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Version 4a

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 1.2.32**. 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.

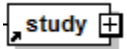
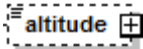
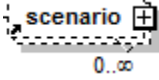
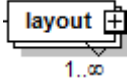
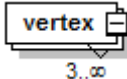
- ASIF.xsd
- ASIF_Airport.xsd
- ASIF_Common.xsd
- ASIF_Fleet.xsd
- ASIF_Receptors.xsd

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	 	Represented by a rectangle with solid or dotted border Solid rectangle – required element Dotted rectangle – optional element
Element with (+) sign	 	Indicates that the element has child element(s) and/or attribute(s)
Element with min and max bound	  	Specifies the min/max number of times an element can occur in the parent element

1.3 Importing External Studies

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

2 ASIF Import Types

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

2.1 Full Study Import

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

Please see Section 3 for two sample studies.

2.2 Partial ASIF Import

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

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

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

```
<AsifXml xmlns:AsifXml="http://www.faa.gov/ASIF"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" version="1.2.32"
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="1.2.32" 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>
      </operation>
    </operations>
```

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

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

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

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

6. Create annualization

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

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

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

    <!-- Define rolloup 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="1.2.32" 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="1.2.32" 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>
      </runwayAssignment>
    </runwayAssignmentSet>
  </airportConfig>
</airportConfigSet>
```

```
<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>
      <groundSupportEquipmentLT00operationSet>
        <groundSupportEquipmentLT00operation>
          <gseID>8</gseID>
          <fuelType>Diesel</fuelType>
          <horsepower>88</horsepower>
          <loadFactor>0.8</loadFactor>
          <departureOpTime>3.9</departureOpTime> <!-- in minutes -->
        </groundSupportEquipmentLT00operation>
      </groundSupportEquipmentLT00operationSet>
      <gseID>13</gseID>
      <fuelType>Gasoline</fuelType>
    </aircraftType>
  </operation>
```

```
<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>
<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>
```

```
        </groundSupportEquipmentLT00operation>
    </groundSupportEquipmentLT00operationSet>
</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 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 Airplane 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 Airplane 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 Airplane 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 Airplane 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

Choose Columns

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 4a is **1.2.32**. Importing an ASIF version 1.2.24 file in AEDT 4a will generate eight intermediate ASIF files for version 1.2.25 thru version 1.2.32.

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 AEDT 3e – 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.

