U.S. Department of Transportation
Federal Aviation Administration

Aviation Environmental Design Tool (AEDT)

Version 2c Service Pack 2

AEDT Standard Input File (ASIF) Reference Guide

March 2017

Table of Contents

1 INTRODUCTION 1

1.1 Overview of the ASIF Format 1
1.2 ASIF Schema Documentation 1
1.3 Importing External Studies 2

2 ASIF IMPORT TYPES 3

2.1 Full Study Import 3
2.2 Partial ASIF Import 3
2.3 Sample ASIF Files 4

3 ASIF EXAMPLES 5

3.1 Create a Simple Study 5
Step 1: Create empty study file 5
Step 2: Populate airport layouts section 6
Step 3: Create receptor set 7
Step 4: Create scenario and case hierarchy 8
Step 5: Populate cases with tracks and air operations 9
Step 6: Create annualization 11
Step 7: Full ASIF 11
3.2 Create an Emissions Dispersion Study 16
Step 1: Create empty study file 17
Step 2: Populate airport layouts section 17
Step 2a: Declare basic airport layout 18
Step 2b: Create stationary sources 18
Step 2c: Define airport gates/terminals 19
Step 2d: Declare taxiways 20
Step 2e: Create runways 21
Step 2f: Assemble taxipaths 22
Step 2g: Define tracks 22
Step 2h: Create airport configurations 23
Step 2i: Declare operational profiles 24
Step 3: Create receptor set 26
Step 4: Create scenario and case hierarchy 26
Step 4a: Define airport scenario properties 26
Step 4b: Define the case for non-aircraft operations 27
Step 4c: Define the case for aircraft operations 28
Step 5: Create annualization 30
Step 6: Full ASIF 31

4 ASIF DESIGN CONSIDERATION 48

4.1 Event Consolidation 48
4.2 Number of Operations in a Case and Results Reuse 48
4.3 Control Codes in AEDT 48

5 PROCEDURAL PROFILES 49

5.1 Civil Airplane Procedures 49
5.1.1 Aircraft Profile Operation Types 49

5.1.2 Aircraft Procedure Step Types ... 49
5.1.2.1 Takeoff Step ... 50
5.1.2.2 Climb Step ... 50
5.1.2.3 Accelerate Step ... 51
5.1.2.4 Accel-Percent Step ... 51
5.1.2.5 Cruise-Climb Step ... 51
5.1.2.6 Level-Stretch Step ... 52
5.1.2.7 Level Step ... 52
5.1.2.8 Level-Decel Step ... 52
5.1.2.9 Level-Idle Step ... 52
5.1.2.10 Descend Step ... 53
5.1.2.11 Descend-Decel Step ... 53
5.1.2.12 Descend-Idle Step ... 53
5.1.2.13 Land Step ... 53
5.1.2.14 Decelerate Step ... 53
5.1.3 Aircraft Thrust Types and Parameters ... 53
5.1.4 How to Build an Approach Profile ... 55
5.1.5 How to Build a Departure Profile ... 56
5.1.6 How to Build an Overflight Profile ... 57
5.1.7 How to Build a Touch and Go Profile ... 57
5.1.8 How to Build a Circuit Profile ... 57
5.1.9 Airplane Procedure Step Transitions ... 58
5.2 Helicopter Procedures ... 61
5.2.1 Helicopter Profile Operation Types ... 61
5.2.2 Helicopter Procedure Step Types ... 61
5.2.2.1 Additional Helicopter Step Type Information ... 63
5.2.3 How to Build a Helicopter Approach Profile ... 64
5.2.4 How to Build a Helicopter Departure Profile ... 65
5.2.5 How to Build a Helicopter Overflight Profile ... 66
5.2.6 How to Build a Helicopter Taxi Profile ... 66
5.2.7 Helicopter Procedure Step Transitions ... 66

6 ASIF SCHEMA DOCUMENTATION ... 70

1 Introduction

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

This guide provides a description of the ASIF format for the ASIF schema version 1.2.12. It also provides an overview of ASIF usage and annotated sample studies. The guide is intended for analysts and programmers who wish to create ASIF.

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

1.1 Overview of the ASIF Format

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

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

1.2 ASIF Schema Documentation

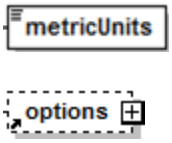
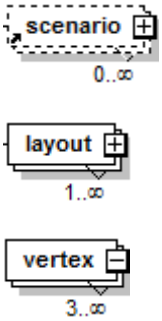
The ASIF schema (.xsd) files are located under *C:\Program Files\FAA\AEDT\Examples* directory.

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

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

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

Notation for Schema Diagram

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

1.3 Importing External Studies

AEDT also supports import of INM and EDMS studies by converting these legacy tools into ASIF format and importing into AEDT. See the AEDT User Guide for more information on importing legacy studies.

2 ASIF Import Types

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

2.1 Full Study Import

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

Please see Section 3 for two sample studies.

2.2 Partial ASIF Import

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

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

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

```
<AsifXml xmlns:AsifXml="http://www.faa.gov/ASIF"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" version="1.2.12"
content="ENTER_CONTENT_TYPE_HERE">

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

      <*content type here*>

        ...

      </*end content type*>

</AsifXml>
```

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

2.3 Sample ASIF Files

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

Full study ASIF

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

Partial ASIF

- PartialASIF_airportLayoutSet.xml
- PartialASIF_annualization.xml
- PartialASIF_boundary.xml
- PartialASIF_operationalProfileSet.xml
- PartialASIF_receptorSets.xml
- PartialASIF_runup.xml
- PartialASIF_scenario.xml
- PartialASIF_stationarySourceSet.xml
- PartialASIF_userGroundSupportEquipmentSet.xml

3 ASIF Examples

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

3.1 Create a Simple Study

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

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

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

Step 1: Create empty study file

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

```
<AsifXml version="1.2.12" content="study"
xmlns:AsifXml="http://www.faa.gov/ASIF"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">

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

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

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

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

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

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

  <!-- Add airport layouts here -->

  <!-- Add receptors here -->

  <!-- Add scenarios here -->

 </study>
</AsifXml>
```

Step 2: Populate airport layouts section

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

In the example below, KORD is defined using system runways, and KMDW is defined using user-defined runways.

```
  <airportLayoutSet>

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

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

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

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

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

       <!-- latitude and longitude of runway end -->
```

```
      <latitude>41.779496</latitude>
      <longitude>-87.75876</longitude>

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

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

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

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

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

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

Step 3: Create receptor set

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

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

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

  <!-- Number of points across height and width of grid -->
```

```
    <numWidth>100</numWidth>
    <numHeight>100</numHeight>
   </grid>
  </receptorSet>
```

Step 4: Create scenario and case hierarchy

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

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

```
  <scenario>
   <!-- user-defined scenario name and description -->
   <name>Baseline_1990</name>

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

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

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

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

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

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

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

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

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

```
      <!-- user-defined case name -->
      <name>PlanB</name>

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

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

      <!-- Add trackOpSet elements here -->

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

Step 5: Populate cases with tracks and air operations

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

```
      <trackOpSet>
       <!-- Single track element -->
       <track>
        <!-- user-defined track name -->
        <name>DJM04R_EON.10803</name>
        <!-- Track operation type: A = Arrival, D = Departure, O = Overflight
-->
        <optype>D</optype>

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

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

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

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

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

```
        <latitude>40.65640</latitude>
        <longitude>-53.71322</longitude>
       </trackNode>
      </trackNodes>

     </subtrack>
    </track>

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

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

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

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

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

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

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

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

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

Step 6: Create annualization

Annualization is the process of performing a weighted summation[1] over the noise and emission results from some or all of the cases within a scenario in order to create results that represent noise and emissions exposures over a time period of interest. Each scenario element may contain an annualization element describing the weighted annualization tree.

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

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

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

  <annualizationGroup>
   <weight>0.7</weight>

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

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

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

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

Step 7: Full ASIF

The full study ASIF is as follows:

```
<AsifXml version="1.2.12" content="study"
xmlns:AsifXml="http://www.faa.gov/ASIF"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

 <scenario>
  <!-- user-defined scenario name and description -->
  <name>Baseline_1990</name>
```

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

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

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

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

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

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

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

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

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

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

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

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

     <trackOpSet>
      <!-- Single track element -->
      <track>
       <!-- user-defined track name -->
       <name>DJM04R_EON.10803</name>
```

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

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

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

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

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

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

        </subtrack>
       </track>

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

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

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

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

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

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

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

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

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

    </case>
   </caseSet>

   <annualization>
    <!-- user-defined scenario annulalization name -->
    <name>Alternative.config</name>

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

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

     <annualizationGroup>
      <weight>0.7</weight>

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

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

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

      </annualizationCase>
     </annualizationGroup>
    </annualizationGroup>
   </annualization>
  </scenario>
 </study>
</AsifXml>
```

3.2 Create an Emissions Dispersion Study

An emissions dispersion study contains the same core elements as a simple study (Section 3.1). In addition, it requires data on stationary sources and airport features.

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

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

Step 1: Create empty study file

```
<?xml version="1.0" encoding="utf-8"?>
<AsifXml xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" version="1.2.12"
content="study">

 <study>
  <name>emissions_sample_asif_short</name>
  <studyType>Dispersion</studyType>
  <emissionsUnits>Kilograms</emissionsUnits>
  <description>A sample emissions study</description>

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

 </study>
</AsifXml>
```

Step 2: Populate airport layouts section

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

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

Step 2a: Declare basic airport layout

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

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

Step 2b: Create stationary sources

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

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

```
      <!-- Lat/lon coordinates-->
      <latitude>41.743248909982285</latitude>
      <longitude>-71.41216809054572</longitude>
     </pointCoord>
     <!--Elevation in meters-->
     <baseElevation>16.764</baseElevation>
     <!-- Release height in meters-->
     <releaseHeight>12.192</releaseHeight>
     <!-- Velocity of release gas in meters/sec-->
     <gasVelocity>15</gasVelocity>
     <!-- Diameter of stack where gas escapes the source in meters-->
     <stackDiameter>0.100584</stackDiameter>
     <!-- Temperature at point in Fahrenheit-->
     <temperature>400</temperature>
    </pointStationarySource>
    <categoryGenerator>
     <!-- Type code of object-->
     <typeCode>2</typeCode>
     <!-- Horsepower rating-->
     <powerRatingHorsepower>1340</powerRatingHorsepower>
     <!-- Emissions factors-->
     <CO_EF>3.03</CO_EF>
     <TOC_EF>1.14</TOC_EF>
     <NOx_EF>14</NOx_EF>
     <SOx_EF>0.93</SOx_EF>
     <PM10_EF>0.998</PM10_EF>
     <!-- Percent of emissions removed by pollution control measures-->
     <pollutionControlFactorTOC>0</pollutionControlFactorTOC>
     <pollutionControlFactorCO>0</pollutionControlFactorCO>
     <pollutionControlFactorNOx>0</pollutionControlFactorNOx>
     <pollutionControlFactorSOx>0</pollutionControlFactorSOx>
     <pollutionControlFactorPM10>0</pollutionControlFactorPM10>
     <pm25ToPm10Ratio>1</pm25ToPm10Ratio>
    </categoryGenerator>
   </stationarySource>
  </stationarySourceSet>
```

Step 2c:Define airport gates/terminals

Airport gates can be defined as a point or a polygon. In AEDT, a polygon gate is referred as a terminal. This example declares a terminal which is defined by a set of latitude and longitude coordinates.

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

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

Step 2d: Declare taxiways

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

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

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

Step 2e: Create runways

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

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

Step 2f: Assemble taxipaths

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

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

Step 2g: Define tracks

Tracks are paths flown by aircraft, and are defined for an aircraft type (fixed-wing or rotary-wing) and an operation type (arrival, departure, or touch & go). Each track is made up of nodes and defined for a runway. The following example provides the structure for one track – a full study must have at least one track defined for each operation type, runway, and wing type of aircraft in the study.

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

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

Step 2h: Create airport configurations

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

```
<airportConfigGroupSet>
 <airportConfigGroup>
  <groupName>Baseline-Theodore Francis Green State-2004</groupName>
  <airportConfig>
   <configurationName>Configuration</configurationName>
   <!-- Flag to use an operation distribution-->
   <useDistribution>false</useDistribution>
   <airportCapacity>
    <!-- Pareto curve points for airport operations-->
    <capacityPoint>
     <arrivalsPerHour>27</arrivalsPerHour>
     <departuresPerHour>52</departuresPerHour>
    </capacityPoint>
    <capacityPoint>
     <arrivalsPerHour>52</arrivalsPerHour>
     <departuresPerHour>27</departuresPerHour>
    </capacityPoint>
   </airportCapacity>
   <runwayAssignmentSet>
    <runwayAssignment>
     <!-- Aircraft size for assignments; small (S), large (L),
     or heavy (H)-->
     <aircraftSize>S</aircraftSize>
     <runway>23</runway>
     <!-- Percent of arrival operations on runway; all arrival
     percentages must sum to 100%-->
     <arrivalPercentage>60</arrivalPercentage>
```

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

Step 2i: Declare operational profiles

Three profiles are required when using operational profiles in AEDT – quarter-hourly, daily, and monthly. These profiles provide a weighting factor that determines how often activity occurs during the time period. Aircraft, stationary sources, and ground vehicles can all be assigned operational profiles. For this example, the same three profiles are being used for all vehicles, but in practice profiles will differ for GSEs, aircraft, and stationary sources.

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

```
    <quarterHourlyProfileSet>
     <quarterHourlyProfile>
      <profileName>Example Quarter-Hour-Baseline-KPVD</profileName>
      <!-- Weighting of operations at this time bin-->
      <temporalFactor startHour="0" startMinutes="0">0.1777</temporalFactor>
      <temporalFactor startHour="0" startMinutes="15">0.1777</temporalFactor>
      <temporalFactor startHour="0" startMinutes="30">0.1777</temporalFactor>
      <temporalFactor startHour="0" startMinutes="45">0.1777</temporalFactor>
      <temporalFactor startHour="1" startMinutes="0">0.0967</temporalFactor>

  ...

     </quarterHourlyProfile>
    </quarterHourlyProfileSet>

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

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

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

```
      <monthlyProfile>Example Monthly-Baseline-KPVD</monthlyProfile>
     </activityProfile>
  </activityProfileSet>
```

Step 3: Create receptor set

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

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

Step 4: Create scenario and case hierarchy

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

Step 4a: Define airport scenario properties

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

```
  <scenario>
   <name>2004-Baseline</name>
   <!-- Scenario start time-->
   <startTime>2004-01-01T00:00:00</startTime>
   <!-- Scenario duration in hours-->
   <duration>8760</duration>
   <!-- Taxi model type for scenario-->
   <taxiModel>Sequencing</taxiModel>
   <!-- Time in mode; either Performance or ICAO-->
   <timeInModeBasis>Performance</timeInModeBasis>
   <!-- Aircraft performance model-->
   <acftPerfModel>SAE1845</acftPerfModel>
```

```
<!-- Flag to include bank angle calculations-->
<bankAngle>false</bankAngle>
<!-- Portion of fuel that becomes sulfuric acid when combusted-->
<sulfurConversionRate>0.005</sulfurConversionRate>
<description>A sample emissions study scenario</description>
<scenarioAirportLayoutSet>
 <scenarioAirportLayout>
  <airportLayoutName>Baseline-Theodore Francis Green State-2004
  </airportLayoutName>
  <!-- Height where vigorous mixing of gases takes place, in feet-->
  <mixingHeight>2226</mixingHeight>
  <!-- Flag to use hourly meteorological data, rather than
  annual averages-->
  <useHourlyMetData>true</useHourlyMetData>
  <!-- Average temperature in Fahrenheit-->
  <averageTemperature>50.4</averageTemperature>
  <!-- Average daily high temperature in Fahrenheit-->
  <dailyHighTemperature>69.35</dailyHighTemperature>
  <!-- Average daily low temperature in Fahrenheit-->
  <dailyLowTemperature>48.65</dailyLowTemperature>
  <!-- Average barometric pressure in inches Hg.-->
  <pressure>29.92</pressure>
  <!-- Average barometric pressure at MSL in inches Hg.-->
  <pressureMSL>29.92</pressureMSL>
  <!-- Relative humidity percentage-->
  <humidty>60</humidty>
  <!--Wind speed at surface-->
  <windSpeed>8</windSpeed>
  <!-- Wind direction in degrees-->
  <windDirection>0</windDirection>
  <!--Ceiling in feet-->
  <ceiling>99999.99</ceiling>
  <!--Visibility in miles-->
  <visibility>50</visibility>
 </scenarioAirportLayout>
</scenarioAirportLayoutSet>
```

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

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

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

```
<case>
 <caseId>-1623425151</caseId>
 <name>2004_Baseline_Theodore Francis Green State_NonAircraft</name>
 <startTime>2004-01-01T00:00:00</startTime>
 <duration>8760</duration>
 <stationarySourceOperationSet>
  <stationarySourceOperation>
   <refName>Emergency Generator-Baseline-KPVD-2004</refName>
   <emissionsUsage>
```

```
      <!--Annualized ammount of emissions-->
      <yearlyValue>500</yearlyValue>
      <activityProfile>ActivityProfile-Baseline-KPVD-6-5-6
      </activityProfile>
     </emissionsUsage>
    </stationarySourceOperation>
   </stationarySourceOperationSet>
   <groundSupportEquipmentPopulationOperationSet>
    <groundSupportEquipmentPopulationOperation>
     <!--ID for GSE type-->
     <gseID>30</gseID>
     <!--Fuel used by the GSE-->
     <fuelType>Diesel</fuelType>
     <!--GSE type-->
     <gseType>Generator</gseType>
     <!--Number of GSEs-->
     <numUnits>1</numUnits>
     <!--Operation time, yearly, in hours-->
     <annualOpTime>1630</annualOpTime>
     <!--Profile of activity to use-->
     <activityProfile>ActivityProfile-Baseline-KPVD-6-5-6</activityProfile>
     <!--Horsepower of GSE-->
     <horsepower>158</horsepower>
     <!--User nonroad flag-->
     <useNonRoad>false</useNonRoad>
     <groundSupportEquipmentGateAssignmentSet>
      <groundSupportEquipmentGateAssignment>
       <!--Gate the GSE is assigned to-->
       <gate>AC</gate>
       <!--Fraction of GSE assigned to gate-->
       <fractionAssigned>1</fractionAssigned>
      </groundSupportEquipmentGateAssignment>
     </groundSupportEquipmentGateAssignmentSet>
    </groundSupportEquipmentPopulationOperation>
   </groundSupportEquipmentPopulationOperationSet>
  </case>
```

Step 4c:Define the case for aircraft operations

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

