **string16**

type	restriction of xs:string
properties	base xs:string
used by	elements nodeldGroup/description operation/flightNumber runup/flightNumber case/hourlyWxMDS operation/id nodeldGroup/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
facets	Kind Value Annotation minLength 0 maxLength 200
annotation	documentation A string up to 200 characters long.

simpleType **string25**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraftEngine/emissionsEngineModel airport/facilityType aircraftEngine/performanceEngineModel airportWeatherStation/weatherStationName
facets	Kind Value Annotation minLength 0 maxLength 25
annotation	documentation A string up to 25 characters long.

simpleType **string255**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraftType/airframeModel scenarioAirportLayoutType/airportLayoutName trackref/airportLayoutName case/description anpAirplane/description anpHelicopter/description aircraftEngineMod/description study/description aircraft/description scenario/description categoryAircraftEngine/engineCode aircraftType/engineCode bada4Profile/flightProcedure case/hourlyWxFile runup/id badaAirplane/mfgDescription building/name receptorSet/name pointReceptor/name study/name scenario/name airportLayoutType/name annualizationCase/name annualization/name case/name badaThrust/notes anpHeloProfile/profileGroupId anpHeloProcedureStep/profileGroupId anpProfile/profileGroupId case/reference/refCase case/reference/refScenario sensorNode/source study/terrainFiles trackref/trackName simpleType profileType
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation A string up to 255 characters long.

simpleType **string3**

type	restriction of xs:string
properties	base xs:string
used by	element badaProfile/companyCode1 attribute airportCode/@country
facets	Kind Value Annotation minLength 0 maxLength 3
annotation	documentation A string up to three characters long.

simpleType **string30**

type	restriction of xs:string
properties	base xs:string
facets	Kind Value Annotation minLength 0 maxLength 30

annotation	documentation A string up to 30 characters long.
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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 airport/cityName aircraftEngine/combustor airport/state aircraftEngine/tfmtFlag
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation A string up to 50 characters long.

simpleType **string6**

type	restriction of xs:string
properties	base xs:string
used by	elements centroid/bnald airportWeatherStation/cooperativeld taxiTime/source
facets	Kind Value Annotation minLength 0 maxLength 6
annotation	documentation A string up to six characters long.

simpleType **string64**

type	restriction of xs:string
properties	base xs:string
used by	element track/name
facets	Kind Value Annotation minLength 0 maxLength 64
annotation	documentation A string up to 64 characters long.

simpleType **string66**

type	restriction of xs:string
properties	base xs:string
used by	element windRoseStation/windRoseDataSet
facets	Kind Value Annotation minLength 0 maxLength 66

simpleType **string7**

type	restriction of xs:string
properties	base xs:string
used by	element airport/iaifid
facets	Kind Value Annotation minLength 0 maxLength 7

simpleType **string8**

type	restriction of xs:string
properties	base xs:string
used by	elements operation/arrivalRunway.case/climateId operation/departureRunway.climate/identifier runwayEnd/name track/runway runwayAssignment/runway trackref/runway taxipath/runwayName operation/tailNumber runup/tailNumber
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation A string up to eight characters long.

simpleType **string9**

type	restriction of xs:string
properties	base xs:string
used by	element windRoseStation/directionUnit
facets	Kind Value Annotation minLength 0 maxLength 9

simpleType **studyType**

type	restriction of xs:string
properties	base xs:string
used by	element study/studyType
facets	Kind Value Annotation enumeration Emissions enumeration Dispersion enumeration Noise and Emissions enumeration Noise and Dispersion
annotation	documentation Type of study. NOTE: AEDT only supports the Noise and Emissions value.

simpleType **taxiModelType**

type	restriction of xs:string
properties	base xs:string
used by	element scenario/taxiModel
facets	Kind Value Annotation enumeration UserSpecified enumeration Delayed enumeration Sequencing
annotation	documentation Type of taxi modeling.

simpleType **timeInModeBasisType**

type	restriction of xs:string
properties	base xs:string
used by	element scenario/timeInModeBasis

facets	Kind Value Annotation enumeration Performance enumeration ICAO
annotation	documentation Time in mode can either be based on ICAO or performance.

simpleType trackType

type	restriction of xs:string
properties	base xs:string
used by	elements track/optype trackref/optype
facets	Kind Value Annotation pattern A Arrival D Departure V Overflight T TouchAndGo X ArrivalHelitaxi O DepartureHelitaxi
annotation	documentation Type of track.

simpleType trainingFireFuelType

type	restriction of xs:string
properties	base xs:string
facets	Kind Value Annotation pattern JP-4 JP-5 JP-8 Propane Tekflame
annotation	documentation Supports data relating to training fire content. Training fire fuel types can be either JP-4, JP-5, JP-8, propane, or tekflame.

simpleType vectorTrackType

type	restriction of xs:string
properties	base xs:string
used by	element trackVector/type
facets	Kind Value Annotation pattern S Straight L LeftTurn R RightTurn
annotation	documentation Type of vector.

simpleType weatherDataYear

type	union of (restriction of xs:int , restriction of xs:string)
used by	element weatherData/year
annotation	documentation There are expected to be 11 records for weather data - one each for the preceding 10 years and one AVG record for the Average of the ten years.

simpleType wingType

type	restriction of xs:string
properties	base xs:string
used by	element track/wingtype
facets	Kind Value Annotation pattern F FixedWing R RotaryWing
annotation	documentation Type of wing. If not specified, AEDT attempts to determine the wing type based on the optype.

simpleType yesNoType

type	restriction of xs:string
properties	base xs:string
used by	elements anpHelicopter/hasWheels anpAirplane/thrustRestore anpHeloProfile/useDirectivity anpHeloProfile/useTrack
facets	Kind Value Annotation pattern Yes Y No N
annotation	documentation Simple element allowing for either a choice of "yes" or "no".