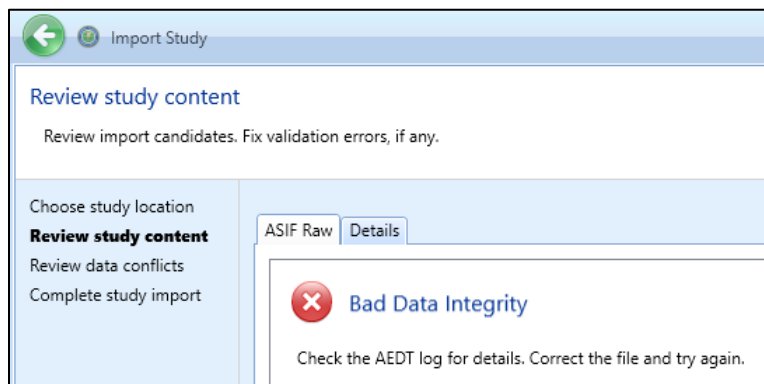


Figure 5-1 AEDT Import Study Dialog, Bad Data Integrity Error Message

```
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 AEDT 3f – 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 AEDT 3f – ASIF Version 1.2.21, 1.2.22, and 1.2.23 Updates

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 EPA’s AP-42) when upgrading an older ASIF file to ASIF version 1.2.21 or higher.
 - Boiler/Space Heater
 - Emergency Generator
 - Incinerator
 - Other
 - Training Fire

5.9.2 Ground Support Equipment

Expanded the emissionFactorSet for GSE.

5.9.3 Airframe

Added "maxSeats" element to complexType airframe.

5.10 AEDT 3g – 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.

5.11 AEDT 4a – ASIF Version 1.2.32

This section summarizes the ASIF updates that have been made since the AEDT 3g Public Release (ASIF version 1.2.24).

- Added the noise source height for ANP airplanes and helicopters.
- Removed the building/releaseHeight element.
- Added optional thrustUnit element to sensorPath element.
- Added support for the helicopter fixed-point profiles.
- Updated the anpHeloNoiseGroup element to support the expanded helicopter spectral data format.
- Allowed for specification of fuelLeadContent for scenario elements.
- Increased the runwayEnd/name element from 8 chracters to 25 (string25).
- Removed unused elements from the scenarioAirportLayoutType.
- Added support for user defined NPD op modes for helicopter.

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](#)
[annualization](#)
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[stationarySourceSet](#)
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[taxiNodeSet](#)

Groups

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[receptorGroup](#)
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[tnmocElGroup](#)
[tocElGroup](#)
[utmCoordGroup](#)
[vocElGroup](#)

Complex types

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[airportLayoutType](#)
[anpAircraft](#)
[anpFlaps](#)
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[anpHelicopter](#)
[anpHeloDirectivity](#)
[anpHeloDirectivitySet](#)
[anpHeloNoiseGroup](#)
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[anpHeloNPDCurves](#)
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[anpHeloProcedureSteps](#)
[anpHeloProfile](#)
[anpHeloProfilePoint](#)
[anpHeloProfilePoints](#)
[anpHeloProfileSet](#)
[anpNoiseGroup](#)
[anpNPDCurve](#)
[anpNPDCurves](#)
[anpProcedureStep](#)
[anpProcedureSteps](#)
[anpProfile](#)
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[anpProfilePoints](#)
[anpProfileSet](#)
[anpThrustGeneral](#)
[anpThrustJet](#)
[anpThrustProp](#)
[anpThrustSet](#)
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[bada4ProcedureSteps](#)
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[bada4Airplane](#)
[bada4AltitudeDistribution](#)
[bada4AltitudeDistributionSet](#)
[badaConfig](#)
[badaConfigSet](#)
[badaFuel](#)
[badaProfile](#)
[badaProfileSet](#)
[badaThrust](#)
[coord2DType](#)
[coord3DElevationType](#)
[dispersionWeight1Type](#)
[dispersionWeight3Type](#)
[dispersionWeight5Type](#)
[dispersionWeight7Type](#)
[dispersionWeight9Type](#)
[emissionFactorSet](#)
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Simple types

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[anpNpdOpMode](#)
[anpOwnerType](#)
[anpSizeCode](#)
[apuName](#)
[bada4AirplaneModel](#)
[bada4Engine](#)
[bada4Suffix](#)
[bada4AirplaneId](#)
[badaPhaseType](#)
[badaWakeType](#)
[buildingType](#)
[directionType](#)
[doubleExclusive0Inclusive10](#)
[doubleExclusive10](#)
[doubleExclusive100](#)
[doubleExclusive1000](#)
[doubleExclusive10000](#)
[doubleExclusive2000](#)
[doubleExclusiveRange100](#)
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[doubleInclusive100](#)
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[doubleInclusive24](#)
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[doubleInclusiveRange0to600](#)
[doubleInclusiveRange1to30](#)
[doubleLeadContentRange](#)
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[emissionsSourceType](#)
[emissionsUnitsType](#)
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[engineCode](#)
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[engineModel](#)
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[track](#)
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[string1](#)
[string10](#)
[string100](#)
[string1024](#)
[string11](#)
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[string14](#)
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[string16](#)
[string2](#)
[string20](#)
[string200](#)
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[taxiModelType](#)
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[trackType](#)
[trainingFireFuelType](#)
[vectorTrackType](#)
[weatherDataYear](#)
[wingType](#)
[yesNoType](#)

element activityProfile	diagram												
properties	content complex												
children	quarterHourlyProfile dailyProfile monthlyProfile												
used by	element activityProfileSet												
attributes	<table><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr><tr><td>name</td><td>string100</td><td>required</td><td></td><td></td><td></td></tr></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	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	dailyProfile Defines scaling factors for operations on a particular day.
type	string100
properties	content simple
used by	element dailyProfileSet
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Defines scaling factors for operations on a particular day.

element **activityProfile/monthlyProfile**

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

element **activityProfileSet**

diagram	activityProfileSet Supports the definition and use of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES variation of operations. attributes dummy activityProfile Supports definitions of combinations of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES. 0..∞												
properties	content complex												
children	activityProfile												
used by	element operationalProfileSet complexType airportLayoutType												
attributes	<table><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr><tr><td>dummy</td><td>xs:int</td><td>optional</td><td></td><td></td><td></td></tr></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	airportCapacity Supports content related to the APTCONFIG table. This element supports the definition of airport capacities based on various points within an airport. attributes dummy capacityPoint Supports content related to the APTCONFIG table. This element supports the definition of airport capacities based on various points within an airport.
properties	content complex
children	capacityPoint

used by	element airportConfig complexTypes airportLayoutType scenarioAirportLayoutType					
attributes	Name	Type	Use	Default	Fixed	Annotation
	dummy	xs:int	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	xs:int
properties	use optional

element [airportConfig](#)

diagram	configurationName Runway configuration name. useDistribution Flag to use a distribution for the configuration. weight Runway configuration weight factor. startWindAngle Start wind angle. Valid values: 0.00 to 359.00. UNITS: decimal degrees endWindAngle End wind angle. Valid values: 0.00 to 359.00. UNITS: decimal degrees minWindSpeed Minimum wind speed. Valid values: 0.00 to 100.00. UNITS: knots maxWindSpeed Maximum wind speed. Valid values: 0.00 to 100.00. UNITS: knots startHour Start hour. Valid values: 0.00 to 23.00. endHour End hour. Valid values: 0.00 to 23.00. minCeiling Minimum ceiling AFE. Valid values: 0.00 to 100000.00. UNITS: feet maxCeiling Maximum ceiling AFE. Valid values: 0.00 to 100000.00. UNITS: feet minVisibility Minimum visibility. Valid values: 0.00 to 100.00. UNITS: statute miles maxVisibility Maximum visibility. Valid values: 0.00 to 100.00. UNITS: statute miles minTemperature Minimum temperature. Valid values: -100.00 to 150.00. (°F) maxTemperature Maximum temperature. Valid values: -100.00 to 150.00. (°F) airportCapacity Airport runway capacity points. runwayAssignmentSet The runway assignments. airportConfig 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.					
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.					

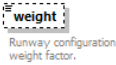
element [airportConfig/configurationName](#)

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

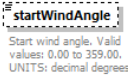
element **airportConfig/useDistribution**

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

element **airportConfig/weight**

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

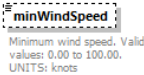
element **airportConfig/startWindAngle**

diagram	
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**

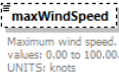
diagram	
type	int0to360
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxExclusive 360
annotation	documentation End wind angle. Valid values: 0.00 to 359.00. UNITS: decimal degrees

element **airportConfig/minWindSpeed**

diagram	
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	<u>doubleExclusive100</u>
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	<u>doubleInclusive24</u>
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	<u>doubleInclusive24</u>
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	maxVisibility Maximum visibility. Valid values: 0.00 to 100.00. UNITS: statute miles
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	minTemperature Minimum temperature. Valid values: -100.00 to 150.00. (°F)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Minimum temperature. Valid values: -100.00 to 150.00. (°F)

element **airportConfig/maxTemperature**

diagram	maxTemperature Maximum temperature. Valid values: -100.00 to 150.00. (°F)
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	airportConfigSet Contains one or more airportConfig elements. 1..∞ 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 runway(s) over the course of a year depending on the weather, capacity, and noise abatement issues.
properties	content complex
children	airportConfig
used by	complexType airportLayoutType scenarioAirportLayoutType
annotation	documentation Contains one or more airportConfig elements.

element **airportLayoutSet**

diagram	airportLayoutSet Contains layouts for ASIF partial import into an existing study. attributes dummy 1..∞ Contains information about the available layout of each airport in the study.
properties	content complex
children	airportLayout
used by	elements AsifXml study

attributes	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**

airportLayoutType

name

ID of the layout. Must be unique.

airportCode

ICAO code of airport in the layout.

startDate

Date airport is included in the study.

elevation

Elevation of the layout in feet above MSL. (feet) Valid values: -1500 to 15000.

peakMonthAverageDayScalingFactor

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.

taxiInTime

Number of minutes to complete a taxi-in. (min)

taxiOutTime

Number of minutes to complete a taxi-out. (min)

latlonCoordGroup

Specifies a coordinate using latitude and longitude.

latitude

Latitude specified as degrees in decimal format. Can include optional attribute positive.

latitudeDMS

Latitude expressed as dd°mm'sss with optional indicator N, n, S, s.

longitude

Longitude specified as degrees in decimal format. Can include optional attribute positive.

longitudeDMS

Longitude expressed as dd°mm'sss with optional indicator N, n, S, s.

coord2DGroup

Indicates how a two-dimensional group is specified.

utmCoordGroup

Specifies a point using Universal Transverse Mercator coordinates.

utmN

UTM Northing of the point in decimal meters north of the equator.

utmE

UTM Easting of the point in decimal meters east from a central meridian.

utmZone

UTM Zone of the point. A default zone can be set in the <options> tag.

buildingSet

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.

parkingFacilitySet

NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of parking lot and parking garage activities for scenario layouts.

stationarySourceSet

Container of stationary sources contributing emissions.

gateSet

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.

airportLayout

1..∞
Contains information about the available layout of each airport in the study.

		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 int 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	<pre> graph LR airportWeather[airportWeather] -- optional --> stationId[airportWeatherStationId] airportWeather -- required --> station[airportWeatherStation] </pre>	
properties	content complex	
children	airportWeatherStationId airportWeatherStation	
used by	complexType airport	

element **airportWeather/airportWeatherStationId**

diagram	<pre> graph LR stationId[airportWeatherStationId] </pre>	
type	xs:int	

element **airportWeatherStation**

element **airportWeatherStation/airportWeatherStationId**

element **airportWeatherStation/startDate**

element **airportWeatherStation/endDate**

element **airportWeatherStation/weatherStationCode**

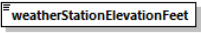
diagram	 <pre> classDiagram class weatherStationCode { <<abstract>> } </pre>
type	string5
properties	minOcc 0 maxOcc 1

	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

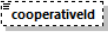
element **airportWeatherStation/weatherStationElevationFeet**

diagram	
type	xs:int
properties	content simple

element **airportWeatherStation/distanceToStation**

diagram	
type	xs:double
properties	content simple

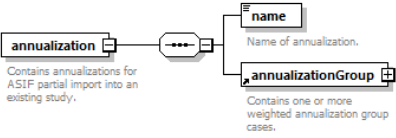
element **airportWeatherStation/cooperativeld**

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	 Name of annualization.
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	
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)

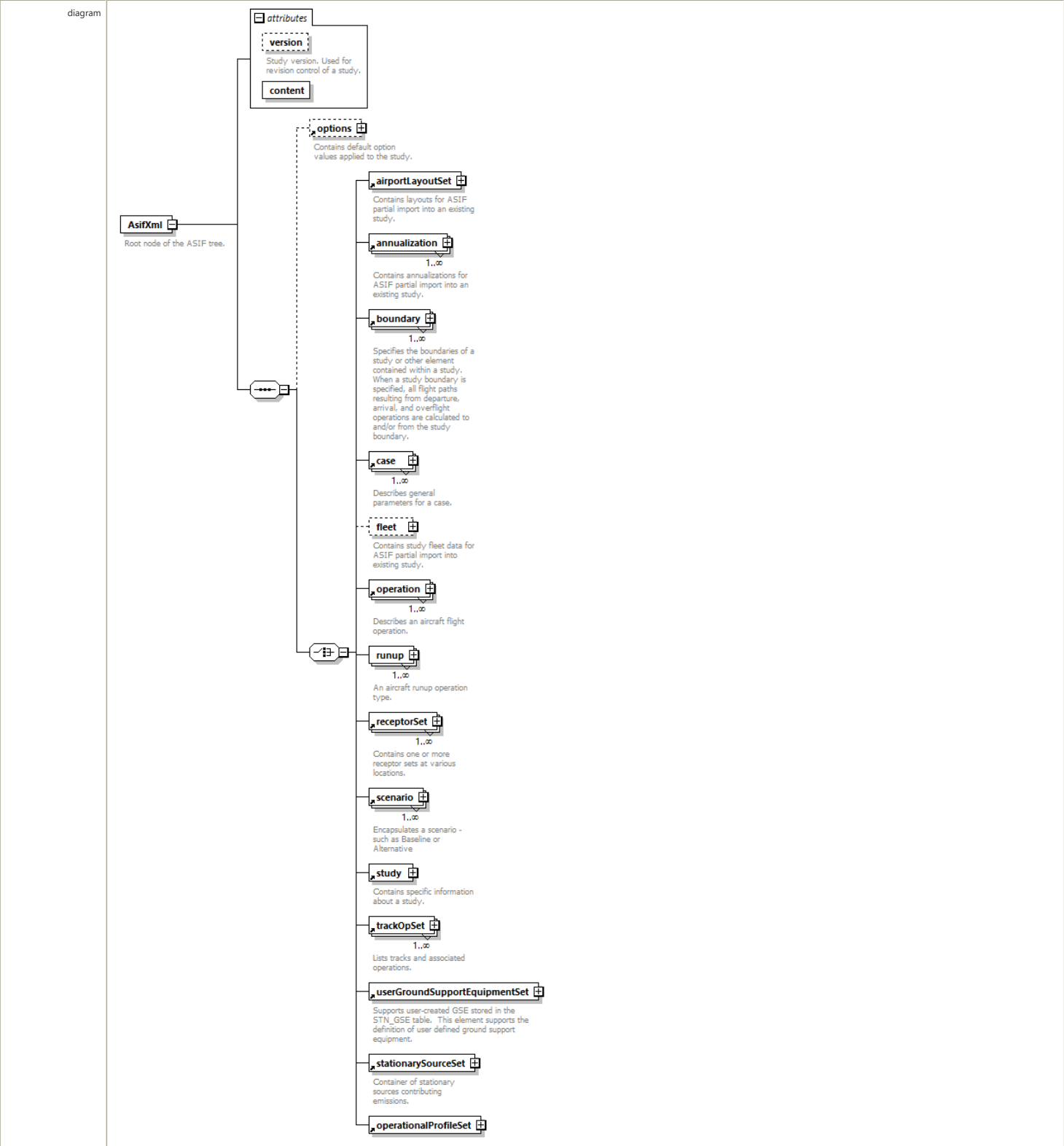
element **areaStationarySource/releaseHeight**

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

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

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...

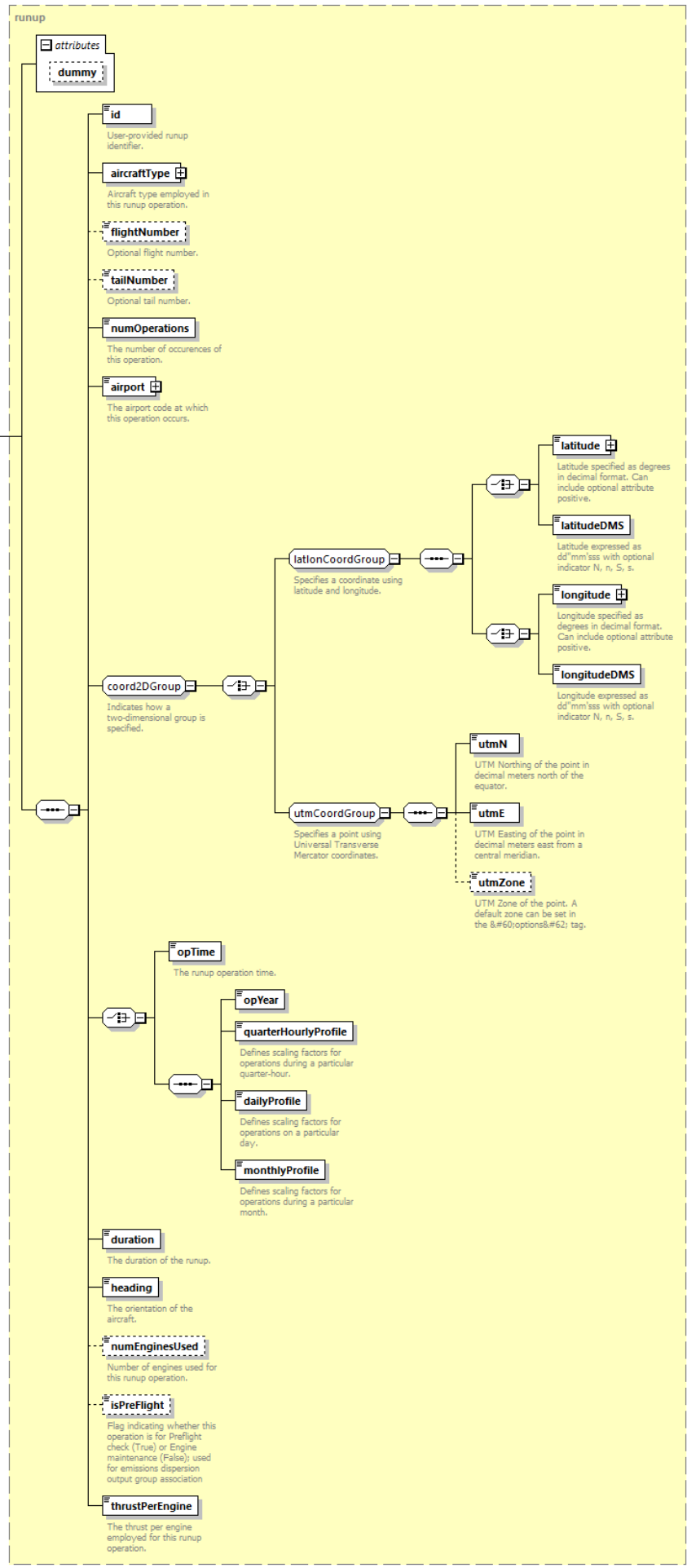
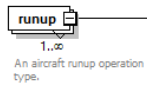
0..∞

A block for defining the BADA default altitude distribution set.

badaProfileSet

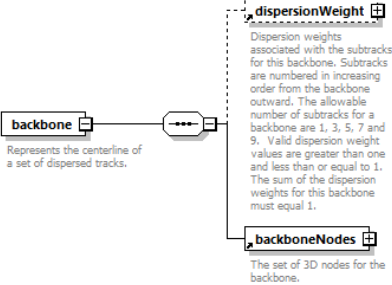
0..∞

A block used to define a custom BADA profile set.

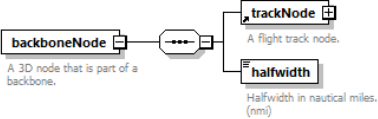


type	runup					
properties	minOcc 1 maxOcc unbounded content complex					
children	id aircraftType flightNumber tailNumber numOperations airport latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone opTime opYear quarterHourlyProfile dailyProfile monthlyProfile duration heading numEnginesUsed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

element **backbone**

diagram						
properties	content complex					
children	dispersionWeight backboneNodes					
used by	element track					
annotation	documentation Represents the centerline of a set of dispersed tracks.					

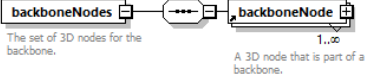
element **backboneNode**

diagram						
properties	content complex					
children	trackNode halfwidth					
used by	element backboneNodes					
annotation	documentation A 3D node that is part of a backbone.					

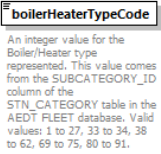
element **backboneNode/halfwidth**

diagram						
type	xs:double					
properties	content simple					
annotation	documentation Halfwidth in nautical miles. (nmi)					

element **backboneNodes**

diagram						
properties	content complex					
children	backboneNode					
used by	element backbone					
annotation	documentation The set of 3D nodes for the backbone.					

element **boilerHeaterTypeCode**

diagram						
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	boundary 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. attributes dummy 1..∞ polygon Set of coordinates defining the boundary.												
properties	content complex												
children	polygon												
used by	elements AsifXml study												
attributes	<table><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr><tr><td>dummy</td><td>xs:int</td><td>optional</td><td></td><td></td><td></td></tr></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**

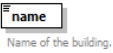
diagram	
type	polygon2DType
properties	minOcc 1 maxOcc unbounded content complex
children	dummy vertex
annotation	documentation Set of coordinates defining the boundary.

element **building**

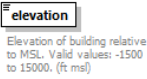
diagram	
properties	content complex
children	name elevation height pointCoord polygonCoords noiseReductionCoefficient buildingType gapFraction

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

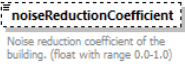
element **building/elevation**

diagram	 Elevation of building relative to MSL. Valid values: -1500 to 15000. (ft msl)
type	xs:double
properties	content simple
annotation	documentation Elevation of building relative to MSL. Valid values: -1500 to 15000. (ft msl)

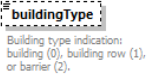
element **building/height**

diagram	 Height of building above ground. Valid values: 0 to 1000 (ft)
type	xs:double
properties	content simple
annotation	documentation Height of building above ground. Valid values: 0 to 1000 (ft)

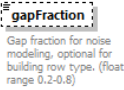
element **building/noiseReductionCoefficient**

diagram	 Noise reduction coefficient of the building. (float with range 0.0-1.0)
type	noiseReductionCoefficient
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0.0 maxInclusive 1.0
annotation	documentation Noise reduction coefficient of the building. (float with range 0.0-1.0)

element **building/buildingType**

diagram	 Building type indicators: building (0), building row (1), or barrier (2).
type	buildingType
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation enumeration 0 enumeration 1 enumeration 2
annotation	documentation Building type indication: building (0), building row (1), or barrier (2).

element **building/gapFraction**

diagram	 Gap fraction for noise modeling, optional for building row type. (float range 0.2-0.8)
---------	--

annotation	documentation
	Number of departures per hour. Valid values: 0.00 to 400.00. (operations per hour)

element case

diagram	case Case ID. name The name of the case (must be unique within the scenario). source The source of the case. startTime Case's start time. If not defined, the value specified in the scenario element will be used. Must match the value for startTime for the scenario. Accepts dateTime string. duration Case's duration. If not defined, the value specified in the scenario element will be used. Must match the value for duration for the scenario. For AEDT this is restricted to 24 hours (1 day). All cases within a scenario must have the same duration as the scenario. (hr). climateid ID of a climate condition. hourlyWxFile The file containing the hourly weather data used for emissions calculations. This element is not supported in AEDT. 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. description Description of the case. case 1..∞ Describes general parameters for a case. trackOpSet 1..∞ Lists tracks and associated operations. operation 1..∞ Describes an aircraft flight operation. runup 1..∞ airportActivityGroup 1..∞ Contains a set of activities conducted at an airport. parkingFacilityOperationSet 1..∞ NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of parking lot and parking garage activities for scenario layouts. roadwayOperationSet 1..∞ NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of vehicle activity on roadways for scenario layouts. stationarySourceOperationSet 1..∞ Container of operations conducted at a stationary source contributing emissions. groundSupportEquipmentPopul... 1..∞ Supports GSE operational data in the STN_OP_GSE table. This element supports the definition of user defined ground support equipment in operational usage. 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.
properties	content complex

children	caseld name source startTime duration climateld hourlyWxFile hourlyWxMD5 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	Case ID.
type	xs:int
properties	content simple
annotation	documentation Case ID.

element **case/name**

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

element **case/source**

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

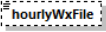
element **case/duration**

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

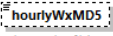
element **case/climateld**

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

element **case/hourlyWxFile**

diagram	 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.

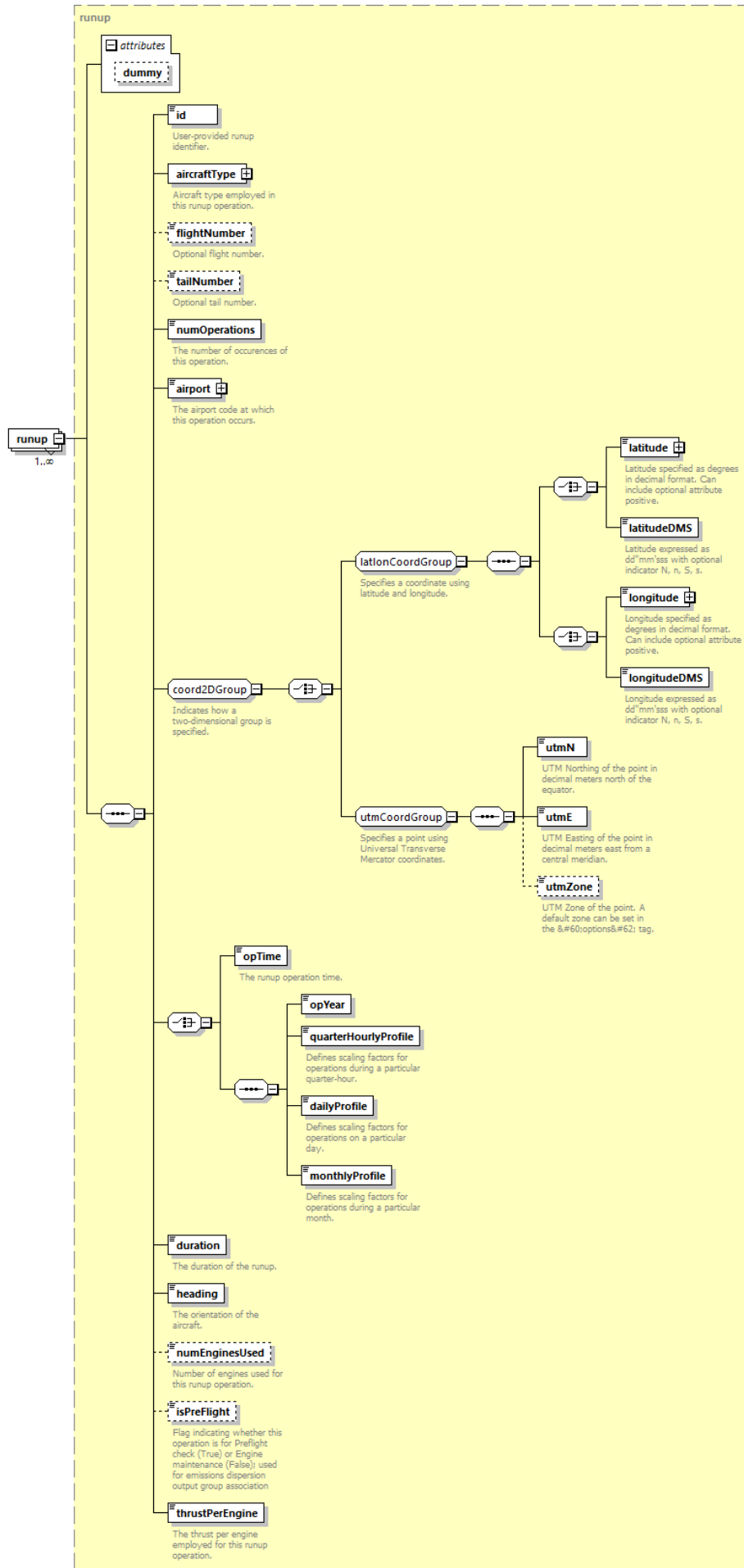
element **case/hourlyWxMD5**

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**

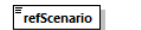


type	runup					
properties	minOcc 1 maxOcc unbounded content complex					
children	id aircraftType flightNumber tailNumber numOperations airport latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone opTime opYear quarterHourlyProfile dailyProfile monthlyProfile duration heading numEnginesUsed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

element **case/reference**

diagram						
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	
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	refCase Existing case that appears under the refScenario.
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						
properties	content complex					
children	case					
used by	element scenario					
attributes	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	
properties	content complex
children	engineCode timePercentPower7 timePercentPower30 timePercentPower85 timePercentPower100
used by	element stationarySource
annotation	documentation Describes a category for the time an aircraft engine is at various power levels.

element **categoryAircraftEngine/engineCode**

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

element **categoryAircraftEngine/timePercentPower7**

diagram	
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	
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	
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	timePercentPower100 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**

boilerHeaterTypeCode

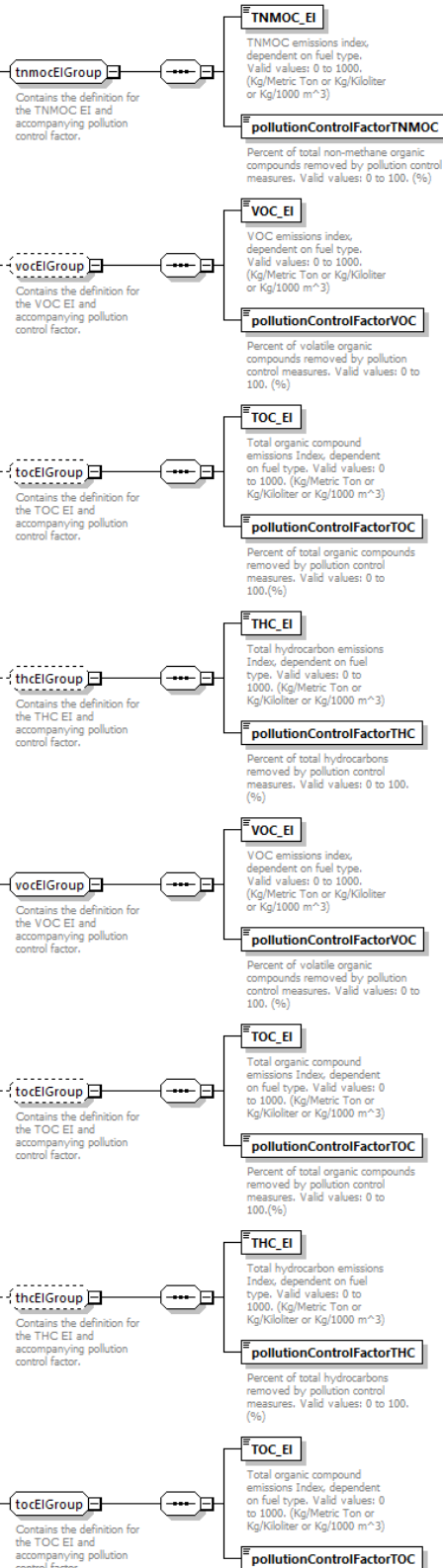
An integer value for the Boiler/Heater type represented. This value comes from the SUBCATEGORY_ID column of the STN_CATEGORY table in the AEDT FLEET database. Valid values: 1 to 27, 33 to 34, 38 to 62, 69 to 75, 80 to 91.

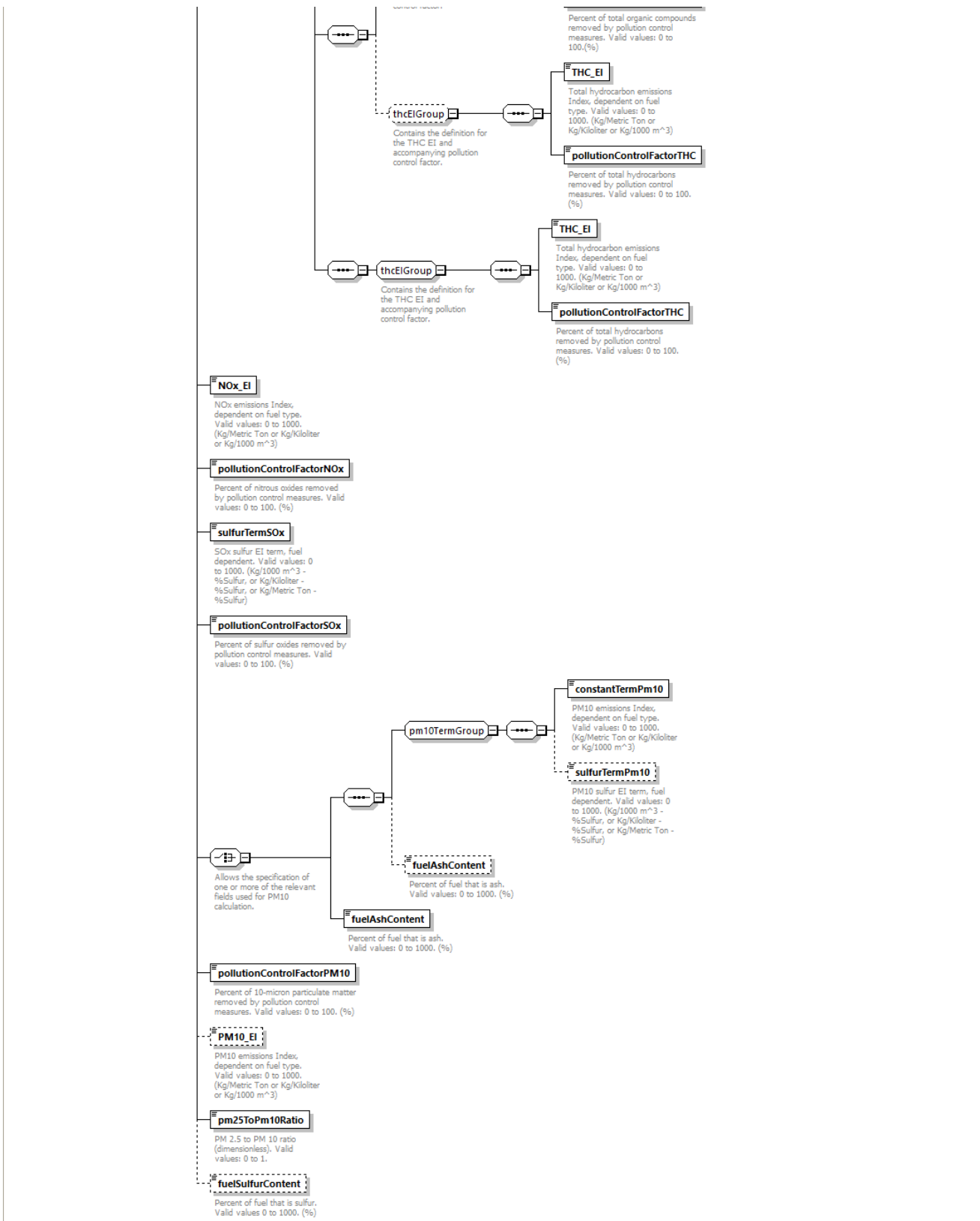
CO_EI

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, (%)





properties	content complex
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
used by	element stationarySource
annotation	documentation Describes the operational characteristics of a source in the boiler/heater category.

element **categoryBoilerHeater/CO_EI**

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

element **categoryBoilerHeater/pollutionControlFactorCO**

diagram	pollutionControlFactorCO Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 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 **categoryBoilerHeater/NOx_EI**

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

element **categoryBoilerHeater/pollutionControlFactorNOx**

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

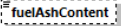
element **categoryBoilerHeater/sulfurTermSOx**

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

element **categoryBoilerHeater/pollutionControlFactorSOx**

diagram	 pollutionControlFactorSOx Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 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 **categoryBoilerHeater/fuelAshContent**

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

element **categoryBoilerHeater/fuelAshContent**

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

element **categoryBoilerHeater/pollutionControlFactorPM10**

diagram	 pollutionControlFactorPM10 Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 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 **categoryBoilerHeater/PM10_EI**

diagram	 PM10_EI PM10 emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)
type	doubleInclusive1000
properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation PM10 emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)

element **categoryBoilerHeater/pm25ToPm10Ratio**

diagram	pm25ToPm10Ratio PM 2.5 to PM 10 ratio (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	fuelSulfurContent Percent of fuel that is sulfur. Valid values 0 to 1000. (%)
type	doubleExclusive100
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation Percent of fuel that is sulfur. Valid values 0 to 1000. (%)

element
 categoryDeicingArea

diagram	categoryDeicingArea Describes the operational characteristics of a source in the deicing area category. typeCode Equivalent to the SUBCATEGORY_ID in the FLEET STN_CATEGORY table for this particular category. VOC_EI VOC emissions index, fuel type dependent. Valid values: 0 to 1000. g/Kg of Propylene or Ethylene Glycol ethyleneGlycolDensity Ethylene glycol solution density. Valid values: 0 to 1000. (g/L) propyleneGlycolDensity Propylene glycol solution density. Valid values: 0 to 1000. (g/L) solutionConcentrationPercent Concentration of deicing solution. Valid values: 0 to 1000. (%)
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

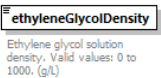
diagram	typeCode Equivalent to the SUBCATEGORY_ID in the FLEET STN_CATEGORY table for this particular category.
type	int1to4
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 4
annotation	documentation Equivalent to the SUBCATEGORY_ID in the FLEET STN_CATEGORY table for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

element
 categoryDeicingArea/VOC_EI

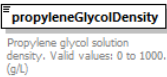
diagram	VOC_EI VOC emissions index, fuel type dependent. Valid values: 0 to 1000. g/Kg of Propylene or Ethylene Glycol
type	doubleInclusive1000

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

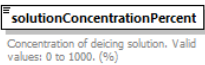
element **categoryDeicingArea/ethyleneGlycolDensity**

diagram	 ethyleneGlycolDensity Ethylene glycol solution density. Valid values: 0 to 1000. (g/L)
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)

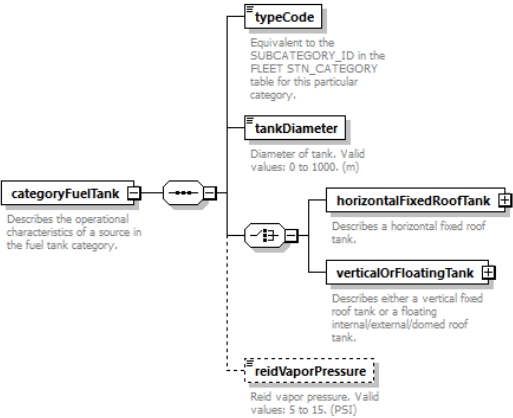
element **categoryDeicingArea/propyleneGlycolDensity**

diagram	 propyleneGlycolDensity Propylene glycol solution density. Valid values: 0 to 1000. (g/L)
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	 solutionConcentrationPercent Concentration of deicing solution. Valid values: 0 to 1000. (%)
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	 categoryFuelTank Describes the operational characteristics of a source in the fuel tank category. typeCode Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category. tankDiameter Diameter of tank. Valid values: 0 to 1000. (m) horizontalFixedRoofTank Describes a horizontal fixed roof tank. verticalOrFloatingTank Describes either a vertical fixed roof tank or a floating internal/external/domed roof tank. reidVaporPressure Reid vapor pressure. Valid values: 5 to 15. (PSI)
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	typeCode Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category.
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	tankDiameter Diameter of tank. Valid values: 0 to 1000. (m)
type	doubleExclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation Diameter of tank. Valid values: 0 to 1000. (m)

element **categoryFuelTank/horizontalFixedRoofTank**

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

element **categoryFuelTank/horizontalFixedRoofTank/tankLength**

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

element **categoryFuelTank/horizontalFixedRoofTank/annualIncreaseInLiquidLevel**

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

element **categoryFuelTank/verticalOrFloatingTank**

diagram	
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	domeRoof domeRadius A vertical fixed roof tank with a dome roof Radius of the dome roof in meters. Default value can be assumed to be the tank radius.
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**

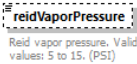
diagram	averageSolutionLevel Average height of solution inside the tank. Valid values: 0 to 1000. (m)
type	doubleExclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation Average height of solution inside the tank. Valid values: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

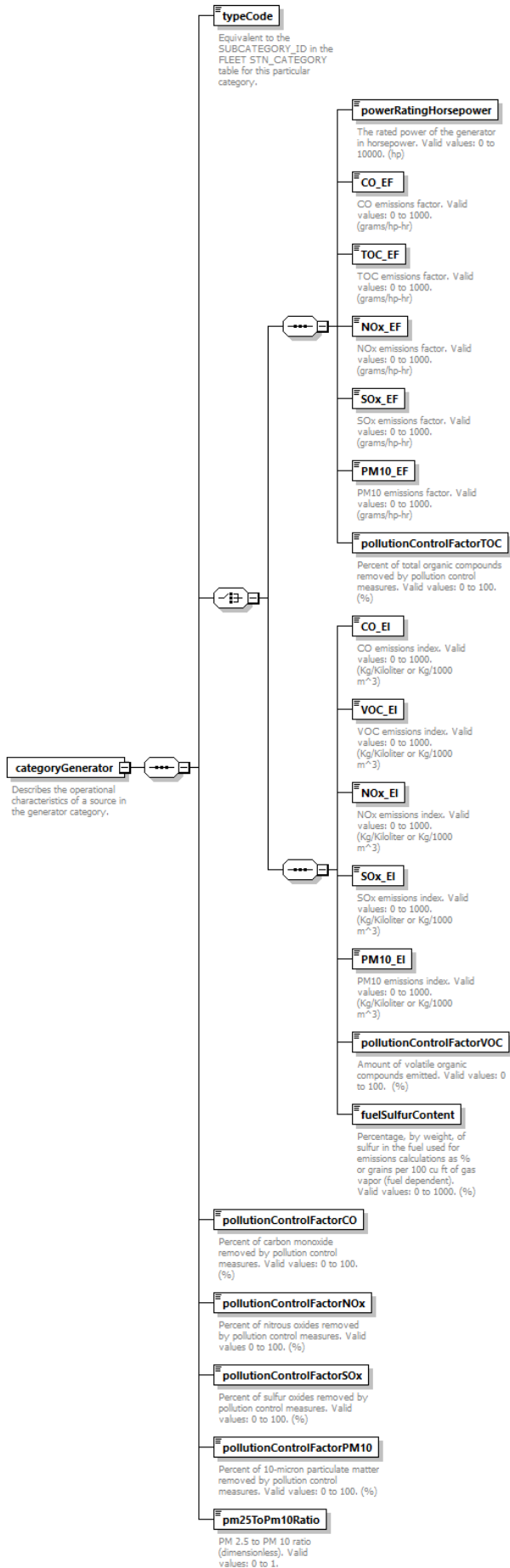
	default 5
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation Average wind speed at the tank. Valid values: 0 to 100. (m/s)

element **categoryFuelTank/reidVaporPressure**

diagram	 The diagram shows a UML element named reidVaporPressure with a dashed border. Below the name, it says "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



properties content complex

children

[typeCode](#) [powerRatingHorsepower](#) [CO_EF](#) [TOC_EF](#) [NOx_EF](#) [SOx_EF](#) [PM10_EF](#) [pollutionControlFactorTOC](#) [CO_EI](#) [VOC_EI](#) [NOx_EI](#) [SOx_EI](#) [PM10_EI](#) [pollutionControlFactorVOC](#) [fuelSulfurContent](#) [pollutionControlFactorCO](#) [pollutionControlFactorNOx](#) [pollutionControlFactorSOx](#) [pollutionControlFactorPM10](#) [pm25ToPm10Ratio](#)

used by	element stationarySource
annotation	documentation Describes the operational characteristics of a source in the generator category.

element **categoryGenerator/typeCode**

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

element **categoryGenerator/powerRatingHorsepower**

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

element **categoryGenerator/CO_EF**

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

element **categoryGenerator/TOC_EF**

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

element **categoryGenerator/NOx_EF**

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