```
  <case>
   <caseId>466140608</caseId>
   <name>2004_Baseline_Theodore Francis Green State_Operations</name>
   <startTime>2004-01-01T00:00:00</startTime>
   <duration>8760</duration>
   <!--Number of minutes to complete a taxi-in-->
   <totalTaxiInTime>7</totalTaxiInTime>
   <!--Number of minutes to complete a taxi-out-->
   <totalTaxiOutTime>19</totalTaxiOutTime>
   <!--Number of minutes to complete an unimpeded taxi-in-->
   <unimpededTaxiInTime>0</unimpededTaxiInTime>
   <!--Number of minutes to complete an unimpeded taxi-out-->
```

```
<unimpededTaxiOutTime>0</unimpededTaxiOutTime>
<operation>
 <id>D_1</id>
 <aircraftType>
  <!--Aircraft type-->
  <airframeModel>Airbus A319-100 Series</airframeModel>
  <!--Engine type-->
  <engineCode>3CM028</engineCode>
  <!--APU type-->
  <apuName>APU GTCP 36-300 (80HP)</apuName>
  <!--GSEs assigned to the aircraft-->
  <groundSupportEquipmentLTOOperationSet>
   <groundSupportEquipmentLTOOperation>
    <gseID>13</gseID>
    <fuelType>Gasoline</fuelType>
    <horsepower>107</horsepower>
    <!-- Loading of the GSE-->
    <loadFactor>0.55</loadFactor>
    <!--Operation time for a departure-->
    <departureOpTime>38</departureOpTime>
    <!--Operation time for an arrival-->
    <arrivalOpTime>37</arrivalOpTime>
   </groundSupportEquipmentLTOOperation>
   <groundSupportEquipmentLTOOperation>
    <gseID>14</gseID>
    <fuelType>Gasoline</fuelType>
    <horsepower>107</horsepower>
    <loadFactor>0.5</loadFactor>
    <departureOpTime>24</departureOpTime>
    <arrivalOpTime>24</arrivalOpTime>
   </groundSupportEquipmentLTOOperation>
  </groundSupportEquipmentLTOOperationSet>
 </aircraftType>
 <!--Number of operations-->
 <numOperations>5</numOperations>
 <!--Type of operation; A, D, or T-->
 <opType>D</opType>
 <departureAirport type="ICAO">KPVD</departureAirport>
 <departureGate>AC</departureGate>
 <!--Operation time for APU for departure in minutes-->
 <departureApuTime>3.5</departureApuTime>
 <!--Taxi-out duration in minutes-->
 <taxiOutDuration>10.72</taxiOutDuration>
 <!--Taxi-in duration in minutes-->
 <taxiInDuration>6.24</taxiInDuration>
 <!--Activity profile to use-->
 <activityProfile>ActivityProfile-Baseline-KPVD-6-5-6</activityProfile>
 <!--Aircraft's weight in pounds-->
 <actypeWeight>146100</actypeWeight>
 <!--Sulfur content of the fuel used in this operation in percentage-->
 <fuelSulfurContent>0.00068</fuelSulfurContent>
</operation>
<operation>
 <id>A_1</id>
 <aircraftType>
  <airframeModel>Airbus A319-100 Series</airframeModel>
```

```
      <engineCode>3CM028</engineCode>
      <apuName>APU GTCP 36-300 (80HP)</apuName>
      <groundSupportEquipmentLTOOperationSet>
       <groundSupportEquipmentLTOOperation>
        <gseID>13</gseID>
        <fuelType>Gasoline</fuelType>
        <horsepower>107</horsepower>
        <loadFactor>0.55</loadFactor>
        <departureOpTime>38</departureOpTime>
        <arrivalOpTime>37</arrivalOpTime>
       </groundSupportEquipmentLTOOperation>
       <groundSupportEquipmentLTOOperation>
        <gseID>14</gseID>
        <fuelType>Gasoline</fuelType>
        <horsepower>107</horsepower>
        <loadFactor>0.5</loadFactor>
        <departureOpTime>24</departureOpTime>
        <arrivalOpTime>24</arrivalOpTime>
       </groundSupportEquipmentLTOOperation>
      </groundSupportEquipmentLTOOperationSet>
     </aircraftType>
     <numOperations>5</numOperations>
     <opType>A</opType>
     <arrivalAirport type="ICAO">KPVD</arrivalAirport>
     <arrivalGate>AC</arrivalGate>
     <arrivalApuTime>3.5</arrivalApuTime>
     <taxiOutDuration>10.72</taxiOutDuration>
     <taxiInDuration>6.24</taxiInDuration>
     <activityProfile>ActivityProfile-Baseline-KPVD-6-5-6</activityProfile>
     <actypeWeight>137800</actypeWeight>
     <fuelSulfurContent>0.00068</fuelSulfurContent>
    </operation>
   </case>
```

Step 5: Create annualization

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

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

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

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

  <annualizationGroup>
   <weight>1.0</weight>

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

    <!-- Specify case name to include -->
```

```
        <name>2004_Baseline_Theodore Francis Green State_Operations</name>

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

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

Step 6: Full ASIF

The full emissions dispersion sample ASIF is as follows:

```
<?xml version="1.0" encoding="utf-8"?>
<AsifXml xmlns:xsd="http://www.w3.org/2001/XMLSchema"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" version="1.2.12"
content="study">