element **categoryGenerator/SOx_EF**

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

element categoryGenerator/PM10_EF

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

element categoryGenerator/pollutionControlFactorTOC

diagram	pollutionControlFactorTOC Percent of total organic compounds removed by pollution control measures. Valid values: 0 to 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_EI CO emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m^3)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation CO emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m^3)

element categoryGenerator/VOC_EI

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

element categoryGenerator/NOx_EI

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

element **categoryGenerator/SOx_EI**

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

element **categoryGenerator/PM10_EI**

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

element **categoryGenerator/pollutionControlFactorVOC**

diagram	pollutionControlFactorVOC Amount of volatile organic compounds emitted. Valid values: 0 to 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	pm25ToPm10Ratio 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 **categoryIncinerator**

diagram	The diagram shows the structure of the categoryIncinerator element. It is a complex content element that contains a sequence of sub-elements. The sub-elements are: typeCode, CO_EI, TOC_EI, NOx_EI, SOx_EI, PM10_EI, pollutionControlFactorCO, pollutionControlFactorTOC, pollutionControlFactorNOx, pollutionControlFactorSOx, pollutionControlFactorPM10, and pm25ToPm10Ratio. Each sub-element has a brief description of its purpose and valid values. categoryIncinerator Describes the operational characteristics of a source in the incinerator category. 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.
properties	content complex
children	typeCode CO_EI TOC_EI NOx_EI SOx_EI PM10_EI pollutionControlFactorCO pollutionControlFactorTOC pollutionControlFactorNOx pollutionControlFactorSOx pollutionControlFactorPM10 pm25ToPm10Ratio
used by	element stationarySource
annotation	documentation Describes the operational characteristics of a source in the incinerator category.

element **categoryIncinerator/typeCode**

diagram	The diagram shows the structure of the categoryIncinerator/typeCode element. It is a simple content element that contains a single sub-element: typeCode. The sub-element has a brief description of its purpose and valid values. typeCode Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category.
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	The diagram shows the structure of the categoryIncinerator/CO_EI element. It is a simple content element that contains a single sub-element: CO_EI. The sub-element has a brief description of its purpose and valid values. CO_EI CO emissions index. Valid values: 0 to 1000. (Kg/Metric Ton)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000

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

element
 categoryIncinerator/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
 categoryIncinerator/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
 categoryIncinerator/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
 categoryIncinerator/pm25ToPm10Ratio

diagram	pm25ToPm10Ratio 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
 categoryOther

diagram	categoryOther Describes the operational characteristics of a source in the "other" category. fuelUnits Defines fuel units. Also defined in the STN_FUEL_UNITS table in FLEET. Valid values: 0 = Metric Tons, 1=Kiloliters, 2 = 1000s of m3, 3 = Hours, 4 = Test Cycles, 5 = Gallons. CO_EI CO emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit) THC_EI Hydrocarbon emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit) NOx_EI NOx emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit) SOx_EI SOx emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit) PM10_EI PM10 emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit) pollutionControlFactorCO Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 100. (%) pollutionControlFactorTHC Percent of total hydrocarbons 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. (%) 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) pollutionControlFactorPM25 Percent of PM 2.5 removed by pollution control measures. Valid values: 0 to 100. (%)
properties	content complex
children	fuelUnits CO_EI THC_EI NOx_EI SOx_EI PM10_EI pollutionControlFactorCO pollutionControlFactorTHC pollutionControlFactorNOx pollutionControlFactorSOx pollutionControlFactorPM10 PM25_EI pollutionControlFactorPM25
used by	element stationarySource
annotation	documentation Describes the operational characteristics of a source in the "other" category.

element **categoryOther/fuelUnits**

diagram	fuelUnits Defines fuel units. Also defined in the STN_FUEL_UNITS table in FLEET. Valid values: 0 = Metric Tons, 1=Kiloliters, 2 = 1000s of m3, 3 = Hours, 4 = Test Cycles, 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 Cycles, 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)

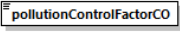
element **categoryOther/SOx_EI**

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

element **categoryOther/pollutionControlFactorCO**

diagram	 Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 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**

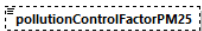
diagram	pollutionControlFactorPM10 Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 100. (%)
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of 10-micron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

element **categoryOther/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 m³)
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	 Percent of PM 2.5 removed by pollution control measures. Valid values: 0 to 100. (%)
type	<u>doubleInclusive100</u>
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	 categoryRecordCode 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. 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.
properties	content complex
children	recordCode
used by	element stationarySource
annotation	documentation An integer value for a category to use as the basis of a new stationary source operation. This value comes from the CATEGORY_REC_ID column in the STN_CATEGORY table in the AEDT FLEET database.

element categorySandSaltPile

diagram	<pre> classDiagram class categorySandSaltPile { typeCode surfaceWindSpeedFraction surfaceRoughness frictionVelocity fastestMileOfWind meanWindSpeed moistureContent massDisturbedPerDisturbance erodedSurfaceArea } </pre> categorySandSaltPile Describes the emissions characteristics of a source in the sand or salt pile category. typeCode Equivalent to the SUBCATEGORY_ID in the FLEET STN_CATEGORY table for this particular category. surfaceWindSpeedFraction Surface wind speed fraction (dimensionless). Valid values: 0 to 1. surfaceRoughness The surface roughness of the pile. Valid values: 0 to 1000. (cm) frictionVelocity Friction velocity. Valid values: 0 to 1000. (m/s) fastestMileOfWind Fastest mile of wind. Valid values: 0 to 1000. (m/s) meanWindSpeed Average wind speed at sand or salt pile. Valid values: 0 to 1000. (m/s) moistureContent Percentage of sand or salt pile that is moisture. Valid values: 0 to 1000. (%) massDisturbedPerDisturbance The mass disturbed per disturbance. Valid values: 0 to 1000. (Metric Tons) erodedSurfaceArea Eroded surface area of pile. Valid values: 0 to 1000. (meters²)
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 **category**SandSaltPile/typeCode

diagram	typeCode Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category.
type	int1to5
properties	content simple
facets	KindValue 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	KindValue 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	KindValue 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	KindValue 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	KindValue Annotation minInclusive 0 maxExclusive 100
annotation	documentation Fastest mile of wind. Valid values: 0 to 1000. (m/s)

element categorySandSaltPile/meanWindSpeed

diagram	meanWindSpeed Average wind speed at sand or salt pile. Valid values: 0 to 1000. (m/s)
type	doubleExclusive100
properties	content simple

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

element categorySandSaltPile/moistureContent

diagram	moistureContent Percentage of sand or salt pile that is moisture. Valid values: 0 to 1000. (%)
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	massDisturbedPerDisturbance The mass disturbed per disturbance. Valid values: 0 to 1000. (Metric Tons)
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	erodedSurfaceArea Eroded surface area of pile. Valid values: 0 to 1000. (meters²)
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. (meters²)

element categorySolventDegreaser

diagram	categorySolventDegreaser Describes the operational characteristics of a source in the solvent degreaser category. typeCode Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category. solutionDensity Density of the deicing solution. Valid values: 0 to 1000. (g/L) percentSolventDisposed Percentage of solvent removed by environmental controls. Valid values: 0 to 1000. (%) pollutionControlFactor Percent of emissions removed by pollution control measures. Valid values: 0 to 100. (%)
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	typeCode Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category.
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	solutionDensity Density of the deicing solution. Valid values: 0 to 1000. (g/L)
type	doubleExclusive2000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 2000
annotation	documentation Density of the deicing solution. Valid values: 0 to 1000. (g/L)

element categorySolventDegreaser/percentSolventDisposed

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

element categorySolventDegreaser/pollutionControlFactor

diagram	pollutionControlFactor Percent of emissions removed by pollution control measures. Valid values: 0 to 100. (%)
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	categorySurfaceCoatingPainting Describes the operational characteristics of a source in the surface coating or painting category. typeCode Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category. VOC_EI VOC emissions index. Valid values: 0 to 1000. (kg/kiloliter) pollutionControlFactorVOC Percentage of volatile organic compounds removed by environmental controls. Valid values: 0 to 100. (%)
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	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. typeCode Equivalent to the SUBCATEGORY_ID in the FLEET_STN_CATEGORY table for this particular category. CO_EI Carbon monoxide emissions index. Valid values: 0 to 10. (kg/gal) VOC_EI Volatile organic compounds emissions index. Valid values: 0 to 10. (kg/gal) NOx_EI Nitrous oxides emissions index. Valid values: 0 to 10. (kg/gal) SOx_EI Sulfur oxides emissions index. Valid values: 0 to 10. (kg/gal) PM10_EI 10-micron particulate matter emissions index. Valid values: 0 to 10. (kg/gal) 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)
properties	content complex
children	typeCode CO_EI VOC_EI NOx_EI SOx_EI PM10_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	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 **categoryTrainingFire/CO_EI**

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

element **categoryTrainingFire/VOC_EI**

diagram	VOC_EI Volatile organic compounds emissions index. Valid values: 0 to 10. (kg/gal)
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	NOx_EI 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	SOx_EI 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	PM10_EI 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/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	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.
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element **centroid/blockid**

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

element **centroid/bnald**

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

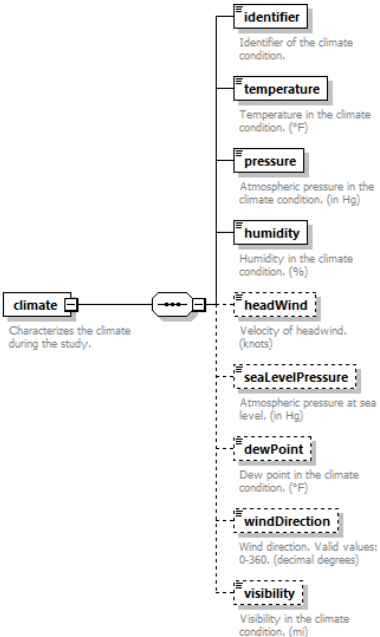
element **centroid/elevation**

diagram	 The centroid's elevation above MSL (ft) if terrain not used. If not specified, AEDT will use elevation of operation airport.				
type	xs:double				
properties	<table><tr><td>minOcc</td><td>0</td></tr><tr><td>maxOcc</td><td>1</td></tr></table> content simple	minOcc	0	maxOcc	1
minOcc	0				
maxOcc	1				
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	 The population count of the centroid. Valid values: 0 to 999999.
type	xs:int
properties	content simple
annotation	documentation The population count of the centroid. Valid values: 0 to 999999.

element **climate**

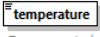
diagram	 Characterizes the climate during the study.
properties	content complex

children	identifier temperature pressure humidity headWind seaLevelPressure dewPoint windDirection visibility
used by	element study
annotation	documentation Characterizes the climate during the study.

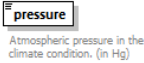
element **climate/identifier**

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

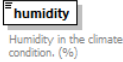
element **climate/temperature**

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

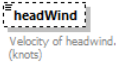
element **climate/pressure**

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

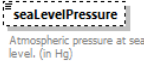
element **climate/humidity**

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

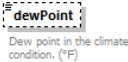
element **climate/headWind**

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

element **climate/seaLevelPressure**

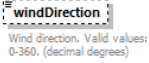
diagram	 Atmospheric pressure at sea level. (in Hg)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Atmospheric pressure at sea level. (in Hg)

element **climate/dewPoint**

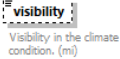
diagram	 Dew point in the climate condition. (°F)
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type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Dew point in the climate condition. (°F)

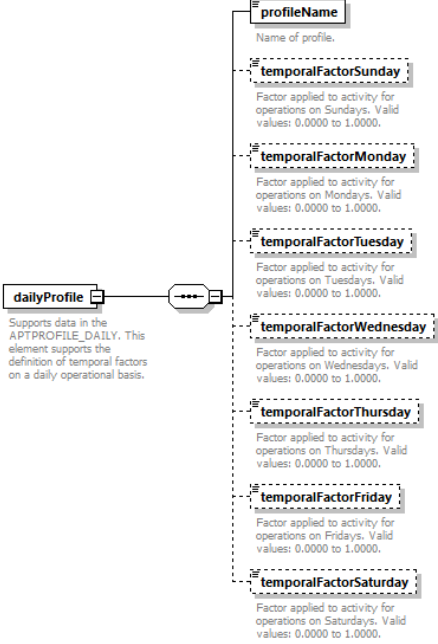
element **climate/windDirection**

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

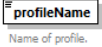
element **climate/visibility**

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	
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	
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	
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	
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	
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	
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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	The diagram shows a dashed box labeled temporalFactorSaturday. Below it, text reads: "Factor applied to activity for operations on Saturdays. Valid values: 0.0000 to 1.0000."
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations on Saturdays. Valid values: 0.0000 to 1.0000.

element **dailyProfileSet**

diagram	attributes dummy dailyProfileSet dailyProfile Supports the definition and use of data in the APTPROFILE_DAILY table for the daily variation of operations. Supports data in the APTPROFILE_DAILY. This element supports the definition of temporal factors on a daily operational basis. 0..∞												
properties	content complex												
children	dailyProfile												
used by	element operationalProfileSet complexType airportLayoutType												
attributes	<table><thead><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr></thead><tbody><tr><td>dummy</td><td>xs:int</td><td>optional</td><td></td><td></td><td></td></tr></tbody></table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	documentation Supports the definition and use of data in the APTPROFILE_DAILY table for the daily variation of operations.												

attribute **dailyProfileSet/@dummy**

type	xs:int
properties	use optional

element **dispersionWeight**

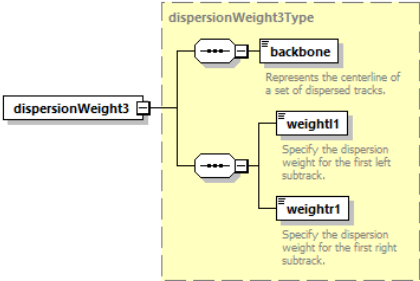
diagram	The diagram shows a dispersionWeight element connected to a container with five subelements: dispersionWeight1, dispersionWeight3, dispersionWeight5, dispersionWeight7, and dispersionWeight9. Below the dispersionWeight, text reads: "Dispersion weights associated with the subtracks for this backbone.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

element **dispersionWeight/dispersionWeight1**

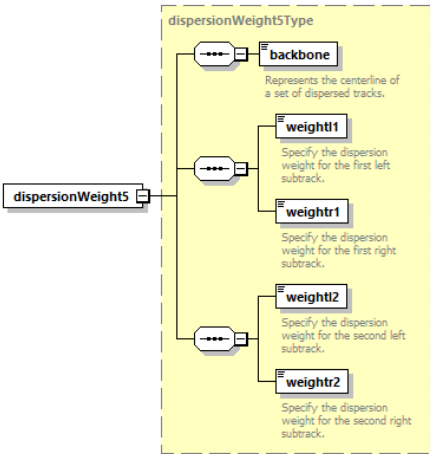
diagram	The diagram shows a dispersionWeight1 element connected to a backbone element. A dashed box labeled dispersionWeight1Type contains the backbone element. Below the backbone, text reads: "Represents the centerline of a set of dispersed tracks."
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type	dispersionWeight1Type
properties	content complex
children	backbone

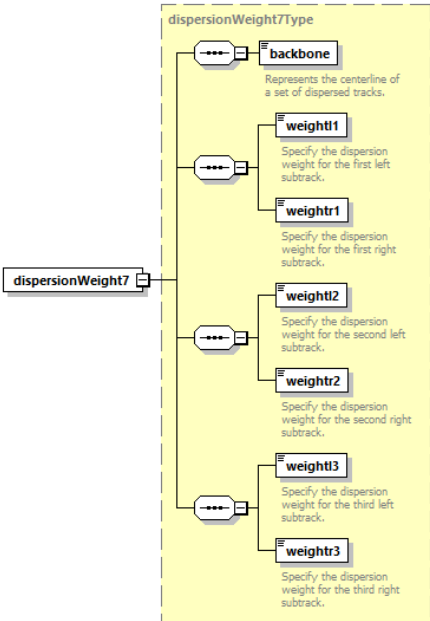
element **dispersionWeight/dispersionWeight3**

diagram	 The diagram shows a hierarchical structure for dispersionWeight3Type. A central box labeled dispersionWeight3 is connected to three sub-elements: backbone, weightl1, and weightr1. The backbone element is described as "Represents the centerline of a set of dispersed tracks." The weightl1 element is described as "Specify the dispersion weight for the first left subtrack." The weightr1 element is described as "Specify the dispersion weight for the first right subtrack."
type	dispersionWeight3Type
properties	content complex
children	backbone weightl1 weightr1

element **dispersionWeight/dispersionWeight5**

diagram	 The diagram shows a hierarchical structure for dispersionWeight5Type. A central box labeled dispersionWeight5 is connected to five sub-elements: backbone, weightl1, weightr1, weightl2, and weightr2. The backbone element is described as "Represents the centerline of a set of dispersed tracks." The weightl1 element is described as "Specify the dispersion weight for the first left subtrack." The weightr1 element is described as "Specify the dispersion weight for the first right subtrack." The weightl2 element is described as "Specify the dispersion weight for the second left subtrack." The weightr2 element is described as "Specify the dispersion weight for the second right subtrack."
type	dispersionWeight5Type
properties	content complex
children	backbone weightl1 weightr1 weightl2 weightr2

element **dispersionWeight/dispersionWeight7**

diagram	 The diagram shows a hierarchical structure for dispersionWeight7Type. A central box labeled dispersionWeight7 is connected to seven sub-elements: backbone, weightl1, weightr1, weightl2, weightr2, weightl3, and weightr3. The backbone element is described as "Represents the centerline of a set of dispersed tracks." The weightl1 element is described as "Specify the dispersion weight for the first left subtrack." The weightr1 element is described as "Specify the dispersion weight for the first right subtrack." The weightl2 element is described as "Specify the dispersion weight for the second left subtrack." The weightr2 element is described as "Specify the dispersion weight for the second right subtrack." The weightl3 element is described as "Specify the dispersion weight for the third left subtrack." The weightr3 element is described as "Specify the dispersion weight for the third right subtrack."
type	dispersionWeight7Type
properties	content complex

children	backbone weightl1 weightr1 weightl2 weightr2 weightl3 weightr3
element dispersionWeight/dispersionWeight9	
diagram	The diagram shows the structure of the dispersionWeight9Type element. It is a dashed box containing a central vertical line with a dispersionWeight9 element at the top. This line branches into four pairs of subtracks. Each pair consists of a left subtrack (weightl1, weightl2, weightl3, weightl4) and a right subtrack (weightr1, weightr2, weightr3, weightr4). The backbone element is at the top, representing the centerline. Each subtrack has a description: 'Specify the dispersion weight for the first left subtrack.', 'Specify the dispersion weight for the first right subtrack.', 'Specify the dispersion weight for the second left subtrack.', 'Specify the dispersion weight for the second right subtrack.', 'Specify the dispersion weight for the third left subtrack.', 'Specify the dispersion weight for the third right subtrack.', 'Specify the dispersion weight for the fourth left subtrack.', and 'Specify the dispersion weight for the fourth right subtrack.'
type	dispersionWeight9Type
properties	content complex
children	backbone weightl1 weightr1 weightl2 weightr2 weightl3 weightr3 weightl4 weightr4

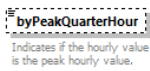
element emissionsUsage	
diagram	The diagram shows the structure of the emissionsUsage element. It is a dashed box containing a central vertical line with an emissionsUsage element at the top. This line branches into three subelements: yearlyValue (Annualized amount of emissions.), hourlyValue (Hourly amount of emissions.), and byPeakQuarterHour (Indicates if the hourly value is the peak hourly value.). The activityProfile element is also shown, with a description: 'An activity profile type (e.g. reference to one of hourlyProfile, dailyProfile or weeklyProfile).'
properties	content complex
children	yearlyValue hourlyValue byPeakQuarterHour activityProfile
used by	elements parkingFacilityOperation roadwayOperation stationarySourceOperation
annotation	documentation Describes the amount of emissions for a given activity profile.

element emissionsUsage/yearlyValue	
diagram	The diagram shows the structure of the emissionsUsage/yearlyValue element. It is a dashed box containing a central vertical line with a yearlyValue element at the top. The description is: 'Annualized amount of emissions.'
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Annualized amount of emissions.

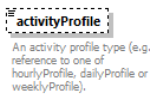
element emissionsUsage/hourlyValue	
diagram	The diagram shows the structure of the emissionsUsage/hourlyValue element. It is a dashed box containing a central vertical line with a hourlyValue element at the top. The description is: 'Hourly amount of emissions.'

type	xs:double
properties	content simple
annotation	documentation Hourly amount of emissions.

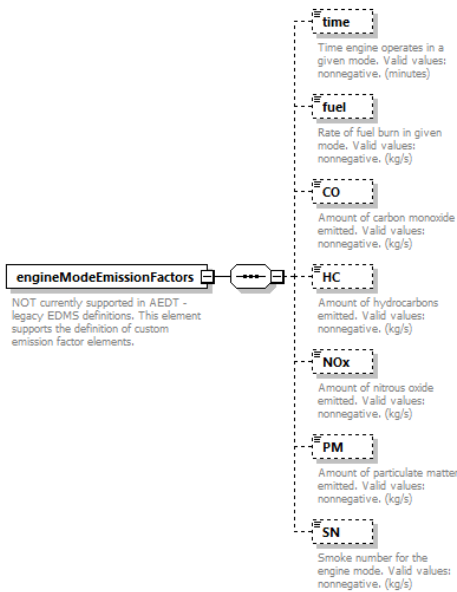
element **emissionsUsage/byPeakQuarterHour**

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.

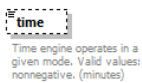
element **emissionsUsage/activityProfile**

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	
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	fuel Rate of fuel burn in given mode. Valid values: nonnegative. (kg/s)
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	CO Amount of carbon monoxide emitted. Valid values: nonnegative. (kg/s)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Amount of carbon monoxide emitted. Valid values: nonnegative. (kg/s)

element **engineModeEmissionFactors/HC**

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

element **engineModeEmissionFactors/NOx**

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

element **engineModeEmissionFactors/PM**

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

element **engineModeEmissionFactors/SN**

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

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

element **gate**

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

element **gate/elevation**

diagram	
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	
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)

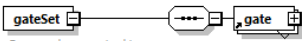
element **gate/sigmaY**

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

element **gate/sigmaZ**

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

element **gateSet**

diagram	 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. 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.
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**

diagram	
properties	content complex
children	dynamic latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation width height numWidth numHeight xrOffset ydOffset
used by	group receptorGroup
annotation	documentation Describes a grid of points.

element **grid/dynamic**

diagram	
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple default false

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

element **grid/elevation**

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

element **grid/width**

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

element **grid/height**

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

element **grid/numWidth**

diagram	 Number of points to spread across the width of the grid. The total number of points in the grid is numWidth &#0215; numHeight. Points will be located along width of grid using the formula i &#0215; (width&#0247;numWidth) where i is the index of the point (0 &#8230; numWidth &#8722; 1). Valid values: 1 to 999.
type	xs:int
properties	content simple
annotation	documentation Number of points to spread across the width of the grid. The total number of points in the grid is numWidth × numHeight. Points will be located along width of grid using the formula i × (width÷numWidth) where i is the index of the point (0 … numWidth − 1). Valid values: 1 to 999.

element **grid/numHeight**

diagram	 Number of points to spread across the height of the grid. The total number of points in the grid is numWidth &#0215; numHeight. Points will be located along height of grid using the formula: i &#0215; (width&#0247;numHeight) where i is the index of the point (0 &#8230; numHeight &#8722; 1). Valid values: 1 to 999.
type	xs:int
properties	content simple
annotation	documentation Number of points to spread across the height of the grid. The total number of points in the grid is numWidth × numHeight. Points will be located along height of grid using the formula: i × (width÷numHeight) where i is the index of the point (0 … numHeight − 1). Valid values: 1 to 999.

element **grid/xrOffset**

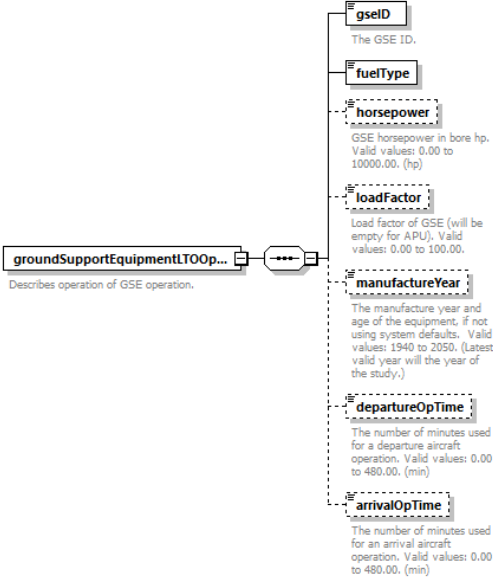
diagram	 The X-offset of the receptor grid in nautical miles.
type	xs:double

attributes	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	 The diagram shows the groundSupportEquipmentLTOOperation element (rectangle) with a description "Describes operation of GSE operation." connected to a connector box. This connector box is linked to a vertical stack of attribute boxes: gseID (The GSE ID.), fuelType, horsepower (GSE horsepower in bore hp. Valid values: 0.00 to 10000.00, (hp)), loadFactor (Load factor of GSE (will be empty for APU), Valid values: 0.00 to 100.00.), manufactureYear (The manufacture year and age of the equipment, if not using system defaults. Valid values: 1940 to 2050. (Latest valid year will be the year of the study.)), departureOpTime (The number of minutes used for a departure aircraft operation. Valid values: 0.00 to 480.00, (min)), and arrivalOpTime (The number of minutes used for an arrival aircraft operation. Valid values: 0.00 to 480.00, (min)).
properties	content complex
children	gseID fuelType horsepower loadFactor manufactureYear departureOpTime arrivalOpTime
used by	element groundSupportEquipmentLTOOperationSet
annotation	documentation Describes operation of GSE operation.

element **groundSupportEquipmentLTOOperation/gseID**

diagram	 The diagram shows the gseID attribute box with the description "The GSE ID."
type	xs:int
properties	content simple
annotation	documentation The GSE ID.

element **groundSupportEquipmentLTOOperation/fuelType**

diagram	 The diagram shows the fuelType attribute box.
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	 The diagram shows the horsepower attribute box with the description "GSE horsepower in bore hp. Valid values: 0.00 to 10000.00, (hp)".
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation GSE horsepower in bore hp. Valid values: 0.00 to 10000.00, (hp)

element **groundSupportEquipmentLTOOperation/loadFactor**

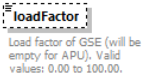
diagram	 The diagram shows the loadFactor attribute box with the description "Load factor of GSE (will be empty for APU), Valid values: 0.00 to 100.00."
---------	---

diagram	<pre> classDiagram class groundSupportEquipmentPopulationOperationSet { gseID fuelType gseType numUnits annualOpTime pkQtrHourOpTime activityProfile horsepower loadFactor useNonRoad manufactureYear } class groundSupportEquipmentGateAssignmentSet { } groundSupportEquipmentPopulationOperationSet "1" *-- "1" groundSupportEquipmentGateAssignmentSet </pre>
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	The diagram shows a rectangular box containing the text "gseID". Below the box, the text "The GSE ID." is written.
type	x:int
properties	content simple
annotation	documentation The GSE ID.

element **groundSupportEquipmentPopulationOperation/fuelType**

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

element **groundSupportEquipmentPopulationOperation/gseType**

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

element **groundSupportEquipmentPopulationOperation/numUnits**

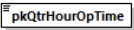
diagram	 <pre> classDiagram class numUnits { GSE number of units. Valid values: 0 to 10000. } </pre>
type	xs:double

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

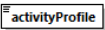
element **groundSupportEquipmentPopulationOperation/annualOpTime**

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

element **groundSupportEquipmentPopulationOperation/pkQtrHourOpTime**

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

element **groundSupportEquipmentPopulationOperation/activityProfile**

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

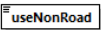
element **groundSupportEquipmentPopulationOperation/horsepower**

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

element **groundSupportEquipmentPopulationOperation/loadFactor**