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

```
      <latitude>41.743130903444673</latitude>
      <longitude>-71.4121461346995</longitude>
     </vertex>
    </polygonCoords>
   </building>
  </buildingSet>
  <stationarySourceSet>
   <stationarySource>
    <!-- Name of the stationary source -->
    <name>Emergency Generator-Baseline-KPVD-2004</name>
    <pointStationarySource>
     <pointCoord>
      <!-- Lat/lon coordinates-->
      <latitude>41.743248909982285</latitude>
      <longitude>-71.41216809054572</longitude>
     </pointCoord>
     <!--Elevation in meters-->
     <baseElevation>16.764</baseElevation>
     <!-- Release height in meters-->
     <releaseHeight>12.192</releaseHeight>
     <!-- Velocity of release gas in meters/sec-->
     <gasVelocity>15</gasVelocity>
     <!-- Diameter of stack where gas escapes the source in meters-->
     <stackDiameter>0.100584</stackDiameter>
     <!-- Temperature at point in Fahrenheit-->
     <temperature>400</temperature>
    </pointStationarySource>
    <categoryGenerator>
     <!-- Type code of object-->
     <typeCode>2</typeCode>
     <!-- Horsepower rating-->
     <powerRatingHorsepower>1340</powerRatingHorsepower>
     <!-- Weighting factors for emissions elements-->
     <CO_EF>3.03</CO_EF>
     <TOC_EF>1.14</TOC_EF>
     <NOx_EF>14</NOx_EF>
     <SOx_EF>0.93</SOx_EF>
     <PM10_EF>0.998</PM10_EF>
     <!-- Percent of emissions removed by pollution control measures-->
     <pollutionControlFactorTOC>0</pollutionControlFactorTOC>
     <pollutionControlFactorCO>0</pollutionControlFactorCO>
     <pollutionControlFactorNOx>0</pollutionControlFactorNOx>
     <pollutionControlFactorSOx>0</pollutionControlFactorSOx>
     <pollutionControlFactorPM10>0</pollutionControlFactorPM10>
     <pm25ToPm10Ratio>1</pm25ToPm10Ratio>
    </categoryGenerator>
   </stationarySource>
  </stationarySourceSet>
  <gateSet>
   <gate>
    <name>AC</name>
    <!-- Elevation of the gate in meters-->
    <elevation>16.76</elevation>
    <releaseHeight>1.499616</releaseHeight>
    <!-- Horizontal dispersion parameter-->
    <sigmaY>0.1</sigmaY>
```

```
    <!-- Vertical dispersion parameter-->
    <sigmaZ>0.1</sigmaZ>
    <polygonCoords>
     <!-- Coordinates of gate vertices-->
     <vertex>
      <latitude>41.745139411257995</latitude>
      <longitude>-71.41015590887973</longitude>
     </vertex>
     <vertex>
      <latitude>41.744540948170368</latitude>
      <longitude>-71.408847926936545</longitude>
     </vertex>
     <vertex>
      <latitude>41.739914698948347</latitude>
      <longitude>-71.412700203804789</longitude>
     </vertex>
     <vertex>
      <latitude>41.740535077331714</latitude>
      <longitude>-71.414048427453068</longitude>
     </vertex>
     <vertex>
      <latitude>41.74214308945087</latitude>
      <longitude>-71.413044097333525</longitude>
     </vertex>
     <vertex>
      <latitude>41.741863092355707</latitude>
      <longitude>-71.4124359172483</longitude>
     </vertex>
     <vertex>
      <latitude>41.743155492229967</latitude>
      <longitude>-71.411380309528937</longitude>
     </vertex>
     <vertex>
      <latitude>41.743501289605305</latitude>
      <longitude>-71.411515795554152</longitude>
     </vertex>
    </polygonCoords>
   </gate>
  </gateSet>
  <taxiwaySet>
   <taxiway>
    <name>AC to 23</name>
    <!-- Width of emmission dispersion around taxiway in meters-->
    <dispersionWidth>20</dispersionWidth>
    <taxiNodeSet>
     <taxiNode>
      <latitude>41.742510605080867</latitude>
      <longitude>-71.411486738878608</longitude>
      <!-- Elevation in meters)-->
      <elevation>16.76</elevation>
      <!-- Speed of aircraft at node in meters/sec-->
      <speed>17.26</speed>
     </taxiNode>
     <taxiNode>
      <latitude>41.746840990965104</latitude>
      <longitude>-71.397780701297123</longitude>
```

```
      <elevation>16.76</elevation>
      <speed>17.26</speed>
     </taxiNode>
    </taxiNodeSet>
   </taxiway>
   <taxiway>
    <name>AC to 5</name>
    <dispersionWidth>20</dispersionWidth>
    <taxiNodeSet>
     <taxiNode>
      <latitude>41.742510605080867</latitude>
      <longitude>-71.411486738878608</longitude>
      <elevation>16.76</elevation>
      <speed>17.26</speed>
     </taxiNode>
     <taxiNode>
      <latitude>41.730402908060768</latitude>
      <longitude>-71.411541169494924</longitude>
      <elevation>16.76</elevation>
      <speed>17.26</speed>
     </taxiNode>
    </taxiNodeSet>
   </taxiway>
  </taxiwaySet>
  <runwaySet>
   <runway>
    <!-- Length of runway in feet-->
    <length>7069</length>
    <!-- Width of runway in feet-->
    <width>150</width>
    <runwayEnd>
     <name>05</name>
     <latitude>41.730402908060768</latitude>
     <longitude>-71.411541169494924</longitude>
     <!--Elevation of the runway in feet-->
     <elevation>54.986875960838894</elevation>
     <!-- Glide slope for runway's endpoint in degrees-->
     <glideSlope>3</glideSlope>
    </runwayEnd>
    <runwayEnd>
     <name>23</name>
     <latitude>41.746840990965104</latitude>
     <longitude>-71.397780701297123</longitude>
     <elevation>54.986875960838894</elevation>
     <glideSlope>3</glideSlope>
    </runwayEnd>
   </runway>
  </runwaySet>
  <taxipathSet>
   <taxipath>
    <!-- Name of the gate associated with the path-->
    <gateName>AC</gateName>
    <!-- Name of the runway associated with the path-->
    <runwayName>05</runwayName>
    <!-- Traffic direction-->
    <direction>Outbound</direction>
```

```
      <!-- Name of the taxiways in the path-->
      <taxiwayName>AC to 5</taxiwayName>
     </taxipath>
     <taxipath>
      <gateName>AC</gateName>
      <runwayName>05</runwayName>
      <direction>Inbound</direction>
      <taxiwayName>AC to 5</taxiwayName>
     </taxipath>
     <taxipath>
      <gateName>AC</gateName>
      <runwayName>23</runwayName>
      <direction>Outbound</direction>
      <taxiwayName>AC to 23</taxiwayName>
     </taxipath>
     <taxipath>
      <gateName>AC</gateName>
      <runwayName>23</runwayName>
      <direction>Inbound</direction>
      <taxiwayName>AC to 23</taxiwayName>
     </taxipath>
    </taxipathSet>
    <trackSet>
     <track>
      <name>05_A_FixedWing</name>
      <!-- Operation type for the track; arrival (A), departure (D), or touch
& go (T)-->
      <optype>A</optype>
      <!-- Wing type; fixed (F) or rotary (R)-->
      <wingtype>F</wingtype>
      <airport type="ICAO">KPVD</airport>
      <runway>05</runway>
      <subtrack>
       <!-- ID of the subtrack-->
       <id>0</id>
       <!-- Dispersion of traffic across this subtrack-->
       <dispersionWeight>1</dispersionWeight>
       <trackNodes>
        <!-- Nodes that make up this track-->
        <trackNode>
         <latitude>40.328096427261926</latitude>
         <longitude>-72.555207007324171</longitude>
        </trackNode>
        <trackNode>
         <latitude>41.730402908060768</latitude>
         <longitude>-71.411541169494924</longitude>
        </trackNode>
        <trackNode>
         <latitude>41.746840990965104</latitude>
         <longitude>-71.397780701297123</longitude>
        </trackNode>
       </trackNodes>
      </subtrack>
     </track>
     <track>
      <name>05_D_FixedWing</name>
```

```
      <optype>D</optype>
      <wingtype>F</wingtype>
      <airport type="ICAO">KPVD</airport>
      <runway>05</runway>
      <subtrack>
       <id>0</id>
       <dispersionWeight>1</dispersionWeight>
       <trackNodes>
        <trackNode>
         <latitude>41.730402908060768</latitude>
         <longitude>-71.411541169494924</longitude>
        </trackNode>
        <trackNode>
         <latitude>41.746840990965104</latitude>
         <longitude>-71.397780701297123</longitude>
        </trackNode>
        <trackNode>
         <latitude>43.13711787619534</latitude>
         <longitude>-70.202867639680548</longitude>
        </trackNode>
       </trackNodes>
      </subtrack>
     </track>
     <track>
      <name>05_T_FixedWing</name>
      <optype>T</optype>
      <wingtype>F</wingtype>
      <airport type="ICAO">KPVD</airport>
      <runway>05</runway>
      <subtrack>
       <id>0</id>
       <dispersionWeight>1</dispersionWeight>
       <trackVectors>
        <trackVector>
         <type>S</type>
         <distance>60761.15234375</distance>
        </trackVector>
        <trackVector>
         <type>R</type>
         <angle>180</angle>
         <radius>18228.345703125</radius>
        </trackVector>
        <trackVector>
         <type>S</type>
         <distance>121522.3046875</distance>
        </trackVector>
        <trackVector>
         <type>R</type>
         <angle>180</angle>
         <radius>18228.345703125</radius>
        </trackVector>
        <trackVector>
         <type>S</type>
         <distance>60761.15234375</distance>
        </trackVector>
       </trackVectors>
```

```
  </subtrack>
 </track>
 <track>
  <name>23_A_FixedWing</name>
  <optype>A</optype>
  <wingtype>F</wingtype>
  <airport type="ICAO">KPVD</airport>
  <runway>23</runway>
  <subtrack>
   <id>0</id>
   <dispersionWeight>1</dispersionWeight>
   <trackNodes>
    <trackNode>
     <latitude>43.13711787619534</latitude>
     <longitude>-70.202867639680548</longitude>
    </trackNode>
    <trackNode>
     <latitude>41.746840990965104</latitude>
     <longitude>-71.397780701297123</longitude>
    </trackNode>
    <trackNode>
     <latitude>41.730402908060768</latitude>
     <longitude>-71.411541169494924</longitude>
    </trackNode>
   </trackNodes>
  </subtrack>
 </track>
 <track>
  <name>23_D_FixedWing</name>
  <optype>D</optype>
  <wingtype>F</wingtype>
  <airport type="ICAO">KPVD</airport>
  <runway>23</runway>
  <subtrack>
   <id>0</id>
   <dispersionWeight>1</dispersionWeight>
   <trackNodes>
    <trackNode>
     <latitude>41.746840990965104</latitude>
     <longitude>-71.397780701297123</longitude>
    </trackNode>
    <trackNode>
     <latitude>41.730402908060768</latitude>
     <longitude>-71.411541169494924</longitude>
    </trackNode>
    <trackNode>
     <latitude>40.328096427261926</latitude>
     <longitude>-72.555207007324171</longitude>
    </trackNode>
   </trackNodes>
  </subtrack>
 </track>
 <track>
  <name>23_T_FixedWing</name>
  <optype>T</optype>
  <wingtype>F</wingtype>
```

```
      <airport type="ICAO">KPVD</airport>
      <runway>23</runway>
      <subtrack>
       <id>0</id>
       <dispersionWeight>1</dispersionWeight>
       <trackVectors>
        <trackVector>
         <type>S</type>
         <distance>60761.15234375</distance>
        </trackVector>
        <trackVector>
         <type>R</type>
         <angle>180</angle>
         <radius>18228.345703125</radius>
        </trackVector>
        <trackVector>
         <type>S</type>
         <distance>121522.3046875</distance>
        </trackVector>
        <trackVector>
         <type>R</type>
         <angle>180</angle>
         <radius>18228.345703125</radius>
        </trackVector>
        <trackVector>
         <type>S</type>
         <distance>60761.15234375</distance>
        </trackVector>
       </trackVectors>
      </subtrack>
     </track>
    </trackSet>
    <airportConfigGroupSet>
     <airportConfigGroup>
      <groupName>Baseline-Theodore Francis Green State-2004</groupName>
      <airportConfig>
       <configurationName>Configuration</configurationName>
       <!-- Flag to use an operation distribution-->
       <useDistribution>false</useDistribution>
       <airportCapacity>
        <!-- Pareto curve points for airport operations-->
        <capacityPoint>
         <arrivalsPerHour>27</arrivalsPerHour>
         <departuresPerHour>52</departuresPerHour>
        </capacityPoint>
        <capacityPoint>
         <arrivalsPerHour>52</arrivalsPerHour>
         <departuresPerHour>27</departuresPerHour>
        </capacityPoint>
       </airportCapacity>
       <runwayAssignmentSet>
        <runwayAssignment>
         <!-- Aircraft size for assignments; small (S), large (L), or heavy
(H)-->
         <aircraftSize>S</aircraftSize>
         <runway>23</runway>
```

```
        <!-- Percent of arrival operations on runway; all arrival
percentages must sum to 100%-->
        <arrivalPercentage>60</arrivalPercentage>
        <!-- Percent of departure operations on runway; all departure
percentages must sum to 100%-->
        <departurePercentage>60</departurePercentage>
        <!-- Percent of touch & go operations on runway; all touch & go
percentages must sum to 100%-->
        <tgoPercentage>60</tgoPercentage>
       </runwayAssignment>
       <runwayAssignment>
        <aircraftSize>S</aircraftSize>
        <runway>05</runway>
        <arrivalPercentage>40</arrivalPercentage>
        <departurePercentage>40</departurePercentage>
        <tgoPercentage>40</tgoPercentage>
       </runwayAssignment>
       <runwayAssignment>
        <aircraftSize>L</aircraftSize>
        <runway>23</runway>
        <arrivalPercentage>60</arrivalPercentage>
        <departurePercentage>60</departurePercentage>
        <tgoPercentage>60</tgoPercentage>
       </runwayAssignment>
       <runwayAssignment>
        <aircraftSize>L</aircraftSize>
        <runway>05</runway>
        <arrivalPercentage>40</arrivalPercentage>
        <departurePercentage>40</departurePercentage>
        <tgoPercentage>40</tgoPercentage>
       </runwayAssignment>
       <runwayAssignment>
        <aircraftSize>H</aircraftSize>
        <runway>23</runway>
        <arrivalPercentage>60</arrivalPercentage>
        <departurePercentage>60</departurePercentage>
        <tgoPercentage>60</tgoPercentage>
       </runwayAssignment>
       <runwayAssignment>
        <aircraftSize>H</aircraftSize>
        <runway>05</runway>
        <arrivalPercentage>40</arrivalPercentage>
        <departurePercentage>40</departurePercentage>
        <tgoPercentage>40</tgoPercentage>
       </runwayAssignment>
      </runwayAssignmentSet>
     </airportConfig>
    </airportConfigGroup>
   </airportConfigGroupSet>
   <quarterHourlyProfileSet>
    <quarterHourlyProfile>
     <profileName>Example Quarter-Hour-Baseline-KPVD</profileName>
     <!-- Weighting of operations at this time bin-->
     <temporalFactor startHour="0" startMinutes="0">0.1777</temporalFactor>
     <temporalFactor startHour="0" startMinutes="15">0.1777</temporalFactor>
     <temporalFactor startHour="0" startMinutes="30">0.1777</temporalFactor>
```

```
      <temporalFactor startHour="0" startMinutes="45">0.1777</temporalFactor>
      <temporalFactor startHour="1" startMinutes="0">0.0967</temporalFactor>
      <temporalFactor startHour="1" startMinutes="15">0.0967</temporalFactor>
      <temporalFactor startHour="1" startMinutes="30">0.0967</temporalFactor>
      <temporalFactor startHour="1" startMinutes="45">0.0967</temporalFactor>
      <temporalFactor startHour="2" startMinutes="0">0.046</temporalFactor>
      <temporalFactor startHour="2" startMinutes="15">0.046</temporalFactor>
      <temporalFactor startHour="2" startMinutes="30">0.046</temporalFactor>
      <temporalFactor startHour="2" startMinutes="45">0.046</temporalFactor>
      <temporalFactor startHour="3" startMinutes="0">0.0683</temporalFactor>
      <temporalFactor startHour="3" startMinutes="15">0.0683</temporalFactor>
      <temporalFactor startHour="3" startMinutes="30">0.0683</temporalFactor>
      <temporalFactor startHour="3" startMinutes="45">0.0683</temporalFactor>
      <temporalFactor startHour="4" startMinutes="0">0.18</temporalFactor>
      <temporalFactor startHour="4" startMinutes="15">0.18</temporalFactor>
      <temporalFactor startHour="4" startMinutes="30">0.18</temporalFactor>
      <temporalFactor startHour="4" startMinutes="45">0.18</temporalFactor>
      <temporalFactor startHour="5" startMinutes="0">0.4146</temporalFactor>
      <temporalFactor startHour="5" startMinutes="15">0.4146</temporalFactor>
      <temporalFactor startHour="5" startMinutes="30">0.4146</temporalFactor>
      <temporalFactor startHour="5" startMinutes="45">0.4146</temporalFactor>
      <temporalFactor startHour="6" startMinutes="0">0.5774</temporalFactor>
      <temporalFactor startHour="6" startMinutes="15">0.5774</temporalFactor>
      <temporalFactor startHour="6" startMinutes="30">0.5774</temporalFactor>
      <temporalFactor startHour="6" startMinutes="45">0.5774</temporalFactor>
      <temporalFactor startHour="7" startMinutes="0">0.6914</temporalFactor>
      <temporalFactor startHour="7" startMinutes="15">0.6914</temporalFactor>
      <temporalFactor startHour="7" startMinutes="30">0.6914</temporalFactor>
      <temporalFactor startHour="7" startMinutes="45">0.6914</temporalFactor>
      <temporalFactor startHour="8" startMinutes="0">0.7</temporalFactor>
      <temporalFactor startHour="8" startMinutes="15">0.7</temporalFactor>
      <temporalFactor startHour="8" startMinutes="30">0.7</temporalFactor>
      <temporalFactor startHour="8" startMinutes="45">0.7</temporalFactor>
      <temporalFactor startHour="9" startMinutes="0">0.6887</temporalFactor>
      <temporalFactor startHour="9" startMinutes="15">0.6887</temporalFactor>
      <temporalFactor startHour="9" startMinutes="30">0.6887</temporalFactor>
      <temporalFactor startHour="9" startMinutes="45">0.6887</temporalFactor>
      <temporalFactor startHour="10" startMinutes="0">0.7424</temporalFactor>
      <temporalFactor startHour="10"
startMinutes="15">0.7424</temporalFactor>
      <temporalFactor startHour="10"
startMinutes="30">0.7424</temporalFactor>
      <temporalFactor startHour="10"
startMinutes="45">0.7424</temporalFactor>
      <temporalFactor startHour="11" startMinutes="0">0.8463</temporalFactor>
      <temporalFactor startHour="11"
startMinutes="15">0.8463</temporalFactor>
      <temporalFactor startHour="11"
startMinutes="30">0.8463</temporalFactor>
      <temporalFactor startHour="11"
startMinutes="45">0.8463</temporalFactor>
      <temporalFactor startHour="12" startMinutes="0">0.8579</temporalFactor>
      <temporalFactor startHour="12"
startMinutes="15">0.8579</temporalFactor>
      <temporalFactor startHour="12"
startMinutes="30">0.8579</temporalFactor>
```

```
      <temporalFactor startHour="12"
startMinutes="45">0.8579</temporalFactor>
      <temporalFactor startHour="13" startMinutes="0">0.8573</temporalFactor>
      <temporalFactor startHour="13"
startMinutes="15">0.8573</temporalFactor>
      <temporalFactor startHour="13"
startMinutes="30">0.8573</temporalFactor>
      <temporalFactor startHour="13"
startMinutes="45">0.8573</temporalFactor>
      <temporalFactor startHour="14" startMinutes="0">0.8666</temporalFactor>
      <temporalFactor startHour="14"
startMinutes="15">0.8666</temporalFactor>
      <temporalFactor startHour="14"
startMinutes="30">0.8666</temporalFactor>
      <temporalFactor startHour="14"
startMinutes="45">0.8666</temporalFactor>
      <temporalFactor startHour="15" startMinutes="0">0.8425</temporalFactor>
      <temporalFactor startHour="15"
startMinutes="15">0.8425</temporalFactor>
      <temporalFactor startHour="15"
startMinutes="30">0.8425</temporalFactor>
      <temporalFactor startHour="15"
startMinutes="45">0.8425</temporalFactor>
      <temporalFactor startHour="16" startMinutes="0">1</temporalFactor>
      <temporalFactor startHour="16" startMinutes="15">1</temporalFactor>
      <temporalFactor startHour="16" startMinutes="30">1</temporalFactor>
      <temporalFactor startHour="16" startMinutes="45">1</temporalFactor>
      <temporalFactor startHour="17" startMinutes="0">0.9063</temporalFactor>
      <temporalFactor startHour="17"
startMinutes="15">0.9063</temporalFactor>
      <temporalFactor startHour="17"
startMinutes="30">0.9063</temporalFactor>
      <temporalFactor startHour="17"
startMinutes="45">0.9063</temporalFactor>
      <temporalFactor startHour="18" startMinutes="0">0.7221</temporalFactor>
      <temporalFactor startHour="18"
startMinutes="15">0.7221</temporalFactor>
      <temporalFactor startHour="18"
startMinutes="30">0.7221</temporalFactor>
      <temporalFactor startHour="18"
startMinutes="45">0.7221</temporalFactor>
      <temporalFactor startHour="19" startMinutes="0">0.5799</temporalFactor>
      <temporalFactor startHour="19"
startMinutes="15">0.5799</temporalFactor>
      <temporalFactor startHour="19"
startMinutes="30">0.5799</temporalFactor>
      <temporalFactor startHour="19"
startMinutes="45">0.5799</temporalFactor>
      <temporalFactor startHour="20" startMinutes="0">0.5254</temporalFactor>
      <temporalFactor startHour="20"
startMinutes="15">0.5254</temporalFactor>
      <temporalFactor startHour="20"
startMinutes="30">0.5254</temporalFactor>
      <temporalFactor startHour="20"
startMinutes="45">0.5254</temporalFactor>
      <temporalFactor startHour="21" startMinutes="0">0.5512</temporalFactor>
```

```
      <temporalFactor startHour="21"
startMinutes="15">0.5512</temporalFactor>
      <temporalFactor startHour="21"
startMinutes="30">0.5512</temporalFactor>
      <temporalFactor startHour="21"
startMinutes="45">0.5512</temporalFactor>
      <temporalFactor startHour="22" startMinutes="0">0.465</temporalFactor>
      <temporalFactor startHour="22" startMinutes="15">0.465</temporalFactor>
      <temporalFactor startHour="22" startMinutes="30">0.465</temporalFactor>
      <temporalFactor startHour="22" startMinutes="45">0.465</temporalFactor>
      <temporalFactor startHour="23" startMinutes="0">0.3655</temporalFactor>
      <temporalFactor startHour="23"
startMinutes="15">0.3655</temporalFactor>
      <temporalFactor startHour="23"
startMinutes="30">0.3655</temporalFactor>
      <temporalFactor startHour="23"
startMinutes="45">0.3655</temporalFactor>
     </quarterHourlyProfile>
    </quarterHourlyProfileSet>
    <dailyProfileSet>
     <dailyProfile>
      <profileName>Example Daily-Baseline-KPVD</profileName>
      <temporalFactorSunday>0.7939</temporalFactorSunday>
      <temporalFactorMonday>0.9916</temporalFactorMonday>
      <temporalFactorTuesday>0.9867</temporalFactorTuesday>
      <temporalFactorWednesday>1</temporalFactorWednesday>
      <temporalFactorThursday>0.9245</temporalFactorThursday>
      <temporalFactorFriday>0.8743</temporalFactorFriday>
      <temporalFactorSaturday>0.7887</temporalFactorSaturday>
     </dailyProfile>
    </dailyProfileSet>
    <monthlyProfileSet>
     <monthlyProfile>
      <profileName>Example Monthly-Baseline-KPVD</profileName>
      <temporalFactorJanuary>0.6265</temporalFactorJanuary>
      <temporalFactorFebruary>0.6791</temporalFactorFebruary>
      <temporalFactorMarch>0.775</temporalFactorMarch>
      <temporalFactorApril>0.8322</temporalFactorApril>
      <temporalFactorMay>0.8741</temporalFactorMay>
      <temporalFactorJune>0.9033</temporalFactorJune>
      <temporalFactorJuly>1</temporalFactorJuly>
      <temporalFactorAugust>0.9876</temporalFactorAugust>
      <temporalFactorSeptember>0.7994</temporalFactorSeptember>
      <temporalFactorOctober>0.9428</temporalFactorOctober>
      <temporalFactorNovember>0.8522</temporalFactorNovember>
      <temporalFactorDecember>0.7806</temporalFactorDecember>
     </monthlyProfile>
    </monthlyProfileSet>
    <activityProfileSet>
     <activityProfile name="ActivityProfile-Baseline-KPVD-6-5-6">
      <quarterHourlyProfile>Example Quarter-Hour-Baseline-
KPVD</quarterHourlyProfile>
      <dailyProfile>Example Daily-Baseline-KPVD</dailyProfile>
      <monthlyProfile>Example Monthly-Baseline-KPVD</monthlyProfile>
     </activityProfile>
    </activityProfileSet>
```

```
   </airportLayout>
  </airportLayoutSet>
  <receptorSet>
   <name>CartesianReceptors-Baseline-KPVD</name>
   <pointReceptor>
    <name>01</name>
    <latitude>41.75569223042968</latitude>
    <longitude>-71.401734633637048</longitude>
    <!-- Elevation above MSL in feet-->
    <elevation>54.986875960838894</elevation>
    <!-- Height of the receptor above ground in feet-->
    <receptorHeight>5.9099999269584984</receptorHeight>
   </pointReceptor>
   <pointReceptor>
    <name>01D</name>
    <latitude>41.732126660490067</latitude>
    <longitude>-71.4141821642798</longitude>
    <elevation>54.986875960838894</elevation>
    <receptorHeight>5.9099999269584984</receptorHeight>
   </pointReceptor>
   <pointReceptor>
    <name>01S</name>
    <latitude>41.762630555759486</latitude>
    <longitude>-71.386077230440634</longitude>
    <elevation>54.986875960838894</elevation>
    <receptorHeight>5.9099999269584984</receptorHeight>
   </pointReceptor>
  </receptorSet>
  <scenario>
   <name>2004-Baseline</name>
   <!-- Scenario start time-->
   <startTime>2004-01-01T00:00:00</startTime>
   <!-- Scenario duration in hours-->
   <duration>8760</duration>
   <!-- Taxi model type for scenario-->
   <taxiModel>Sequencing</taxiModel>
   <!-- Time in mode; either Performance or ICAO-->
   <timeInModeBasis>Performance</timeInModeBasis>
   <!-- Aircraft performance model-->
   <acftPerfModel>SAE1845</acftPerfModel>
   <!-- Flag to include bank angle calculations-->
   <bankAngle>false</bankAngle>
   <!-- Portion of fuel that becomes sulfuric acid when combusted-->
   <sulfurConversionRate>0.005</sulfurConversionRate>
   <description>A sample emissions study scenario</description>
   <scenarioAirportLayoutSet>
    <scenarioAirportLayout>
     <airportLayoutName>Baseline-Theodore Francis Green State-
2004</airportLayoutName>
     <!-- Height where vigorous mixing of gases takes place, in feet-->
     <mixingHeight>2226</mixingHeight>
     <!-- Flag to use hourly meteorological data, rather than annual
averages-->
     <useHourlyMetData>true</useHourlyMetData>
     <!-- Average temperature in Fahrenheit-->
     <averageTemperature>50.4</averageTemperature>
```

```
      <!-- Average daily high temperature in Fahrenheit-->
      <dailyHighTemperature>69.35</dailyHighTemperature>
      <!-- Average daily low temperature in Fahrenheit-->
      <dailyLowTemperature>48.65</dailyLowTemperature>
      <!-- Average barometric pressure in inches Hg.-->
      <pressure>29.92</pressure>
      <!-- Average barometric pressure at MSL in inches Hg.-->
      <pressureMSL>29.92</pressureMSL>
      <!-- Relative humidity percentage-->
      <humidty>60</humidty>
      <!--Wind speed at surface-->
      <windSpeed>8</windSpeed>
      <!-- Wind direction in degrees-->
      <windDirection>0</windDirection>
      <!--Ceiling in feet-->
      <ceiling>99999.99</ceiling>
      <!--Visibility in miles-->
      <visibility>50</visibility>
     </scenarioAirportLayout>
    </scenarioAirportLayoutSet>
    <caseSet>
     <case>
      <caseId>-1623425151</caseId>
      <name>2004_Baseline_Theodore Francis Green State_NonAircraft</name>
      <startTime>2004-01-01T00:00:00</startTime>
      <duration>8760</duration>
      <stationarySourceOperationSet>
       <stationarySourceOperation>
        <refName>Emergency Generator-Baseline-KPVD-2004</refName>
        <emissionsUsage>
         <!--Annualized ammount of emissions-->
         <yearlyValue>500</yearlyValue>
         <activityProfile>ActivityProfile-Baseline-KPVD-6-5-
6</activityProfile>
        </emissionsUsage>
       </stationarySourceOperation>
      </stationarySourceOperationSet>
      <groundSupportEquipmentPopulationOperationSet>
       <groundSupportEquipmentPopulationOperation>
        <!--ID for GSE type-->
        <gseID>30</gseID>
        <!--Fuel used by the GSE-->
        <fuelType>Diesel</fuelType>
        <!--GSE type-->
        <gseType>Generator</gseType>
        <!--Number of GSEs-->
        <numUnits>1</numUnits>
        <!--Operation time, yearly, in hours-->
        <annualOpTime>1630</annualOpTime>
        <!--Profile of activity to use-->
        <activityProfile>ActivityProfile-Baseline-KPVD-6-5-6</activityProfile>
        <!--Horsepower of GSE-->
        <horsepower>158</horsepower>
        <!--User nonroad flag-->
        <useNonRoad>false</useNonRoad>
        <groundSupportEquipmentGateAssignmentSet>
```

```
      <groundSupportEquipmentGateAssignment>
       <!--Gate the GSE is assigned to-->
       <gate>AC</gate>
       <!--Fraction of GSE assigned to gate-->
       <fractionAssigned>1</fractionAssigned>
      </groundSupportEquipmentGateAssignment>
     </groundSupportEquipmentGateAssignmentSet>
    </groundSupportEquipmentPopulationOperation>
   </groundSupportEquipmentPopulationOperationSet>
  </case>
  <case>
   <caseId>466140608</caseId>
   <name>2004_Baseline_Theodore Francis Green State_Operations</name>
   <startTime>2004-01-01T00:00:00</startTime>
   <duration>8760</duration>
   <!--Number of minutes to complete a taxi-in-->
   <totalTaxiInTime>7</totalTaxiInTime>
   <!--Number of minutes to complete a taxi-out-->
   <totalTaxiOutTime>19</totalTaxiOutTime>
   <!--Number of minutes to complete an unimpeded taxi-in-->
   <unimpededTaxiInTime>0</unimpededTaxiInTime>
   <!--Number of minutes to complete an unimpeded taxi-out-->
   <unimpededTaxiOutTime>0</unimpededTaxiOutTime>
   <operation>
    <id>D_1</id>
    <aircraftType>
     <!--Aircraft type-->
     <airframeModel>Airbus A319-100 Series</airframeModel>
     <!--Engine type-->
     <engineCode>3CM028</engineCode>
     <!--APU type-->
     <apuName>APU GTCP 36-300 (80HP)</apuName>
     <!--GSEs assigned to the aircraft-->
     <groundSupportEquipmentLTOOperationSet>
      <groundSupportEquipmentLTOOperation>
       <gseID>13</gseID>
       <fuelType>Gasoline</fuelType>
       <horsepower>107</horsepower>
       <!-- Loading of the GSE-->
       <loadFactor>0.55</loadFactor>
       <!--Operation time for a departure-->
       <departureOpTime>38</departureOpTime>
       <!--Operation time for an arrival-->
       <arrivalOpTime>37</arrivalOpTime>
      </groundSupportEquipmentLTOOperation>
      <groundSupportEquipmentLTOOperation>
       <gseID>14</gseID>
       <fuelType>Gasoline</fuelType>
       <horsepower>107</horsepower>
       <loadFactor>0.5</loadFactor>
       <departureOpTime>24</departureOpTime>
       <arrivalOpTime>24</arrivalOpTime>
      </groundSupportEquipmentLTOOperation>
     </groundSupportEquipmentLTOOperationSet>
    </aircraftType>
    <!--Number of operations-->
```

```
      <numOperations>5</numOperations>
      <!--Type of operation; A, D, or T-->
      <opType>D</opType>
      <departureAirport type="ICAO">KPVD</departureAirport>
      <departureGate>AC</departureGate>
      <!--Operation time for APU for departure in minutes-->
      <departureApuTime>3.5</departureApuTime>
      <!--Taxi-out duration in minutes-->
      <taxiOutDuration>10.72</taxiOutDuration>
      <!--Taxi-in duration in minutes-->
      <taxiInDuration>6.24</taxiInDuration>
      <!--Activity profile to use-->
      <activityProfile>ActivityProfile-Baseline-KPVD-6-5-6</activityProfile>
      <!--Aircraft's weight in pounds-->
      <actypeWeight>146100</actypeWeight>
      <!--Sulfur content of the fuel used in this operation in percentage-->
      <fuelSulfurContent>0.00068</fuelSulfurContent>
    </operation>
    <operation>
      <id>A_1</id>
      <aircraftType>
        <airframeModel>Airbus A319-100 Series</airframeModel>
        <engineCode>3CM028</engineCode>
        <apuName>APU GTCP 36-300 (80HP)</apuName>
        <groundSupportEquipmentLTOOperationSet>
          <groundSupportEquipmentLTOOperation>
            <gseID>13</gseID>
            <fuelType>Gasoline</fuelType>
            <horsepower>107</horsepower>
            <loadFactor>0.55</loadFactor>
            <departureOpTime>38</departureOpTime>
            <arrivalOpTime>37</arrivalOpTime>
          </groundSupportEquipmentLTOOperation>
          <groundSupportEquipmentLTOOperation>
            <gseID>14</gseID>
            <fuelType>Gasoline</fuelType>
            <horsepower>107</horsepower>
            <loadFactor>0.5</loadFactor>
            <departureOpTime>24</departureOpTime>
            <arrivalOpTime>24</arrivalOpTime>
          </groundSupportEquipmentLTOOperation>
        </groundSupportEquipmentLTOOperationSet>
      </aircraftType>
      <numOperations>5</numOperations>
      <opType>A</opType>
      <arrivalAirport type="ICAO">KPVD</arrivalAirport>
      <arrivalGate>AC</arrivalGate>
      <arrivalApuTime>3.5</arrivalApuTime>
      <taxiOutDuration>10.72</taxiOutDuration>
      <taxiInDuration>6.24</taxiInDuration>
      <activityProfile>ActivityProfile-Baseline-KPVD-6-5-6</activityProfile>
      <actypeWeight>137800</actypeWeight>
      <fuelSulfurContent>0.00068</fuelSulfurContent>
    </operation>
  </case>
</caseSet>
```