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

element **groundSupportEquipmentPopulationOperation/useNonRoad**

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

element **groundSupportEquipmentPopulationOperation/manufactureYear**

diagram	
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**

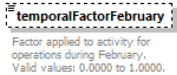
diagram	
type	string100
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Name of profile.

element **monthlyProfile/temporalFactorJanuary**

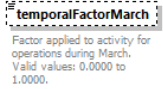
diagram	
type	doubleMin0
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0

annotation	documentation Factor applied to activity for operations during January. Valid values: 0.0000 to 1.0000.
------------	--

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	
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	
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	
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	
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	
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	
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**

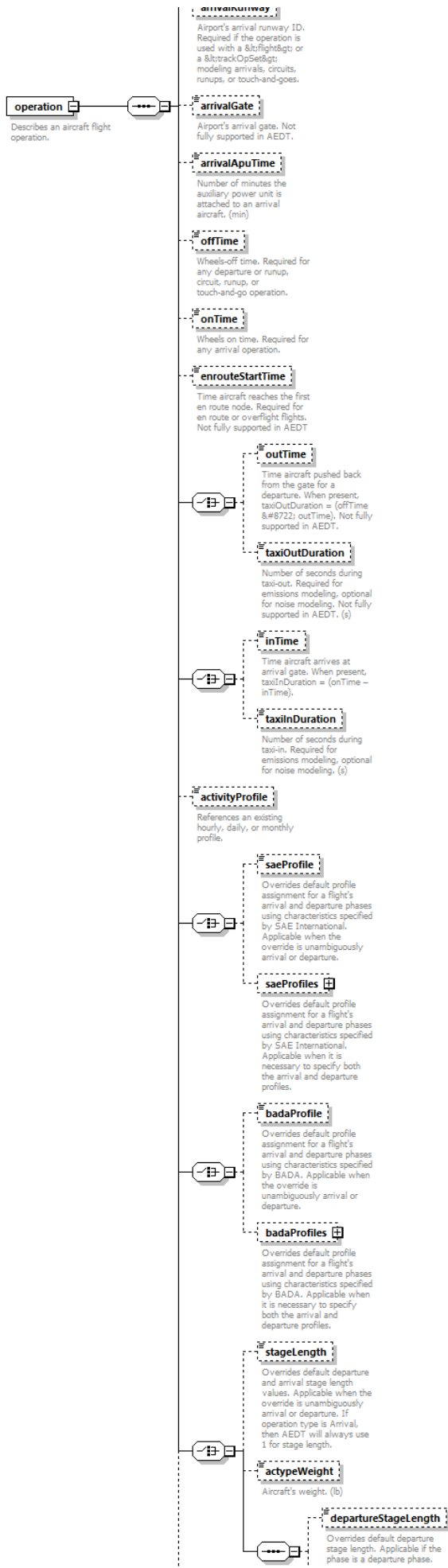
diagram	monthlyProfileSet Supports the definition and use of data in the APTPROFILE_MONTHLY table for the monthly variation of operations. attributes dummy monthlyProfile 0..∞ Supports data in the APTPROFILE_MONTHLY. This element supports the definition of temporal factors on a monthly operational basis.												
properties	content complex												
children	monthlyProfile												
used by	element operationalProfileSet complexType airportLayoutType												
attributes	<table><thead><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr></thead><tbody><tr><td>dummy</td><td>xs:int</td><td>optional</td><td></td><td></td><td></td></tr></tbody></table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	documentation Supports the definition and use of data in the APTPROFILE_MONTHLY table for the monthly variation of operations.												

attribute **monthlyProfileSet/@dummy**

type	xs:int
properties	use optional

element **operation**

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 <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.



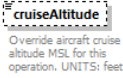
properties	content complex	
children	id aircraftType cruiseAltitude numOperations opType carrier flightNumber tailNumber userType userParam departureAirport departureRunway departureGate departureApuTime arrivalAirport arrivalRunway arrivalGate arrivalApuTime offTime onTime enrouteStartTime outTime taxiOutDuration inTime taxiInDuration activityProfile saeProfile saeProfiles badaProfile badaProfiles stageLength actypeWeight departureStageLength arrivalStageLength glideSlope fuelSulfurContent	arrivalStageLength Overrides default arrival stage length for this phase. If operation type is arrival, then AEDT will always use 1 for stage length. glideSlope Glide slope angle for this operation. (decimal degrees) fuelSulfurContent Sulfur content of the fuel used in this operation. (%)
used by	elements AsifXml case operations	
annotation	documentation Describes an aircraft flight operation.	
element operation/id	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.	
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

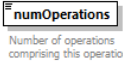
diagram	aircraftType Type of aircraft in the flight. anpAircraftId airframeModel Air frame model. engineCode Engine code. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop). engineModCode Engine modification code. (AEDT database reference table FLEET_RLT_ENGINE_MOD S column ENGINE_MOD_CODE.) 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	anpAircraftId airframeModel engineCode engineModCode apuName groundSupportEquipmentLTO operationSet 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.

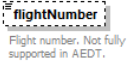
element **operation/opType**

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 LandingTakeoff X Taxi

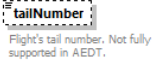
element **operation/carrier**

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.

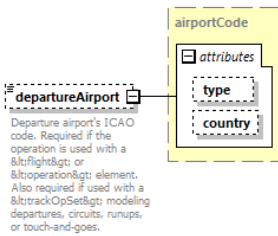
element **operation/userType**

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

element **operation/userParam**

diagram	
type	string16
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 16
annotation	documentation User-defined parameter associated with the operation. Not fully supported in AEDT.

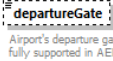
element **operation/departureAirport**

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

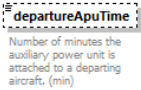
element **operation/departureRunway**

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

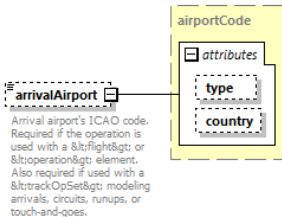
element **operation/departureGate**

diagram	 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. airportCode attributes type country					
type	airportCode					
properties	minOcc 0 maxOcc 1 content complex					
facets	Kind Value Annotation minLength 0 maxLength 4					
attributes	Name	Type	Use	Default	Fixed	Annotation
	type	airportCodeType	optional	ANY		
	country	string3	optional	ANY		
annotation	documentation 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**

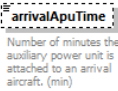
diagram	 arrivalRunway Airport's arrival runway ID. Required if the operation is used with a <flight> or a <trackOpSet> modeling arrivals, circuits, runups, or touch-and-goes.
type	string8
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation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

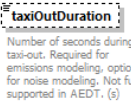
element **operation/enrouteStartTime**

diagram	 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	 Time aircraft pushed back from the gate for a departure. When present, taxiOutDuration = (offTime &#8722; 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	 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	
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	
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	
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**

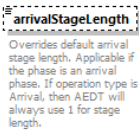
diagram	
type	profileType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by SAE International. Applicable when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

element **operation/saeProfiles**

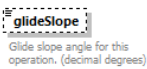
diagram	
type	profiles

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.

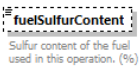
element **operation/arrivalStageLength**

diagram	 The diagram shows a dashed box labeled arrivalStageLength. Inside the box, the text reads: "Overrides default arrival stage length. Applicable if the phase is an arrival phase. If operation type is Arrival, then AEDT will always use 1 for stage length."
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Overrides default arrival stage length. Applicable if the phase is an arrival phase. If operation type is Arrival, then AEDT will always use 1 for stage length.

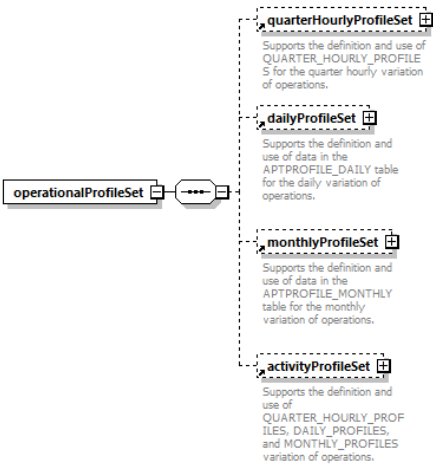
element **operation/glideSlope**

diagram	 The diagram shows a dashed box labeled glideSlope. Inside the box, the text reads: "Glide slope angle for this operation. (decimal degrees)"
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Glide slope angle for this operation. (decimal degrees)

element **operation/fuelSulfurContent**

diagram	 The diagram shows a dashed box labeled fuelSulfurContent. Inside the box, the text reads: "Sulfur content of the fuel used in this operation. (%)"
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Sulfur content of the fuel used in this operation. (%)

element **operationalProfileSet**

diagram	 The diagram shows a solid box labeled operationalProfileSet with a dashed line extending to the right. Along this dashed line are four dashed boxes, each containing a profile set name and a description: 1. quarterHourlyProfileSet: Supports the definition and use of QUARTER_HOURLY_PROFILE S for the quarter hourly variation of operations. 2. dailyProfileSet: Supports the definition and use of data in the APTPROFILE_DAILY table for the daily variation of operations. 3. monthlyProfileSet: Supports the definition and use of data in the APTPROFILE_MONTHLY table for the monthly variation of operations. 4. 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	operations Contains a list of aircraft flight operations. dummy operation 1..∞ Describes an aircraft flight operation.												
properties	content complex												
children	operation												
used by	element trackOpSet												
attributes	<table><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr><tr><td>dummy</td><td>xs:int</td><td>optional</td><td></td><td></td><td></td></tr></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	
properties	content complex
children	utmZoneDefault
used by	element AsifXml
annotation	documentation Contains default option values applied to the study.

element [options/utmZoneDefault](#)

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

element [parkingFacility](#)

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

element parkingFacility/numberOfLevels

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

element parkingFacility/topReleaseHeight

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

element parkingFacility/spacing

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

element parkingFacility/elevation

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

element parkingFacilityOperation

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

element parkingFacilityOperation/useAnnualFigures

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

element parkingFacilityOperation/vehicleType

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

element parkingFacilityOperation/fuelType

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

element parkingFacilityOperation/averageSpeed

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

element parkingFacilityOperation/averageDistanceTraveled

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

element parkingFacilityOperation/averageIdleTime

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

element parkingFacilityOperationSet

diagram	
properties	content complex
children	name latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation noiseOffsetHeight
used by	group receptorGroup
annotation	documentation Element specification for a point receptor.

element **pointReceptor/name**

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

element **pointReceptor/elevation**

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

element **pointReceptor/noiseOffsetHeight**

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

element **pointStationarySource**

diagram	pointStationarySource Specifies the point in space occupied by a stationary source of emissions. pointCoord Type of 2-D coordinates specifying the point. baseElevation Elevation of point. Valid values: -500 to 5000, (m) releaseHeight Height above ground level at which emissions are released into the atmosphere. Valid values 0 to 100 (m) gasVelocity Velocity at which gas escapes from the source (m/s) stackDiameter Diameter of stack where gas escapes from the source. Valid values: 0.1 to 50 (m) temperature Temperature at point (°F) aboveAmbientTemperature Indicates if temperature is absolute (False) or if temperature is relative to current ambient temperature (True).
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.

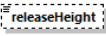
element [pointStationarySource](#)/[pointCoord](#)

diagram	pointCoord Type of 2-D coordinates specifying the point. latlonCoordGroup Specifies a coordinate using latitude and longitude. latitude Latitude specified as degrees in decimal format. Can include optional attribute positive. latitudeDMS Latitude expressed as dd°mm'sss with optional indicator N, n, S, s. longitude Longitude specified as degrees in decimal format. Can include optional attribute positive. longitudeDMS Longitude expressed as dd°mm'sss with optional indicator N, n, S, s. utmCoordGroup Specifies a point using Universal Transverse Mercator coordinates. utmN UTM Northing of the point in decimal meters north of the equator. utmE UTM Easting of the point in decimal meters east from a central meridian. utmZone UTM Zone of the point. A default zone can be set in the S.#60;optionsS.#62; tag.
type	coord2DType
properties	content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone
annotation	documentation Type of 2-D coordinates specifying the point.

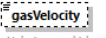
element [pointStationarySource](#)/[baseElevation](#)

diagram	baseElevation Elevation of point. Valid values: -500 to 5000, (m)
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)

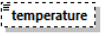
element **pointStationarySource/gasVelocity**

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)

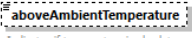
element **pointStationarySource/stackDiameter**

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)

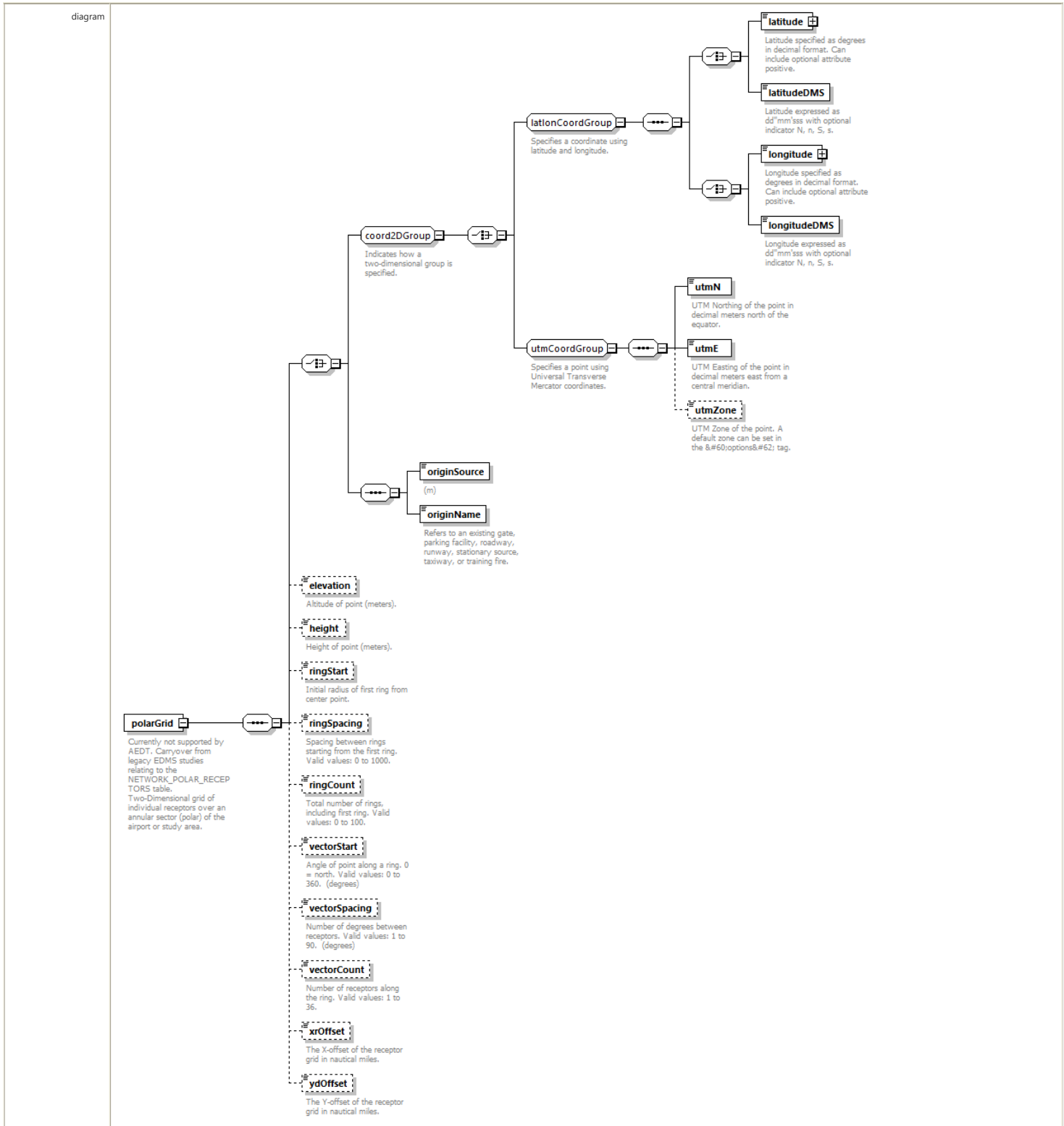
element **pointStationarySource/temperature**

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**



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

element **polarGrid/originSource**

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

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

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

element **polarGrid/elevation**

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

element **polarGrid/height**

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

element **polarGrid/ringStart**

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

element **polarGrid/ringSpacing**

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

element **polarGrid/ringCount**

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

annotation	documentation Total number of rings, including first ring. Valid values: 0 to 100.
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element **polarGrid/vectorStart**

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

element **polarGrid/vectorSpacing**

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

element **polarGrid/vectorCount**

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

element **polarGrid/xrOffset**

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

element **polarGrid/yrOffset**

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

element **polarReceptor**

diagram	polarReceptor Currently not supported by AEDT. Carryover from legacy EDMS studies relating to the NETWORK_POLAR_RECEP TORS and DISCRETE_POLAR_RECEP TORS table. Defines receptor points within a polar grid. coord2DGroup Indicates how a two-dimensional group is specified. latlonCoordGroup Specifies a coordinate using latitude and longitude. latitude Latitude specified as degrees in decimal format. Can include optional attribute positive. latitudeDMS Latitude expressed as dd°mm'sss with optional indicator N, n, S, s. longitude Longitude specified as degrees in decimal format. Can include optional attribute positive. longitudeDMS Longitude expressed as dd°mm'sss with optional indicator N, n, S, s. utmCoordGroup Specifies a point using Universal Transverse Mercator coordinates. utmN UTM Northing of the point in decimal meters north of the equator. utmE UTM Easting of the point in decimal meters east from a central meridian. utmZone UTM Zone of the point. A default zone can be set in the &#60;options&#62; tag. originSource Refers to an existing gate, parking facility, roadway, runway, stationary source, taxiway, or training fire. originName Refers to an existing gate, parking facility, roadway, runway, stationary source, taxiway, or training fire. distanceFromSource Distance of point from polar origin. Valid values: 0 through 999999.999999. (ft) directionFromSource Direction of point from polar origin. Valid values: 0 through 360. (degrees) elevation Altitude of point. (meters). height Height of point. (meters).
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_RECEP TORS and DISCRETE_POLAR_RECEP TORS table. Defines receptor points within a polar grid.

element **polarReceptor/originSource**

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

element **polarReceptor/originName**

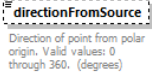
diagram	Refers to an existing gate, parking facility, roadway, runway, stationary source, taxiway, or training fire.
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Refers to an existing gate, parking facility, roadway, runway, stationary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

element **polarReceptor/distanceFromSource**

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

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

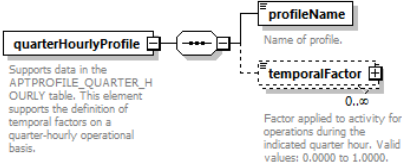
element **polarReceptor/elevation**

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

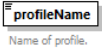
element **polarReceptor/height**

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

element **quarterHourlyProfile**

diagram	 <pre> quarterHourlyProfile Supports data in the APTPROFILE_QUARTER_H OURLY table. This element supports the definition of temporal factors on a quarter-hourly operational basis. </pre> <pre> profileName Name of profile. </pre> <pre> temporalFactor 0..∞ Factor applied to activity for operations during the indicated quarter hour. Valid values: 0.0000 to 1.0000. </pre>
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	 <pre> profileName Name of profile. </pre>
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	<pre> classDiagram class receptorSet { name receptorGroup } class name { Descriptive name of the receptor set. } class receptorGroup { Description of a receptor group. } class centroid { 1..∞ Describes the geometric center of a polygon. } class pointReceptor { 1..∞ Element specification for a point receptor. } class grid { Describes a grid of points. } class polarReceptor { 1..∞ Currently not supported by AEDT. Carryover from legacy EDMS studies relating to the NETWORK_POLAR_RECEP TORS and DISCRETE_POLAR_RECEP TORS table. Defines receptor points within a polar grid. } class polarGrid { Currently not supported by AEDT. Carryover from legacy EDMS studies relating to the NETWORK_POLAR_RECEP TORS table. Two-Dimensional grid of individual receptors over an annular sector (polar) of the airport or study area. } receptorSet "1" -- "1" name : name receptorSet "1" -- "1" receptorGroup : receptorGroup receptorGroup "1" -- "1..∞" centroid : centroid receptorGroup "1" -- "1..∞" pointReceptor : pointReceptor receptorGroup "1" -- "1..∞" polarReceptor : polarReceptor polarReceptor "1..∞" -- "1" grid : grid polarReceptor "1..∞" -- "1" polarGrid : polarGrid </pre>
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	<pre> classDiagram class name { Descriptive name of the receptor set. } </pre>
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Descriptive name of the receptor set.

element **recordCode**

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

element **roadway**

diagram	<pre> classDiagram class roadway { NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of vehicle geometry on roadways for scenario layouts. } class name { Identifying name for the roadway. } class width { 1 Roadway's width. Valid values: 1 to 99, (m) } class coordinates { 1 Set of three-dimensional coordinates describing the roadway. } roadway "1" -- "1" name : name roadway "1" -- "1" width : width roadway "1" -- "1" coordinates : coordinates </pre>
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	roadwayOperation NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of vehicle activity on roadways for scenario layouts. refName Identifying name of roadway operation. useAnnualFigures Indicates if the quantities in the element are annualized. vehicleType Type of vehicle involved in the operation. Valid values (the numeral corresponds to the text value): 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. Valid values: G = gasoline, D = diesel. emissionsUsage Describes the amount of emissions for a given activity profile. 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. speed Speed during the operation. Valid values: 5 to 65, (mph) roundTripDistance Round trip vehicle distance. (mi)
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	refName Identifying name of roadway operation.
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Identifying name of roadway operation.

element **roadwayOperation/useAnnualFigures**

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

element **roadwayOperation/vehicleType**

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

element
 roadwayOperation/fuelType

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

element
 roadwayOperation/speed

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

element
 roadwayOperation/roundTripDistance

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

element
 roadwayOperationSet

diagram	roadwayOperationSet NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of vehicle activity on roadways for scenario layouts. attributes dummy roadwayOperation NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of vehicle activity on roadways for scenario layouts. 1..∞												
properties	content complex												
children	roadwayOperation												
used by	group airportActivityGroup												
attributes	<table><thead><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr></thead><tbody><tr><td>dummy</td><td>xs:int</td><td>optional</td><td></td><td></td><td></td></tr></tbody></table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	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

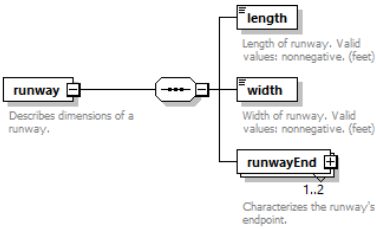
element **roadwaySet**

diagram	NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of vehicle activity on roadways for scenario layouts. NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of vehicle geometry on roadways for scenario layouts.												
properties	content complex												
children	roadway												
used by	complexType airportLayoutType												
attributes	<table><thead><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr></thead><tbody><tr><td>dummy</td><td>xs:int</td><td>optional</td><td></td><td></td><td></td></tr></tbody></table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	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	 Describes dimensions of a runway. Length of runway. Valid values: nonnegative. (feet) Width of runway. Valid values: nonnegative. (feet) 1..2 Characterizes the runway's endpoint.
properties	content complex
children	length width runwayEnd
used by	element runwaySet
annotation	documentation Describes dimensions of a runway.

element **runway/length**

diagram	 Length of runway. Valid values: nonnegative. (feet)
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

diagram	runwayEnd name ID of the runway's endpoint. latlonCoordGroup Specifies a coordinate using latitude and longitude. latitude Latitude specified as degrees in decimal format. Can include optional attribute positive. latitudeDMS Latitude expressed as dd°mm'ss with optional indicator N, n, S, s. longitude Longitude specified as degrees in decimal format. Can include optional attribute positive. longitudeDMS Longitude expressed as dd°mm'ss with optional indicator N, n, S, s. coord2DGroup Indicates how a two-dimensional group is specified. utmCoordGroup Specifies a point using Universal Transverse Mercator coordinates. utmN UTM Northing of the point in decimal meters north of the equator. utmE UTM Easting of the point in decimal meters east from a central meridian. utmZone UTM Zone of the point. A default zone can be set in the &#60;options&#62; tag. runwayEnd 1..2 Characterizes the runway's endpoint. elevation Runway endpoint's elevation above MSL in feet. (feet) threshCrossHeight Approach threshold crossing height AGL (feet) threshElevation Elevation of runway's endpoint above or below MSL (feet) glideSlope Glide slope for runway's endpoint. Valid values: 2 to 6 (decimal degrees) intAltitude Altitude at which glide slope should be intercepted above ground level. (feet) depDispThresh Displaced threshold length at departure end of runway. (feet) appDispThresh Displaced threshold length at arrival end of runway. (feet) percentWind Percent change in airport average headwind. (%) isHelipad Indicates if this end of the runway is also a helipad. Valid values: Y = yes, N = no.
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	
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

diagram	
properties	content complex
children	name startTime duration taxiModel timeInModeBasis acftPerfModel bankAngle altitudeCutoff sulfurConversionRate fuelSulfurContent fuelLeadContent 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.

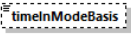
element **scenario/duration**

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

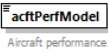
element **scenario/taxiModel**

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

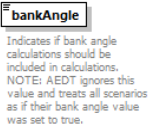
element **scenario/timelnModeBasis**

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

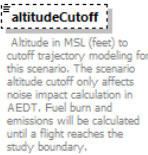
element **scenario/acftPerfModel**

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

element **scenario/bankAngle**

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

element **scenario/fuelSulfurContent**

diagram	fuelSulfurContent Percentage, by weight, of sulfur in the fuel used for emissions calculations. Default Values: 0.0006 (0.06%) (%)
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/fuelLeadContent**

diagram	fuelLeadContent Aviation gasoline lead content (g/L) for all piston-powered aircraft and rotorcraft that are included in an Annualization/Scenario.
type	doubleLeadContentRange
properties	minOcc 0 maxOcc 1 content simple default 0.56
facets	Kind Value Annotation minInclusive 0 maxInclusive 0.56
annotation	documentation Aviation gasoline lead content (g/L) for all piston-powered aircraft and rotorcraft that are included in an Annualization/Scenario.

element **scenario/description**

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

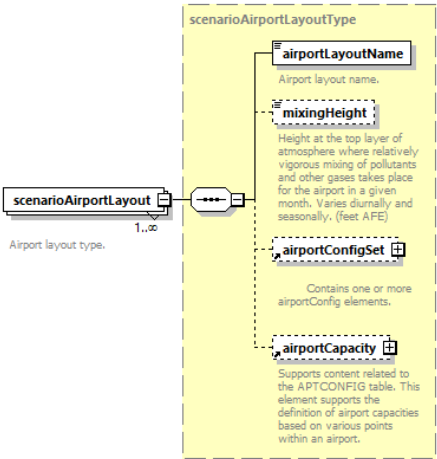
element **scenarioAirportLayoutSet**

diagram	scenarioAirportLayoutSet Contains a set of airport layout types. attributes dummy scenarioAirportLayout Airport layout type. 1..∞
properties	content complex
children	scenarioAirportLayout
used by	element scenario
attributes	Name Type Use Default Fixed Annotation dummy xs:int optional
annotation	documentation Contains a set of airport layout types.

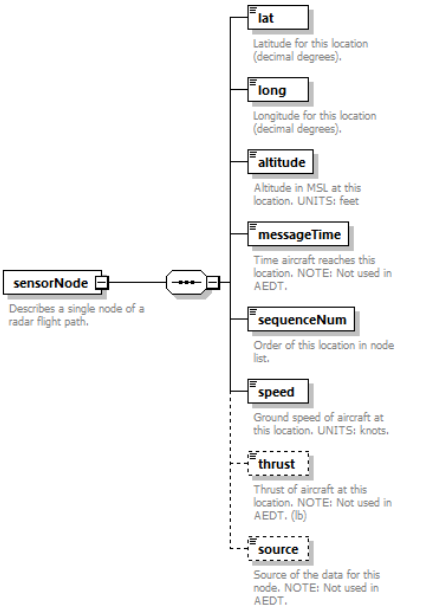
attribute **scenarioAirportLayoutSet/@dummy**

type	xs:int
properties	use optional

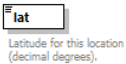
element **scenarioAirportLayoutSet/scenarioAirportLayout**

diagram	 The diagram shows the scenarioAirportLayoutType element as a dashed yellow box. It contains four sub-elements: airportLayoutName (text), mixingHeight (text), airportConfigSet (list), and airportCapacity (list). To the left, the scenarioAirportLayout element is shown as a box with a dashed line connecting to the scenarioAirportLayoutType box, with a cardinality of 1..∞.
type	scenarioAirportLayoutType
properties	minOcc 1 maxOcc unbounded content complex
children	airportLayoutName mixingHeight airportConfigSet airportCapacity .
annotation	documentation Airport layout type.

element **sensorNode**

diagram	 The diagram shows the sensorNode element as a box with a dashed line connecting to a list of sub-elements: lat (text), long (text), altitude (text), messageTime (text), sequenceNum (text), speed (text), thrust (text), and source (text). The thrust and source elements are shown with dashed borders, indicating they are optional. The sensorNode box is labeled 'Describes a single node of a radar flight path.'
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	 The diagram shows the lat element as a box labeled 'Latitude for this location (decimal degrees).'
type	xs:double
properties	content simple
annotation	documentation Latitude for this location (decimal degrees).

element **sensorNode/long**

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

element **sensorNode/altitude**

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

element **sensorNode/messageTime**

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

element **sensorNode/sequenceNum**

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

element **sensorNode/speed**

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

element **sensorNode/thrust**

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

element **sensorNode/source**

diagram	source Source of the data for this node. NOTE: Not used in AEDT.
type	string255
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation

	Source of the data for this node. NOTE: Not used in AEDT.
--	---

element **sensorPath**

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

element **sensorPath/thrustUnit**

diagram	
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Thrust unit of each thrust value in the sensorNode element.

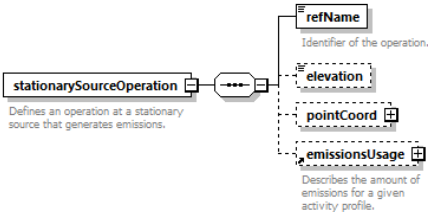
element **stationarySource**

diagram	
properties	content complex
children	name pointStationarySource areaStationarySource volumeStationarySource categoryRecordCode categoryBoilerHeater categoryGenerator categoryIncinerator categoryAircraftEngine categoryFuelTank categorySurfaceCoatingPainting categoryDeicingArea categorySolventDegreaser categorySandSaltPile categoryTrainingFire categoryOther
used by	element stationarySourceSet
annotation	documentation Specifies a stationary source.

element stationarySource/name	
diagram	
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0

	maxLength 40
annotation	documentation Identifying name of the stationary source.

element **stationarySourceOperation**