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

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

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

     <annualizationGroup>
      <weight>1.0</weight>

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

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

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

      </annualizationCase>
     </annualizationGroup>
    </annualizationGroup>
   </annualization>
  </scenario>
 </study>
</AsifXml>
```

4 ASIF Design Consideration

4.1 Event Consolidation

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

4.2 Number of Operations in a Case and Results Reuse

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

4.3 Control Codes in AEDT

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

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

When modeling runway to runway operations using sensor path data, define the flight path using the ASIF ***sensorPath*** element rather than the track element. Sensor paths provide more direct control of altitude for an aircraft trajectory.

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

.

5 Procedural Profiles

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

5.1 Civil Airplane Procedures

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

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

5.1.1 Aircraft Profile Operation Types

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

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

5.1.2 Aircraft Procedure Step Types

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

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

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

5.1.2.1 Takeoff Step

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

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

- MaxClimb thrust means that an airplane takes off using reduced thrust, thus requiring a longer runway.

- UserValue thrust means that the user supplies the takeoff thrust value. The thrust value is the corrected net thrust per engine in pounds or in percent of static thrust. AEDT uses the input value at both the start-roll point and at the rotation point.

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

5.1.2.2 Climb Step

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

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

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

- UserValue thrust can be assigned to the final climb-to point. AEDT does not adjust this input value for airport elevation, temperature, and pressure.

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

5.1.2.3 Accelerate Step

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

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

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

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

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

5.1.2.4 Accel-Percent Step

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

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

5.1.2.5 Cruise-Climb Step

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

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

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

5.1.2.6 Level-Stretch Step

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

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

5.1.2.7 Level Step

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

Input the altitude and speed parameters logically:

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

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

5.1.2.8 Level-Decel Step

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

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

5.1.2.9 Level-Idle Step

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

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

5.1.2.10 Descend Step

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

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

5.1.2.11 Descend-Decel Step

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

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

5.1.2.12 Descend-Idle Step

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

5.1.2.13 Land Step

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

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

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

5.1.2.14 Decelerate Step

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

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

5.1.3 Aircraft Thrust Types and Parameters

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

Thrust Type	Full Name
T	MaxTakeoff
C	MaxClimb
N	MaxContinuous
H	ReduceTakeoff
Q	ReduceClimb
S	MaxTakeoffHiTemp
B	MaxClimbHiTemp
M	MaxContinuousHiTemp
G	ReduceClimbHiTemp
P	ReduceClimbHiTemp
I	IdleApproach
J	IdleApproachHiTemp
R	MinimumThrust
K	UserCutback
U	UserValue

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

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

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

5.1.4 How to Build an Approach Profile

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

- The four Descend steps start at 6000, 3000, 1500, and 1000 feet AFE. They bring an airplane from zero-flaps configuration, terminal-area entrance speed, down to landing-gear/flaps configuration, final-approach speed.

- For most AEDT airplanes, a 3-degree descent angle is used to model IFR approaches. For single-engine piston airplanes and for BEC58P, a 5- degree descent angle is used to model VFR approaches.

- For the Land step, the touchdown-roll distance is 10% of the total rollout distance. For those airplanes using 3-degree approaches, the relationship between the total roll-out distance and the max landing distance is:

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

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

5.1.5 How to Build a Departure Profile

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

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

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

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

5. Climb to 3000 feet using MaxClimb thrust and zero flaps.

6. Climb to 5500 feet using MaxClimb thrust and zero flaps.

7. Climb to 7500 feet using MaxClimb thrust and zero flaps.

8. Climb to 10000 feet using MaxClimb thrust and zero flaps.

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

5.1.6 How to Build an Overflight Profile

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

5.1.7 How to Build a Touch and Go Profile

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

1. Start in level flight at airport pattern altitude.

2. Descend.

3. Touch down on the runway.

4. Roll out.

5. Take off.

6. Climb.

7. End after leveling off at pattern altitude.

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

5.1.8 How to Build a Circuit Profile

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

1. Start on the runway as a standard departure.

2. Take off.

3. Climb to pattern altitude.

4. Level out.

5. Descend from pattern altitude.

6. Land.

7. Decelerate to taxi speed.

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

5.1.9 Airplane Procedure Step Transitions

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

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

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

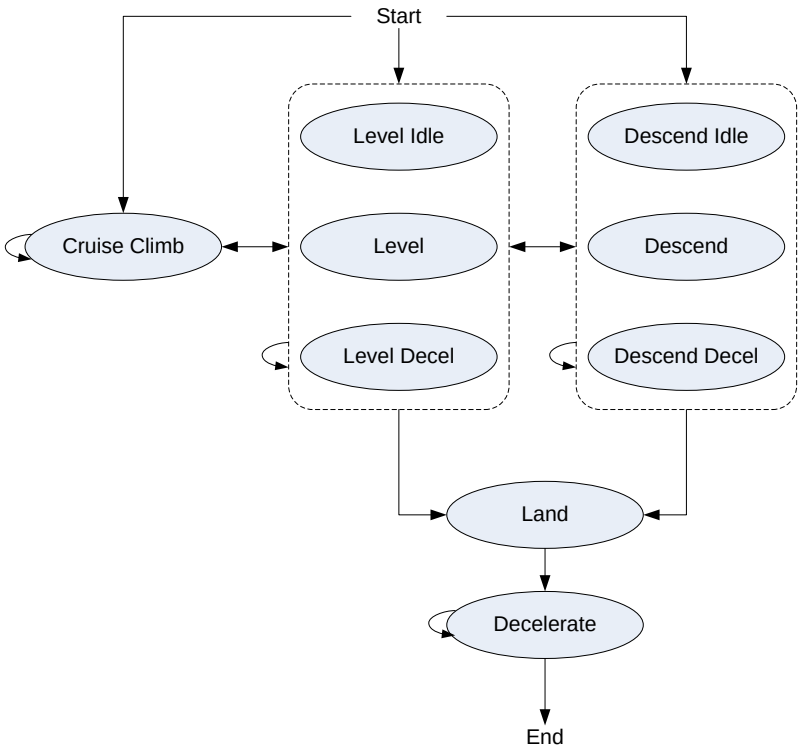


Figure 1: Airplane Approach Step Transition Diagram

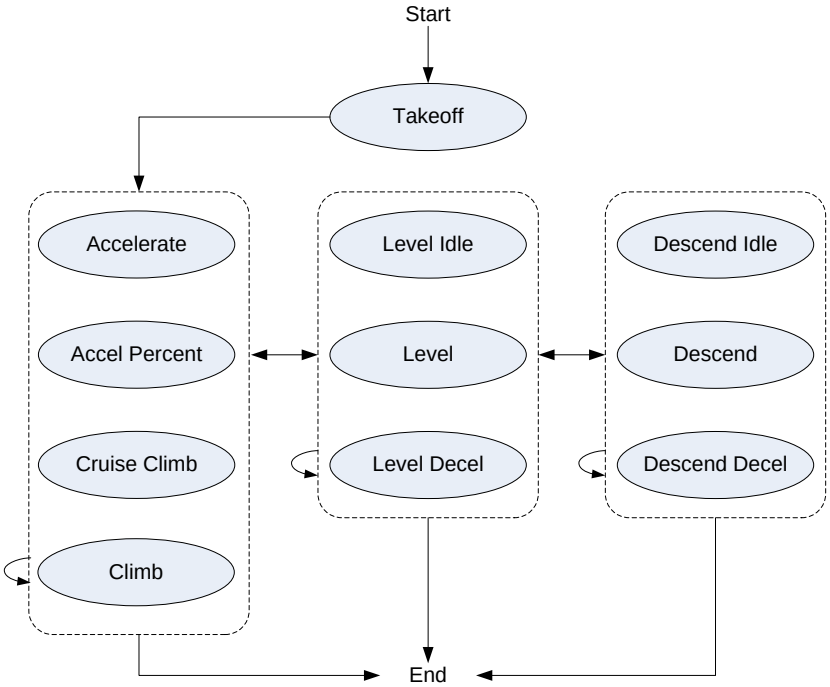


Figure 2: Airplane Departure Step Transition Diagram

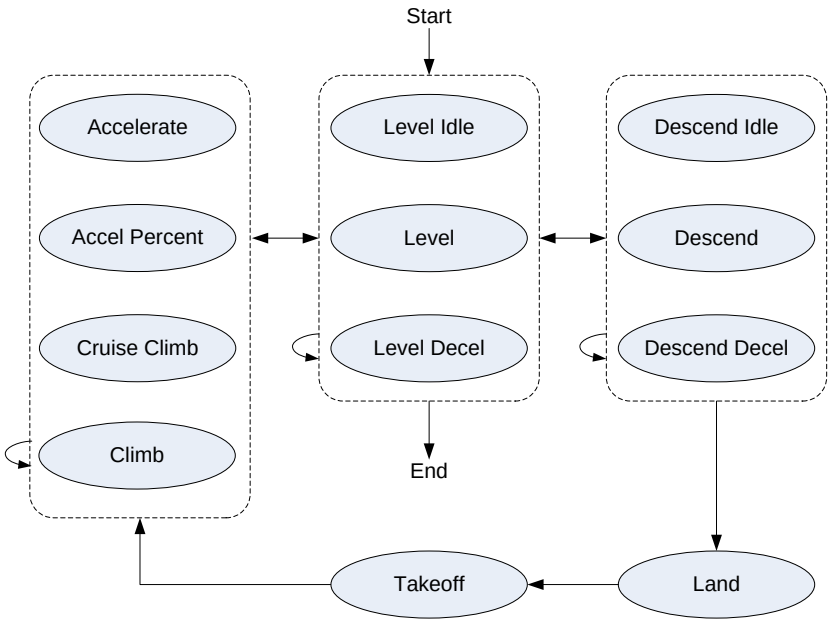


Figure 3: Airplane Touch and Go Step Transition Diagram

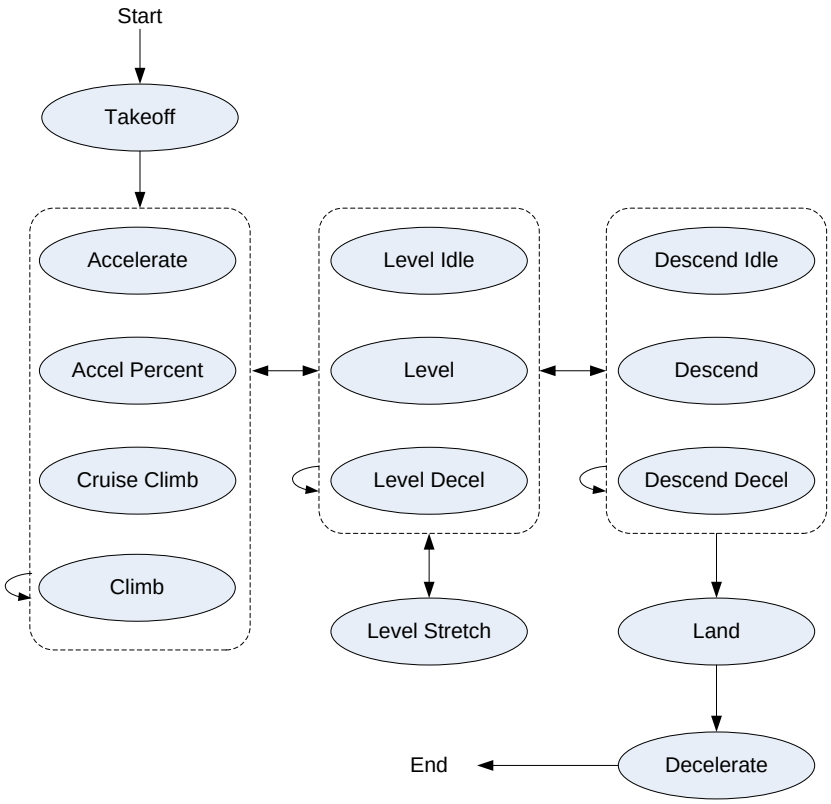


Figure 4: Airplane Circuit Step Transition Diagram

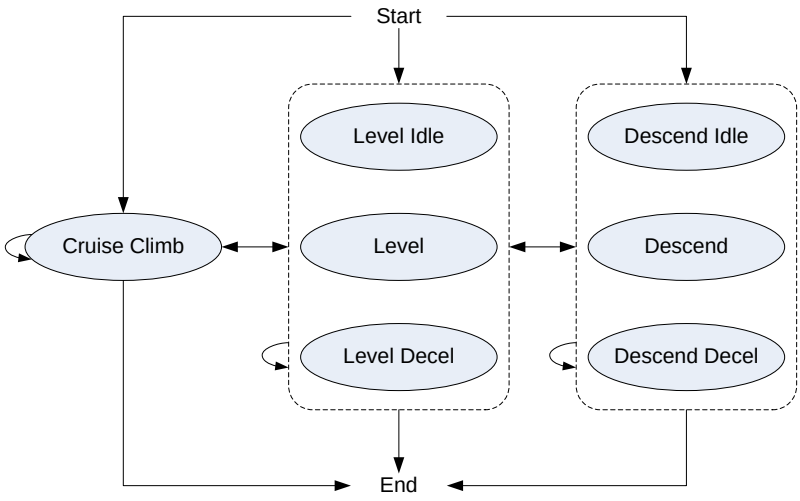


Figure 5: Airplane Overflight Step Transition Diagram

5.2 Helicopter Procedures

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

5.2.1 Helicopter Profile Operation Types

There are four types of flight operations for helicopters:

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

5.2.2 Helicopter Procedure Step Types

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

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

Parameter values are defined as below:

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

5.2.2.1 Additional Helicopter Step Type Information

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

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

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

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

Ground Effect Altitude = 1.5 x Main Rotor Diameter

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

5.2.3 How to Build a Helicopter Approach Profile

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

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

1. Start Altitude, with altitude set to 1000 feet AFE and speed set equal to the helicopter's level reference speed.

2. Level Fly, with distance set to 87250.0 ft (approximately 14 nautical miles).

3. App Horiz Decel, maintaining an altitude of 1000 ft while decelerating to the helicopter's approach reference speed over a distance of 5000 ft.

4. App Const Speed, maintaining the helicopter's approach reference speed while descending to an altitude of 500 feet AFE over a track distance of 4800 feet.

5. App Desc Decel, descending to an altitude of 15 feet AFE while decelerating to a speed of 0 knots over a distance of 2850 feet.

6. App Vertical, maintaining horizontal position while descending to 0 feet AFE over a duration of 3 seconds.

7. Flight Idle for a duration of 30 seconds.

8. Ground Idle for a duration of 30 seconds.

5.2.4 How to Build a Helicopter Departure Profile

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

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

1. Ground Idle for a duration of 30 seconds.

2. Flight Idle for a duration of 30 seconds.

3. Dep Vertical, maintaining horizontal position while ascending to an altitude of 15 ft AFE over a duration of 3 seconds.

4. Dep Horiz Accel, maintaining altitude while accelerating to a speed of 30 knots over a distance of 100 feet.

5. Dep Climb Accel, climbing to an altitude of 30 feet AFE while accelerating to the helicopter's depart reference speed over a distance of 500 feet.

6. Dep Const Speed, maintaining speed while climbing to an altitude of 1000 feet AFE over a track distance of 3500 feet.

7. Dep Horizontal Accel, maintaining altitude while accelerating to the helicopter's level reference speed over a track distance of 2800 feet.

8. Level Fly, with distance set to 93100 feet (approximately 15 nautical miles).

5.2.5 How to Build a Helicopter Overflight Profile

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

5.2.6 How to Build a Helicopter Taxi Profile

A typical helicopter taxi profile consists of the following steps:

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

5.2.7 Helicopter Procedure Step Transitions

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

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

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

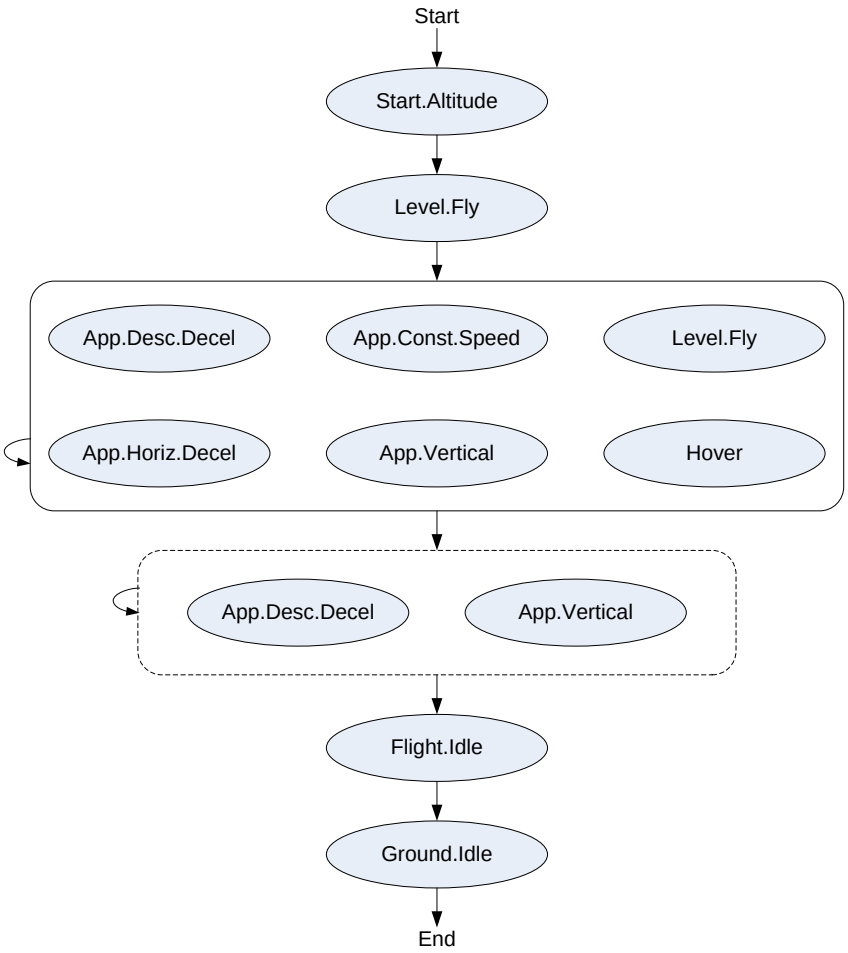


Figure 6: Helicopter Approach Step Transition Diagram

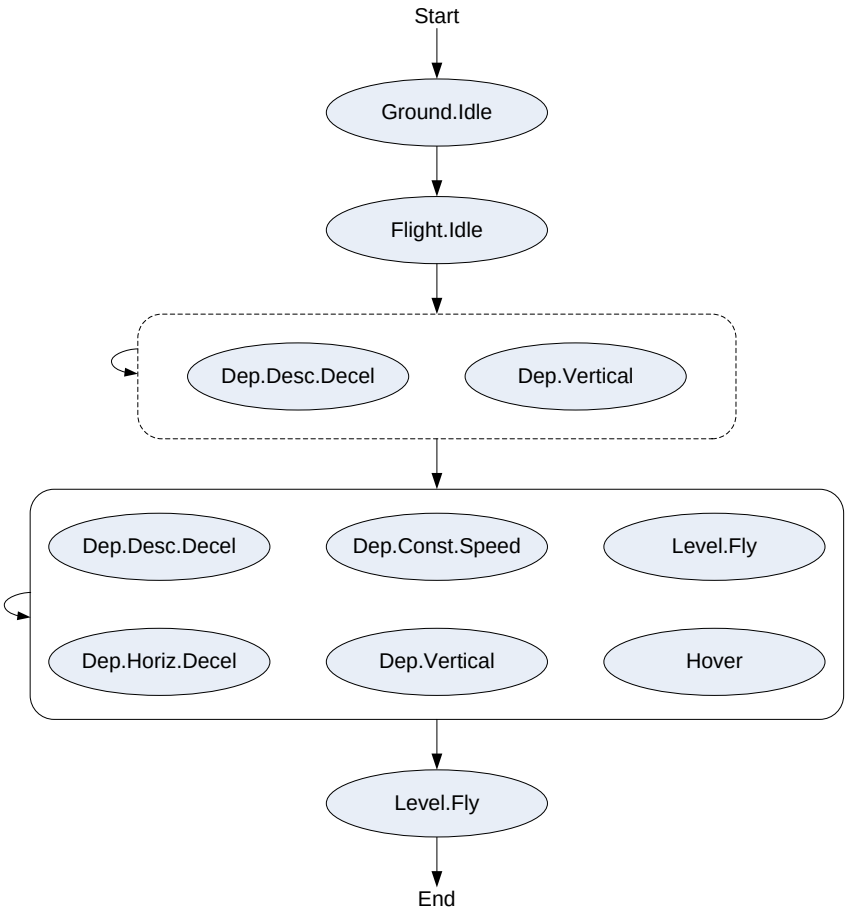


Figure 7: Helicopter Departure Step Transition Diagram

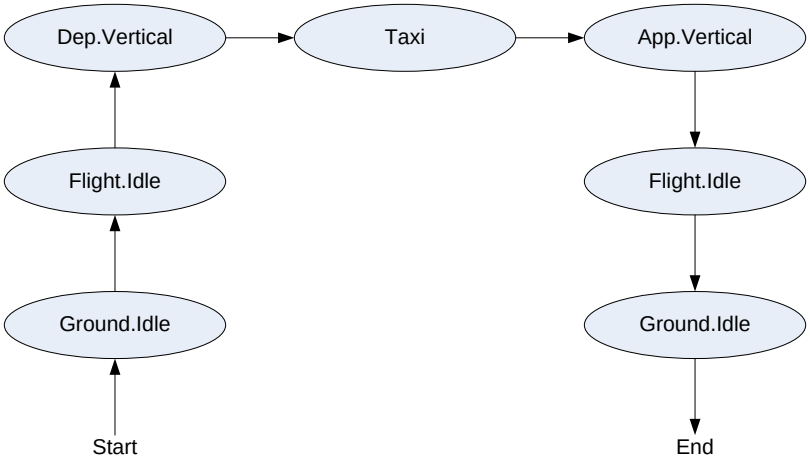


Figure 8: Helicopter Taxi Transition Diagram

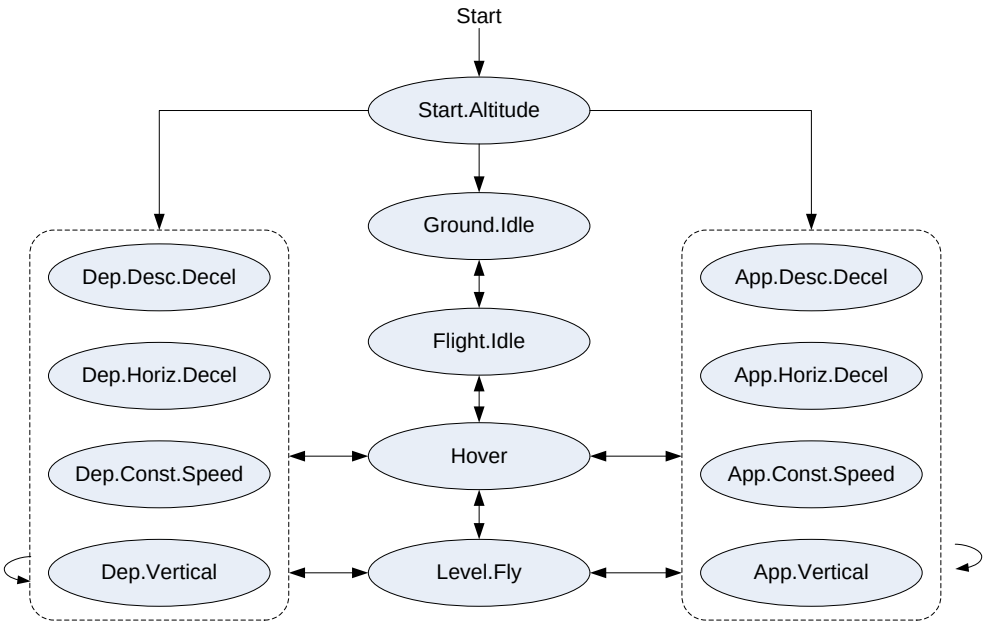


Figure 9: Helicopter Overflight Step Transition Diagram

6 ASIF Schema Documentation

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

Schema **AsifMerge.xsd**

schema location: **..\MergedXsd\AsifMerge.xsd**
attributeFormDefault: **unqualified**
elementFormDefault: **qualified**

Elements

activityProfile
activityProfileSet
airportCapacity
airportConfig
airportConfigSet
airportLayoutSet
airportWeather
airportWeatherStation
annualization
annualizationCase
annualizationGroup
areaStationarySource
AsifXml
backbone
backboneNode
backboneNodes
boilerHeaterTypeCode
boundary
building
buildingSet
capacityPoint
case
caseSet
categoryAircraftEngine
categoryBoilerHeater
categoryDeicingArea
categoryFuelTank
categoryGenerator
categoryIncinerator
categoryOther
categoryRecordCode
categorySandSaltPile
categorySolventDegreaser
categorySurfaceCoatingPainting
categoryTrainingFire
centroid
climate
dailyProfile
dailyProfileSet
dispersionWeight
emissionsUsage
engineModeEmissionFactors
gate
gateSet
grid
groundSupportEquipmentGateAssignment
groundSupportEquipmentGateAssignmentSet
groundSupportEquipmentLTOOperation
groundSupportEquipmentLTOOperationSet
groundSupportEquipmentPopulationOperation
groundSupportEquipmentPopulationOperationSet
monthlyProfile
monthlyProfileSet
operation
operationalProfileSet
operations
options
parkingFacility
parkingFacilityOperation
parkingFacilityOperationSet
parkingFacilitySet
pointReceptor
pointStationarySource
polarGrid
polarReceptor
quarterHourlyProfile

Groups

airportActivityGroup
annualizationGroupCase
coord2DGroup
latlonCoordGroup
nodeIdGroup
oneOrThreeCoords2DGroupSet
receptorGroup
utmCoordGroup

Complex types

aircraft
aircraftEngine
aircraftEngineMod
aircraftType
airframe
airport
airportCode
airportLayoutType
anpAirplane
anpFlaps
anpFlapsSet
anpHelicopter
anpHeloDirectivity
anpHeloDirectivitySet
anpHeloNoiseGroup
anpHeloNPDCurve
anpHeloNPDCurves
anpHeloProcedureStep
anpHeloProfile
anpHeloProfileSet
anpNoiseGroup
anpNPDCurve
anpNPDCurves
anpProcedureStep
anpProcedureSteps
anpProfile
anpProfilePoint
anpProfilePoints
anpProfileSet
anpThrustGeneral
anpThrustJet
anpThrustProp
anpThrustSet
anpTsfcCoefficients
auxiliaryPowerUnit
badaAirplane
badaAltitudeDistribution
badaAltitudeDistributionSet
badaConfig
badaConfigSet
badaFuel
badaProfile
badaProfileSet
badaThrust
coord2DType
coord3DElevationType
dispersionWeight1Type
dispersionWeight3Type
dispersionWeight5Type
dispersionWeight7Type
dispersionWeight9Type
emissionFactorSet
energyShare
engineModeEmissions
fleet
latitudeDecimalType
longitudeDecimalType
polygon2DType
polygon3DElevationType
profiles
runup
runwayEnd
scenarioAirportLayoutType

Simple types

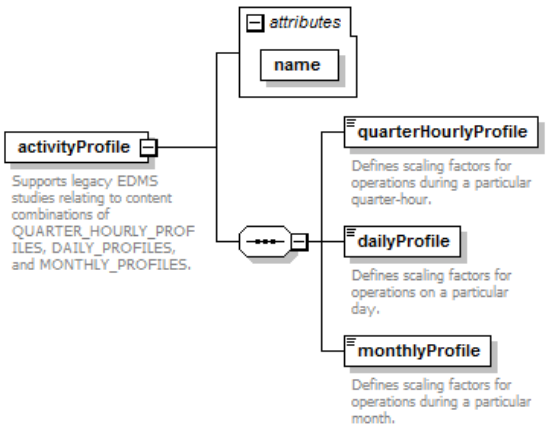
aircraftPerformanceModelType
AircraftSizeType
airframeModel
airportCodeType
anpAirplaneId
anpCoeffType
anpFlapId
anpHeloDirectId
anpHeloDirectivityId
anpHeloGroundType
anpHeloId
anpHeloNoiseId
anpHeloSideType
anpNoiseId
anpNpdNoiseType
anpNpdOpMode
anpOwnerType
anpSizeCode
apuName
badaAirplaneId
badaPhaseType
badaWakeType
directionType
doubleExclusive0Inclusive10
doubleExclusive10
doubleExclusive100
doubleExclusive1000
doubleExclusive10000
doubleExclusive2000
doubleExclusiveRange100
doubleInclusive1
doubleInclusive100
doubleInclusive1000
doubleInclusive10000
doubleInclusive2000
doubleInclusive24
doubleInclusive4000
doubleInclusiveRange0to600
doubleInclusiveRange1to30
doubleMin0
emissionsSourceType
emissionsUnitsType
engineCode
engineModCode
engineModel
engineType
floatExclusive0Inclusive10
floatExclusive10
floatExclusive100
floatExclusive1000
floatExclusive10000
floatExclusive2000
floatExclusiveRange100
floatInclusive1
floatInclusive100
floatInclusive1000
floatInclusive10000
floatInclusive2000
floatInclusive24
floatInclusive4000
floatInclusiveRange1to30
floatInclusiveRange32to600
fuelType
groundVehicleType
int0to23
int0to360

quarterHourlyProfileSet
receptorSet
recordCode
roadway
roadwayOperation
roadwayOperationSet
roadwaySet
runway
runwayAssignment
runwayAssignmentSet
runwaySet
scenario
scenarioAirportLayoutSet
sensorNode
sensorPath
stationarySource
stationarySourceOperation
stationarySourceOperationSet
stationarySourceSet
study
subtrack
taxiNode
taxiNodeSet
taxipath
taxipathSet
taxiTime
taxiway
taxiwaySet
track
trackNode
trackNodes
trackOpSet
trackref
trackSet
trackVector
trackVectors
userDefinedAirportSet
userGroundSupportEquipment
userGroundSupportEquipmentSet
vehicleEmissionFactors
volumeStationarySource
weatherData
windRose
windRoseData
windRoseStation

int0to5
int0to87
int1to13
int1to15
int1to2
int1to25
int1to4
int1to5
int1to8
int1to93
int5to65
int6to13
int89to148
latitudeDMSType
longitudeDMSType
nodeControlType
opType
originSourceType
profileType
quarterHourMinutes
string1
string10
string100
string11
string12
string14
string15
string16
string2
string20
string200
string25
string255
string3
string30
string32
string4
string40
string42
string5
string50
string6
string64
string66
string7
string8
string9
studyType
taxiModelType
timeInModeBasisType
trainingFireFuelType
vectorTrackType
wingType
yesNoType

element **activityProfile**

diagram



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

attribute **activityProfile/@name**

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

element **activityProfile/quarterHourlyProfile**

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

element **activityProfile/dailyProfile**

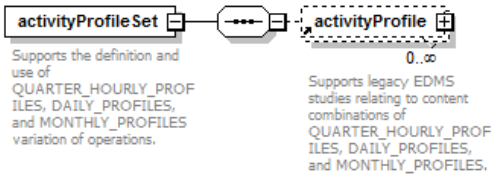
diagram	**dailyProfile** Defines scaling factors for operations on a particular day.
type	**string100**
properties	content simple
used by	element **dailyProfileSet**
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Defines scaling factors for operations on a particular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

element **activityProfile/monthlyProfile**

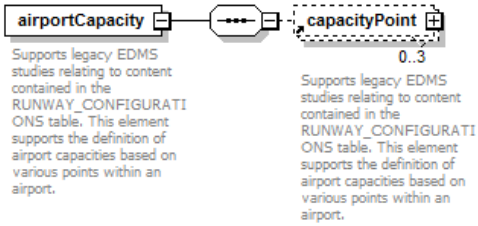
diagram	**monthlyProfile** Defines scaling factors for operations during a particular month.
type	**string100**
properties	content simple
used by	element **monthlyProfileSet**
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation

	Defines scaling factors for operations during a particular month.

element **activityProfileSet**

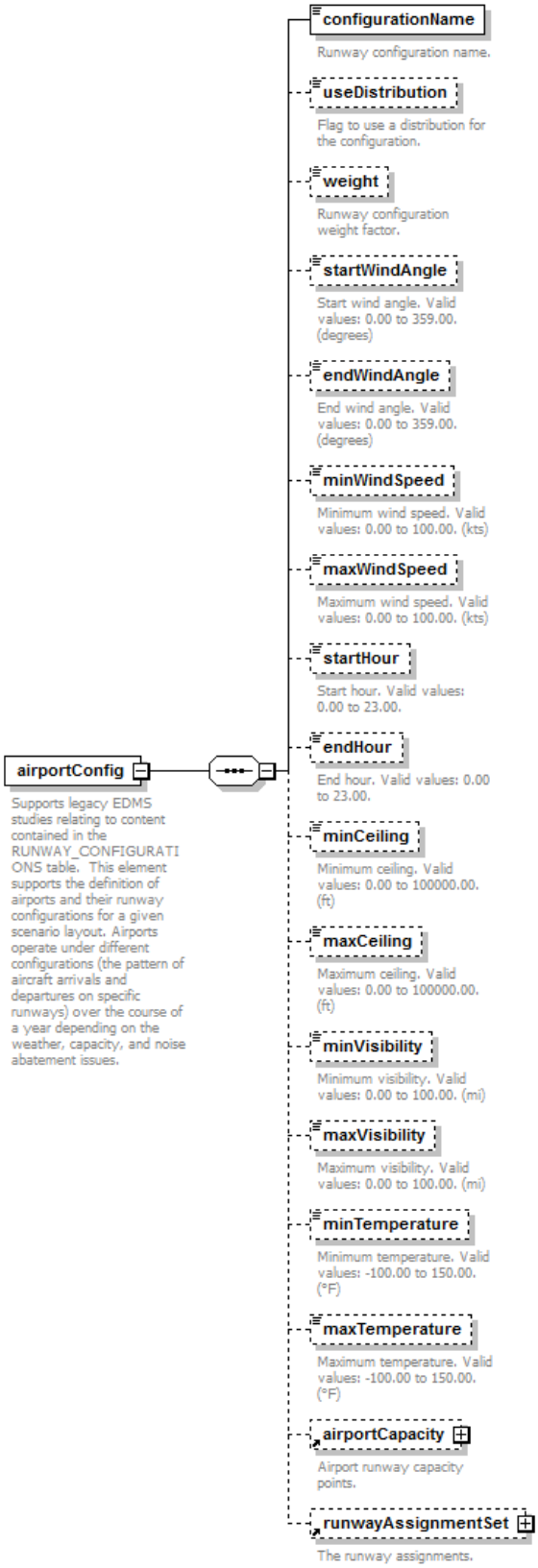
diagram	
properties	content complex
children	**activityProfile**
used by	element **operationalProfileSet** complexType **airportLayoutType**
annotation	documentation Supports the definition and use of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES variation of operations.

element **airportCapacity**

diagram	
properties	content complex
children	**capacityPoint**
used by	element **airportConfig** complexTypes **airportLayoutType** **scenarioAirportLayoutType**
annotation	documentation Supports legacy EDMS studies relating to content contained in the RUNWAY_CONFIGURATIONS table. This element supports the definition of airport capacities based on various points within an airport.

element **airportConfig**

diagram	



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 legacy EDMS studies relating to content contained in the RUNWAY_CONFIGURATIONS table. This element supports the definition of airports and their runway configurations for a given scenario layout. Airports operate under different configurations (the pattern of aircraft arrivals and departures on specific runways) over the course of a year depending on the weather, capacity, and noise abatement issues.

element **airportConfig/configurationName**

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

element **airportConfig/useDistribution**

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

element **airportConfig/weight**

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

element **airportConfig/startWindAngle**

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

element **airportConfig/endWindAngle**

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

	maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxExclusive 360
annotation	documentation End wind angle. Valid values: 0.00 to 359.00. (degrees)

element **airportConfig/minWindSpeed**

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

element **airportConfig/maxWindSpeed**

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

element **airportConfig/startHour**

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

element **airportConfig/endHour**

diagram	**endHour** End hour. Valid values: 0.00 to 23.00.
type	**doubleInclusive24**
properties	minOcc 0 maxOcc 1

	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 24
annotation	documentation End hour. Valid values: 0.00 to 23.00.