diagram	 The diagram shows the stationarySourceOperation element, which is a container for four child elements: refName, elevation, pointCoord, and emissionsUsage. The stationarySourceOperation element is described as "Defines an operation at a stationary source that generates emissions." The refName element is described as "Identifier of the operation." The elevation element is described as "Describes the amount of emissions for a given activity profile." The pointCoord element is described as "Describes the amount of emissions for a given activity profile." The emissionsUsage element is described as "Describes the amount of emissions for a given activity profile."
properties	content complex
children	refName elevation pointCoord emissionsUsage
used by	element stationarySourceOperationSet
annotation	documentation Defines an operation at a stationary source that generates emissions.

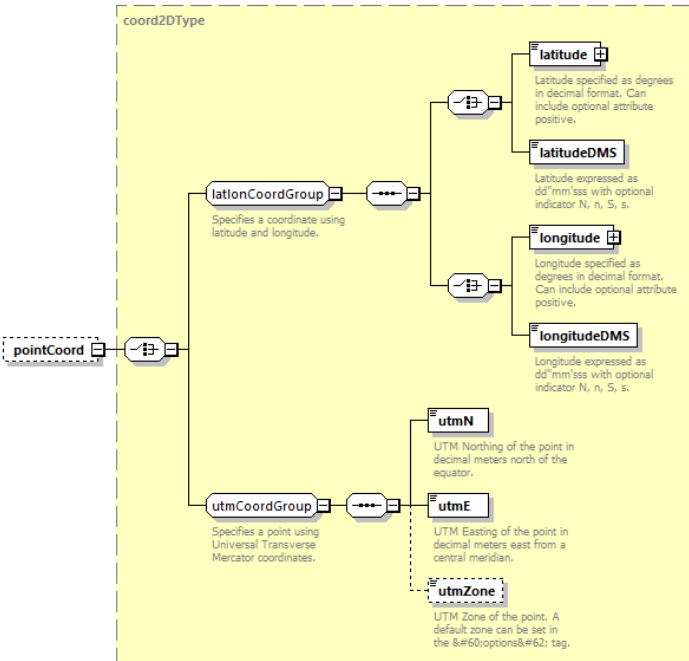
element **stationarySourceOperation/refName**

diagram	 The diagram shows the refName element, which is described as "Identifier of the operation."
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Identifier of the operation.

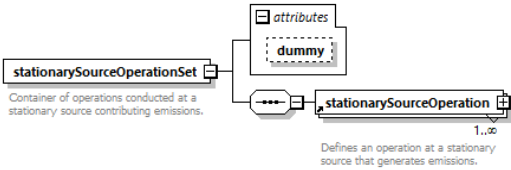
element **stationarySourceOperation/elevation**

diagram	 The diagram shows the elevation element, which is described as "Describes the amount of emissions for a given activity profile."
type	xs:double
properties	minOcc 0 maxOcc 1 content simple

element **stationarySourceOperation/pointCoord**

diagram	 The diagram shows the pointCoord element, which is a container for two child elements: latlonCoordGroup and utmCoordGroup. The pointCoord element is described as "Specifies a coordinate using latitude and longitude." The latlonCoordGroup element is described as "Specifies a coordinate using latitude and longitude." The utmCoordGroup element is described as "Specifies a point using Universal Transverse Mercator coordinates." The latlonCoordGroup element contains two child elements: latitude and longitude. The latitude element is described as "Latitude specified as degrees in decimal format. Can include optional attribute positive." The longitude element is described as "Longitude specified as degrees in decimal format. Can include optional attribute positive." The utmCoordGroup element contains two child elements: utmN and utmE. The utmN element is described as "UTM Northing of the point in decimal meters north of the equator." The utmE element is described as "UTM Easting of the point in decimal meters east from a central meridian." The utmZone element is described as "UTM Zone of the point. A default zone can be set in the S.#60;optionsS.#62; tag."
type	coord2DType
properties	minOcc 0 maxOcc 1 content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone

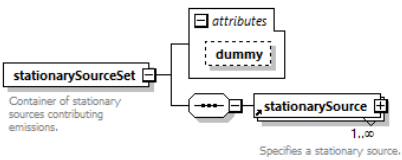
element **stationarySourceOperationSet**

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

element **study/name**

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

element **study/studyType**

diagram	
type	studyType
properties	content simple
facets	Kind Value Annotation enumeration Emissions enumeration Dispersion enumeration Noise and Emissions enumeration Noise and Dispersion

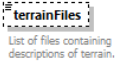
element **study/emissionsUnits**

diagram	
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**

fleet
Defines aircraft fleet participating in the study.

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...

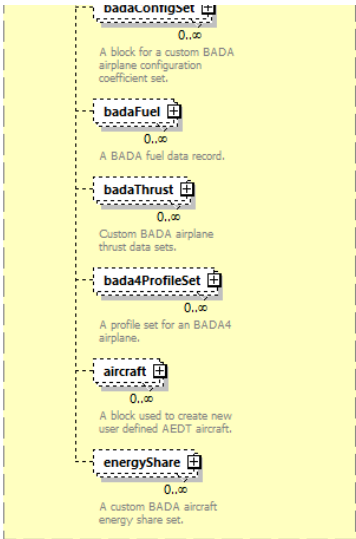
0..∞

A block for defining the BADA default altitude distribution set.

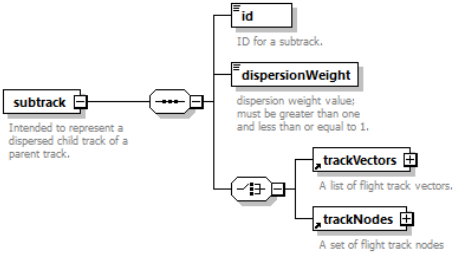
badaProfileSet

0..∞

A block used to define a custom BADA profile set.

	
type	fleet
properties	minOcc 0 maxOcc 1 content complex
children	auxiliaryPowerUnit airframe engine engineMod spectralClass anpNoiseGroup anpAirplane anpFlapsSet anpThrustSet anpProfileSet anpHeloNoiseGroup anpHelicopter anpHeloDirectivitySet anpHeloProfileSet badaAirplane badaAltitudeDistributionSet badaDefaultAltitudeDistributionSet badaProfileSet badaConfigSet badaFuel badaThrust bada4ProfileSet aircraft energyShare
annotation	documentation Defines aircraft fleet participating in the study.

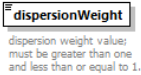
element **subtrack**

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

element **subtrack/dispersionWeight**

diagram	
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	The diagram illustrates the structure of a taxiNode. It is a complex content type that can contain several optional elements, indicated by dashed lines and a '0..1' cardinality. These elements are: elevation: Taxi node's elevation above MSL. Valid values: -500 to 5000. (m) speed: Speed of aircraft at node. Valid values: 1.00 to 60.00. (mph) coord2DGroup: Indicates how a two-dimensional group is specified. This group contains: latlonCoordGroup: Specifies a coordinate using latitude and longitude. This group contains: latitude: Latitude specified as degrees in decimal format. Can include optional attribute positive. latitudeDMS: Latitude expressed as dd°mm'ss with optional indicator N, n, S, s. longitude: Longitude specified as degrees in decimal format. Can include optional attribute positive. longitudeDMS: Longitude expressed as dd°mm'ss with optional indicator N, n, S, s. utmCoordGroup: Specifies a point using Universal Transverse Mercator coordinates. This group contains: utmN: UTM Northing of the point in decimal meters north of the equator. utmE: UTM Easting of the point in decimal meters east from a central meridian. utmZone: UTM Zone of the point. A default zone can be set in the &#60;options&#62; tag.
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	The diagram shows the elevation element within a taxiNode. It is a simple content type with a cardinality of 0..1, indicated by a dashed line and a '0' in a box.
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	The diagram shows the speed element within a taxiNode. It is a simple content type with a cardinality of 0..1, indicated by a dashed line and a '0' in a box.
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	The diagram shows the taxiNodeSet element. It is a complex content type that contains one or more taxiNode elements, indicated by a solid line and a '2..∞' cardinality.
properties	content complex
children	taxiNode
used by	element taxiway

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

element **taxipathSet**

diagram	Supports data contained int 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. 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.
properties	content complex
children	taxipath
used by	complexType airportLayoutType
annotation	documentation Supports data contained int 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	KindValue 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	
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	
type	string20
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 20
annotation	documentation Identifying name for taxiway.

element **taxiway/dispersionWidth**

diagram	
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	
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	
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	
type	string64
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 64
annotation	documentation The name of the track.

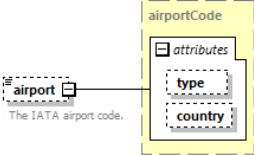
element **track/optype**

diagram	
type	trackType
properties	content simple
facets	Kind Value Annotation pattern A Arrival D Departure V Overflight T TouchAndGo X ArrivalHeliTaxi O DepartureHeliTaxi
annotation	documentation Type of track. (A = arrival, D = departure, V = overflight, T = Touch and Go)

element **track/wingtype**

diagram	
type	wingType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern F FixedWing R RotaryWing
annotation	documentation Type of wing. (F = fixed wing, R = rotary wing)

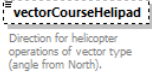
element **track/airport**

diagram						
type	airportCode					
properties	minOcc 0 maxOcc 1 content complex					
facets	Kind Value Annotation minLength 0 maxLength 4					
attributes	Name	Type	Use	Default	Fixed	Annotation
	type	airportCodeType	optional	ANY		
	country	string3	optional	ANY		
annotation	documentation The IATA airport code.					

element track/runway

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

element track/vectorCourseHelipad

diagram						
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	The diagram illustrates the structure of a trackNode. It is a flight track node that contains a coord2DGroup and an optional utmCoordGroup. The coord2DGroup includes latitude, longitude, altitude, and speed. The utmCoordGroup includes utmN, utmE, and utmZone. The nodeIdGroup contains an optional id and a description.
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><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr><tr><td>control</td><td>nodeControlType</td><td>optional</td><td></td><td></td><td></td></tr></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><tr><td>Kind</td><td>Value</td><td>Annotation</td></tr><tr><td>pattern</td><td>0 None 1 AtOrBelow 2 Match 3 AtOrAbove</td><td></td></tr></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	The diagram shows the speed element, which is the speed of aircraft at node (KCAS). It includes an attribute node and a control node.
type	extension of xs:double
properties	
attributes	
annotation	

properties	minOcc 0 maxOcc 1 content complex					
attributes	Name	Type	Use	Default	Fixed	Annotation
	control	nodeControlType	optional			
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 subtrack					
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	airportLayoutName Airport layout associated with this track.		
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	trackName Name of flight track.
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Name of flight track.

element **trackref/optype**

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

element **trackref/runway**

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

element **trackSet**

diagram	trackSet A set of flight tracks. 1..∞ track A flight track that can be used for flight operations.
properties	content complex
children	track
used by	complexType airportLayoutType
annotation	documentation A set of flight tracks.

element **trackVector**

diagram	trackVector A flight track vector. nodeIdGroup A group of nodes. id String identifier for the grouping of nodes. description An optional description for the grouping of nodes. type Type of vector. Valid values: S = Straight, L = LeftTurn, R = RightTurn. distance Distance flown along this vector. Valid values: nonnegative. (nm) angle Angle of the vector. (decimal degrees) radius Radius of the vector. Valid values: nonnegative. (nm)
properties	content complex
children	id description type distance angle radius
used by	element trackVectors

annotation	documentation A flight track vector.
------------	---

element **trackVector/type**

diagram	type Type of vector. Valid values: S = Straight, L = LeftTurn, R = RightTurn.
type	vectorTrackType
properties	content simple
facets	Kind Value Annotation pattern S Straight L LeftTurn R RightTurn
annotation	documentation Type of vector. Valid values: S = Straight, L = LeftTurn, R = RightTurn.

element **trackVector/distance**

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

element **trackVector/angle**

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

element **trackVector/radius**

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

element **trackVectors**

diagram	trackVectors A list of flight track vectors. ... trackVector A flight track vector. 1..∞
properties	content complex
children	trackVector
used by	element subtract
annotation	documentation A list of flight track vectors.

element **userDefinedAirportSet**

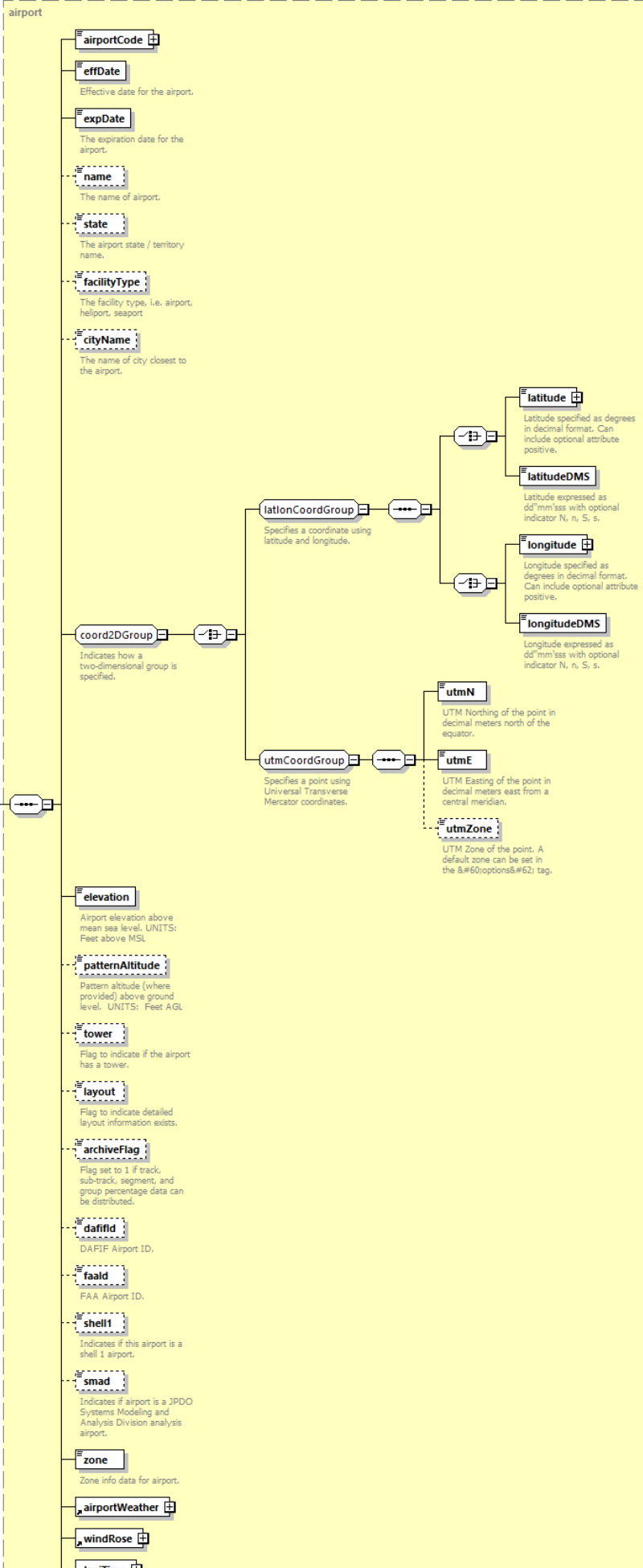
diagram	userDefinedAirportSet Contains user-defined airports. attributes dummy ... userDefinedAirport Contains information for each user-defined airport. APT_CODE must not duplicate an existing system airport. 1..∞
properties	content complex
children	userDefinedAirport
used by	element study
attributes	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**

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	userGroundSupportEquipment Supports user-created GSE stored in the STN_GSE table. This element supports the definition of user defined ground support equipment.
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	gseID User GSE ID (used as identifier (System GSE ID) in AIRCRAFT_GSE_ASSIGNMENTS, GSE_POPULATION, GSE_POPULATION_GATE_ASSIGNMENTS).
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	gseName Custom GSE name.
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Custom GSE name.

element **userGroundSupportEquipment/defaultLoadFactor**

diagram	defaultLoadFactor GSE default load factor (dimensionless). Valid values: 0 (0%) to 1 (100%).
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	defaultHorsepower GSE default horsepower. Valid values: 0 to 10000. (hp)
type	xs:double
properties	content simple
annotation	documentation GSE default horsepower. Valid values: 0 to 10000. (hp)

element userGroundSupportEquipment/defaultOpTimeDepartures

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

element userGroundSupportEquipment/defaultOpTimeArrivals

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

element userGroundSupportEquipment/defaultAnnualOpTime

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

element userGroundSupportEquipment/userEmissionFactors

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

element userGroundSupportEquipment/userEmissionFactors/emissionFactorsDiesel

diagram	<pre> classDiagram class emissionFactorSet { CO HC NOx SOx PM10 PM25 } class emissionFactorsDiesel { <<abstract>> } emissionFactorSet -- emissionFactorsDiesel </pre> emissionFactorSet 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) PM25: 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) emissionFactorsDiesel: User-defined fuel emission factor for diesel.
type	emissionFactorSet
properties	minOcc 0 maxOcc 1 content complex
children	CO HC NOx SOx PM10 PM25
annotation	documentation User-defined fuel emission factor for diesel.

element
 userGroundSupportEquipment/userEmissionFactors/emissionFactorsGas

diagram	<pre> classDiagram class emissionFactorSet { CO HC NOx SOx PM10 PM25 } class emissionFactorsGas { <<abstract>> } emissionFactorSet -- emissionFactorsGas </pre> emissionFactorSet 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) PM25: 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) emissionFactorsGas: User-defined fuel emission factor for gasoline.
type	emissionFactorSet
properties	minOcc 0 maxOcc 1 content complex
children	CO HC NOx SOx PM10 PM25
annotation	documentation User-defined fuel emission factor for gasoline.

element
 userGroundSupportEquipment/userEmissionFactors/emissionFactorsCNG

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

element **userGroundSupportEquipment/userEmissionFactors/emissionFactorsLPG**

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

element **userGroundSupportEquipmentSet**

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

element **vehicleEmissionFactors/NMHC**

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

element **vehicleEmissionFactors/VOC**

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

element **vehicleEmissionFactors/THC**

diagram	 Amount of total hydrocarbons emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of total hydrocarbons emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)

element **vehicleEmissionFactors/TOG**

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

element **vehicleEmissionFactors/NOx**

diagram	 Amount of nitrous oxides emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)
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	PM-10 Amount of 10-micron particulate matter emitted. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of 10-micron particulate matter emitted. (grams/vehicle-mile)

element **vehicleEmissionFactors/PM-2.5**

diagram	PM-2.5 Amount of 2.5-micron particulate matter emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of 2.5-micron particulate matter emitted. Valid Values: 0 to 20000. (grams/vehicle-mile)

element **vehicleEmissionFactors/Benzene**

diagram	Benzene Amount of benzene emitted. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of benzene emitted. (grams/vehicle-mile)

element **vehicleEmissionFactors/MTBE**

diagram	MTBE Amount of methyl tertiary butyl ether emitted. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of methyl tertiary butyl ether emitted. (grams/vehicle-mile)

element **vehicleEmissionFactors/Butadiene**

diagram	Butadiene Amount of butadiene emitted. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of butadiene emitted. (grams/vehicle-mile)

element **vehicleEmissionFactors/Formaldehyde**

diagram	Formaldehyde Amount of formaldehyde emitted. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of formaldehyde emitted. (grams/vehicle-mile)

element **vehicleEmissionFactors/Acetaldehyde**

diagram	Acetaldehyde Amount of acetaldehyde emitted. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of acetaldehyde emitted. (grams/vehicle-mile)

element **vehicleEmissionFactors/Acrolein**

diagram	Acrolein Amount of acrolein emitted. (grams/vehicle-mile)
type	xs:double

properties	content simple
annotation	documentation Amount of acrolein emitted. (grams/vehicle-mile)

element **volumeStationarySource**

diagram	
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.

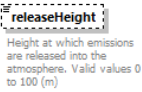
element **volumeStationarySource/pointCoord**

diagram	
type	coord2DType
properties	content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone
annotation	documentation Type of 2D coordinates specifying the volume.

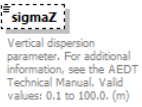
element **volumeStationarySource/baseElevation**

diagram	
type	xs:double
properties	content simple
annotation	documentation Height of volume. (m)

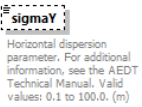
element **volumeStationarySource/releaseHeight**

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)

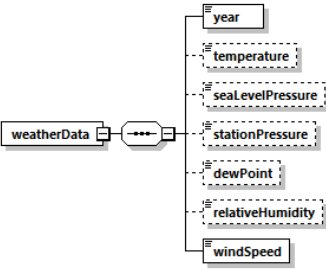
element **volumeStationarySource/sigmaZ**

diagram	 sigmaZ 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	 sigmaY 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

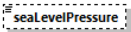
element **weatherData/year**

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

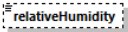
element **weatherData/stationPressure**

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

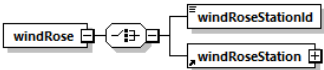
element **weatherData/relativeHumidity**

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 S01TO04KTS S04TO07KTS S07TO11KTS S11TO17KTS S17TO22KTS S22TO28KTS S28TO34KTS S34TO41KTS S41PLUSKTS DIRTOTAL
used by	element windRoseStation

element **windRoseData/directionRange**

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

element **windRoseData/centerDirection**

diagram	
type	xs:int
properties	content simple

element **windRoseData/S01TO04KTS**

diagram	
type	xs:int
properties	content simple

element **windRoseData/S04TO07KTS**

diagram	
type	xs:int
properties	content simple

element **windRoseData/S07TO11KTS**

diagram	
type	xs:int
properties	content simple

element **windRoseData/S11TO17KTS**

diagram	
type	xs:int
properties	content simple

element **windRoseData/S17TO22KTS**

diagram	
type	xs:int
properties	content simple

element **windRoseData/S22TO28KTS**

diagram	
type	xs:int
properties	content simple

element **windRoseData/S28TO34KTS**

diagram	
type	xs:int
properties	content simple

element **windRoseData/S34TO41KTS**

diagram	
type	xs:int
properties	content simple

element **windRoseData/S41PLUSKTS**

diagram	
type	xs:int
properties	content simple

element **windRoseData/DIRTOTAL**

diagram	
type	xs:int
properties	content simple

element **windRoseStation**

diagram	
properties	content complex
children	windRoseStationId startDate endDate windRoseStationDescription windRoseDataSource windRoseDataSet latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone windRoseStationElevationFeet averageWindSpeed beginYear endYear beginDayMonth endDayMonth directionUnit calmCriteria calms missing good total userString windRoseData
used by	element windRose

element **windRoseStation/windRoseStationId**

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

element **windRoseStation/startDate**

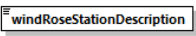
diagram	
type	xs:date

properties	content simple
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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

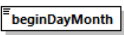
element **windRoseStation/beginYear**

diagram	
type	xs:int
properties	content simple

element **windRoseStation/endYear**

diagram	
type	xs:int
properties	content simple

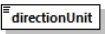
element **windRoseStation/beginDayMonth**

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

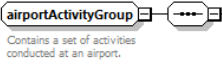
element **windRoseStation/total**

diagram	
type	xs:int
properties	content simple

element **windRoseStation/userString**

diagram	
type	string11
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 11

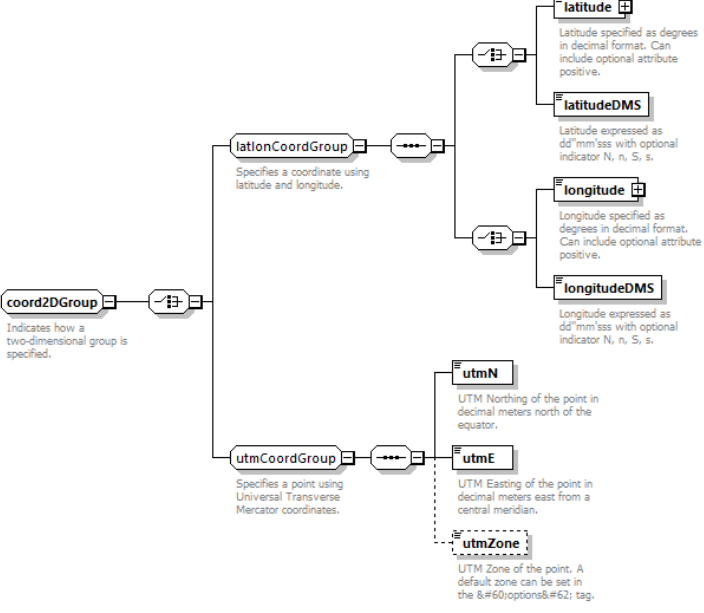
group **airportActivityGroup**

diagram	 airportActivityGroup Contains a set of activities conducted at an airport. parkingFacilityOperationSet NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of parking lot and parking garage activities for scenario layouts. roadwayOperationSet NOT currently supported in AEDT - legacy EDMS definitions. This element supports the definition of vehicle activity on roadways for scenario layouts. stationarySourceOperationSet Container of operations conducted at a stationary source contributing emissions. 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.
children	parkingFacilityOperationSet roadwayOperationSet stationarySourceOperationSet groundSupportEquipmentPopulationOperationSet
used by	element case
annotation	documentation Contains a set of activities conducted at an airport.

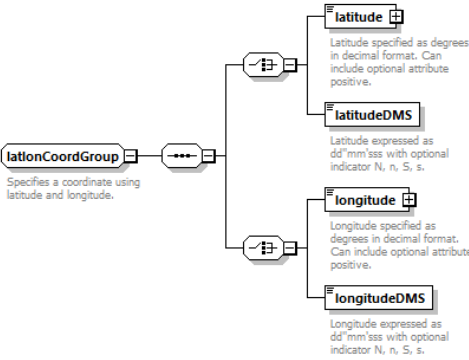
group **annualizationGroupCase**

diagram	 annualizationGroupCase Allows for grouping cases into groups, and groups into parent groups. annualizationGroup 0..∞ Contains one or more weighted annualization group cases. annualizationCase 0..∞ Collection of study cases whose results are weighted in the scenario annualization rollup.
children	annualizationGroup annualizationCase
used by	element annualizationGroup
annotation	documentation Allows for grouping cases into groups, and groups into parent groups.

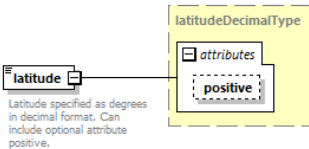
group **coord2DGroup**

diagram	 coord2DGroup Indicates how a two-dimensional group is specified. latlonCoordGroup Specifies a coordinate using latitude and longitude. lat Latitude specified as degrees in decimal format. Can include optional attribute positive. latitudeDMS Latitude expressed as dd°mm'sss with optional indicator N, n, S, s. longitude Longitude specified as degrees in decimal format. Can include optional attribute positive. longitudeDMS Longitude expressed as dd°mm'sss with optional indicator N, n, S, s. utmCoordGroup Specifies a point using Universal Transverse Mercator coordinates. utmN UTM Northing of the point in decimal meters north of the equator. utmE UTM Easting of the point in decimal meters east from a central meridian. utmZone UTM Zone of the point. A default zone can be set in the &#60;options&#62; tag.
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone
used by	elements airportWeatherStation centroid grid pointReceptor polarGrid polarReceptor taxiNode trackNode windRoseStation complexTypes airport airportLayoutType runup runwayEnd
annotation	documentation Indicates how a two-dimensional group is specified.

group **latlonCoordGroup**

diagram	 The diagram shows the structure of the latlonCoordGroup element. It is a container element that specifies a coordinate using latitude and longitude. It contains two optional child elements, latitude and longitude, each of which can be further specified by latitudeDMS or longitudeDMS. latlonCoordGroup Specifies a coordinate using latitude and longitude. latitude Latitude specified as degrees in decimal format. Can include optional attribute positive. latitudeDMS Latitude expressed as dd°mm'sss with optional indicator N, n, S, s. longitude Longitude specified as degrees in decimal format. Can include optional attribute positive. longitudeDMS Longitude expressed as dd°mm'sss with optional indicator N, n, S, s.
children	latitude latitudeDMS longitude longitudeDMS
used by	complexType coord2DType group coord2DGroup
annotation	documentation Specifies a coordinate using latitude and longitude.

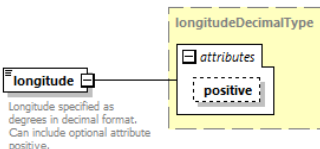
element **latlonCoordGroup/latitude**

diagram	 The diagram illustrates the structure of the latitude element. It is a content complex element, represented by a box with a small square icon. The text below it states: "Latitude specified as degrees in decimal format. Can include optional attribute positive." To the right, a yellow dashed box labeled latitudeDecimalType contains an attributes box, which in turn contains a positive attribute. A line connects the latitude element box to the positive attribute box, indicating its optional inclusion.																	
type	<u>latitudeDecimalType</u>																	
properties	content complex																	
attributes	<table><thead><tr><th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr></thead><tbody><tr><td><u>positive</u></td><td>derived by: xs:string</td><td>optional</td><td>N</td><td></td><td></td></tr></tbody></table>	Name	Type	Use	Default	Fixed	Annotation	<u>positive</u>	derived by: xs:string	optional	N							
Name	Type	Use	Default	Fixed	Annotation													
<u>positive</u>	derived by: xs:string	optional	N															
annotation	documentation Latitude specified as degrees in decimal format. Can include optional attribute positive.																	

element **latlonCoordGroup/latitudeDMS**

diagram	latitudeDMS Latitude expressed as dd°mm'sss with optional indicator N, n, S, s.						
type	latitudeDMSType						
properties	content simple						
facets	<table><thead><tr><th>Kind</th><th>Value</th><th>Annotation</th></tr></thead><tbody><tr><td>pattern</td><td>[0-9]{2}[\- &quot;][0-9]{2}[\- &apos;][0-9]{2}([0-9]{3})?[NnSs]</td><td></td></tr></tbody></table>	Kind	Value	Annotation	pattern	[0-9]{2}[\- "][0-9]{2}[\- '][0-9]{2}([0-9]{3})?[NnSs]	
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.						

element **latlonCoordGroup/longitude**

diagram	 The diagram illustrates the structure of the longitude element. It is a content complex element that specifies longitude as degrees in decimal format. It can include an optional attribute positive. longitude Longitude specified as degrees in decimal format. Can include optional attribute positive. longitudeDecimalType attributes positive					
type	longitudeDecimalType					
properties	content complex					
attributes	Name positive	Type derived by: xs:string	Use optional	Default E	Fixed	Annotation
annotation	documentation Longitude specified as degrees in decimal format. Can include optional attribute positive.					

element **latlonCoordGroup/longitudeDMS**

diagram	longitudeDMS Longitude expressed as dd°mm'sss with optional indicator N, n, S, s.						
type	longitudeDMSType						
properties	content simple						
facets	<table><thead><tr><th>Kind</th><th>Value</th><th>Annotation</th></tr></thead><tbody><tr><td>pattern</td><td>[0-9]?[0-9]{2}[\- &quot;][0-9]{2}[\- &apos;][0-9]{2}([0-9]{3})?[EeWw]</td><td></td></tr></tbody></table>	Kind	Value	Annotation	pattern	[0-9]?[0-9]{2}[\- "][0-9]{2}[\- '][0-9]{2}([0-9]{3})?[EeWw]	
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.						

group **nodeIdGroup**

diagram	
children	id description
used by	elements trackNode trackVector
annotation	documentation A group of nodes.

element **nodeIdGroup/id**

diagram	
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	
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	
children	pointCoord polygonCoords
used by	elements areaStationarySource building gate parkingFacility
annotation	documentation Type of coordinate specifying the area.

element **oneOrThreeCoords2DGroupSet/pointCoord**

diagram	The diagram shows a choice between three coordinate types: pointCoord (Choice of a single point coordinate), latlonCoordGroup (Specifies a coordinate using latitude and longitude), and utmCoordGroup (Specifies a point using Universal Transverse Mercator coordinates). The latlonCoordGroup and utmCoordGroup are further detailed in a dashed box labeled coord2DType. latlonCoordGroup contains latitude (Latitude specified as degrees in decimal format. Can include optional attribute positive), latitudeDMS (Latitude expressed as dd°mm'sss with optional indicator N, n, S, s.), longitude (Longitude specified as degrees in decimal format. Can include optional attribute positive), and longitudeDMS (Longitude expressed as dd°mm'sss with optional indicator N, n, S, s.). utmCoordGroup contains utmN (UTM Northing of the point in decimal meters north of the equator), utmE (UTM Easting of the point in decimal meters east from a central meridian), and utmZone (UTM Zone of the point. A default zone can be set in the &#60options&#62; tag).
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	The diagram shows a choice between two polygon types: dummy and vertex. The vertex element is further detailed in a dashed box labeled polygon2DType, showing a list of vertices defining the polygon, with a cardinality of 3..∞.
type	polygon2DType
properties	content complex
children	dummy vertex
annotation	documentation Choice of a 2D polygon.

group **pm10TermGroup**

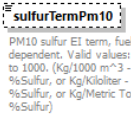
diagram	The diagram shows a choice between two PM10 terms: constantTermPm10 (PM10 emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)) and sulfurTermPm10 (PM10 sulfur EI term, fuel dependent. Valid values: 0 to 1000. (Kg/1000 m^3 - %Sulfur, or Kg/Kiloliter - %Sulfur, or Kg/Metric Ton - %Sulfur)).