element **airportConfig/minCeiling**

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

element **airportConfig/maxCeiling**

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

element **airportConfig/minVisibility**

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

element **airportConfig/maxVisibility**

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

element **airportConfig/minTemperature**

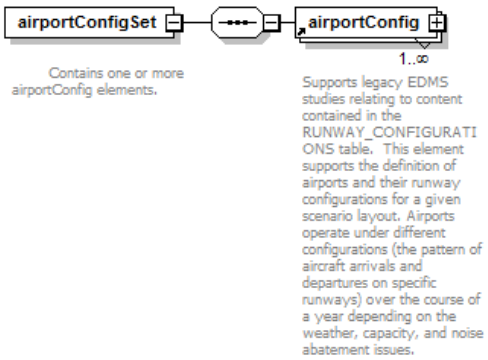
diagram	**minTemperature** Minimum temperature. Valid values: -100.00 to 150.00. (°F)

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

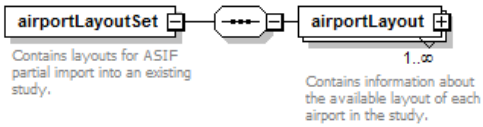
element **airportConfig/maxTemperature**

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

element **airportConfigSet**

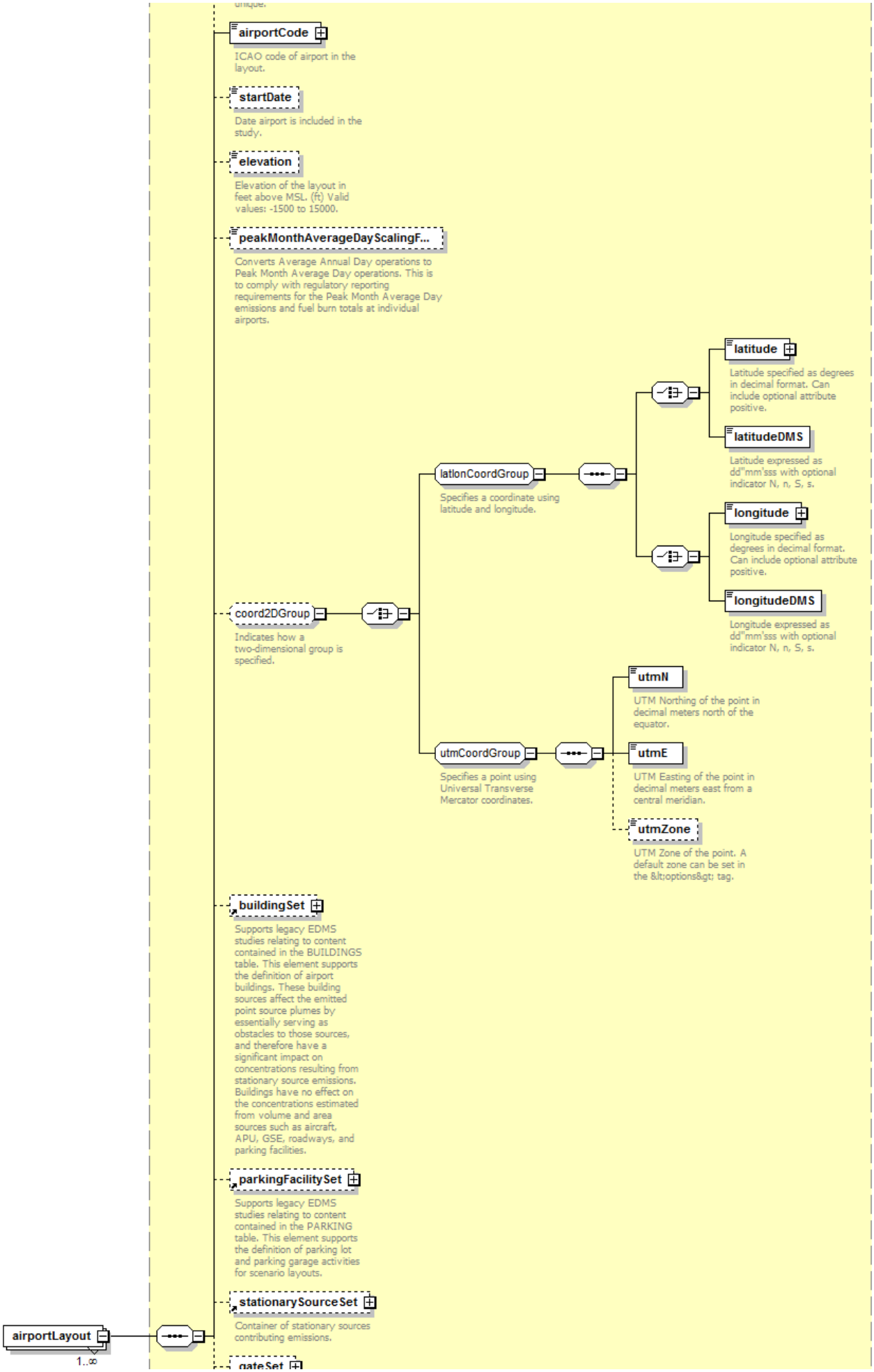
diagram	
properties	content complex
children	**airportConfig**
used by	complexTypes **airportLayoutType** **scenarioAirportLayoutType**
annotation	documentation Contains one or more airportConfig elements.

element **airportLayoutSet**

diagram	
properties	content complex
children	**airportLayout**
used by	elements **AsifXml** **study**
annotation	documentation Contains layouts for ASIF partial import into an existing study.

element **airportLayoutSet/airportLayout**

diagram	


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. (ft) Valid values: -1500 to 15000.
peakMonthAverageDayScalingF...
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.
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 <options> tag.
buildingSet
Supports legacy EDMS studies relating to content contained in the BUILDINGS table. This element supports the definition of airport buildings. These building sources affect the emitted point source plumes by essentially serving as obstacles to those sources, and therefore have a significant impact on concentrations resulting from stationary source emissions. Buildings have no effect on the concentrations estimated from volume and area sources such as aircraft, APU, GSE, roadways, and parking facilities.
parkingFacilitySet
Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage activities for scenario layouts.
stationarySourceSet
Container of stationary sources contributing emissions.
airportLayout
1..∞

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

gateSet

Supports legacy EDMS studies relating to content contained in the GATES table. This element supports the definition of gates within an airport layout. In dispersion analyses, GSE, AGE, and APU emissions originate from the gate locations. Gates are needed for sequence modeling, which includes all dispersion analyses.

roadwaySet

Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle activity on roadways for scenario layouts.

taxiwaySet

Supports legacy EDMS studies relating to the TAXIWAYS table. Taxiways determine the ground segments where the aircraft operates.

runwaySet

Container for runways.

taxipathSet

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

trackSet

A set of flight tracks.

airportConfigSet

Contains one or more airportConfig elements.

airportCapacity

Supports legacy EDMS studies relating to content contained in the RUNWAY_CONFIGURATIONS table. This element supports the definition of airport capacities based on various points within an airport.

quarterHourlyProfileSet

Supports the definition and use of QUARTER_HOURLY_PROFILES for the quarter hourly variation of operations.

dailyProfileSet

Supports the definition and use of DAILY_PROFILES for the daily variation of operations.

monthlyProfileSet

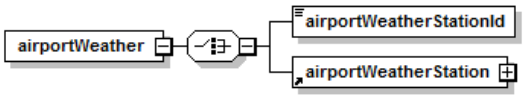
Supports the definition and use of MONTHLY_PROFILES for the monthly variation of operations.

activityProfileSet

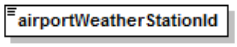
Supports the definition and

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

element **airportWeather**

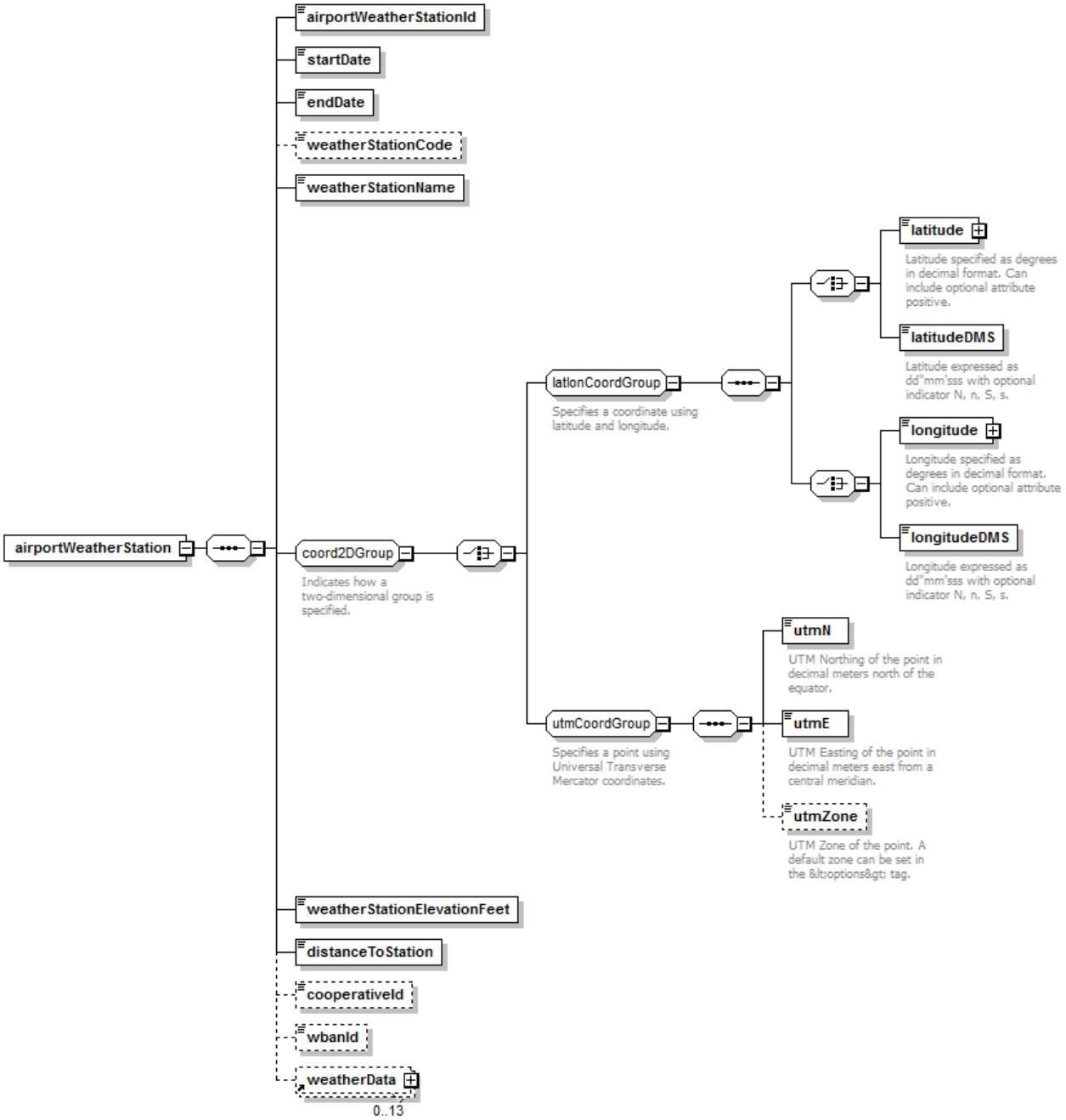
diagram	
properties	content complex
children	**airportWeatherStationId** **airportWeatherStation**
used by	complexType **airport**

element **airportWeather/airportWeatherStationId**

diagram	
type	**xs:int**
properties	content simple

element **airportWeatherStation**

diagram	



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

element **airportWeatherStation/airportWeatherStationId**

diagram	**airportWeatherStationId**
type	**xs:int**
properties	content simple

element **airportWeatherStation/startDate**

diagram	**startDate**
type	**xs:date**
properties	content simple

element **airportWeatherStation/endDate**

diagram	endDate
type	**xs:date**
properties	content simple

element **airportWeatherStation/weatherStationCode**

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

element **airportWeatherStation/weatherStationName**

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

element **airportWeatherStation/weatherStationElevationFeet**

diagram	weatherStationElevationFeet
type	**xs:int**
properties	content simple

element **airportWeatherStation/distanceToStation**

diagram	distanceToStation
type	**xs:double**
properties	content simple

element **airportWeatherStation/cooperativeId**

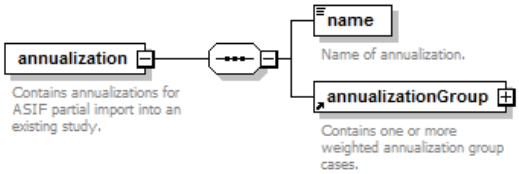
diagram	cooperativeId
type	**string6**
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 6

element **airportWeatherStation/wbanId**

diagram	wbanId
type	**string5**

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

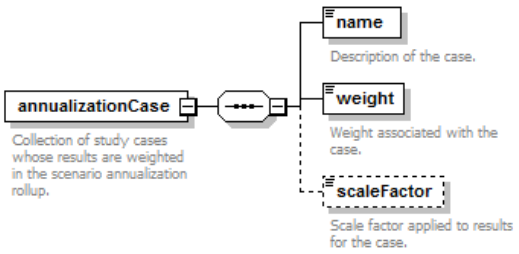
element **annualization**

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

element **annualization/name**

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

element **annualizationCase**

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

element **annualizationCase/name**

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

annotation	documentation Description of the case.

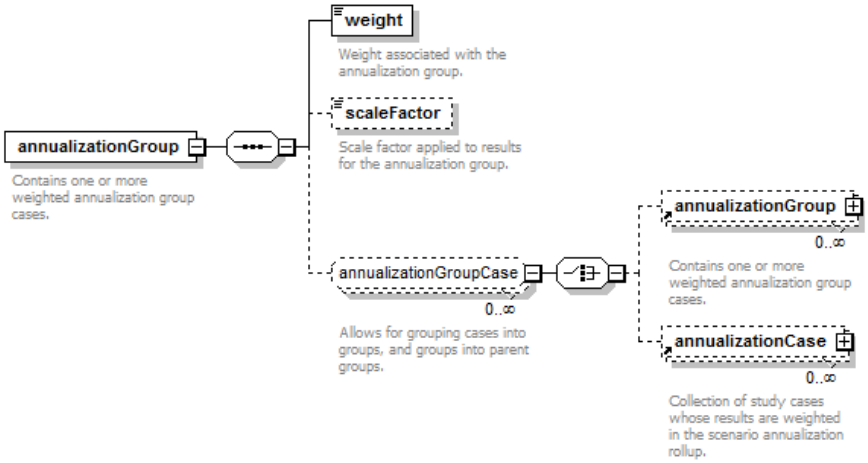
element **annualizationCase/weight**

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

element **annualizationCase/scaleFactor**

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

element **annualizationGroup**

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

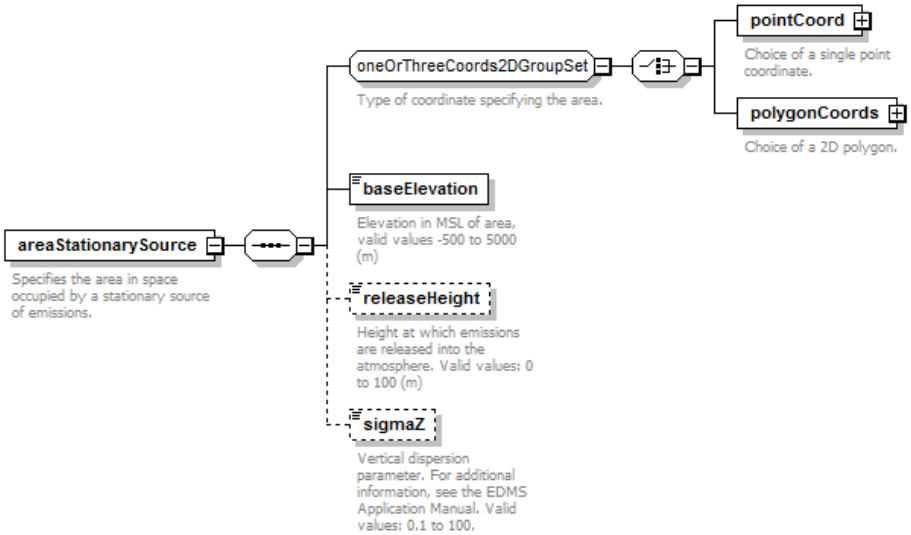
element **annualizationGroup/weight**

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

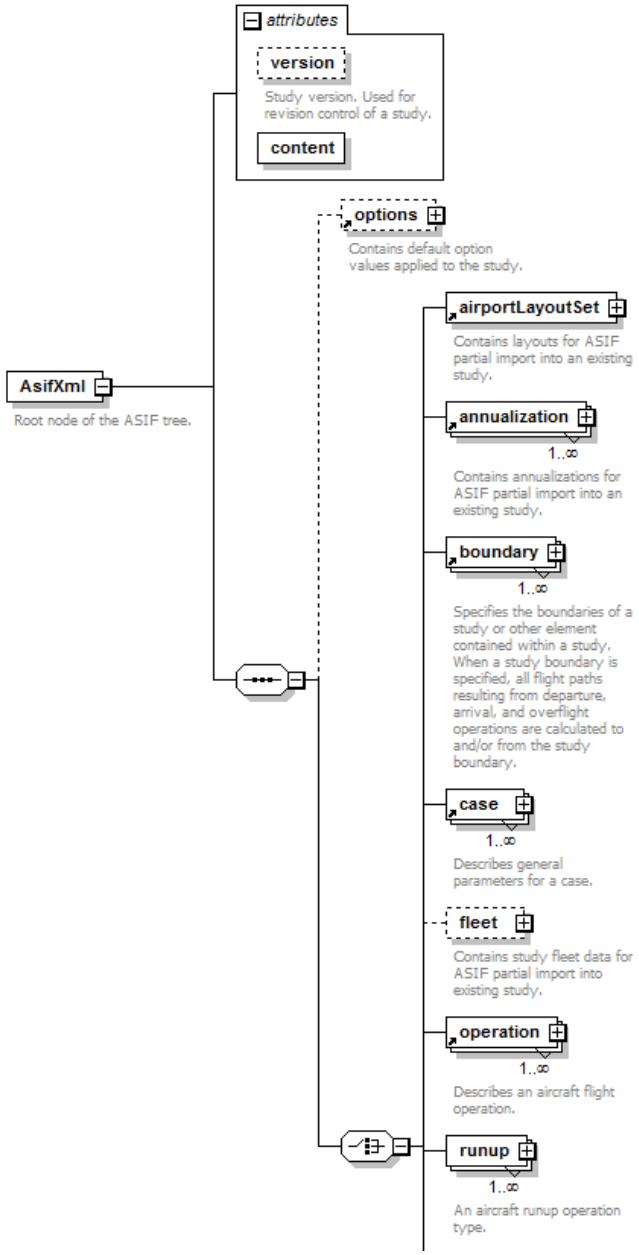
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Height at which emissions are released into the atmosphere. Valid values: 0 to 100 (m)

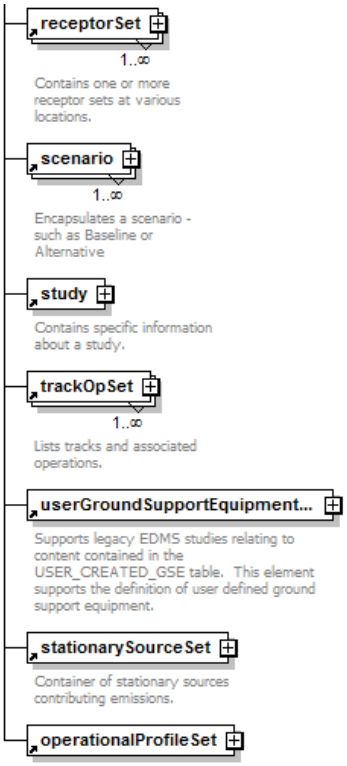
element **areaStationarySource/sigmaZ**

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

element **AsifXml**

diagram





properties	content complex
children	**options** **airportLayoutSet** **annualization** **boundary** **case** **fleet** **operation** **runup** **receptorSet** **scenario** **study** **trackOpSet** **userGroundSupportEquipmentSet** **stationarySourceSet** **operationalProfileSet**

attributes	Name	Type	Use	Default	Fixed	Annotation
	version	**string16**	optional			documentation Study version. Used for revision control of a study.
	content	**derived by: xs:string**	required			

annotation	documentation Root node of the ASIF tree.

attribute **AsifXml/@version**

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

attribute **AsifXml/@content**

type	restriction of **xs:string**
properties	use required
facets	Kind Value Annotation enumeration airportLayoutSet enumeration annualization enumeration case enumeration fleet enumeration receptorSets enumeration scenario enumeration study enumeration boundary enumeration trackOpSet enumeration runup enumeration userGroundSupportEquipmentSet enumeration stationarySourceSet enumeration operationalProfileSet

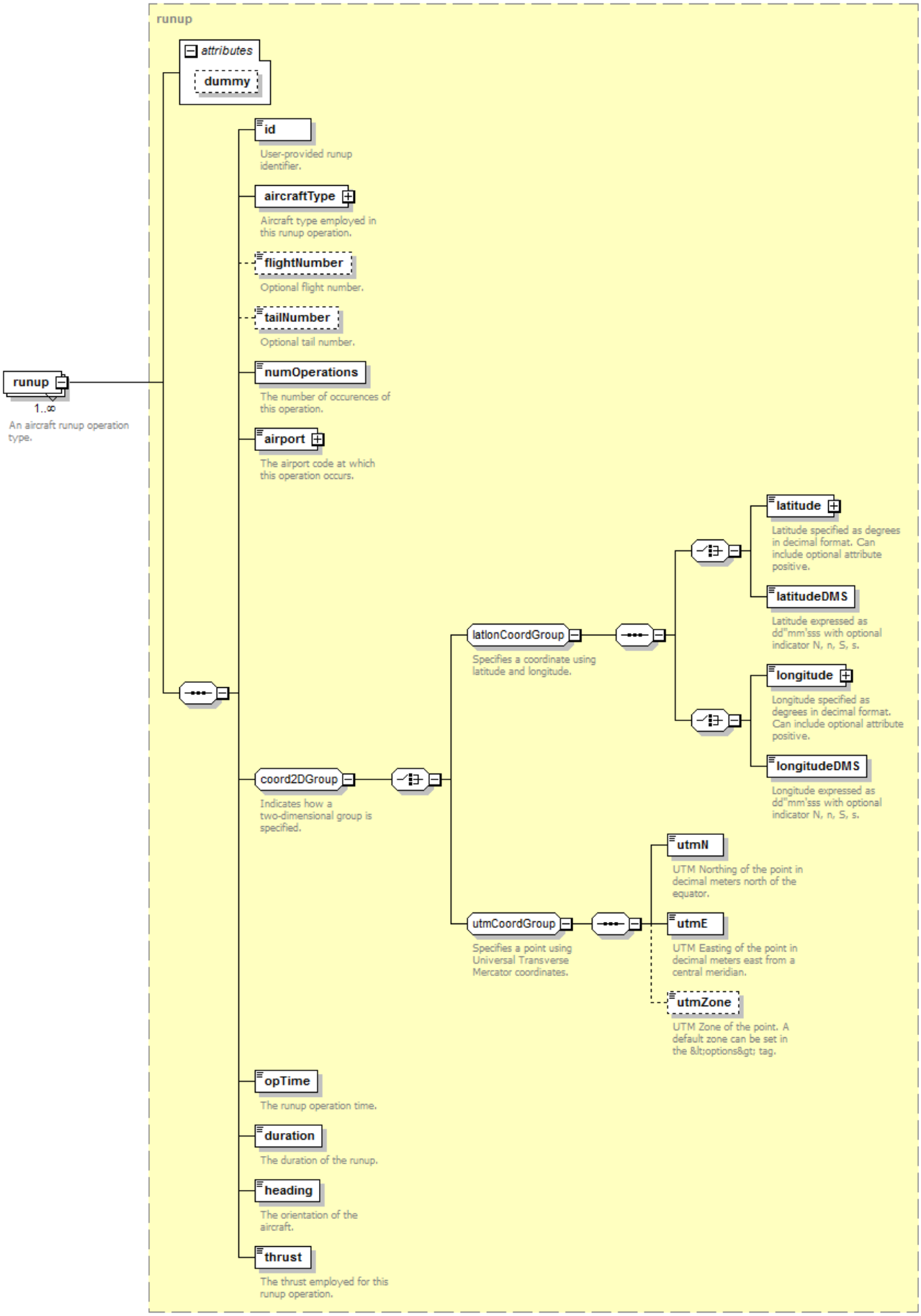
element **AsifXml/fleet**

diagram

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

element **AsifXml/runup**

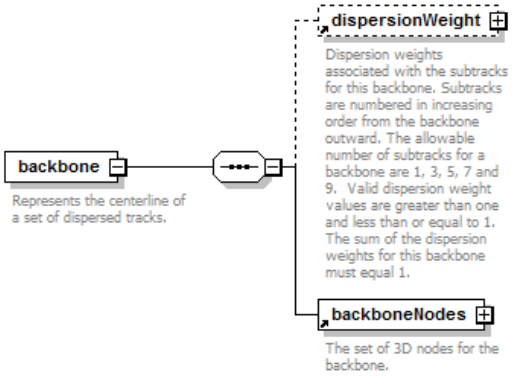
diagram	



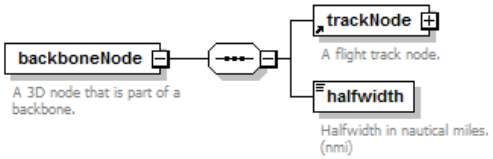
type	**runup**
properties	minOcc 1 maxOcc unbounded

	content complex
children	**id** **aircraftType** **flightNumber** **tailNumber** **numOperations** **airport** **latitude** **latitudeDMS** **longitude** **longitudeDMS** **utmN** **utmE** **utmZone** **opTime** **duration** **heading** **thrust**
attributes	Name Type Use Default Fixed Annotation dummy **xs:int** optional
annotation	documentation An aircraft runup operation type.

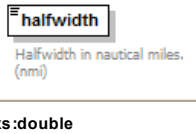
element **backbone**

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

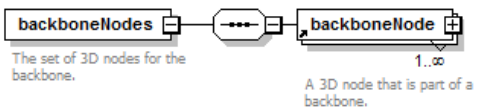
element **backboneNode**

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**

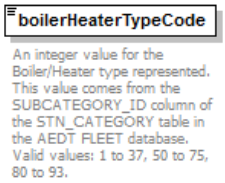
diagram	
type	**xs:double**
properties	content simple
annotation	documentation Halfwidth in nautical miles. (nmi)

element **backboneNodes**

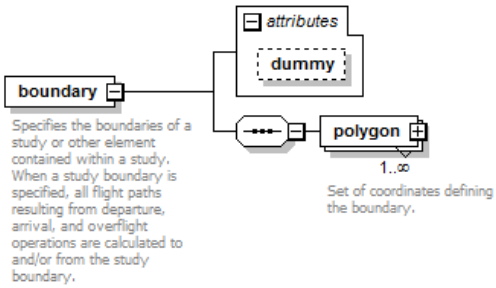
diagram	
properties	content complex

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:integer**, restriction of **xs:integer**, restriction of **xs:integer**)
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 37, 50 to 75, 80 to 93.

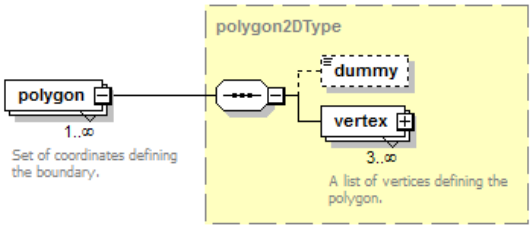
element **boundary**

diagram	
properties	content complex
children	**polygon**
used by	elements **AsifXml** **study**
attributes	Name Type Use Default Fixed Annotation dummy **xs:int** optional
annotation	documentation Specifies the boundaries of a study or other element contained within a study. When a study boundary is specified, all flight paths resulting from departure, arrival, and overflight operations are calculated to and/or from the study boundary.

attribute **boundary/@dummy**

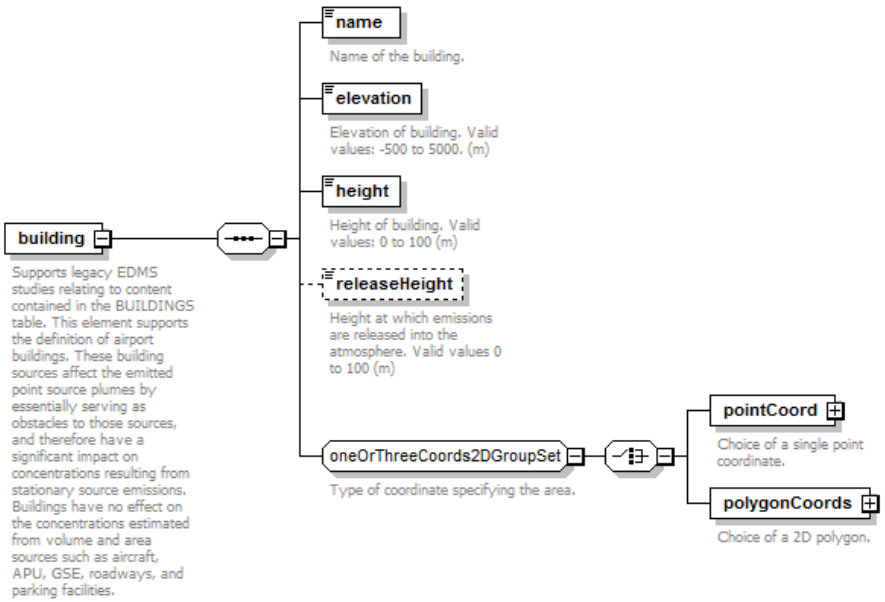
type	**xs:int**
properties	use optional

element **boundary/polygon**

diagram	
type	**polygon2DType**
properties	minOcc 1 maxOcc unbounded content complex

children	**dummy** **vertex**
annotation	documentation Set of coordinates defining the boundary.

element **building**

diagram	
properties	content complex
children	**name** **elevation** **height** **releaseHeight** **pointCoord** **polygonCoords**
used by	element **buildingSet**