children	constantTermPm10 sulfurTermPm10
used by	element categoryBoilerHeater

element **pm10TermGroup/constantTermPm10**

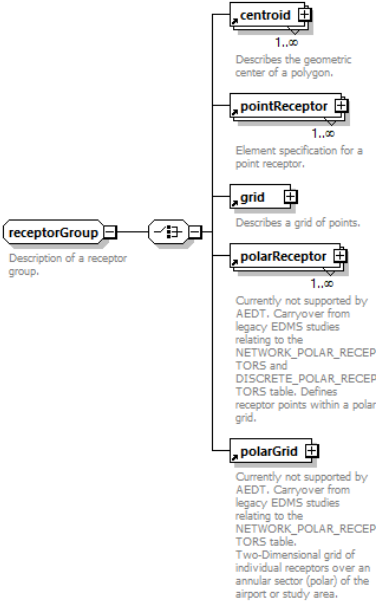
diagram	The diagram shows the constantTermPm10 element, which is a PM10 emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3).
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000

annotation	documentation PM10 emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)
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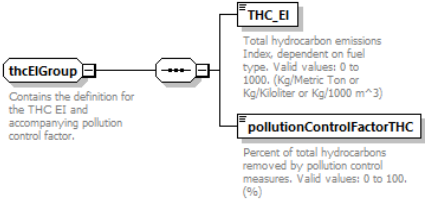
element **pm10TermGroup/sulfurTermPm10**

diagram	 sulfurTermPm10 PM10 sulfur EI term, fuel dependent. Valid values: 0 to 1000. (Kg/1000 m^3 - %Sulfur, or Kg/Kiloliter - %Sulfur, or Kg/Metric Ton - %Sulfur)
type	doubleInclusive1000
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation PM10 sulfur EI term, fuel dependent. Valid values: 0 to 1000. (Kg/1000 m^3 - %Sulfur, or Kg/Kiloliter - %Sulfur, or Kg/Metric Ton - %Sulfur)

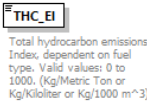
group **receptorGroup**

diagram	 receptorGroup Description of a receptor group. centroid 1..∞ Describes the geometric center of a polygon. pointReceptor 1..∞ Element specification for a point receptor. grid Describes a grid of points. polarReceptor 1..∞ Currently not supported by AEDT. Carryover from legacy EDMS studies relating to the NETWORK_POLAR_RECEP TORS and DISCRETE_POLAR_RECEP TORS table. Defines receptor points within a polar grid. polarGrid Currently not supported by AEDT. Carryover from legacy EDMS studies relating to the NETWORK_POLAR_RECEP TORS table. Two-Dimensional grid of individual receptors over an annular sector (polar) of the airport or study area.
children	centroid pointReceptor grid polarReceptor polarGrid
used by	element receptorSet
annotation	documentation Description of a receptor group.

group **thcEIGroup**

diagram	 thcEIGroup Contains the definition for the THC EI and accompanying pollution control factor. THC_EI Total hydrocarbon emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3) pollutionControlFactorTHC Percent of total hydrocarbons removed by pollution control measures. Valid values: 0 to 100. (%)
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	 THC_EI Total hydrocarbon emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation

type	xs:int
properties	minOcc 0 maxOcc 1 content simple default -1
annotation	documentation UTM Zone of the point. A default zone can be set in the <code>&#60;options&#62;</code> tag.

group **vocElGroup**

diagram	vocElGroup Contains the definition for the VOC EI and accompanying pollution control factor. ... VOC EI VOC emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3) pollutionControlFactorVOC Percent of volatile organic compounds removed by pollution control measures. Valid values: 0 to 100. (%)
children	VOC EI pollutionControlFactorVOC
used by	element categoryBoilerHeater
annotation	documentation Contains the definition for the VOC EI and accompanying pollution control factor.

element **vocElGroup/VOC_EI**

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

element **vocElGroup/pollutionControlFactorVOC**

diagram	pollutionControlFactorVOC Percent of volatile 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 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 bada4FlapsMapSourceAnpId
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.

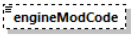
element **aircraft/airframeModel**

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.

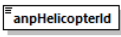
element **aircraft/anpAirplaneld**

diagram	 The ANP airplane linked to this user defined aircraft.
type	anpAirplaneld
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The ANP airplane linked to this user defined aircraft.

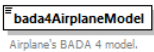
element **aircraft/badaAirplaneld**

diagram	 The BADA airplane linked to this user defined aircraft.
type	badaAirplaneld
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	 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	 Source ANP airplane ID for mapping ANP flaps to BADA 4.
type	anpAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Source ANP airplane ID for mapping ANP flaps to BADA 4.

complexType **aircraftEngine**

diagram	code Unique ICAO UID. model Engine model. engineType Engine type. Valid values: J (jet), T (turbo-prop), 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. 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.
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	code Unique ICAO UID.
type	engineCode
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Unique ICAO UID.

element aircraftEngine/model

diagram	model Engine model.
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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	 The diagram shows a box labeled 'engineType' with a dashed border. Below the box, the text reads: 'Engine type. Valid values: J (jet), T (turboprop), P (piston).'.
type	engineType
properties	content simple
facets	Kind Value Annotation pattern Jet J Turbo Turboprop T Prop Piston P
annotation	documentation Engine type. Valid values: J (jet), T (turboprop), P (piston).

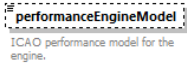
element **aircraftEngine/notes**

diagram	 The diagram shows a box labeled 'notes' with a dashed border. Below the box, the text reads: '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.

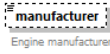
element **aircraftEngine/emissionsEngineModel**

diagram	 The diagram shows a box labeled 'emissionsEngineModel' with a dashed border. Below the box, the text reads: '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	 The diagram shows a box labeled 'performanceEngineModel' with a dashed border. Below the box, the text reads: '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	 The diagram shows a box labeled 'manufacturer' with a dashed border. Below the box, the text reads: '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	
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	
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	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Rated engine output (in kN). Valid values: Nonnegative.

element **aircraftEngine/source**

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

element **aircraftEngine/pressureRatio**

diagram	
type	xs:double

properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Engine's pressure ratio. Valid values: Nonnegative.

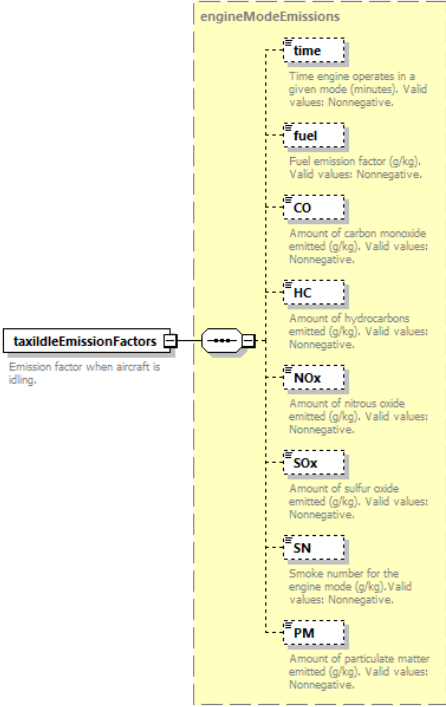
element **aircraftEngine/tfmtFlag**

diagram	 tfmtFlag Turbo-fan or Mixed turn-fan flag. Valid values: TF (turbofan) or MTF (mixed turbofan).
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	 defaultSOx Sulfur oxides emitted (grams per kilogram of fuel). Valid values: Nonnegative.
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	 taxiIdleEmissionFactors Emission factor when aircraft is idling. engineModeEmissions 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	engineModeEmissions 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. approachEmissionFactors: Emission factor when aircraft is on approach.
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	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. 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	code: Unique ICAO UID.
type	engineModCode
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation Unique ICAO UID.

element **aircraftEngineMod/description**

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

complexType **aircraftType**

diagram	
children	anpAircraftId airframeModel engineCode engineModCode apuName groundSupportEquipmentLTOOp... operationSet 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](#)

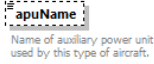
diagram	
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Engine code. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop).

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.)

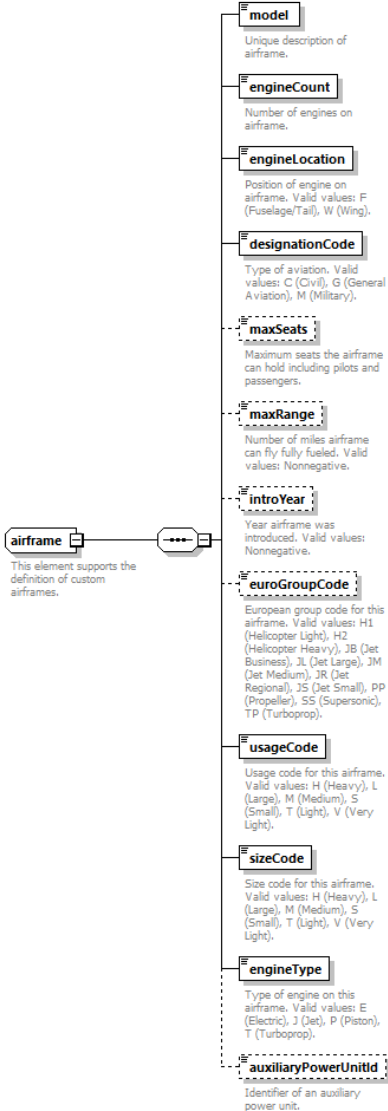
element **aircraftType/apuName**

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.

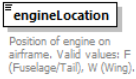
element **airframe/model**

diagram	
type	airframeModel
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Unique description of airframe.

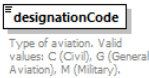
element **airframe/engineCount**

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

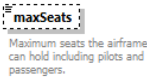
element **airframe/engineLocation**

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).

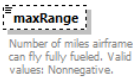
element **airframe/designationCode**

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	 introYear Year airframe was introduced. Valid values: Nonnegative.
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Year airframe was introduced. Valid values: Nonnegative.

element **airframe/euroGroupCode**

diagram	 euroGroupCode European group code for this airframe. Valid values: H1 (Helicopter Light), H2 (Helicopter Heavy), JB (Jet Business), JL (Jet Large), JM (Jet Medium), JR (Jet Regional), JS (Jet Small), PP (Propeller), SS (Supersonic), TP (Turboprop).
type	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	 usageCode 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	 sizeCode 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**

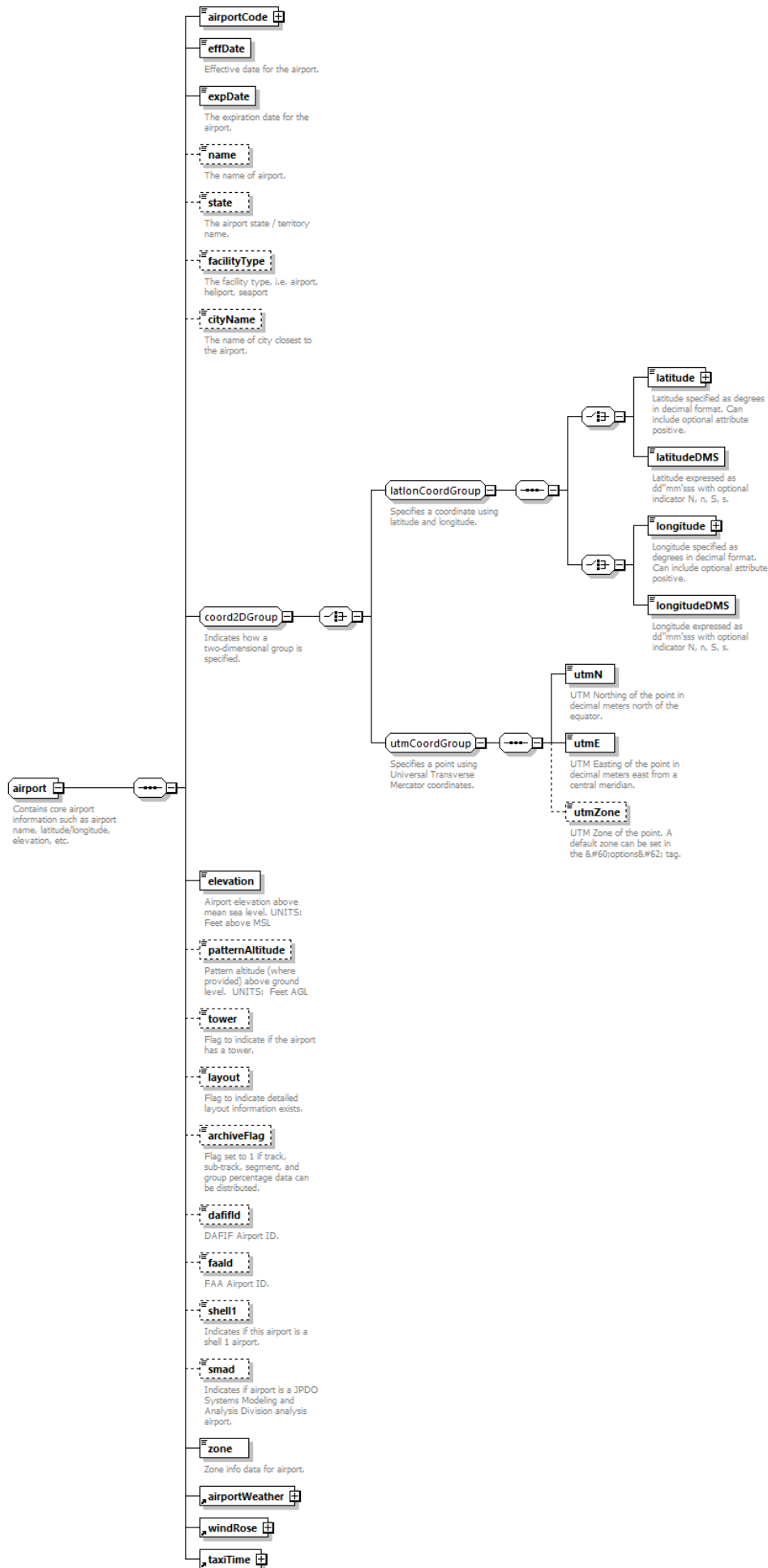
diagram	 engineType Type of engine on this airframe. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop).
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1

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**

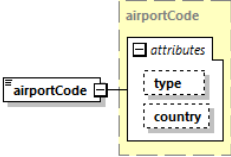
diagram	
type	apuName
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 30
annotation	documentation Identifier of an auxiliary power unit.

complexType **airport**



children	airportCode effDate expDate name state facilityType cityName latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation patternAltitude tower layout archiveFlag dafiffid 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.

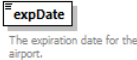
element **airport/airportCode**

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.				

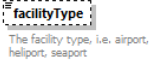
element **airport/name**

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	state The airport state / territory name.
type	string50
properties	minOcc 0 maxOcc 1 content simple
facets	KindValue 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

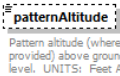
element **airport/cityName**

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/dafifld**

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

element **airport/smad**

diagram	 smad Indicates if airport is a JPDO Systems Modeling and Analysis Division analysis airport.
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation Indicates if airport is a JPDO Systems Modeling and Analysis Division analysis airport.

element **airport/zone**

diagram	 zone Zone info data for airport.
type	string100
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Zone info data for airport.

complexType **airportCode**

diagram	The diagram shows an attribute named <code>airportCode</code> with the annotation "An airport code.". It is connected to a box labeled "attributes" which contains two sub-attributes: <code>type</code> and <code>country</code>.					
type	extension of string4					
properties	base string4					
used by	elements track/airport runup/airport airport/airportCode airportLayoutType/airportCode operation/arrivalAirport operation/departureAirport					
facets	Kind Value Annotation minLength 0 maxLength 4					
attributes	Name	Type	Use	Default	Fixed	Annotation
	type	airportCodeType	optional	ANY		
	country	string3	optional	ANY		
annotation	documentation An airport code.					

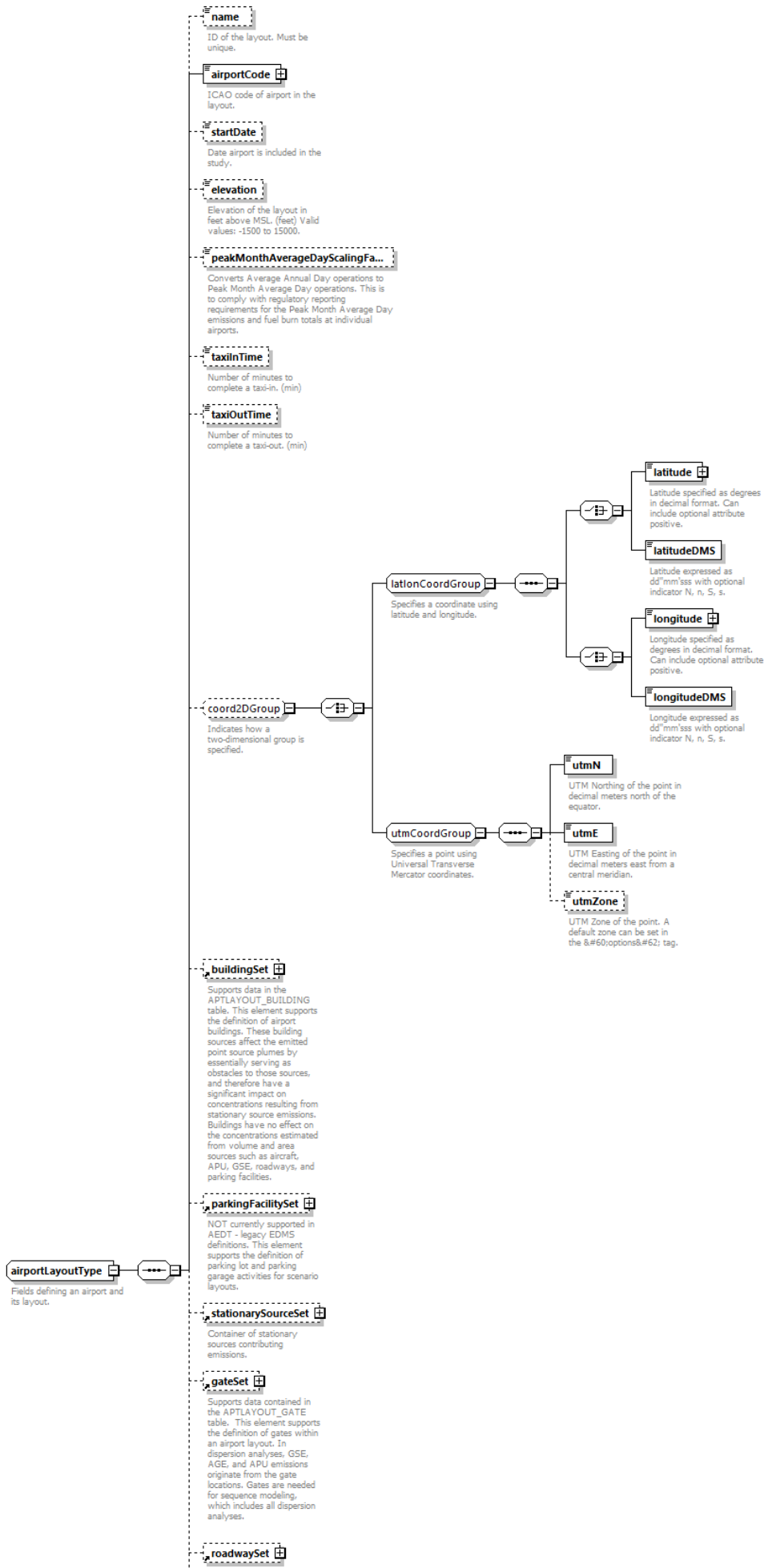
attribute **airportCode/@type**

type	airportCodeType					
properties	use optional default ANY					
facets	Kind	Value	Annotation			
	enumeration	ICAO				
	enumeration	IATA				
	enumeration	FAA				
	enumeration	OTHER				
	enumeration	ANY				

attribute **airportCode/@country**

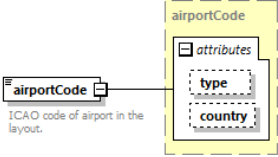
type	string3					
properties	use optional default ANY					
facets	Kind	Value	Annotation			
	minLength	0				
	maxLength	3				

complexType **airportLayoutType**

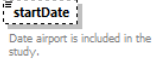


	NU1: currently supported in AEDT - legacy EDMS definitions. This element supports the definition of vehicle activity on roadways for scenario layouts. taxiwaySet Supports data in the APTLAYOUT_TAXIWAY table. Taxiways determine the ground segments where the aircraft operates. runwaySet Container for runways. 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 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 peakMonthAverageDayScalingFactor taxiInTime taxiOutTime latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone buildingSet parkingFacilitySet stationarySourceSet gateSet roadwaySet taxiwaySet runwaySet taxipathSet trackSet airportConfigSet airportCapacity quarterHourlyProfileSet dailyProfileSet monthlyProfileSet activityProfileSet
used by	element airportLayoutSet/airportLayout
annotation	documentation Fields defining an airport and its layout.

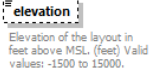
element **airportLayoutType/airportCode**

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		
annotation	documentation ICAO code of airport in the layout.					

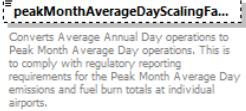
element **airportLayoutType/startDate**

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

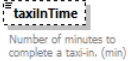
element **airportLayoutType/elevation**

diagram						
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.					

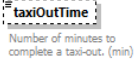
element **airportLayoutType/peakMonthAverageDayScalingFactor**

diagram						
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						
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						
type	xs:double					
properties	minOcc 0 maxOcc 1					

	content simple
annotation	documentation Number of minutes to complete a taxi-out. (min)

complexType **anpAirplane**

diagram	anpAirplane Creates a new ANP airplane. anpAirplaneId ID of ANP airplane. Must be a new, unique value. description Description of ANP airplane. sizeCode Size code for this airframe. Valid values: H (Heavy), L (Large), M (Medium), S (Small), T (Light), V (Very Light). owner The owner category: commercial, general aviation, military. engineTypeCode The engine type code: prop, jet, turbo. numberEngines Number of engines on this airplane. Valid values: 1 through 8. maxGrossWeightTakeoff Maximum gross weight on takeoff (min = 0, max = 999999, lbs). maxGrossWeightLand Maximum gross weight on landing (min = 0, max = 999999, lbs). maxDsStop FAR landing field length at maximum landing weight (min = 0, max = 20000, feet). depThrustCoeffType Type of thrust coefficients: J=jet, P=prop. thrustStatic Static rated thrust or 100% thrust (lb, min = 0, max = 200000). thrustRestore Flag indicating aircraft has automated thrust restoration system. noiseId ID of a Noise Group. noiseCategory The noise category stage number. minBurn Minimum fuel burn rate. (kg/sec) noiseSourceHeight Noise source height of airplane in meters.
children	anpAirplaneId description sizeCode owner engineTypeCode numberEngines maxGrossWeightTakeoff maxGrossWeightLand maxDsStop depThrustCoeffType thrustStatic thrustRestore noiseId noiseCategory minBurn noiseSourceHeight
used by	element fleet/anpAirplane
annotation	documentation Creates a new ANP airplane.

element **anpAirplane/anpAirplaneId**

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

element **anpAirplane/description**

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

element **anpAirplane/sizeCode**

diagram	sizeCode Size code for this airframe. Valid values: H (Heavy), L (Large), M (Medium), S (Small), T (Light), V (Very Light).
type	anpSizeCode
properties	content simple
facets	Kind Value Annotation pattern Heavy H L Large L S Small S
annotation	documentation Size code for this airframe. Valid values: H (Heavy), L (Large), M (Medium), S (Small), T (Light), V (Very Light).

element **anpAirplane/owner**

diagram	owner The owner category: commercial, general aviation, military.
type	anpOwnerType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern Commercial C Military M General G
annotation	documentation The owner category: commercial, general aviation, military.

element **anpAirplane/engineTypeCode**

diagram	engineTypeCode The engine type code: prop, jet, turbo.
type	anpEngineType
properties	content simple
facets	Kind Value Annotation pattern Jet J Turbo Turbo prop T Prop Piston P
annotation	documentation The engine type code: prop, jet, turbo.

element **anpAirplane/numberEngines**

diagram	numberEngines Number of engines on this airplane. Valid values: 1 through 8.
type	xs:int
properties	content simple
annotation	documentation Number of engines on this airplane. Valid values: 1 through 8.

element **anpAirplane/maxGrossWeightTakeoff**

diagram	maxGrossWeightTakeoff Maximum gross weight on takeoff (min = 0, max = 999999, lbs).
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Maximum gross weight on takeoff (min = 0, max = 999999, lbs).

element **anpAirplane/maxGrossWeightLand**

diagram	maxGrossWeightLand Maximum gross weight on landing (min = 0, max = 999999, lbs).
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Maximum gross weight on landing (min = 0, max = 999999, lbs).

element **anpAirplane/maxDsStop**

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

element **anpAirplane/depThrustCoeffType**

diagram	depThrustCoeffType Type of thrust coefficients: J=jet, P=prop.
type	anpCoeffType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern Jet JProp 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).

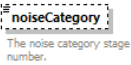
element **anpAirplane/thrustRestore**

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.

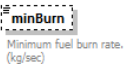
element **anpAirplane/noiseld**

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	
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The noise category stage number.

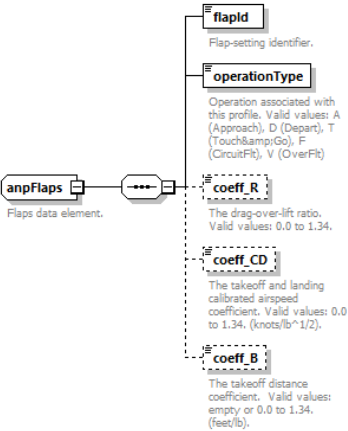
element **anpAirplane/minBurn**

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

element **anpAirplane/noiseSourceHeight**

diagram	
type	xs:float
properties	content simple
annotation	documentation Noise source height of airplane in meters.

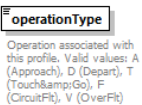
complexType **anpFlaps**

diagram	
children	flapId operationType coeff_R coeff_CD coeff_B
used by	element anpFlapsSet/flaps
annotation	documentation Flaps data element.

element **anpFlaps/flapId**

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

element **anpFlaps/operationType**

diagram	
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type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFit), V (OverFit)

element **anpFlaps/coeff_R**

diagram	 coeff_R The drag-over-lift ratio. Valid values: 0.0 to 1.34.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The drag-over-lift ratio. Valid values: 0.0 to 1.34.

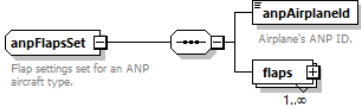
element **anpFlaps/coeff_CD**

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

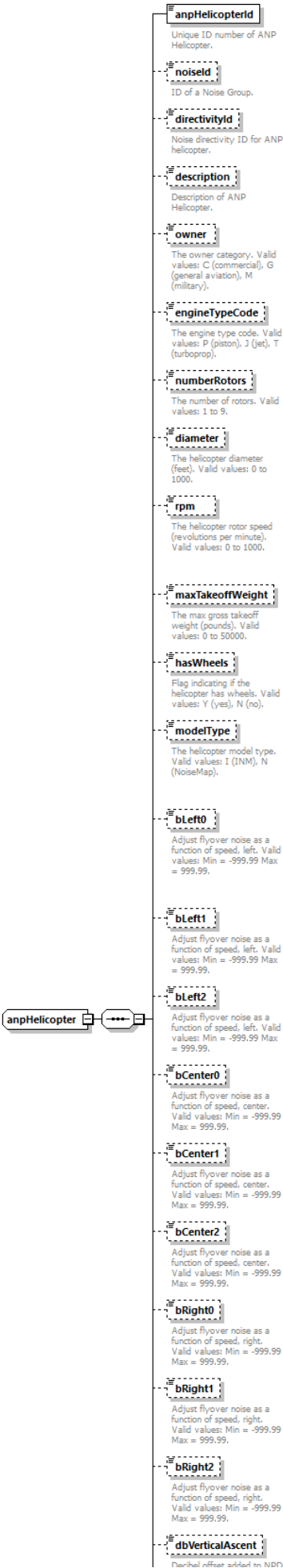
element **anpFlapsSet/anpAirplaneId**

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

element **anpFlapsSet/flaps**

diagram	The diagram illustrates the structure of the anpFlaps complex type. It consists of the following elements: flaps (1..∞): A container element that holds the following sub-elements: flapId: Flap-setting identifier. operationType: Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFit), V (OverFit). coeff_R: The drag-over-lift ratio. Valid values: 0.0 to 1.34. coeff_CD: The takeoff and landing calibrated airspeed coefficient. Valid values: 0.0 to 1.34. (knots/ft^{1/2}). coeff_B: The takeoff distance coefficient. Valid values: empty or 0.0 to 1.34. (feet/ft).
type	anpFlaps
properties	minOcc 1 maxOcc unbounded content complex
children	flapId operationType coeff_R coeff_CD coeff_B

complexType **anpHelicopter**

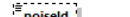


	levels, vertical ascent (dB). Valid values: Min = -50 Max = 50. dbVerticalDescent Decibel offset added to NPD levels, vertical descent (dB). Valid values: Min = -50 Max = 50. dbHorizontalAcceleration Decibel offset added to NPD levels, depart horizontal acceleration (dB). Valid values: Min = -50 Max = 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. noiseSourceHeight Noise source height of helicopter in meters.
children	anpHelicopterId noiseld directivityld description owner engineTypeCode numberRotors diameter rpm maxTakeoffWeight hasWheels modelType bLeft0 bLeft1 bLeft2 bCenter0 bCenter1 bCenter2 bRight0 bRight1 bRight2 dbVerticalAscent dbVerticalDescent dbHorizontalAcceleration dbClimbAcceleration dbHorizontalDeceleration dbDescendDeceleration noiseSourceHeight
used by	element fleet/anpHelicopter

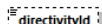
element **anpHelicopter/anpHelicopterId**

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

element **anpHelicopter/noiseld**

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**

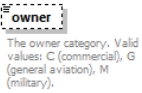
diagram	 <pre> classDiagram class directivityId { noiseDirectivityId ANP_Helicopter } </pre> Noise directivity ID for ANP helicopter.
type	anpHeloDirectivityId
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Noise directivity ID for ANP helicopter.

element **anpHelicopter/description**

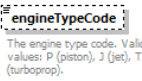
diagram	 description Description of ANP Helicopter.
type	string255

properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Description of ANP Helicopter.

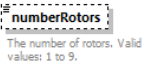
element **anpHelicopter/owner**

diagram	
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).

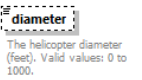
element **anpHelicopter/engineTypeCode**

diagram	
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).

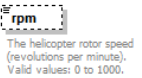
element **anpHelicopter/numberRotors**

diagram	
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The number of rotors. Valid values: 1 to 9.

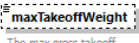
element **anpHelicopter/diameter**

diagram	
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	
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	 The max gross takeoff weight (pounds). Valid values: 0 to 50000.
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	 Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.

element **anpHelicopter/bCenter1**

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

element **anpHelicopter/bCenter2**

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

element **anpHelicopter/bRight0**

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

element **anpHelicopter/bRight1**

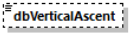
diagram	 Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.

element **anpHelicopter/bRight2**

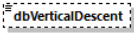
diagram	 Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple

annotation	documentation Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.
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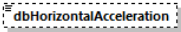
element **anpHelicopter/dbVerticalAscent**

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

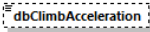
element **anpHelicopter/dbVerticalDescent**

diagram	 dbVerticalDescent Decibel offset added to NPD levels, vertical descent (dB). Valid values: Min = -50 Max = 50.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel offset added to NPD levels, vertical descent (dB). Valid values: Min = -50 Max = 50.

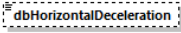
element **anpHelicopter/dbHorizontalAcceleration**

diagram	 dbHorizontalAcceleration Decibel offset added to NPD levels, depart horizontal acceleration (dB). Valid values: Min = -50 Max = 50.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel offset added to NPD levels, depart horizontal acceleration (dB). Valid values: Min = -50 Max = 50.

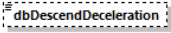
element **anpHelicopter/dbClimbAcceleration**

diagram	 dbClimbAcceleration Decibel offset added to NPD levels, depart with climbing acceleration (dB). Valid values: Min = -50 Max = 50.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel offset added to NPD levels, depart with climbing acceleration (dB). Valid values: Min = -50 Max = 50.

element **anpHelicopter/dbHorizontalDeceleration**

diagram	 dbHorizontalDeceleration Decibel offset added to NPD levels, approach with horizontal deceleration (dB). Valid values: Min = -50 Max = 50.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel offset added to NPD levels, approach with horizontal deceleration (dB). Valid values: Min = -50 Max = 50.

element **anpHelicopter/dbDescendDeceleration**

diagram	 dbDescendDeceleration Decibel offset added to NPD levels, approach with descending deceleration (dB). Valid values: Min = -50 Max = 50.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple

annotation	documentation Decibel offset added to NPD levels, approach with descending deceleration (dB). Valid values: Min = -50 Max = 50.
------------	--

element **anpHelicopter/noiseSourceHeight**

diagram	noiseSourceHeight Noise source height of helicopter in meters.
type	xs:float
properties	content simple
annotation	documentation Noise source height of helicopter in meters.

complexType **anpHeloDirectivity**

anpHeloDirectivity

groundType

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

opMode

Noise operation mode.

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 right of the nose (dB).
Valid values: Min = -99.9
Max = 999.9.

R015

Decibel adjustment at 15 degrees right of the nose (dB).
Valid values: Min = -99.9
Max = 999.9.

R030

Decibel adjustment at 30 degrees right of the nose (dB).
Valid values: Min = -99.9
Max = 999.9.

R045

Decibel adjustment at 45 degrees right of the nose (dB).
Valid values: Min = -99.9
Max = 999.9.

R060

Decibel adjustment at 60 degrees right of the nose (dB).
Valid values: Min = -99.9
Max = 999.9.

R075

Decibel adjustment at 75 degrees right of the nose (dB).
Valid values: Min = -99.9
Max = 999.9.

R090

Decibel adjustment at 90 degrees right of the nose (dB).

	degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9. R105 Decibel adjustment at 105 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9. R120 Decibel adjustment at 120 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9. R135 Decibel adjustment at 135 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9. R150 Decibel adjustment at 150 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9. R165 Decibel adjustment at 165 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9. R180 Decibel adjustment at 180 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
children	groundType opMode L180 L165 L150 L135 L120 L105 L090 L075 L060 L045 L030 L015 C000 R015 R030 R045 R060 R075 R090 R105 R120 R135 R150 R165 R180
used by	element anpHeloDirectivitySet/anpHeloDirectivity .

element [anpHeloDirectivity/groundType](#)

diagram	groundType Type of ground resistivity. Valid values: H (hard), S (soft), F (file), N (none).						
type	anpHeloGroundType						
properties	content simple						
facets	<table><tr><td>Kind</td><td>Value</td><td>Annotation</td></tr><tr><td>pattern</td><td>Hard H Software S File F None N</td><td></td></tr></table>	Kind	Value	Annotation	pattern	Hard H Software S File F None N	
Kind	Value	Annotation					
pattern	Hard H Software S File F None N						
annotation	documentation Type of ground resistivity. Valid values: H (hard), S (soft), F (file), N (none).						

element [anpHeloDirectivity/opMode](#)

diagram	opMode Noise operation mode.
type	anpHeloNpdOpMode
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Noise operation mode.

element [anpHeloDirectivity/L180](#)

diagram	L180 Decibel adjustment at 180 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 180 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element [anpHeloDirectivity/L165](#)

diagram	L165 Decibel adjustment at 165 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple

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

element **anpHeloDirectivity/L150**

diagram	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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	
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**

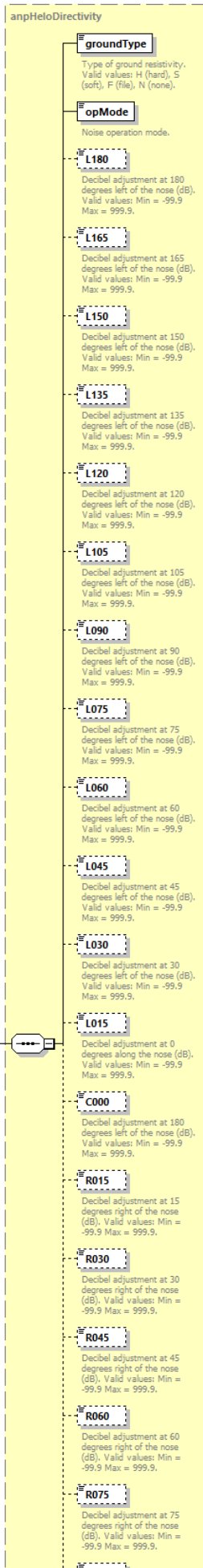
diagram	
children	anpHelicopterId anpHeloDirectivity
used by	element fleet/anpHeloDirectivitySet
annotation	documentation A set of helicopter directivities.

element **anpHeloDirectivitySet/anpHelicopterId**

diagram	anpHelicopterId Unique ID for ANP helicopters.
type	anpHeloDirectId
properties	content simple
facets	KindValue Annotation minLength 0 maxLength 255
annotation	documentation Unique ID for ANP helicopters.

element **anpHeloDirectivitySet/anpHeloDirectivity**

anpHeloDirectivity
1..∞
ANP Helicopter directivity.



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

R105
Decibel adjustment at 105 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

R120
Decibel adjustment at 120 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

R135
Decibel adjustment at 135 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

R150
Decibel adjustment at 150 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

R165
Decibel adjustment at 165 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

R180
Decibel adjustment at 180 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

type	anpHeloDirectivity
properties	minOcc 1 maxOcc unbounded content complex
children	groundType opMode L180 L165 L150 L135 L120 L105 L090 L075 L060 L045 L030 L015 C000 R015 R030 R045 R060 R075 R090 R105 R120 R135 R150 R165 R180
annotation	documentation ANP Helicopter directivity.

complexType **anpHeloNoiseGroup**

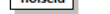
diagram

```

classDiagram
    class anpHeloNoiseGroup {
        noiseId : string
        opMode : string
        : This element contains the three spectral class references for a given aircraft Noise group with the corresponding thrust setting type and model type.
    }
  
```

children	noiseld opMode
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/opMode**

diagram	
type	anpHeloNoiseOpMode
properties	minOcc 1 maxOcc unbounded content complex
children	opModeld spectralClassId referenceSpeed isStatic npdCurves
annotation	documentation Helicopter noise group spectral class by op mode records

complexType [anpHeloNoiseOpMode](#)

diagram	
children	opModeld spectralClassId referenceSpeed isStatic npdCurves
used by	element anpHeloNoiseGroup/opMode
annotation	documentation A helicopter noise spectral class by op mode

element [anpHeloNoiseOpMode/opModeld](#)

diagram	
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Op mode: Arrival (A, B, C, Y(s), Z(s)), Departure (D, E, F, V(s), W(s)), Level (L, X(s), G(s), H(s), I(s), J(s)).

element [anpHeloNoiseOpMode/spectralClassId](#)

diagram	
type	xs:short
properties	content simple
annotation	documentation Spectral class id.

element [anpHeloNoiseOpMode/referenceSpeed](#)

diagram	
type	xs:double

properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Reference speed (knots).

element **anpHeloNoiseOpMode/isStatic**

diagram	isStatic Is static.
type	xs:boolean
properties	content simple
annotation	documentation Is static.

element **anpHeloNoiseOpMode/npdCurves**

diagram	npdCurves The set of noise curves for this group. anpHeloNPDCurves npdCurve 1..∞ Base noise data interpolated/extrapolated upon according to slant range distance and thrust setting for aircraft.
type	anpHeloNPDCurves
properties	minOcc 0 maxOcc 1 content complex
children	npdCurve
annotation	documentation The set of noise curves for this group.

complexType **anpHeloNPDCurve**

diagram	anpHeloNPDCurve The Noise Power Distance curve table for a specified noise ID, noise type, operation mode, and thrust setting. noiseType Type of noise described by this curve. Valid values: S (SEL), M (LAMAX), E (EPNL), P (PNLTM). opMode Noise operation mode. sideType Operation side type. Valid values: L (left), C (center), R (right), S (static) 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 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 of noise described by this curve. Valid values: S (SEL), M (LAMAX), E (EPNL), P (PNLTM).
type	anpNpdNoiseType
properties	content simple
facets	Kind Value Annotation pattern S M E P
annotation	documentation Type of noise described by this curve. Valid values: S (SEL), M (LAMAX), E (EPNL), P (PNLTM).

element [anpHeloNPDCurve/opMode](#)

diagram	 Noise operation mode.
type	anpHeloNpdOpMode
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Noise 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 **anpHeloNPD**Curve/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.

element **anpHeloNPD**Curve/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 **anpHeloNPD**Curve/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 **anpHeloNPD**Curve/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 **anpHeloNPD**Curve/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.

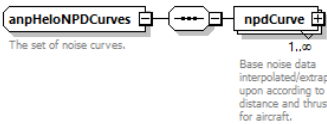
element **anpHeloNPD**Curve/L_16000

diagram	 Decibel level at 16000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 16000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

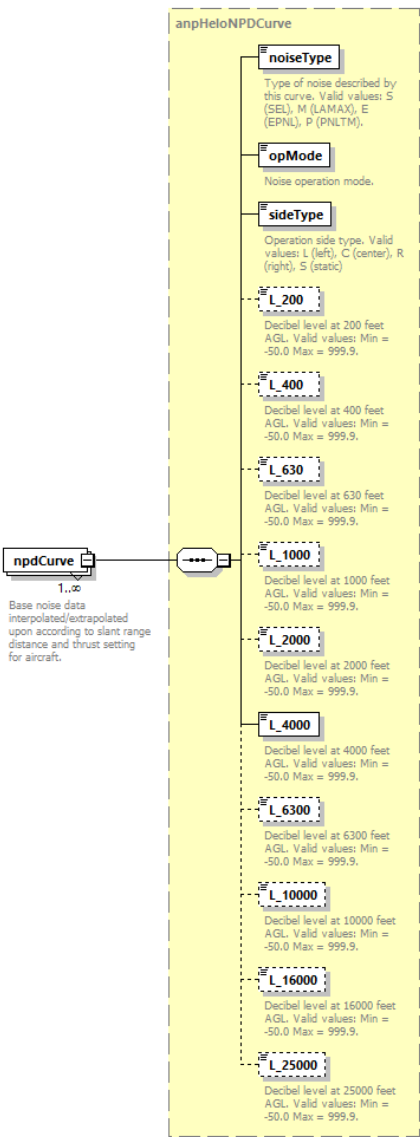
element **anpHeloNPDCurve/L_25000**

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

complexType **anpHeloNPDCurves**

diagram	 The set of noise curves. 1..∞ Base noise data interpolated/extrapolated upon according to slant range distance and thrust setting for aircraft.
children	npdCurve
used by	element anpHeloNoiseOpMode/npdCurves
annotation	documentation The set of noise curves.

element **anpHeloNPDCurves/npdCurve**

diagram	 The diagram shows the structure of the anpHeloNPDCurve element. It is a container for various noise data points. The element is represented by a dashed box labeled anpHeloNPDCurve. Inside, there are several sub-elements: noiseType (Type of noise described by this curve. Valid values: S (SEL), M (LAMAX), E (EPNL), P (PNLTM).), opMode (Noise operation mode.), sideType (Operation side type. Valid values: L (left), C (center), R (right), S (static)), and a series of decibel level elements: L_200, L_400, L_630, L_1000, L_2000, L_4000, L_6300, L_10000, L_16000, and L_25000. Each of these elements is represented by a dashed box with its name and a description of the decibel level at a specific altitude (e.g., 200 feet, 400 feet, etc.). The L_25000 element is highlighted in yellow. To the left of the anpHeloNPDCurve box, there is a npdCurve element represented by a dashed box with a multiplicity of 1..∞. A line connects the npdCurve element to the anpHeloNPDCurve box, indicating that the box contains the data for the npdCurve element.
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	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, (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 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.
children	stepNum operationType profileGroupId profileStageLength stepType duration distance altitude speed
used by	element anpHeloProcedureSteps/step
annotation	documentation Procedure data element.

element **anpHeloProcedureStep/stepNum**

diagram	stepNum Step number of the procedure. Must be unique in a sequence.
type	xs:int
properties	content simple
annotation	documentation Step number of the procedure. Must be unique in a sequence.

element **anpHeloProcedureStep/operationType**

diagram	operationType 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 **anpHeloProcedureStep/profileGroupId**

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 = 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).
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).
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element **anpHeloProcedureStep/distance**

diagram	distance 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 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	speed 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 **anpHeloProcedureSteps**

diagram	anpHeloProcedureSteps A set of procedure steps for the profile. step 1..∞ An ANP procedure step.
children	step
used by	element anpHeloProfile/procedureSteps
annotation	documentation A set of procedure steps for the profile.

element **anpHeloProcedureSteps/step**

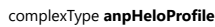


diagram	anpHeloProfile Profile data element. operationType Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFix), V (OverFix) profileGroupId Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data). profileStageLength Profile 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). 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) procedureSteps Set of procedure steps associated with this profile. profilePoints Set of points associated with this profile.
children	operationType profileGroupId profileStageLength weight useDirectivity , useTrack headingTakeoffGround headingTakeoffHover headingLandGround headingLandHover procedureSteps profilePoints
used by	element anpHeloProfileSet/profile
annotation	documentation Profile data element.

element **anpHeloProfile/operationType**

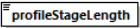
diagram	 operationType Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFit), V (OverFit)
type	<u>string1</u>
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFit), V (OverFit)

element **anpHeloProfile/profileGroupId**

diagram	profileGroupid Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0

	maxLength 255
annotation	documentation Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).

element **anpHeloProfile/profileStageLength**

diagram	 Profile stage number (min = 1, max = 9). Approach stage numbers are not related to trip distance. There is only one standard approach profile for most standard aircraft and its stage number is set to 1. Approach stage numbers are used to distinguish members of a group. For example, approach stage can mean different kinds of approaches (e.g. 1 = 3 degree approach, 2 = 5 degree approach).
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Profile stage number (min = 1, max = 9). Approach stage numbers are not related to trip distance. There is only one standard approach profile for most standard aircraft and its stage number is set to 1. Approach stage numbers are used to distinguish members of a group. For example, approach stage can mean different kinds of approaches (e.g. 1 = 3 degree approach, 2 = 5 degree approach).

element **anpHeloProfile/weight**

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

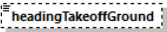
element **anpHeloProfile/useDirectivity**

diagram	 Use directivity? Y=Yes N=No.
type	yesNoType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern Yes Y No N
annotation	documentation Use directivity? Y=Yes N=No.

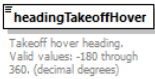
element **anpHeloProfile/useTrack**

diagram	 Use track (static heading is relative to track)? Y=Yes N=No.
type	yesNoType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern Yes Y No N
annotation	documentation Use track (static heading is relative to track)? Y=Yes N=No.

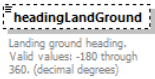
element **anpHeloProfile/headingTakeoffGround**

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

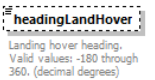
element **anpHeloProfile/headingTakeoffHover**

diagram	 headingTakeoffHover 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)

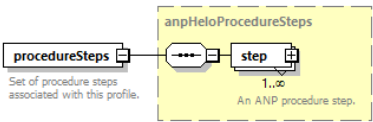
element **anpHeloProfile/headingLandGround**

diagram	 headingLandGround 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)

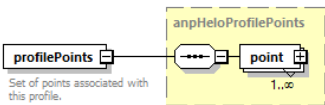
element **anpHeloProfile/headingLandHover**

diagram	 headingLandHover 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/procedureSteps**

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

element **anpHeloProfile/profilePoints**

diagram	 profilePoints Set of points associated with this profile. anpHeloProfilePoints point 1..∞
type	<u>anpHeloProfilePoints</u>
properties	content complex
children	<u>point</u>
annotation	documentation Set of points associated with this profile.

complexType **anpHeloProfilePoint**

diagram	
children	pointNum distance altitude speed duration opMode stretch
used by	element anpHeloProfilePoints/point
annotation	documentation A single profile point data element.

element [anpHeloProfilePoint/pointNum](#)

diagram	
type	xs:short
properties	content simple
annotation	documentation Point index number. Must be sequential and unique, starting at 1.

element [anpHeloProfilePoint/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 [anpHeloProfilePoint/altitude](#)

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

element [anpHeloProfilePoint/speed](#)

diagram	
type	xs:double
properties	content simple
annotation	documentation True air speed (TAS) at this point (min = 0, max = 600, knots).

element [anpHeloProfilePoint/duration](#)

diagram	 Duration for static operation mode segments (NULL for dynamic operation mode segments). UNITS: Seconds
type	xs:double
properties	minOcc 0 maxOcc 1 content simple nillable true
annotation	documentation Duration for static operation mode segments (NULL for dynamic operation mode segments). UNITS: Seconds

element **anpHeloProfilePoint/opMode**

diagram	 Noise operation mode (NULL for last point in profile)
type	<u>string255</u>
properties	minOcc 0 maxOcc 1 content simple nillable true
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Noise operation mode (NULL for last point in profile)

element **anpHeloProfilePoint/stretch**

diagram	 Stretch segment indicator for helipad to helipad and taxi (level only) profiles. (C) Climb, (L) Level, (D) Descend, (NULL) all other segments
type	restriction of xs:string
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation enumeration C documentation Climb enumeration D documentation Descend enumeration L documentation Level
annotation	documentation Stretch segment indicator for helipad to helipad and taxi (level only) profiles. (C) Climb, (L) Level, (D) Descend , (NULL) all other segments

complexType **anpHeloProfilePoints**

diagram	 A set of point profile data for helicopters.
children	<u>point</u>
used by	element <u>anpHeloProfile/profilePoints</u>
annotation	documentation A set of point profile data for helicopters.

element **anpHeloProfilePoints/point**

diagram	
type	anpHeloProfilePoint
properties	minOcc 1 maxOcc unbounded content complex
children	pointNum distance altitude speed duration opMode stretch

complexType **anpHeloProfileSet**

diagram	
children	anpHelicopterId profile
used by	element fleet/anpHeloProfileSet
annotation	documentation A profile set for an ANP helicopter.

element **anpHeloProfileSet/anpHelicopterId**

diagram	
type	anpHeloId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The anp helicopter id.

element **anpHeloProfileSet/profile**

diagram	The diagram illustrates the structure of the anpNoiseGroup element. It contains three spectral class references for a given aircraft Noise group with the corresponding thrust setting type and model type. The references are: noiseld (Noise group's ID), spectralClassApproach (Spectral class number for approach), spectralClassDeparture (Spectral class number for departure), and spectralClassAfterburner (Spectral class number for afterburner). Additionally, it includes thrustSetType (Type of thrust setting) and modelType (Type of distance-duration model). The npdCurves element represents the set of noise curves for ANP aircraft.
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	
type	anpNoiseld
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Noise group's ID.

element **anpNoiseGroup/spectralClassApproach**

diagram	
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	
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	 spectralClassAfterburner 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).

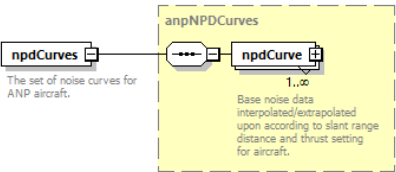
element **anpNoiseGroup/thrustSetType**

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

element **anpNoiseGroup/npdCurves**

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

complexType **anpNPDCurve**

diagram	The diagram illustrates the structure of the anpNPD curve. It starts with a box labeled anpNPD (The Noise Power Distance curve table for a specified noise ID, noise type, operation mode, and thrust setting.) connected to a dashed line. This line branches into several properties: 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 anpNPD Curves/npdCurve
annotation	documentation The Noise Power Distance curve table for a specified noise ID, noise type, operation mode, and thrust setting.

element **anpNPD**[Curve/noiseType](#)

diagram	The diagram shows the noiseType property, which is a string representing the type of noise described by the curve. Valid values are S (SEL), M (LAMAX), E (EPNL), and P (PNLTM).
type	anpNpdNoiseType
properties	content simple
facets	Kind Value Annotation pattern S M E P
annotation	documentation Type of noise described by this curve. Valid values: S (SEL), M (LAMAX), E (EPNL), P (PNLTM).

element **anpNPD**[Curve/opMode](#)

diagram	The diagram shows the opMode property, which is a string representing the engine operation mode. Valid values are A (Approach), D (Depart), and X (Afterburner).
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	 netThrustPerEngine Net thrust per engine (min = 0.10, max = 99999.00, lbs. or percentage depending on parent noise group THRUST_SET_TYPE value).
type	xs:double
properties	content simple
annotation	documentation Net thrust per engine (min = 0.10, max = 99999.00, lbs. or percentage depending on parent noise group THRUST_SET_TYPE value).

element **anpNPDCurve/L_200**

diagram	 L_200 Decibel level at 200 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	content simple
annotation	documentation Decibel level at 200 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpNPDCurve/L_400**

diagram	 L_400 Decibel level at 400 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	content simple
annotation	documentation Decibel level at 400 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpNPDCurve/L_630**

diagram	 L_630 Decibel level at 630 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	content simple
annotation	documentation Decibel level at 630 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpNPDCurve/L_1000**

diagram	 L_1000 Decibel level at 1000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	content simple
annotation	documentation Decibel level at 1000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpNPDCurve/L_2000**

diagram	 L_2000 Decibel level at 2000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	content simple
annotation	documentation Decibel level at 2000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpNPDCurve/L_4000**

diagram	 L_4000 Decibel level at 4000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	content simple
annotation	documentation Decibel level at 4000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpNPDCurve/L_6300**

diagram	 Decibel level at 6300 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	content simple
annotation	documentation Decibel level at 6300 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpNPDCurve/L_10000**

diagram	 Decibel level at 10000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	content simple
annotation	documentation Decibel level at 10000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

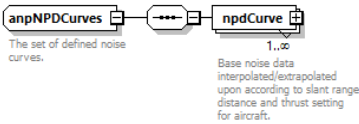
element **anpNPDCurve/L_16000**

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

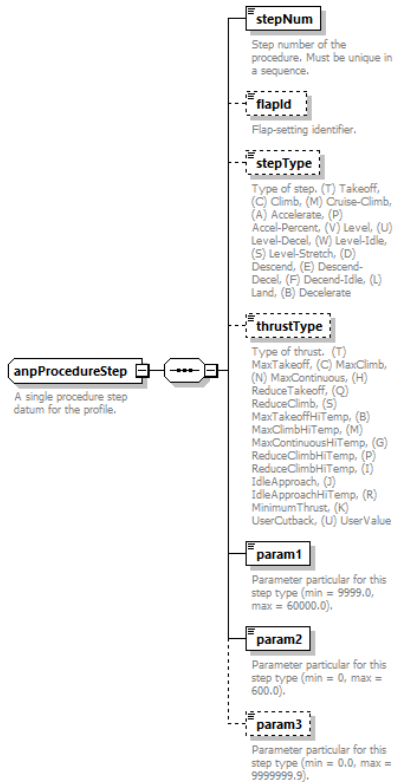
element **anpNPDCurve/L_25000**

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

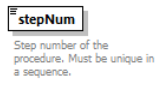
complexType **anpNPDCurves**

diagram	
children	npdCurve
used by	element anpNoiseGroup/npdCurves
annotation	documentation The set of defined noise curves.

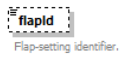
element **anpNPDCurves/npdCurve**

diagram	 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). anpProcedureStep A single procedure step datum for the profile.
children	stepNum flapId stepType thrustType param1 param2 param3
used by	element anpProcedureSteps/step
annotation	documentation A single procedure step datum for the profile.

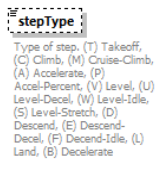
element [anpProcedureStep/stepNum](#)

diagram	 stepNum Step number of the procedure. Must be unique in a sequence.
type	xs:int
properties	content simple
annotation	documentation Step number of the procedure. Must be unique in a sequence.

element [anpProcedureStep/flapId](#)

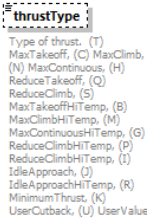
diagram	 flapId Flap-setting identifier.
type	anpFlapId
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 6
annotation	documentation Flap-setting identifier.

element [anpProcedureStep/stepType](#)

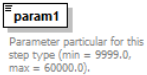
diagram	 stepType Type of step. (T) Takeoff, (C) Climb, (M) Cruise-Climb, (A) Accelerate, (P) Accel-Percent, (V) Level, (U) Level-Decel, (W) Level-Idle, (S) Level-Stretch, (D) Descend, (E) Descend-Decel, (F) Decend-Idle, (L) Land, (B) Decelerate
type	string1
properties	minOcc 0 maxOcc 1 content simple
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

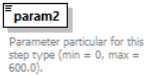
element **anpProcedureStep/thrustType**

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

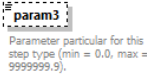
element **anpProcedureStep/param1**

diagram	
type	xs:double
properties	content simple
annotation	documentation Parameter particular for this step type (min = 9999.0, max = 60000.0).

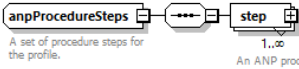
element **anpProcedureStep/param2**

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	
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	
children	operationType profileGroupId profileStageLength weight procedureSteps profilePoints
used by	element anpProfileSet/profile
annotation	documentation Profile data element.

element **anpProfile/operationType**

diagram	operationType Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFt), V (OverFt)
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 (CircuitFt), V (OverFt)

element **anpProfile/profileGroupId**

diagram	profileGroupId Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).

element **anpProfile/profileStageLength**

diagram	profileStageLength Profile stage number (min = 1, max = 9). Approach stage numbers are not related to trip distance. There is only one standard approach profile for most standard aircraft and its stage number is set to 1. Approach stage numbers are used to distinguish members of a group. For example, approach stage can mean different kinds of approaches (e.g. 1 = 3 degree approach, 2 = 5 degree approach).
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Profile stage number (min = 1, max = 9). Approach stage numbers are not related to trip distance. There is only one standard approach profile for most standard aircraft and its stage number is set to 1. Approach stage numbers are used to distinguish members of a group. For example, approach stage can mean different kinds of approaches (e.g. 1 = 3 degree approach, 2 = 5 degree approach).

element **anpProfile/weight**

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

element **anpProfile/procedureSteps**

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

element **anpProfile/profilePoints**

diagram	Set of points associated with this profile.
type	anpProfilePoints
properties	content complex
children	point
annotation	documentation Set of points associated with this profile.

complexType **anpProfilePoint**

diagram	A single profile point data element. pointNum Point index number. Must be sequential and unique, starting at 1. distance Distance along the ground relative to start (min = -9999999.9, max = 9999999.9, feet). altitude Altitude AFE of aircraft (min = -9999, max = 60000, feet). speed True air speed (TAS) at this point (min = 0, max = 600, knots). thrustSet Corrected net thrust per engine at this point (min = 0.1, max = 99999, lbs or % max thrust). opMode Operational mode. Valid values: A (Approach), D (Departure), X (Overflight).
children	pointNum distance altitude speed thrustSet opMode
used by	element anpProfilePoints/point
annotation	documentation A single profile point data element.

element **anpProfilePoint/pointNum**

diagram	Point index number. Must be sequential and unique, starting at 1.
type	xs:short
properties	content simple
annotation	documentation Point index number. Must be sequential and unique, starting at 1.

element **anpProfilePoint/distance**

diagram	Distance along the ground relative to start (min = -9999999.9, max = 9999999.9, feet).
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	Altitude AFE of aircraft (min = -9999, max = 60000, feet).
type	xs:double
properties	content simple
annotation	documentation Altitude AFE of aircraft (min = -9999, max = 60000, feet).

element **anpProfilePoint/speed**

diagram	speed True air speed (TAS) at this point (min = 0, max = 600, knots).
type	xs:double
properties	content simple
annotation	documentation True air speed (TAS) at this point (min = 0, max = 600, knots).

element **anpProfilePoint/thrustSet**

diagram	thrustSet Corrected net thrust per engine at this point (min = 0.1, max = 99999, lbs or % max thrust).
type	xs:double
properties	content simple
annotation	documentation Corrected net thrust per engine at this point (min = 0.1, max = 99999, lbs or % max thrust).

element **anpProfilePoint/opMode**

diagram	opMode Operational mode. Valid values: A (Approach), D (Departure), X (Overflight).
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Operational mode. Valid values: A (Approach), D (Departure), X (Overflight).

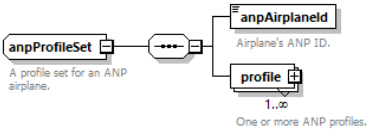
complexType **anpProfilePoints**

diagram	A set of point profile data.
children	point
used by	element anpProfile/profilePoints
annotation	documentation A set of point profile data.

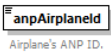
element **anpProfilePoints/point**

diagram	
type	anpProfilePoint
properties	minOcc 1 maxOcc unbounded content complex
children	pointNum distance altitude speed thrustSet opMode

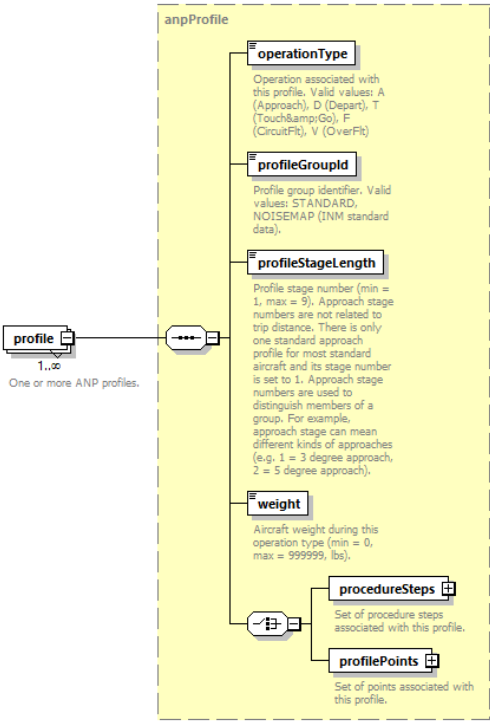
complexType **anpProfileSet**

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	The diagram shows the anpThrustGeneral element, which is a container for general thrust data for an ANP aircraft. It is connected to a series of child elements: thrustType, coeff_E, coeff_F, coeff_GA, coeff_GB, coeff_H, coeff_K1, and coeff_K2. Each child element has a brief description of its function and valid values. 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/R) 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)
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	The diagram shows the thrustType element, which is the type of generalized thrust-setting.
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	The diagram shows the coeff_E element, which is the corrected net thrust per engine coefficient. Valid values: -199999.9 through 99999.9. (lb).
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	The diagram shows the coeff_F element, which is the speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F)
type	xs:double
properties	content simple
annotation	documentation Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F)

element **anpThrustGeneral/coeff_GA**

diagram	The diagram shows the coeff_GA element, which is the altitude adjustment coefficient at MSL. (lb/ft)
type	xs:double
properties	content simple
annotation	documentation

	Altitude adjustment coefficient at MSL. (lb/ft)
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element **anpThrustGeneral/coeff_GB**

diagram	coeff_GB Altitude-squared adjustment coefficient at MSL. (lb/ft^2)
type	xs:double
properties	content simple
annotation	documentation Altitude-squared adjustment coefficient at MSL. (lb/ft^2)

element **anpThrustGeneral/coeff_H**

diagram	coeff_H Temperature adjustment coefficient. (lb/^C)
type	xs:double
properties	content simple
annotation	documentation Temperature adjustment coefficient. (lb/^C)

element **anpThrustGeneral/coeff_K1**

diagram	coeff_K1 EPR or N1/sqrt(theta) adjustment coefficient. (lb/EPR)
type	xs:double
properties	content simple
annotation	documentation EPR or N1/sqrt(theta) adjustment coefficient. (lb/EPR)

element **anpThrustGeneral/coeff_K2**

diagram	coeff_K2 EPR- or N1/sqrt(theta)-squared adjustment coefficient. (lb/EPR2)
type	xs:double
properties	content simple
annotation	documentation EPR- or N1/sqrt(theta)-squared adjustment coefficient. (lb/EPR2)

complexType **anpThrustJet**

diagram	anpThrustJet Jet thrust data for an ANP aircraft. thrustType Type of thrust. Primary key UNITS: T = Max Takeoff, S = High Temp Takeoff, C = Max Climb, B = High Temp Climb, N = Max Continuous, M = High Temp Continuous coeff_E Corrected net thrust per engine coefficient. Valid values: 0.0 through 500000.0. (lb) coeff_F Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F) coeff_GA Altitude adjustment coefficient at MSL. (lb/ft) coeff_GB Altitude-squared adjustment coefficient at MSL. (lb/ft^2) coeff_H Temperature adjustment coefficient. (lb/^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	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
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	coeff_E Corrected net thrust per engine coefficient. Valid values: 0.0 through 500000.0. (lb)
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	coeff_F Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F)
type	xs:double
properties	content simple
annotation	documentation Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F)

element **anpThrustJet/coeff_GA**

diagram	coeff_GA Altitude adjustment coefficient at MSL. (lb/ft)
type	xs:double
properties	content simple
annotation	documentation Altitude adjustment coefficient at MSL. (lb/ft)

element **anpThrustJet/coeff_GB**

diagram	coeff_GB Altitude-squared adjustment coefficient at MSL. (lb/ft^2)
type	xs:double
properties	content simple
annotation	documentation Altitude-squared adjustment coefficient at MSL. (lb/ft^2)

element **anpThrustJet/coeff_H**

diagram	coeff_H Temperature adjustment coefficient. (lb/^C)
type	xs:double
properties	content simple
annotation	documentation Temperature adjustment coefficient. (lb/^C)

complexType **anpThrustProp**

diagram	anpThrustProp Prop thrust data for an ANP aircraft. thrustType Type of thrust. efficiency The propeller efficiency ratio. Valid values: 0.50 to 1.00. power Net propulsive power per engine (HP). Valid values: 0 to 9999.9.
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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	 thrustType Type of thrust.
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of thrust.

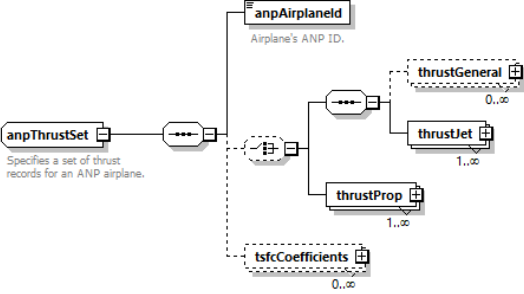
element [anpThrustProp/efficiency](#)

diagram	 efficiency The propeller efficiency ratio. Valid values: 0.50 to 1.00.
type	xs:double
properties	content simple
annotation	documentation The propeller efficiency ratio. Valid values: 0.50 to 1.00.

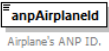
element [anpThrustProp/power](#)

diagram	 power Net propulsive power per engine (HP). Valid values: 0 to 9999.9.
type	xs:double
properties	content simple
annotation	documentation Net propulsive power per engine (HP). Valid values: 0 to 9999.9.

complexType [anpThrustSet](#)

diagram	 anpThrustSet Specifies a set of thrust records for an ANP airplane. anpAirplaneId Airplane's ANP ID. thrustGeneral 0..∞ thrustJet 1..∞ thrustProp 1..∞ tsfcCoefficients 0..∞
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	 anpAirplaneId Airplane's ANP ID.
type	anpAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's ANP ID.

element [anpThrustSet/thrustGeneral](#)

diagram	
type	anpThrustGeneral
properties	minOcc 0 maxOcc unbounded content complex
children	thrustType coeff_E coeff_F coeff_GA coeff_GB coeff_H coeff_K1 coeff_K2

element **anpThrustSet/thrustJet**

diagram	
type	anpThrustJet
properties	minOcc 1 maxOcc unbounded content complex
children	thrustType coeff_E coeff_F coeff_GA coeff_GB coeff_H

element **anpThrustSet/thrustProp**

diagram	
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	<pre> classDiagram class anpTsfcCoefficients { -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. } </pre>
children	mode k1 k2 k3 k4 beta1 beta2 beta3 alpha
used by	element anpThrustSet/tsfcCoefficients
annotation	documentation TSFC coefficient data for an ANP aircraft.

element [anpTsfcCoefficients/mode](#)

diagram	<pre> classDiagram class mode { : Arrival or departure mode. } </pre>
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Arrival or departure mode.

element [anpTsfcCoefficients/k1](#)

diagram	<pre> classDiagram class k1 { : Departure thrust specific fuel consumption constant coefficient. } </pre>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Departure thrust specific fuel consumption constant coefficient.

element [anpTsfcCoefficients/k2](#)

diagram	<pre> classDiagram class k2 { : Departure thrust specific fuel consumption Mach number coefficient. } </pre>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Departure thrust specific fuel consumption Mach number coefficient.

element [anpTsfcCoefficients/k3](#)

diagram	<pre> classDiagram class k3 { : Departure thrust specific fuel consumption altitude coefficient. } </pre>
---------	---

type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Departure thrust specific fuel consumption altitude coefficient.

element **anpTsfcCoefficients/k4**

diagram	 k4 Departure thrust specific fuel consumption thrust coefficient.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Departure thrust specific fuel consumption thrust coefficient.

element **anpTsfcCoefficients/beta1**

diagram	 beta1 Arrival thrust specific fuel consumption Mach number coefficient.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Arrival thrust specific fuel consumption Mach number coefficient.

element **anpTsfcCoefficients/beta2**

diagram	 beta2 Arrival thrust specific fuel consumption altitude coefficient.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Arrival thrust specific fuel consumption altitude coefficient.

element **anpTsfcCoefficients/beta3**

diagram	 beta3 Arrival thrust specific fuel consumption thrust coefficient.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Arrival thrust specific fuel consumption thrust coefficient.

element **anpTsfcCoefficients/alpha**

diagram	 alpha Arrival thrust specific fuel consumption constant coefficient.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Arrival thrust specific fuel consumption constant coefficient.

complexType **auxiliaryPowerUnit**

diagram	auxiliaryPowerUnit 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. name Identifying name of APU. baseAuxiliaryPowerUnit Base reference name, typically a system name. defaultTimeArrivals Default length of time APU used for powering arrival aircraft (minutes). Valid values: Nonnegative. defaultTimeDepartures Default length of time APU used for powering departure aircraft (minutes). Valid values: Nonnegative. CO Amount of carbon monoxide emitted (kg/hour). Valid values [0&#8230;1,000]. HC Amount of hydrocarbons emitted (kg/hour). Valid values [0&#8230;1,000]. NOx Amount of nitrous oxide emitted (kg/hour). Valid values [0&#8230;1,000]. SOx Amount of sulfur oxide emitted (kg/hour). Valid values [0&#8230;1,000]. PM Amount of particulate matter emitted (kg/hour). Valid values [0&#8230;1,000].
children	name baseAuxiliaryPowerUnit defaultTimeArrivals defaultTimeDepartures CO HC NOx SOx PM
used by	element fleet/auxiliaryPowerUnit
annotation	documentation This element supports the definition of custom auxiliary power units. These are most often on-board generators that provide electrical power to the aircraft while its engines are shut down.

element **auxiliaryPowerUnit/name**

diagram	name Identifying name of APU.
type	apuName
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 30
annotation	documentation Identifying name of APU.

element **auxiliaryPowerUnit/baseAuxiliaryPowerUnit**

diagram	baseAuxiliaryPowerUnit Base reference name, typically a system name.
type	apuName
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 30
annotation	documentation Base reference name, typically a system name.

element **auxiliaryPowerUnit/defaultTimeArrivals**

diagram	defaultTimeArrivals Default length of time APU used for powering arrival aircraft (minutes). Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Default length of time APU used for powering arrival aircraft (minutes). Valid values: Nonnegative.

element **auxiliaryPowerUnit/defaultTimeDepartures**

diagram	 Default length of time APU used for powering departure aircraft (minutes). Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Default length of time APU used for powering departure aircraft (minutes). Valid values: Nonnegative.

element **auxiliaryPowerUnit/CO**

diagram	 Amount of carbon monoxide emitted (kg/hour). Valid values [0&#8230;1,000].
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of carbon monoxide emitted (kg/hour). Valid values [0…1,000].

element **auxiliaryPowerUnit/HC**

diagram	 Amount of hydrocarbons emitted (kg/hour). Valid values [0&#8230;1,000].
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of hydrocarbons emitted (kg/hour). Valid values [0…1,000].

element **auxiliaryPowerUnit/NOx**

diagram	 Amount of nitrous oxide emitted (kg/hour). Valid values [0&#8230;1,000].
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of nitrous oxide emitted (kg/hour). Valid values [0…1,000].

element **auxiliaryPowerUnit/SOx**

diagram	 Amount of sulfur oxide emitted (kg/hour). Valid values [0&#8230;1,000].
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of sulfur oxide emitted (kg/hour). Valid values [0…1,000].

element **auxiliaryPowerUnit/PM**

diagram	 Amount of particulate matter emitted (kg/hour). Valid values [0&#8230;1,000].
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of particulate matter emitted (kg/hour). Valid values [0…1,000].

complexType **bada4ProcedureStep**

	Step number of the procedure. Must be unique in a sequence.
--	---

element bada4ProcedureStep/configId

diagram	
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation AFCM configuration ID.

element bada4ProcedureStep/anpAirplaneId

diagram	
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	
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	
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	 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, (G) ReducedTakeoffHiTemp, (Q) ReducedClimb, (P) ReducedClimbHiTemp, (R) MinimumThrust, (K) UserCutback, (U) UserValue, (V) ReversedThrust, (L) NormalThrust, (I) IdleApproach, (J) IdleApproachHiTemp, (*) UnknownThrust.
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	 altitude Altitude above runway elevation (ARE) for the procedure step. UNITS: feet.
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	 calibratedAirspeed Calibrated airspeed (KCAS). UNITS: knots.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Calibrated airspeed (KCAS). UNITS: knots.

element bada4ProcedureStep/mach

diagram	 mach Mach number for procedure step. Min= 0.0 Max= 10.0 UNITS: Dimensionless.
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	 thrust Thrust in pounds.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Thrust in pounds.

element bada4ProcedureStep/angle

diagram	
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	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Climb rate in feet per minute.

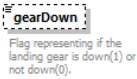
element bada4ProcedureStep/distance

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Flight segment length in feet.

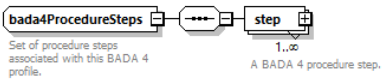
element bada4ProcedureStep/percent

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Defines how much energy is spent on acceleration.

element bada4ProcedureStep/gearDown

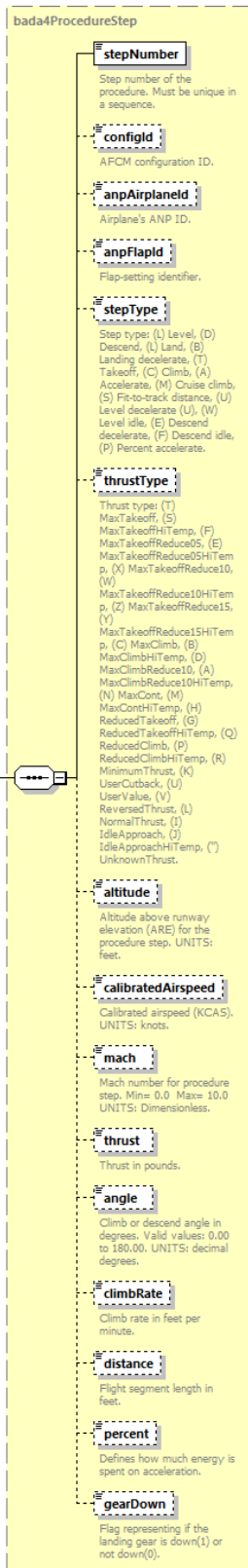
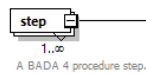
diagram	
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Flag representing if the landing gear is down(1) or not down(0).

complexType bada4ProcedureSteps

diagram	
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	bada4Profile BADA 4 profile data element. 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.
children	operationType flightProcedure weightClass weight bada4ProcedureSteps
used by	element bada4ProfileSet/bada4profile
annotation	documentation BADA 4 profile data element.

element **bada4Profile/operationType**

diagram	operationType Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFt), V (OverFt)
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 (CircuitFt), V (OverFt)

element **bada4Profile/flightProcedure**

diagram	flightProcedure Flight procedure identifier. Typically STANDARD, ICAO A, ICAO B or user defined.
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	weightClass Formerly known as STAGE LENGTH.
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Formerly known as STAGE LENGTH.

element **bada4Profile/weight**

diagram	weight Weight in pounds.
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	
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**

element	badaAirplane/badaAirplaneld
diagram	
type	<u>badaAirplaneld</u>
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation ID of a BADA airplane model. Must be unique.

element badaAirplane/mfgDescription

diagram	mfgDescription Manufacturer description.
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Manufacturer description.

element badaAirplane/numEngines

diagram	numEngines The number of engines.
type	xs:int
properties	content simple
annotation	documentation The number of engines.

element badaAirplane/engineTypeCode

diagram	engineTypeCode The engine type code: J/T/P.
type	engineType
properties	content simple
facets	Kind Value Annotation pattern Jet J Turbo Turboprop T Prop Piston P
annotation	documentation The engine type code: J/T/P.

element badaAirplane/wakeCategory

diagram	wakeCategory The wake category.
type	badaWakeType
properties	content simple
facets	Kind 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).
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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).

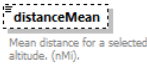
complexType badaAltitudeDistribution

diagram	
children	altitudeCount distanceMean distanceStddev distanceLow distanceHigh altitude
used by	element badaAltitudeDistributionSet/altitudeDistribution
annotation	documentation BADA altitude distribution data.

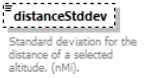
element badaAltitudeDistribution/altitudeCount

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.

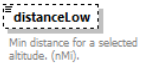
element badaAltitudeDistribution/distanceMean

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).

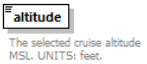
element **badaAltitudeDistribution/distanceLow**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Min distance for a selected altitude. (nMi).

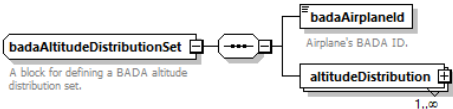
element **badaAltitudeDistribution/distanceHigh**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Maximum distance for a selected altitude. (nMi).

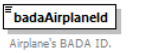
element **badaAltitudeDistribution/altitude**

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 IC Takeoff TO Approach AP Landing LD Cruise CR
annotation	documentation The phase of flight (IC=initial climb, TO=take-off, AP=approach, LD=landing).

element **badaConfig/configName**

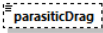
diagram	
type	string10
properties	minOcc 0 maxOcc 1 content simple

facets	Kind Value Annotation minLength 0 maxLength 10
annotation	documentation The configuration identifier.

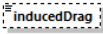
element **badaConfig/stallSpeed**

diagram	 stallSpeed The stall speed, CAS. Valid values: 0.0 through 600.0. UNITS: knots.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Stall speed, CAS. Valid values: 0.0 through 600.0. UNITS: knots.

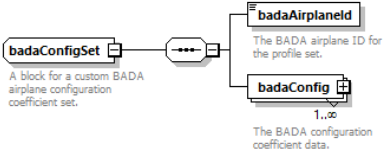
element **badaConfig/parasiticDrag**

diagram	 parasiticDrag The parasitic drag coefficient. Valid values: 0.0 through 10.0.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The parasitic drag coefficient. Valid values: 0.0 through 10.0.

element **badaConfig/inducedDrag**

diagram	 inducedDrag The induced drag coefficient. Valid values: 0.0 through 10.0.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The induced drag coefficient. Valid values: 0.0 through 10.0.

complexType **badaConfigSet**

diagram	 badaConfigSet A block for a custom BADA airplane configuration coefficient set. badaAirplaneId The BADA airplane ID for the profile set. badaConfig 1..∞ The BADA configuration coefficient data.
children	badaAirplaneId badaConfig
used by	element fleet/badaConfigSet
annotation	documentation A block for a custom BADA airplane configuration coefficient set.

element **badaConfigSet/badaAirplaneId**

diagram	 badaAirplaneId The BADA airplane ID for the profile set.
type	badaAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The BADA airplane ID for the profile set.

element **badaConfigSet/badaConfig**

diagram	badaConfig 1..∞ The BADA configuration coefficient data. 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	badaFuel A BADA Fuel data record. 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	badaAirplaneId The BADA aircraft ID
type	badaAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The BADA aircraft ID

element **badaFuel/coeff_CF1**

diagram	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))
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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); (turboprop); kg/min (piston))

element **badaFuel/coeff_CF2**

diagram	coeff_CF2 2nd thrust specific fuel consumption coefficient. Valid values: 0.0 through 1. UNITS: knots.
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	coeff_CF3 1st descent fuel flow coefficient. Min= Valid values: 0.0 through 100.0.(kg/min)
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	coeff_CF4 2nd descent fuel flow coefficient. Valid values: 0.0 through 1. (feet)
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	coeff_CR Cruise fuel flow correction coefficient. Valid values: 0.0 through 10.0.
type	xs:double
properties	content simple
annotation	documentation Cruise fuel flow correction coefficient. Valid values: 0.0 through 10.0.

complexType **badaProfile**

diagram	badaProfile A BADA profile APF (airline procedures file) record. 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 / 6,000 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 / 6,000 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	massRangeValue Mass range. Valid values: LO (low range), AV (average range), HI (high range).
type	string2
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 2
annotation	documentation Mass range. Valid values: LO (low range), AV (average range), HI (high range).

element **badaProfile/companyCode1**

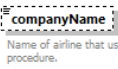
diagram	companyCode1 Three-letter company code.
type	string3

properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 3
annotation	documentation Three-letter company code.

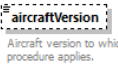
element badaProfile/companyCode2

diagram	
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.

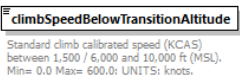
element badaProfile/aircraftVersion

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	descentMachNumber Standard descent Mach number above transition altitude (MSL), Min= 0.0 Max= 10.0 UNITS: Dimensionless.
type	xs:double
properties	content simple
annotation	documentation Standard descent Mach number above transition altitude (MSL). Min= 0.0 Max= 10.0 UNITS: Dimensionless.

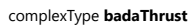
complexType badaProfileSet

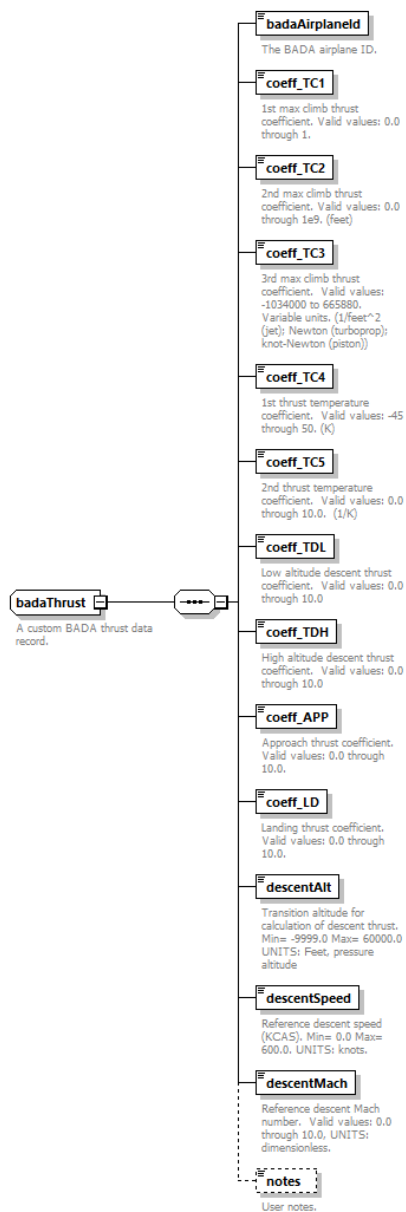
diagram	badaProfileSet A block used to define a custom BADA profile set. badaAirplaneId The BADA airplane ID for the profile set. profile The profile set data. 1..∞
children	badaAirplaneId profile
used by	element fleet/badaProfileSet
annotation	documentation A block used to define a custom BADA profile set.

element badaProfileSet/badaAirplaneId

diagram	badaAirplaneId The BADA airplane ID for the profile set.
type	badaAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The BADA airplane ID for the profile set.

element badaProfileSet/profile





children

[illegible]

used by

element **[fleet/badaThrust](#)**

annotation

documentation
A custom BADA thrust data record.

element **badaThrust/badaAirplaneId**



type

badaAirplaneId

properties

content simple

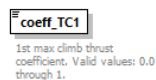
facets

Kind	Value	Annotation
minLength	0	
maxLength	255	

annotation

documentation
The BADA airplane ID.

element **badaThrust/coeff_TC1**



type

xs:double

properties

content simple

annotation

1st max climb thrust coefficient. Valid values: 0.0 through 1.

element badaThrust/coeff_TC2

diagram	coeff_TC2 2nd max climb thrust coefficient. Valid values: 0.0 through 1e9. (feet)
type	xs:double
properties	content simple
annotation	documentation 2nd max climb thrust coefficient. Valid values: 0.0 through 1e9. (feet)

element badaThrust/coeff_TC3

diagram	coeff_TC3 3rd max climb thrust coefficient. Valid values: -1034000 to 665880. Variable units. (1/feet^2 (jet); Newton (turboprop); knot-Newton (piston))
type	xs:double
properties	content simple
annotation	documentation 3rd max climb thrust coefficient. Valid values: -1034000 to 665880. Variable units. (1/feet^2 (jet); Newton (turboprop); knot-Newton (piston))

element badaThrust/coeff_TC4

diagram	coeff_TC4 1st thrust temperature coefficient. Valid values: -45 through 50. (K)
type	xs:double
properties	content simple
annotation	documentation 1st thrust temperature coefficient. Valid values: -45 through 50. (K)

element badaThrust/coeff_TC5

diagram	coeff_TC5 2nd thrust temperature coefficient. Valid values: 0.0 through 10.0. (1/K)
type	xs:double
properties	content simple
annotation	documentation 2nd thrust temperature coefficient. Valid values: 0.0 through 10.0. (1/K)

element badaThrust/coeff_TDL

diagram	coeff_TDL Low altitude descent thrust coefficient. Valid values: 0.0 through 10.0
type	xs:double
properties	content simple
annotation	documentation Low altitude descent thrust coefficient. Valid values: 0.0 through 10.0

element badaThrust/coeff_TDH

diagram	coeff_TDH High altitude descent thrust coefficient. Valid values: 0.0 through 10.0
type	xs:double
properties	content simple
annotation	documentation High altitude descent thrust coefficient. Valid values: 0.0 through 10.0

element badaThrust/coeff_APP

diagram	coeff_APP Approach thrust coefficient. Valid values: 0.0 through 10.0.
type	xs:double
properties	content simple
annotation	documentation Approach thrust coefficient. Valid values: 0.0 through 10.0.

element badaThrust/coeff_LD

diagram	coeff_LD Landing thrust coefficient. Valid values: 0.0 through 10.0.
type	xs:double
properties	content simple
annotation	documentation Landing thrust coefficient. Valid values: 0.0 through 10.0.

element badaThrust/descentAlt

diagram	descentAlt Transition altitude for calculation of descent thrust. Min= -9999.0 Max= 60000.0 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	descentSpeed Reference descent speed (KCAS). Min= 0.0 Max= 600.0. UNITS: knots.
type	xs:double
properties	content simple
annotation	documentation Reference descent speed (KCAS). Min= 0.0 Max= 600.0. UNITS: knots.

element badaThrust/descentMach

diagram	descentMach Reference descent Mach number. Valid values: 0.0 through 10.0, UNITS: dimensionless.
type	xs:float
properties	content simple
annotation	documentation Reference descent Mach number. Valid values: 0.0 through 10.0, UNITS: dimensionless.

element badaThrust/notes

diagram	notes User notes.
type	string255
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation User notes.

complexType coord2DType

diagram	
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone
used by	elements stationarySourceOperation/pointCoord pointStationarySource/pointCoord volumeStationarySource/pointCoord oneOrThreeCoords2DGroupSet/pointCoord polygon2DType/vertex complexType coord3DElevationType
annotation	documentation A 2D point coordinate.

complexType **coord3DElevationType**

diagram	
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	
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	
type	xs:double
properties	content simple
used by	element track
annotation	documentation Represents the centerline of a set of dispersed tracks.

complexType **dispersionWeight3Type**

diagram	
type	extension of dispersionWeight1Type
properties	base dispersionWeight1Type
children	backbone weightl1 weightr1
used by	element dispersionWeight/dispersionWeight3 complexType dispersionWeight5Type
annotation	documentation Specify the dispersion weight for a backbone with 2 subtracks..

element **dispersionWeight3Type/weightl1**

diagram	
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the first left subtrack.

element **dispersionWeight3Type/weightr1**

diagram	
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the first right subtrack.

complexType **dispersionWeight5Type**

diagram	dispersionWeight5Type Specify the dispersion weight for a backbone with 4 subtracks. dispersionWeight3Type (extension) backbone Represents the centerline of a set of dispersed tracks. weightl1 Specify the dispersion weight for the first left subtrack. weightr1 Specify the dispersion weight for the first right subtrack. weightl2 Specify the dispersion weight for the second left subtrack. weightr2 Specify the dispersion weight for the second right subtrack.
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	weightl2 Specify the dispersion weight for the second left subtrack.
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the second left subtrack.

element **dispersionWeight5Type/weightr2**

diagram	weightr2 Specify the dispersion weight for the second right subtrack.
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the second right subtrack.

complexType **dispersionWeight7Type**

diagram	dispersionWeight7Type Specify the dispersion weight for a backbone with 6 subtracks. dispersionWeight5Type (extension) backbone Represents the centerline of a set of dispersed tracks. weightl1 Specify the dispersion weight for the first left subtrack. weightr1 Specify the dispersion weight for the first right subtrack. weightl2 Specify the dispersion weight for the second left subtrack. weightr2 Specify the dispersion weight for the second right subtrack. weightl3 Specify the dispersion weight for the third left subtrack. weightr3 Specify the dispersion weight for the third right subtrack.
type	extension of dispersionWeight5Type

properties	base dispersionWeight5Type
children	backbone weightl1 weightr1 weightl2 weightr2 weightl3 weightr3
used by	element dispersionWeight/dispersionWeight7 complexType dispersionWeight9Type
annotation	documentation Specify the dispersion weight for a backbone with 6 subtracks.

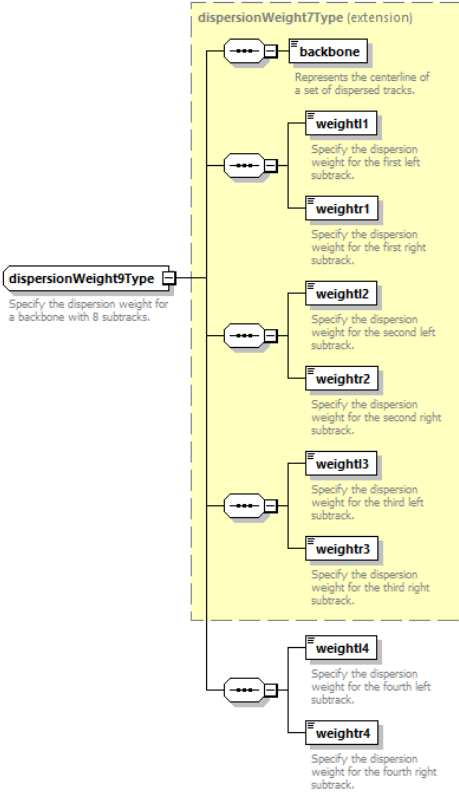
element **dispersionWeight7Type/weightl3**

diagram	 weightl3 Specify the dispersion weight for the third left subtrack.
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the third left subtrack.

element **dispersionWeight7Type/weightr3**

diagram	 weightr3 Specify the dispersion weight for the third right subtrack.
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the third right subtrack.

complexType **dispersionWeight9Type**

diagram	 dispersionWeight9Type Specify the dispersion weight for a backbone with 8 subtracks. dispersionWeight7Type (extension) backbone Represents the centerline of a set of dispersed tracks. weightl1 Specify the dispersion weight for the first left subtrack. weightr1 Specify the dispersion weight for the first right subtrack. weightl2 Specify the dispersion weight for the second left subtrack. weightr2 Specify the dispersion weight for the second right subtrack. weightl3 Specify the dispersion weight for the third left subtrack. weightr3 Specify the dispersion weight for the third right subtrack. weightl4 Specify the dispersion weight for the fourth left subtrack. weightr4 Specify the dispersion weight for the fourth right subtrack.
type	extension of dispersionWeight7Type
properties	base dispersionWeight7Type
children	backbone weightl1 weightr1 weightl2 weightr2 weightl3 weightr3 weightl4 weightr4
used by	element dispersionWeight/dispersionWeight9
annotation	documentation Specify the dispersion weight for a backbone with 8 subtracks.

element **dispersionWeight9Type/weightl4**

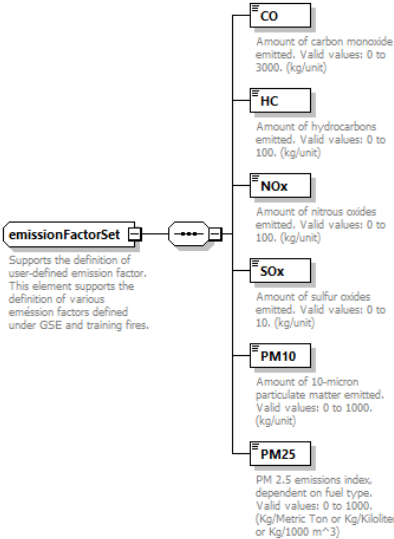
diagram	 weightl4 Specify the dispersion weight for the fourth left subtrack.
type	xs:double

properties	content simple
annotation	documentation Specify the dispersion weight for the fourth left subtrack.

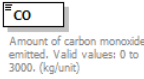
element **dispersionWeight9Type/weightr4**

diagram	
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the fourth right subtrack.

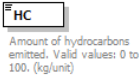
complexType **emissionFactorSet**

diagram	
children	CO HC NOx SOx PM10 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.

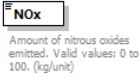
element **emissionFactorSet/CO**

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	
type	xs:double
properties	content simple
annotation	documentation Amount of nitrous oxides emitted. Valid values: 0 to 100. (kg/unit)

element **emissionFactorSet/SOx**

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

element **emissionFactorSet/PM10**

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

element **emissionFactorSet/PM25**

diagram	PM25 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)

complexType **energyShare**

diagram	energyShare anpAirplaneId badaAirplaneId transEnergyShare A custom BADA energy share. The ANP airplane ID. The BADA airplane ID. The proportion of available energy used for acceleration compared to altitude change in the ANP to BADA transition region.
children	anpAirplaneId badaAirplaneId transEnergyShare
used by	element fleet/energyShare
annotation	documentation A custom BADA energy share.

element **energyShare/anpAirplaneId**

diagram	anpAirplaneId The ANP airplane ID.
type	anpAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The ANP airplane ID.

element **energyShare/badaAirplaneId**

diagram	badaAirplaneId The BADA airplane ID.
type	badaAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The BADA airplane ID.

element **energyShare/transEnergyShare**

diagram	transEnergyShare The proportion of available energy used for acceleration compared to altitude change in the ANP to BADA transition region.
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	engineModeEmissions Describes custom emission factors user-defined aircraft engines. time Time engine operates in a given mode (minutes). Valid values: Nonnegative. fuel Fuel emission factor (g/kg). Valid values: Nonnegative. CO Amount of carbon monoxide emitted (g/kg). Valid values: Nonnegative. HC Amount of hydrocarbons emitted (g/kg). Valid values: Nonnegative. NOx Amount of nitrous oxide emitted (g/kg). Valid values: Nonnegative. SOx Amount of sulfur oxide emitted (g/kg). Valid values: Nonnegative. SN Smoke number for the engine mode (g/kg). Valid values: Nonnegative. PM Amount of particulate matter emitted (g/kg). Valid values: Nonnegative.
children	time fuel CO HC NOx SOx SN PM
used by	elements aircraftEngine/approachEmissionFactors aircraftEngine/climbEmissionFactors aircraftEngine/takeOffEmissionFactors aircraftEngine/taxiIdleEmissionFactors
annotation	documentation Describes custom emission factors user-defined aircraft engines.

element **engineModeEmissions/time**

diagram	time Time engine operates in a given mode (minutes). Valid values: Nonnegative.
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	fuel Fuel emission factor (g/kg). Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Fuel emission factor (g/kg). Valid values: Nonnegative.

element **engineModeEmissions/CO**

diagram	CO Amount of carbon monoxide emitted (g/kg). Valid values: Nonnegative.

type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Amount of carbon monoxide emitted (g/kg). Valid values: Nonnegative.

element **engineModeEmissions/HC**

diagram	 Amount of hydrocarbons emitted (g/kg). Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Amount of hydrocarbons emitted (g/kg). Valid values: Nonnegative.

element **engineModeEmissions/NOx**

diagram	 Amount of nitrous oxide emitted (g/kg). Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Amount of nitrous oxide emitted (g/kg). Valid values: Nonnegative.

element **engineModeEmissions/SOx**

diagram	 Amount of sulfur oxide emitted (g/kg). Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Amount of sulfur oxide emitted (g/kg). Valid values: Nonnegative.

element **engineModeEmissions/SN**

diagram	 Smoke number for the engine mode (g/kg).Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Smoke number for the engine mode (g/kg).Valid values: Nonnegative.

element **engineModeEmissions/PM**

diagram	 Amount of particulate matter emitted (g/kg). Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of particulate matter emitted (g/kg). Valid values: Nonnegative.

complexType **fleet**

fleet

Main block for creating user defined fleet/aircraft data.

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.

badaConfigSet

0..∞



diagram	
type	aircraftEngine
properties	minOcc 0 maxOcc unbounded content complex
children	code model engineType notes emissionsEngineModel performanceEngineModel manufacturer combustor superseded ratedEngineOut source bypassRatio pressureRatio tfmtFlag defaultSOx taxiIdleEmissionFactors takeOffEmissionFactors climbEmissionFactors approachEmissionFactors
annotation	documentation User defined engine information containing custom parameters that reflect an aircraft engine. This engine definition can then be used within a user-defined aircraft.

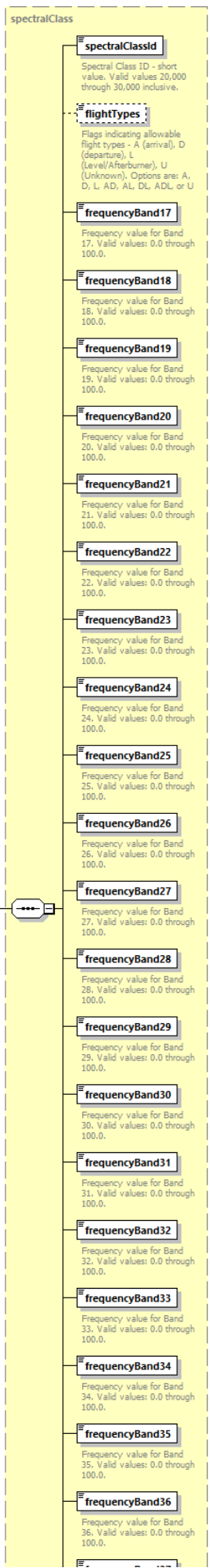
element **fleet/engineMod**

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

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**

spectralClass
0..∞
This element contains user-defined spectral class data.



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	
type	anpNoiseGroup
properties	minOcc 0 maxOcc unbounded content complex
children	noiseld spectralClassApproach spectralClassDeparture spectralClassAfterburner thrustSetType modelType npdCurves
annotation	documentation This element contains the three spectral class references for a given aircraft noise group with the corresponding thrust setting type and model type.

element **fleet/anpAirplane**

diagram	
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 noiseSourceHeight
annotation	documentation Creates a new ANP aircraft.

element **fleet/anpFlapsSet**

diagram	
type	anpFlapsSet
properties	minOcc 0 maxOcc unbounded content complex
children	anpAirplaneId flaps
annotation	documentation

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.

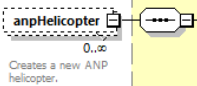
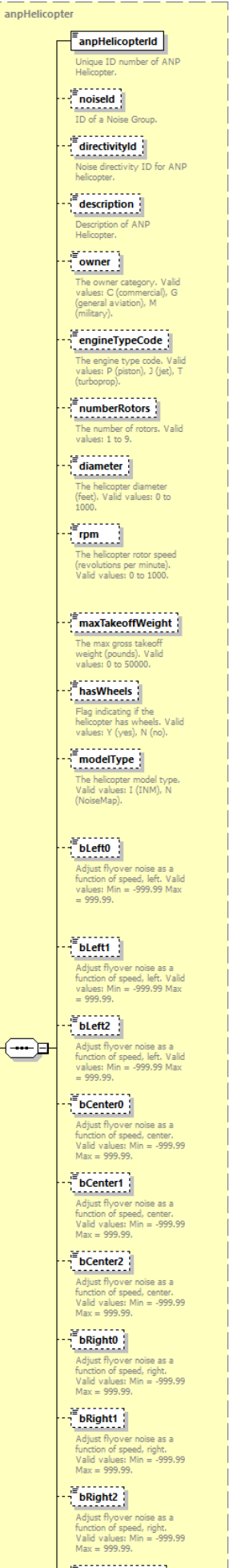
element **fleet/anpProfileSet**

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>opMode</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**



	dbVerticalAscent Decibel 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. noiseSourceHeight Noise source height of helicopter in meters.
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 noiseSourceHeight
annotation	documentation Creates a new ANP helicopter.

element **fleet/anpHeloDirectivitySet**

diagram	anpHeloDirectivitySet anpHeloDirectivitySet 0..∞ A set of helicopter directivities. anpHeloDirectivitySet anpHelicopterId Unique ID for ANP helicopters. anpHeloDirectivity 1..∞ ANP Helicopter directivity.
type	anpHeloDirectivitySet
properties	minOcc 0 maxOcc unbounded content complex
children	anpHelicopterId anpHeloDirectivity .
annotation	documentation A set of helicopter directivities.

element **fleet/anpHeloProfileSet**

diagram	anpHeloProfileSet anpHeloProfileSet 0..∞ A profile set for an ANP helicopter. anpHeloProfileSet anpHelicopterId The anp helicopter id. profile 1..∞ One or more ANP profiles.
type	anpHeloProfileSet
properties	minOcc 0 maxOcc unbounded content complex
children	anpHelicopterId profile
annotation	documentation A profile set for an ANP helicopter.

element **fleet/badaAirplane**

diagram	
type	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**

diagram	The diagram illustrates the structure of the badaThrust element. It is a vertical list of attributes, each with a description and valid values. The attributes are: 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/feet^2 (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), and notes (User notes.).
type	badaThrust
properties	minOcc 0 maxOcc unbounded content complex
children	badaAirplaneId coeff_TC1 coeff_TC2 coeff_TC3 coeff_TC4 coeff_TC5 coeff_TDL coeff_TDH coeff_APP coeff_LD descentAlt descentSpeed descentMach notes
annotation	documentation Custom BADA airplane thrust data sets.

element **fleet/bada4ProfileSet**

diagram	The diagram illustrates the structure of the bada4ProfileSet element. It is a vertical list of attributes, each with a description and valid values. The attributes are: anpAirplaneId (Airplane's ANP ID.), bada4AirplaneModel (Airplane's BADA 4 model.), bada4Engine (Airplane's BADA 4 engine.), bada4Suffix (User-defined BADA 4 model suffix.), and bada4profile (One or more BADA 4 profiles.).
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type	bada4ProfileSet
properties	minOcc 0 maxOcc unbounded content complex
children	anpAirplaneId bada4AirplaneModel bada4Engine bada4Suffix bada4profile
annotation	documentation A profile set for an BADA4 airplane.

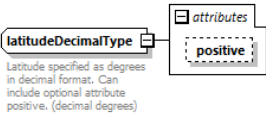
element **fleet/aircraft**

diagram	
type	aircraft
properties	minOcc 0 maxOcc unbounded content complex
children	description airframeModel engineCode engineModCode anpAirplaneId badaAirplaneId anpHelicopterId bada4AirplaneModel bada4Engine bada4Suffix bada4FlapsMapSourceAnpId
annotation	documentation A block used to create new user defined AEDT aircraft.

element **fleet/energyShare**

diagram	
type	energyShare
properties	minOcc 0 maxOcc unbounded content complex
children	anpAirplaneId badaAirplaneId transEnergyShare
annotation	documentation A custom BADA aircraft energy share set.

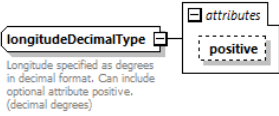
complexType **latitudeDecimalType**

diagram						
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	Fixed	
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			

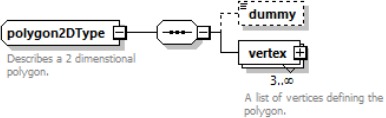
complexType **longitudeDecimalType**

diagram						
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	Fixed	
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						
children	dummy vertex					
used by	elements boundary/polygon oneOrThreeCoords2DGroupSet/polygonCoords					
annotation	documentation Describes a 2 dimensional polygon.					

element **polygon2DType/dummy**

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

element **polygon2DType/vertex**

diagram	
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	
type	coord3DElevationType
properties	minOcc 3 maxOcc unbounded content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation
annotation	documentation A list of vertices defining the polygon.

complexType **profiles**

diagram	
children	departureProfile arrivalProfile
used by	elements operation/badaProfiles operation/saeProfiles
annotation	documentation Contains an arrival and departure profile.

element **profiles/departureProfile**

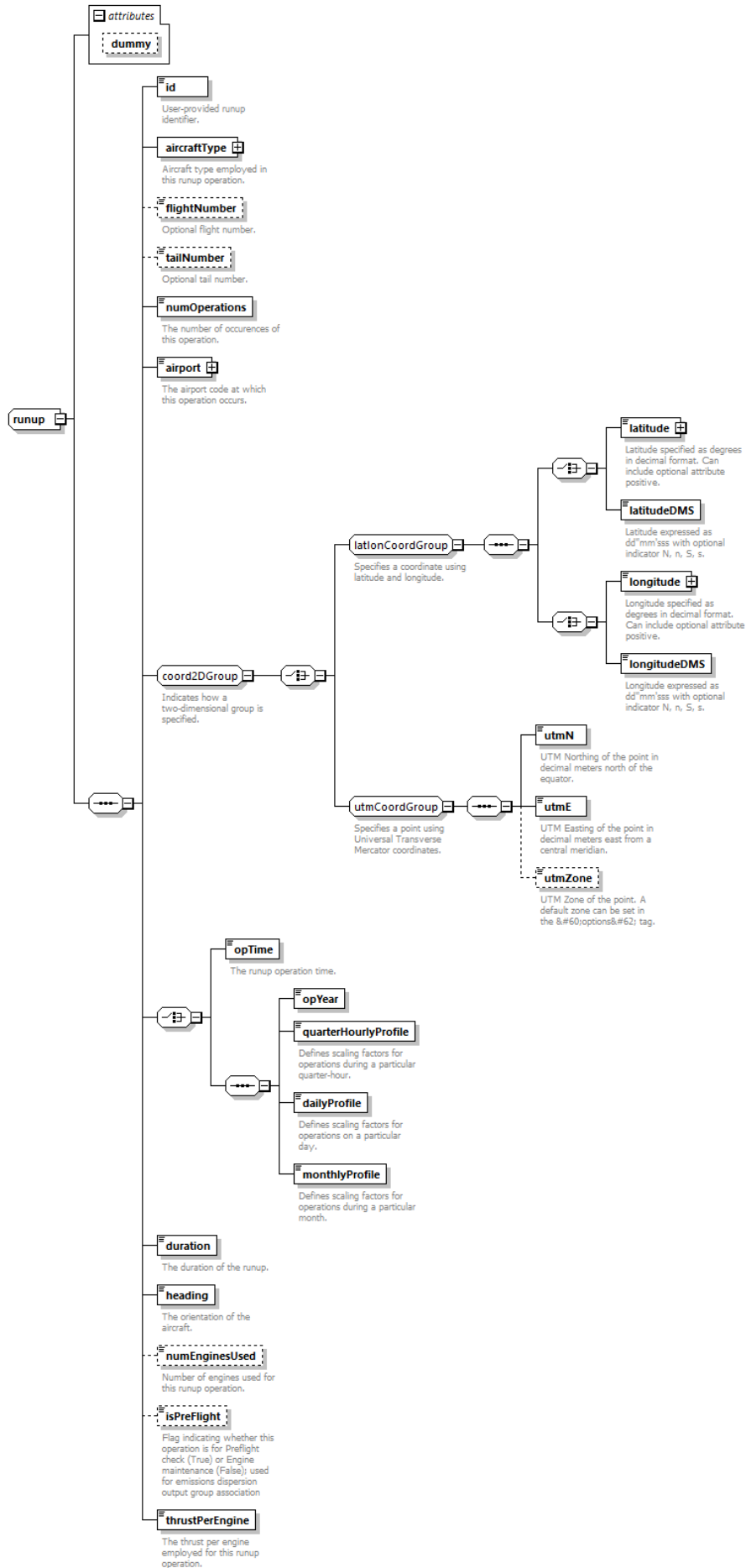
diagram	
type	profileType
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation A flight's departure profile.

element **profiles/arrivalProfile**

diagram	
type	profileType
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation A flight's arrival profile.

complexType **runup**

diagram



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			

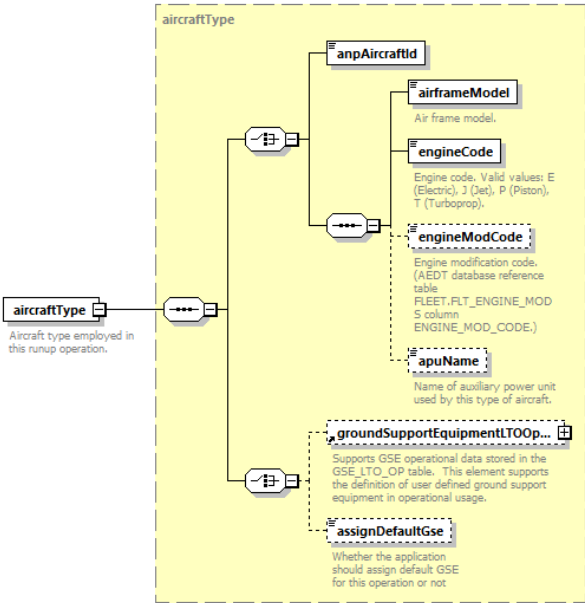
attribute **runup/@dummy**

type	xs:int
properties	use optional

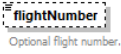
element **runup/id**

diagram	
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation User-provided runup identifier.

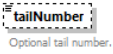
element **runup/aircraftType**

diagram	
type	aircraftType
properties	content complex
children	anpAircraftId airframeModel engineCode engineModCode apuName groundSupportEquipmentLTOOperationSet 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	KindValue Annotation minLength 0 maxLength 8
annotation	documentation Optional tail number.

element **runup/numOperations**

diagram	numOperations The number of occurrences of this operation.
type	xs:double
properties	content simple
annotation	documentation The number of occurrences of this operation.

element **runup/airport**

diagram	airport The airport code at which this operation occurs. airportCode attributes type country					
type	airportCode					
properties	content complex					
facets	KindValue Annotation minLength 0 maxLength 4					
attributes	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	opTime The runup operation time.
type	xs:dateTime
properties	content simple
annotation	documentation The runup operation time.

element **runup/opYear**

diagram	opYear
type	xs:int
properties	content simple

element **runup/quarterHourlyProfile**

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

element **runup/dailyProfile**

diagram	dailyProfile Defines scaling factors for operations on a particular day.
type	string100
properties	content simple
used by	element dailyProfileSet

facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Defines scaling factors for operations on a particular day.

element **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.

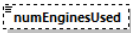
element **runup/duration**

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.
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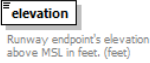
complexType **runwayEnd**

diagram	
children	name latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation threshCrossHeight threshElevation glideSlope intAltitude depDispThresh appDispThresh percentWind isHelipad
used by	element runway/runwayEnd
annotation	documentation Characterizes the runway's endpoint.

element **runwayEnd/name**

diagram	
type	string25
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 25
annotation	documentation ID of the runway's endpoint.

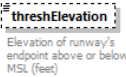
element **runwayEnd/elevation**

diagram	
type	xs:double
properties	content simple
annotation	documentation Runway endpoint's elevation above MSL in feet. (feet)

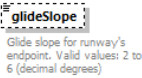
element **runwayEnd/threshCrossHeight**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Approach threshold crossing height AGL (feet)

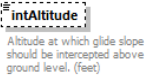
element **runwayEnd/threshElevation**

diagram	
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Elevation of runway's endpoint above or below MSL (feet)

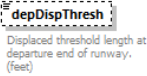
element **runwayEnd/glideSlope**

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	
children	airportLayoutName mixingHeight airportConfigSet airportCapacity
used by	element scenarioAirportLayoutSet/scenarioAirportLayout
annotation	documentation Describes weather conditions.

element **scenarioAirportLayoutType/airportLayoutName**

diagram	
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airport layout name.

element **scenarioAirportLayoutType/mixingHeight**

diagram	
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)

complexType **spectralClass**

spectralClass

This element contains the definition for a single user-defined spectral class with 24 bands.

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

	37. Valid values: 0.0 through 100.0. frequencyBand38 Frequency value for Band 38. Valid values: 0.0 through 100.0. frequencyBand39 Frequency value for Band 39. Valid values: 0.0 through 100.0. frequencyBand40 Frequency value for Band 40. Valid values: 0.0 through 100.0.
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	spectralClassId Spectral Class ID - short value. Valid values 20,000 through 30,000 inclusive.
type	spectralClassId
properties	content simple
facets	KindValueAnnotation minInclusive20000 maxInclusive30000
annotation	documentation Spectral Class ID - short value. Valid values 20,000 through 30,000 inclusive.

element **spectralClass/flightTypes**

diagram	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
type	spectralFlightType
properties	minOcc0 maxOcc1 content simple
facets	KindValueAnnotation patternA 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

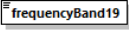
element **spectralClass/frequencyBand17**

diagram	frequencyBand17 Frequency value for Band 17. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	KindValueAnnotation minInclusive0 maxInclusive100
annotation	documentation Frequency value for Band 17. Valid values: 0.0 through 100.0.

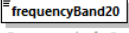
element **spectralClass/frequencyBand18**

diagram	frequencyBand18 Frequency value for Band 18. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	KindValueAnnotation minInclusive0 maxInclusive100
annotation	documentation Frequency value for Band 18. Valid values: 0.0 through 100.0.

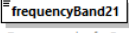
element **spectralClass/frequencyBand19**

diagram	 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.

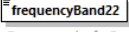
element **spectralClass/frequencyBand20**

diagram	 Frequency value for Band 20. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 20. Valid values: 0.0 through 100.0.

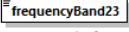
element **spectralClass/frequencyBand21**

diagram	 Frequency value for Band 21. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 21. Valid values: 0.0 through 100.0.

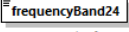
element **spectralClass/frequencyBand22**

diagram	 Frequency value for Band 22. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 22. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand23**

diagram	 Frequency value for Band 23. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 23. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand24**

diagram	 Frequency value for Band 24. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100

annotation	documentation Frequency value for Band 24. Valid values: 0.0 through 100.0.
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element **spectralClass/frequencyBand25**

diagram	frequencyBand25 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	frequencyBand26 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	frequencyBand27 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	frequencyBand28 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	frequencyBand29 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	frequencyBand30 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	 frequencyBand31 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	 frequencyBand32 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	 frequencyBand33 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.

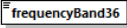
element **spectralClass/frequencyBand34**

diagram	 frequencyBand34 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.

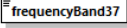
element **spectralClass/frequencyBand35**

diagram	 frequencyBand35 Frequency value for Band 35. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 35. Valid values: 0.0 through 100.0.

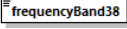
element **spectralClass/frequencyBand36**

diagram	 Frequency value for Band 36. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 36. Valid values: 0.0 through 100.0.

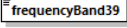
element **spectralClass/frequencyBand37**

diagram	 Frequency value for Band 37. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 37. Valid values: 0.0 through 100.0.

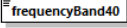
element **spectralClass/frequencyBand38**

diagram	 Frequency value for Band 38. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 38. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand39**

diagram	 Frequency value for Band 39. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 39. Valid values: 0.0 through 100.0.

element **spectralClass/frequencyBand40**

diagram	 Frequency value for Band 40. Valid values: 0.0 through 100.0.
type	floatInclusive100
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Frequency value for Band 40. Valid values: 0.0 through 100.0.

simpleType **aircraftPerformanceModelType**

type	restriction of xs:string
properties	base xs:string
used by	element scenario/acftPerfModel
facets	Kind Value Annotation enumeration ICAO enumeration SAE1845
annotation	documentation Type of aircraft performance model. Valid values: ICAO, SAE1845.

simpleType AircraftSizeType

type	restriction of xs:string
properties	base xs:string
used by	element runwayAssignment/aircraftSize
facets	Kind Value Annotation enumeration S enumeration L enumeration H
annotation	documentation Aircraft size.

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 anpAirplaneld

type	restriction of xs:string
properties	base xs:string
used by	elements aircraftType/anpAircraftId aircraft/anpAirplaneld anpAirplane/anpAirplaneld anpThrustSet/anpAirplaneld anpFlapsSet/anpAirplaneld anpProfileSet/anpAirplaneld energyShare/anpAirplaneld bada4ProfileSet/anpAirplaneld bada4ProcedureStep/anpAirplaneld aircraft/bada4FlapsMapSourceAnpId
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation ID of ANP airplane. Must be a new, unique value.

simpleType anpCoeffType

type	restriction of xs:string
properties	base xs:string
used by	element anpAirplane/depThrustCoeffType
facets	Kind Value Annotation pattern Jet J Prop P

simpleType anpFlapId

type	restriction of xs:string
properties	base xs:string
used by	elements bada4ProcedureStep/anpFlapId anpFlaps/flapId anpProcedureStep/flapId
facets	Kind Value Annotation minLength 0 maxLength 6

simpleType anpHeloDirectId

type	restriction of xs:string
properties	base xs:string
used by	element anpHeloDirectivitySet/anpHelicopterId
facets	Kind Value Annotation minLength 0 maxLength 255

simpleType anpHeloDirectivityId

type	restriction of xs:string

properties	base xs:string
used by	element anpHelicopter/directivityId
facets	Kind Value Annotation minLength 0 maxLength 255

simpleType **anpHeloGroundType**

type	restriction of xs:string
properties	base xs:string
used by	element anpHeloDirectivity/groundType
facets	Kind Value Annotation pattern Hard H Software S File F None N

simpleType **anpHeloid**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraft/anpHelicopterId anpHelicopter/anpHelicopterId anpHeloProfileSet/anpHelicopterId
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation ID of the helicopter.

simpleType **anpHeloNoiseld**

type	restriction of xs:string
properties	base xs:string
used by	elements anpHelicopter/noiseld anpHeloNoiseGroup/noiseld
facets	Kind Value Annotation minLength 0 maxLength 255

simpleType **anpHeloNpdOpMode**

type	restriction of xs:string
properties	base xs:string
used by	elements anpHeloDirectivity/opMode anpHeloNPDCurve/opMode
facets	Kind Value Annotation minLength 0 maxLength 255

simpleType **anpHeloSideType**

type	restriction of xs:string
properties	base xs:string
used by	element anpHeloNPDCurve/sideType
facets	Kind Value Annotation pattern Left L Center C Right R Static S

simpleType **anpNoiseld**

type	restriction of xs:string
properties	base xs:string
used by	elements anpNoiseGroup/noiseld anpAirplane/noiseld
facets	Kind Value Annotation minLength 0 maxLength 255

simpleType **anpNpdNoiseType**

type	restriction of xs:string
properties	base xs:string
used by	elements anpNPDCurve/noiseType anpHeloNPDCurve/noiseType
facets	Kind Value Annotation pattern S M E P

simpleType **anpNpdOpMode**

type	restriction of xs:string
properties	base xs:string
used by	element anpNPDCurve/opMode
facets	Kind Value Annotation pattern A D L G H I J V W Y Z B C E F X S

simpleType **anpOwnerType**

type	restriction of xs:string		
properties	base xs:string		
used by	elements anpHelicopter/owner anpAirplane/owner		
facets	Kind	Value	Annotation
	pattern	Commercial C Military M General G	

simpleType **anpSizeCode**

type	restriction of xs:string		
properties	base xs:string		
used by	element anpAirplane/sizeCode		
facets	Kind	Value	Annotation
	pattern	Heavy H Large L Small S	

simpleType **apuName**

type	restriction of xs:string		
properties	base xs:string		
used by	elements airframe/auxiliaryPowerUnitId auxiliaryPowerUnit/baseAuxiliaryPowerUnit auxiliaryPowerUnit/name		
facets	Kind	Value	Annotation
	minLength	0	
	maxLength	30	
annotation	documentation Name of the auxiliary power unit.		

simpleType **bada4AirplaneModel**

type	restriction of xs:string		
properties	base xs:string		
used by	elements aircraft/bada4AirplaneModel bada4ProfileSet/bada4AirplaneModel		
facets	Kind	Value	Annotation
	minLength	0	
	maxLength	255	
annotation	documentation Model of BADA 4 airplane.		

simpleType **bada4Engine**

type	restriction of xs:string		
properties	base xs:string		
used by	elements aircraft/bada4Engine bada4ProfileSet/bada4Engine		
facets	Kind	Value	Annotation
	minLength	0	
	maxLength	255	
annotation	documentation Airplane BADA 4 engine.		

simpleType **bada4Suffix**

type	restriction of xs:string		
properties	base xs:string		
used by	elements aircraft/bada4Suffix bada4ProfileSet/bada4Suffix		
facets	Kind	Value	Annotation
	minLength	0	
	maxLength	255	
annotation	documentation User-defined BADA 4 model suffix.		

simpleType **badaAirplaneId**

type	restriction of xs:string		
properties	base xs:string		
used by	elements aircraft/badaAirplaneId badaAirplane/badaAirplaneId badaAltitudeDistributionSet/badaAirplaneId badaProfileSet/badaAirplaneId badaConfigSet/badaAirplaneId badaFuel/badaAirplaneId badaThrust/badaAirplaneId energyShare/badaAirplaneId		
facets	Kind	Value	Annotation
	minLength	0	
	maxLength	255	
annotation	documentation ID of a BADA airplane model. Must be unique.		

simpleType **badaPhaseType**

type	restriction of xs:string		
properties	base xs:string		
used by	element badaConfig/phase		

facets	Kind	Value	Annotation
	pattern	InitialClimb C Takeoff TO Approach AP Landing LD Cruise CR	

simpleType badaWakeType

type	restriction of xs:string		
properties	base xs:string		
used by	element badaAirplane/wakeCategory		
facets	Kind	Value	Annotation
	pattern	Heavy H Light L Medium M SuperHeavy J	

simpleType buildingType

type	restriction of xs:int		
properties	base xs:int		
used by	element building/buildingType		
facets	Kind	Value	Annotation
	enumeration	0	
	enumeration	1	
	enumeration	2	
annotation	documentation Building type. (int) with values [building, building row, barrier] = [0, 1, 2]		

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		

simpleType **doubleInclusive10000**

type	restriction of xs:double
properties	base xs:double
used by	element categoryGenerator/powerRatingHorsepower
facets	Kind Value Annotation minInclusive 0 maxInclusive 10000
annotation	documentation A double value in the range [0,10000].

simpleType **doubleInclusive2000**

type	restriction of xs:double
properties	base xs:double
facets	Kind Value Annotation minInclusive 0 maxInclusive 2000
annotation	documentation A double value in the range [0,2000].

simpleType **doubleInclusive24**

type	restriction of xs:double
properties	base xs:double
used by	elements airportConfig/endHour airportConfig/startHour
facets	Kind Value Annotation minInclusive 0 maxInclusive 24
annotation	documentation A double value in the range [0,24].

simpleType **doubleInclusive4000**

type	restriction of xs:double
properties	base xs:double
used by	element roadwayOperation/roundTripDistance
facets	Kind Value Annotation minInclusive 0 maxInclusive 4000
annotation	documentation A double value in the range [0,4000].

simpleType **doubleInclusive500**

type	restriction of xs:double
properties	base xs:double
used by	element categoryFuelTank/verticalOrFloatingTank/verticalFixedRoofTank/domeRoof/domeRadius
facets	Kind Value Annotation minInclusive 0 maxInclusive 500
annotation	documentation A double value in the range [0,500].

simpleType **doubleInclusiveRange0to600**

type	restriction of xs:double
properties	base xs:double
facets	Kind Value Annotation minInclusive 0 maxInclusive 600
annotation	documentation A double value in the range [0,600].

simpleType **doubleInclusiveRange1to30**

type	restriction of xs:double
properties	base xs:double
facets	Kind Value Annotation minInclusive 1 maxInclusive 30
annotation	documentation A double value in the range [1,30].

simpleType **doubleLeadContentRange**

type	restriction of xs:double
properties	base xs:double

used by	element scenario/fuelLeadContent
facets	Kind Value Annotation minInclusive 0 maxInclusive 0.56
annotation	documentation A double value for fuel lead content in the range [0,0.56].

simpleType **doubleMin0**

type	restriction of xs:double
properties	base xs:double
used by	elements categoryFuelTank/horizontalFixedRoofTank/annualIncreaseInLiquidLevel categoryFuelTank/verticalOrFloatingTank/verticalFixedRoofTank/annualIncreaseInLiquidLevel quarterHourlyProfile/temporalFactor monthlyProfile/temporalFactorApril monthlyProfile/temporalFactorAugust monthlyProfile/temporalFactorDecember monthlyProfile/temporalFactorFebruary dailyProfile/temporalFactorFriday monthlyProfile/temporalFactorJanuary monthlyProfile/temporalFactorJuly monthlyProfile/temporalFactorJune monthlyProfile/temporalFactorMarch monthlyProfile/temporalFactorMay dailyProfile/temporalFactorMonday monthlyProfile/temporalFactorNovember monthlyProfile/temporalFactorOctober dailyProfile/temporalFactorSaturday monthlyProfile/temporalFactorSeptember dailyProfile/temporalFactorSunday dailyProfile/temporalFactorThursday dailyProfile/temporalFactorTuesday dailyProfile/temporalFactorWednesday
facets	Kind Value Annotation minInclusive 0
annotation	documentation A double value with a lower inclusive bound of 0.

simpleType **emissionsSourceType**

type	restriction of xs:string
properties	base xs:string
used by	element case/source
facets	Kind Value Annotation enumeration Container enumeration Aircraft enumeration GSE Population enumeration Parking Facilities enumeration Roadways enumeration Stationary Sources
annotation	documentation Source of emissions.

simpleType **emissionsUnitsType**

type	restriction of xs:string
properties	base xs:string
used by	element study/emissionsUnits
facets	Kind Value Annotation enumeration MetricTonnes enumeration Kilograms enumeration Grams enumeration ImperialTons enumeration Pounds
annotation	documentation Unit of measure for a given emission.

simpleType **empty-string**

type	restriction of xs:string
properties	base xs:string
facets	Kind Value Annotation enumeration

simpleType **engineCode**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraftEngine/code aircraft/engineCode
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Code for an airframe's engine.

simpleType **engineModCode**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraftEngineMod/code aircraftType/engineModCode aircraft/engineModCode
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation Airplane's engine modification code.

simpleType **engineModel**

type	restriction of xs:string
properties	base xs:string
used by	element aircraftEngine/model
facets	Kind Value Annotation minLength 0 maxLength 255

simpleType **engineType**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraftEngine/engineType anpHelicopter/engineTypeCode anpAirplane/engineTypeCode badaAirplane/engineTypeCode
facets	Kind Value Annotation pattern Jet J Turbo Turbo prop T T Prop Piston P
annotation	documentation Type of engine on this airframe. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop).

simpleType **floatExclusive0Inclusive10**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation maxInclusive 10 minExclusive 0
annotation	documentation A real number in the range (0,10].

simpleType **floatExclusive10**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxExclusive 10
annotation	documentation A real number in the range [0,10).

simpleType **floatExclusive100**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation A real number in the range [0,100).

simpleType **floatExclusive1000**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation A real number in the range [0,1,000).

simpleType **floatExclusive10000**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxExclusive 10000
annotation	documentation A real number in the range [0,10,000).

simpleType **floatExclusive2000**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxExclusive 2000
annotation	documentation A real number in the range [0,2,000).

simpleType **floatExclusiveRange100**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minExclusive 0 maxExclusive 100
annotation	documentation A real number in the range (0,100).

simpleType **floatInclusive1**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation A real number in the range [0,1].

simpleType **floatInclusive100**

type	restriction of xs:float
properties	base xs:float
used by	elements spectralClass/frequencyBand17 spectralClass/frequencyBand18 spectralClass/frequencyBand19 spectralClass/frequencyBand20 spectralClass/frequencyBand21 spectralClass/frequencyBand22 spectralClass/frequencyBand23 spectralClass/frequencyBand24 spectralClass/frequencyBand25 spectralClass/frequencyBand26 spectralClass/frequencyBand27 spectralClass/frequencyBand28 spectralClass/frequencyBand29 spectralClass/frequencyBand30 spectralClass/frequencyBand31 spectralClass/frequencyBand32 spectralClass/frequencyBand33 spectralClass/frequencyBand34 spectralClass/frequencyBand35 spectralClass/frequencyBand36 spectralClass/frequencyBand37 spectralClass/frequencyBand38 spectralClass/frequencyBand39 spectralClass/frequencyBand40
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation A real number in the range [0,100].

simpleType **floatInclusive1000**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation A real number in the range [0,1,000].

simpleType **floatInclusive10000**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxInclusive 10000
annotation	documentation A real number in the range [0,10,000].

simpleType **floatInclusive2000**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxInclusive 2000
annotation	documentation A real number in the range [0,2,000].

simpleType **floatInclusive24**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxInclusive 24
annotation	documentation A real number in the range [0,24].

simpleType **floatInclusive4000**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxInclusive 4000

annotation	documentation A real number in the range [0,4,000].
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simpleType **floatInclusiveRange1to30**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 1 maxInclusive 30
annotation	documentation A real number in the range [1,30].

simpleType **floatInclusiveRange32to600**

type	restriction of xs:float
properties	base xs:float
facets	Kind Value Annotation minInclusive 32 maxInclusive 600
annotation	documentation A real number in the range [32,600].

simpleType **fuelType**

type	restriction of xs:string
properties	base xs:string
used by	elements parkingFacilityOperation/fuelType roadwayOperation/fuelType groundSupportEquipmentPopulationOperation/fuelType groundSupportEquipmentLTOOperation/fuelType
facets	Kind Value Annotation pattern G[Gasoline D Diesel C Compressed Natural Gas L Liquefied Petroleum Gas E Electric
annotation	documentation Supports 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 **gapFraction**

type	restriction of xs:float
properties	base xs:float
used by	element building/gapFraction
facets	Kind Value Annotation minInclusive 0.2 maxInclusive 0.8
annotation	documentation Optional parameter for building row type. (float) with range 0.2-0.8

simpleType **groundVehicleType**

type	restriction of xs:string
properties	base xs:string
used by	elements parkingFacilityOperation/vehicleType roadwayOperation/vehicleType
facets	Kind Value Annotation pattern 0[Default Fleet Mix 1[Passenger Cars 2[Light Trucks 1 3[Light Trucks 2 4[Light Trucks 3 5[Light Trucks 4 6[Class 2b Heavy Trucks 7[Class 3 Heavy Trucks 8[Class 4 Heavy Trucks 9[Class 5 Heavy Trucks 10[Class 6 Heavy Trucks 11[Class 7 Heavy Trucks 12[Class 8a Heavy Trucks 13[Class 8b Heavy Trucks 14[School Busses 15[Transit and Urban Busses 16[Motorcycle
annotation	documentation Supports 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
facets	Kind Value Annotation minInclusive 0 maxExclusive 360
annotation	documentation An integer in the range [0,360].

simpleType **int0to5**

type	restriction of xs:int
properties	base xs:int
used by	element categoryOther/fuelUnits
facets	Kind Value Annotation minInclusive 0 maxInclusive 5
annotation	documentation An integer in the range [0,5].

simpleType **int0to87**

type	restriction of xs:int
properties	base xs:int
facets	Kind Value Annotation minInclusive 0 maxInclusive 87
annotation	documentation An integer in the range [0,87].

simpleType **int1to13**

type	restriction of xs:int
properties	base xs:int
used by	element categorySolventDegreaser/typeCode
facets	Kind Value Annotation minInclusive 1 maxInclusive 13
annotation	documentation An integer in the range [1,13].

simpleType **int1to15**

type	restriction of xs:int
properties	base xs:int
facets	Kind Value Annotation minInclusive 1 maxInclusive 15
annotation	documentation An integer in the range [1,15].

simpleType **int1to2**

type	restriction of xs:int
properties	base xs:int
used by	element categoryIncinerator/typeCode
facets	Kind Value Annotation minInclusive 1 maxInclusive 2
annotation	documentation An integer in the range [1,2].

simpleType **int1to25**

type	restriction of xs:int
properties	base xs:int
used by	element categoryFuelTank/typeCode
facets	Kind Value Annotation minInclusive 1 maxInclusive 25
annotation	documentation An integer in the range [1,25].

simpleType **int1to4**

type	restriction of xs:int
properties	base xs:int
used by	element categoryDeicingArea/typeCode
facets	Kind Value Annotation minInclusive 1 maxInclusive 4
annotation	documentation An integer in the range [1,4].

simpleType **int1to5**

type	restriction of xs:int
properties	base xs:int

used by	elements categorySandSaltPile/typeCode categoryTrainingFire/typeCode
facets	Kind Value Annotation minInclusive 1 maxInclusive 5
annotation	documentation An integer in the range [1,5].

simpleType **int1to8**

type	restriction of xs:int
properties	base xs:int
used by	elements categoryGenerator/typeCode categorySurfaceCoatingPainting/typeCode
facets	Kind Value Annotation minInclusive 1 maxInclusive 8
annotation	documentation An integer in the range [1,8].

simpleType **int1to93**

type	restriction of xs:int
properties	base xs:int
facets	Kind Value Annotation minInclusive 1 maxInclusive 93
annotation	documentation An integer in the range [1,93].

simpleType **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].
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simpleType **latitudeDMSType**

type	restriction of xs:string						
properties	base xs:string						
used by	element latlonCoordGroup/latitudeDMS						
facets	<table><tr><td>Kind</td><td>Value</td><td>Annotation</td></tr><tr><td>pattern</td><td colspan="2">[0-9]{2}[\- \' &quot;][0-9]{2}[\- \' &apos;][0-9]{2}(\{[0-9]{3}\})?[Nn Ss]</td></tr></table>	Kind	Value	Annotation	pattern	[0-9]{2}[\- \' "][0-9]{2}[\- \' '][0-9]{2}(\{[0-9]{3}\})?[Nn Ss]	
Kind	Value	Annotation					
pattern	[0-9]{2}[\- \' "][0-9]{2}[\- \' '][0-9]{2}(\{[0-9]{3}\})?[Nn Ss]						
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}\})?[Ee W w]	
annotation	documentation Longitude expressed as dd°mm'sss with optional indicator N, n, S, s. (degrees)		

simpleType **nodeControlType**

type	restriction of xs:string		
properties	base xs:string		
used by	attributes trackNode/altitude/@control trackNode/speed/@control		
facets	Kind	Value	Annotation
	pattern	0 None 1 AtOrBelow 2 Match 3 AtOrAbove	
annotation	documentation Type of altitude clearance at this point.		

simpleType **noiseReductionCoefficient**

type	restriction of xs:float									
properties	base xs:float									
used by	element building/noiseReductionCoefficient									
facets	<table><tr><td>Kind</td><td>Value</td><td>Annotation</td></tr><tr><td>minInclusive</td><td colspan="2">0.0</td></tr><tr><td>maxInclusive</td><td colspan="2">1.0</td></tr></table>	Kind	Value	Annotation	minInclusive	0.0		maxInclusive	1.0	
Kind	Value	Annotation								
minInclusive	0.0									
maxInclusive	1.0									
annotation	documentation Noise reduction coefficient for buildings (float) range 0.0-1.0									

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 LandingTakesoff 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	<table><tr><td>Kind</td><td>Value</td><td>Annotation</td></tr><tr><td>pattern</td><td colspan="2">Gate Parking Facility Roadway Runway Stionary Source Taxiway Training Fire</td></tr></table>	Kind	Value	Annotation	pattern	Gate Parking Facility Roadway Runway Stionary Source Taxiway Training Fire	
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 anpTsfcCoefficients/mode anpNoiseGroup/modelType anpHelicopter/modelType anpHeloProfile/operationType anpHeloProcedureStep/operationType anpFlaps/operationType anpProfile/operationType bada4Profile/operationType anpProfilePoint/opMode anpHeloProfile/profileStageLength anpHeloProcedureStep/profileStageLength anpProfile/profileStageLength airframe/sizeCode operation/stageLength anpHeloProcedureStep/stepType anpProcedureStep/stepType bada4ProcedureStep/stepType anpNoiseGroup/thrustSetType anpThrustGeneral/thrustType anpThrustJet/thrustType anpThrustProp/thrustType anpProcedureStep/thrustType bada4ProcedureStep/thrustType airframe/usageCode bada4Profile/weightClass
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation A string up to one character long.

simpleType **string10**

type	restriction of xs:string
properties	base xs:string
used by	elements badaConfig/configName aircraftEngine/superseded
facets	Kind Value Annotation minLength 0 maxLength 10
annotation	documentation A string up to 10 characters long.

simpleType **string100**

type	restriction of xs:string
properties	base xs:string
used by	elements operation/activityProfile airportConfig/configurationName activityProfile/dailyProfile runup/dailyProfile aircraftEngine/manufacture activityProfile/monthlyProfile runup/monthlyProfile airport/name quarterHourlyProfile/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 nodeIdGroup/description operation/flightNumber runup/flightNumber case/hourlyWxMD5 operation/id nodeIdGroup/id operation/userParam attribute AsifXml/@version
facets	Kind Value Annotation minLength 0 maxLength 16
annotation	documentation A string up to 16 characters long.

simpleType **string2**

type	restriction of xs:string
properties	base xs:string
used by	elements badaProfile/companyCode2 airframe/euroGroupCode badaProfile/massRangeValue
facets	Kind Value Annotation minLength 0 maxLength 2
annotation	documentation A string up to two characters long.

simpleType **string20**

type	restriction of xs:string
properties	base xs:string
used by	elements groundSupportEquipmentGateAssignment/gate taxiway/name taxipath/taxiwayName
facets	Kind Value Annotation minLength 0 maxLength 20
annotation	documentation A string up to 20 characters long.

simpleType string200

type	restriction of xs:string
properties	base xs:string
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 runwayEnd/name 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 study/description aircraft/description scenario/description case/description aircraftEngineMod/description anpHelicopter/description anpAirplane/description categoryAircraftEngine/engineCode aircraftType/engineCode bada4Profile/flightProcedure case/hourlyWxFile runup/id badaAirplane/mfgDescription annualization/name annualizationCase/name building/name receptorSet/name pointReceptor/name study/name scenario/name case/name airportLayoutType/name badaThrust/notes anpHeloProfilePoint/opMode anpHeloNoiseOpMode/opModeld anpHeloProfile/profileGroupid anpHeloProcedureStep/profileGroupid anpProfile/profileGroupid case/reference/refCase case/reference/refScenario sensorNode/source study/terrainFiles trackref/trackName simpleType profileType
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation A string up to 255 characters long.

simpleType string3

type	restriction of xs:string
properties	base xs:string
used by	element badaProfile/companyCode1 attribute airportCode/@country
facets	Kind Value Annotation minLength 0 maxLength 3
annotation	documentation A string up to three characters long.

simpleType string30

type	restriction of xs:string
properties	base xs:string
facets	Kind Value Annotation minLength 0 maxLength 30
annotation	documentation A string up to 30 characters long.

simpleType string32

type	restriction of xs:string
properties	base xs:string
used by	element windRoseStation/windRoseDataSource
facets	Kind Value Annotation minLength 0 maxLength 32

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/daifid

facets	Kind Value Annotation minLength 0 maxLength 7
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simpleType **string8**

type	restriction of xs:string
properties	base xs:string
used by	elements operation/arrivalRunway case/climateId operation/departureRunway climate/identifier trackref/runway track/runway runwayAssignment/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 trackref/optype track/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".		