annotation	documentation Supports legacy EDMS studies relating to content contained in the BUILDINGS table. This element supports the definition of airport buildings. These building sources affect the emitted point source plumes by essentially serving as obstacles to those sources, and therefore have a significant impact on concentrations resulting from stationary source emissions. Buildings have no effect on the concentrations estimated from volume and area sources such as aircraft, APU, GSE, roadw ays, and parking facilities.

element **building/name**

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

element **building/elevation**

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

element **building/height**

diagram	

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

element **building/releaseHeight**

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

element **buildingSet**

diagram	**buildingSet** Supports legacy EDMS studies relating to content contained in the BUILDINGS table. This element supports the definition of airport buildings. These building sources affect the emitted point source plumes by essentially serving as obstacles to those sources, and therefore have a significant impact on concentrations resulting from stationary source emissions. Buildings have no effect on the concentrations estimated from volume and area sources such as aircraft, APU, GSE, roadways, and parking facilities. **building** 1..∞ Supports legacy EDMS studies relating to content contained in the BUILDINGS table. This element supports the definition of airport buildings. These building sources affect the emitted point source plumes by essentially serving as obstacles to those sources, and therefore have a significant impact on concentrations resulting from stationary source emissions. Buildings have no effect on the concentrations estimated from volume and area sources such as aircraft, APU, GSE, roadways, and parking facilities.
properties	content complex
children	**building**
used by	complexType **airportLayoutType**
annotation	documentation Supports legacy EDMS studies relating to content contained in the BUILDINGS table. This element supports the definition of airport buildings. These building sources affect the emitted point source plumes by essentially serving as obstacles to those sources, and therefore have a significant impact on concentrations resulting from stationary source emissions. Buildings have no effect on the concentrations estimated from volume and area sources such as aircraft, APU, GSE, roadways, and parking facilities.

element **capacityPoint**

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

annotation	documentation Supports legacy EDMS studies relating to content contained in the RUNWAY_CONFIGURATIONS table. This element supports the definition of airport capacities based on various points within an airport.

element **capacityPoint/arrivalsPerHour**

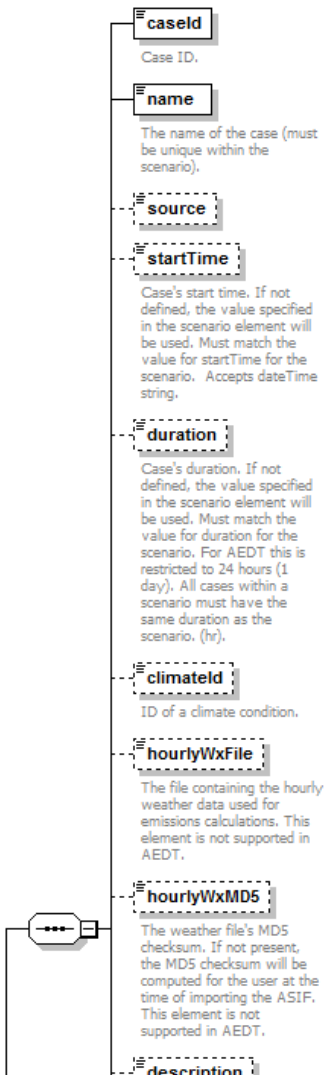
diagram	**arrivalsPerHour** Number of arrivals per hour. Valid values: 0.00 to 400.00. (operations per hour)
type	**xs:double**
properties	content simple
annotation	documentation Number of arrivals per hour. Valid values: 0.00 to 400.00. (operations per hour)

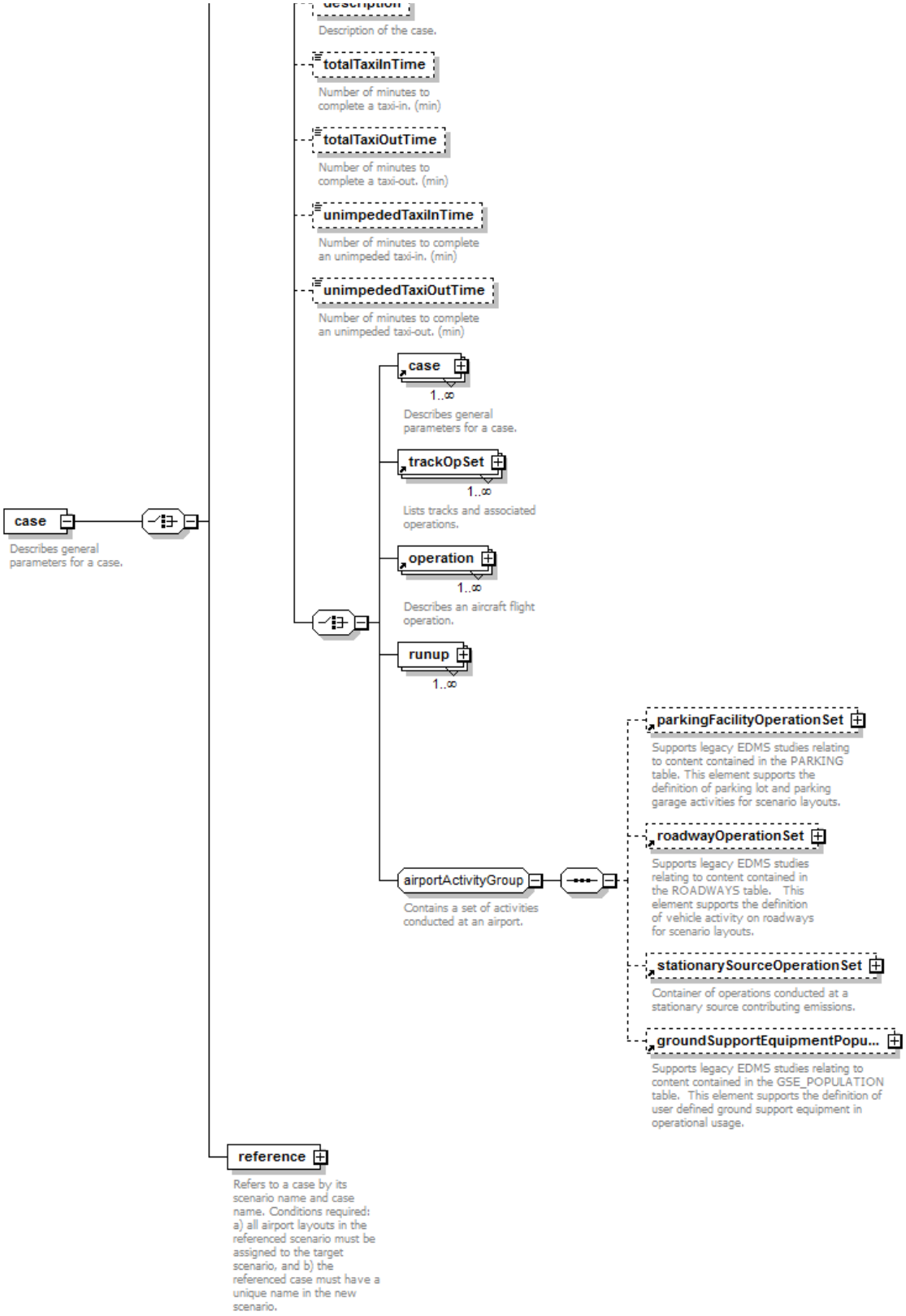
element **capacityPoint/departuresPerHour**

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

element **case**

diagram





properties	content complex
children	**caseId** **name** **source** **startTime** **duration** **climateId** **hourlyWxFile** **hourlyWxMD5** **description** **totalTaxiInTime** **totalTaxiOutTime** **unimpededTaxiInTime** **unimpededTaxiOutTime** **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/caseId**

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

element **case/name**

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

element **case/source**

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

element **case/startTime**

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

element **case/duration**

diagram	**duration** Case's duration. If not defined, the value specified in the scenario element will be used. Must match the value for duration for the scenario. For AEDT this is restricted to 24 hours (1 day). All cases within a scenario must have the same duration as the scenario. (hr).

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

element **case/climateId**

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

element **case/hourlyWxFile**

diagram	**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/totalTaxiInTime**

diagram	totalTaxiInTime Number of minutes to complete a taxi-in. (min)
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Number of minutes to complete a taxi-in. (min)

element **case/totalTaxiOutTime**

diagram	totalTaxiOutTime Number of minutes to complete a taxi-out. (min)
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Number of minutes to complete a taxi-out. (min)

element **case/unimpededTaxiInTime**

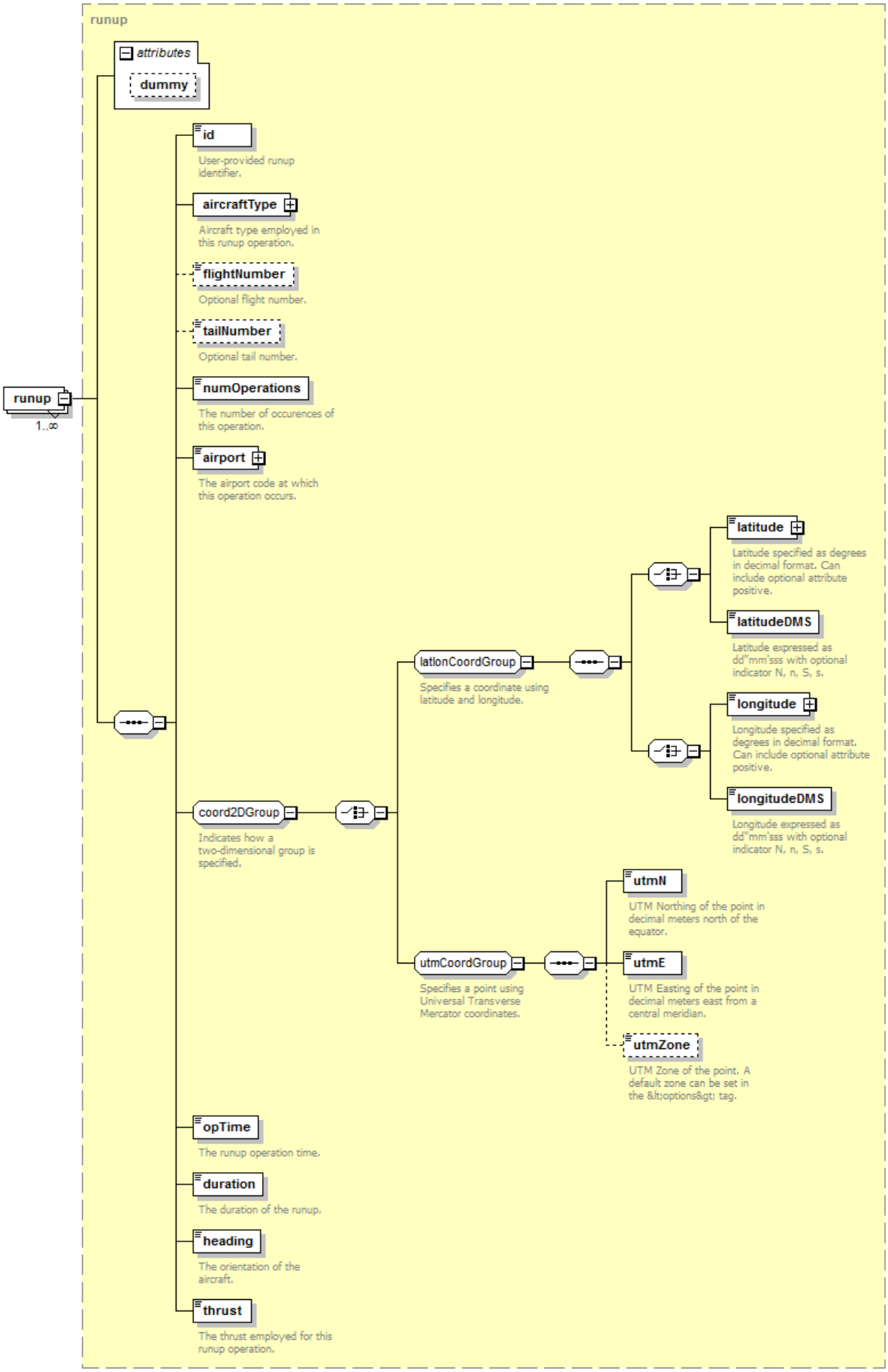
diagram	unimpededTaxiInTime Number of minutes to complete an unimpeded taxi-in. (min)
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Number of minutes to complete an unimpeded taxi-in. (min)

element **case/unimpededTaxiOutTime**

diagram	unimpededTaxiOutTime Number of minutes to complete an unimpeded taxi-out. (min)
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Number of minutes to complete an unimpeded taxi-out. (min)

element **case/runup**

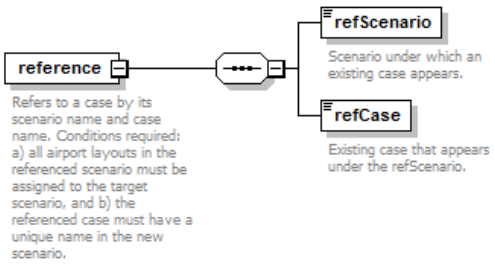
diagram	



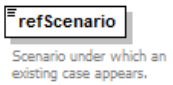
type	**runup**
properties	minOcc 1 maxOcc unbounded

	content complex
children	**id** **aircraftType** **flightNumber** **tailNumber** **numOperations** **airport** **latitude** **latitudeDMS** **longitude** **longitudeDMS** **utmN** **utmE** **utmZone** **opTime** **duration** **heading** **thrust**
attributes	Name Type Use Default Fixed Annotation dummy **xs:int** optional

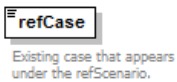
element **case/reference**

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.

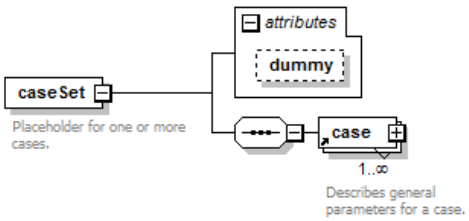
element **case/reference/refScenario**

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	
type	**string255**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Existing case that appears under the refScenario.

element **caseSet**

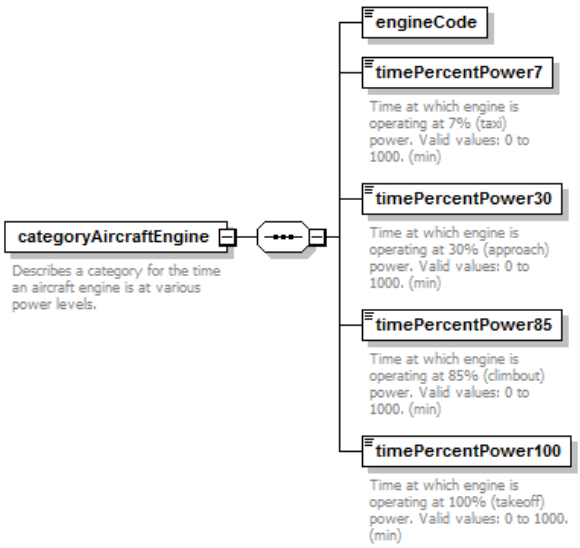
diagram	
properties	content complex

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.

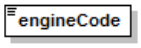
attribute **caseSet/@dummy**

type	**xs:int**
properties	use optional

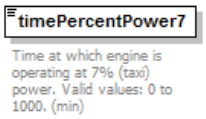
element **categoryAircraftEngine**

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	**timePercentPower30** Time at which engine is operating at 30% (approach) power. Valid values: 0 to 1000. (min)
type	**doubleExclusive1000**
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation Time at which engine is operating at 30% (approach) power. Valid values: 0 to 1000. (min)

element **categoryAircraftEngine/timePercentPower85**

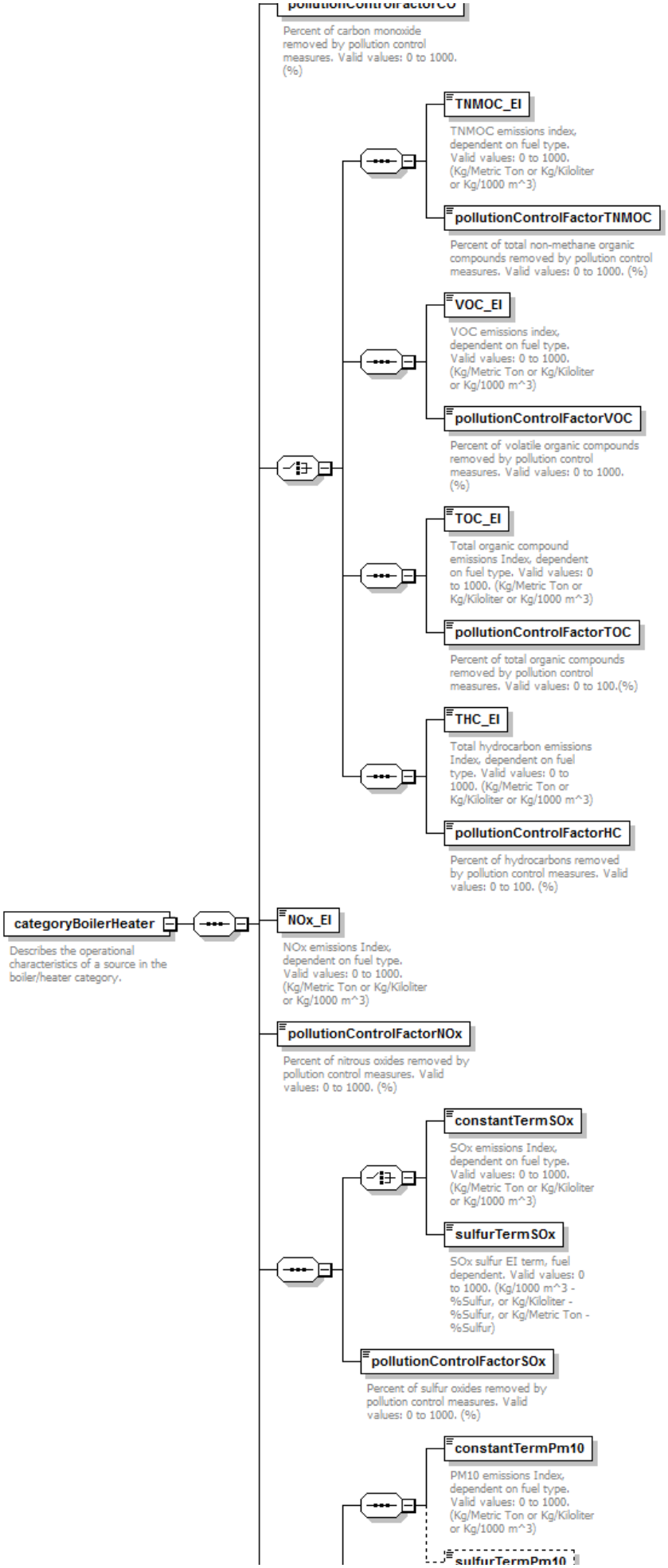
diagram	**timePercentPower85** Time at which engine is operating at 85% (climbout) power. Valid values: 0 to 1000. (min)
type	**doubleExclusive1000**
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation Time at which engine is operating at 85% (climbout) power. Valid values: 0 to 1000. (min)

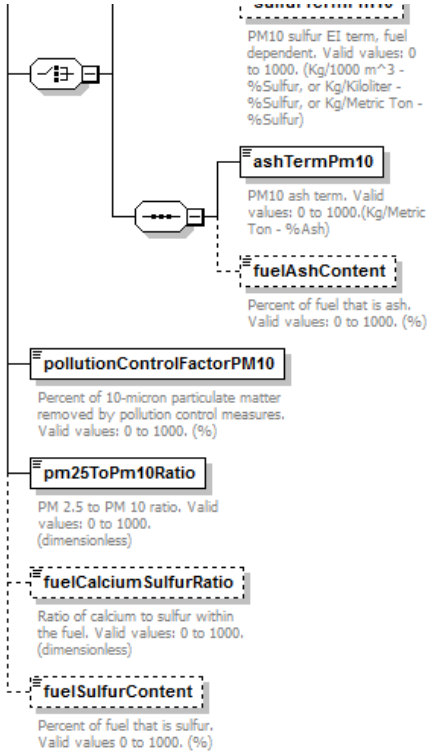
element **categoryAircraftEngine/timePercentPower100**

diagram	**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**

diagram	**boilerHeaterTypeCode** An integer value for the Boiler/Heater type represented. This value comes from the SUBCATEGORY_ID column of the STN_CATEGORY table in the AEDT FLEET database. Valid values: 1 to 37, 50 to 75, 80 to 93. **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) **pollutionControlFactorCO**


pollutionControlFactorCO
Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 1000. (%)
TNMOC_EI
TNMOC emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)
pollutionControlFactorTNMOC
Percent of total non-methane organic compounds removed by pollution control measures. Valid values: 0 to 1000. (%)
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 1000. (%)
TOC_EI
Total organic compound emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)
pollutionControlFactorTOC
Percent of total organic compounds removed by pollution control measures. Valid values: 0 to 100.(%)
THC_EI
Total hydrocarbon emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)
pollutionControlFactorHC
Percent of hydrocarbons removed by pollution control measures. Valid values: 0 to 100. (%)
categoryBoilerHeater
Describes the operational characteristics of a source in the boiler/heater category.
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)
pollutionControlFactorNOx
Percent of nitrous oxides removed by pollution control measures. Valid values: 0 to 1000. (%)
constantTermSOx
SOx emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)
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)
pollutionControlFactorSOx
Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 1000. (%)
constantTermPm10
PM10 emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)
sulfurTermPm10



properties	content complex
children	**boilerHeaterTypeCode** **CO_EI** **pollutionControlFactorCO** **TNMOC_EI** **pollutionControlFactorTNMOC** **VOC_EI** **pollutionControlFactorVOC** **TOC_EI** **pollutionControlFactorTOC** **THC_EI** **pollutionControlFactorHC** **NOx_EI** **pollutionControlFactorNOx** **constantTermSOx** **sulfurTermSOx** **pollutionControlFactorSOx** **constantTermPm10** **sulfurTermPm10** **ashTermPm10** **fuelAshContent** **pollutionControlFactorPM10** **pm25ToPm10Ratio** **fuelCalciumSulfurRatio** **fuelSulfurContent**
used by	element **stationarySource**
annotation	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 1000. (%)
type	**doubleInclusive100**
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0

	maxInclusive 100
annotation	documentation Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 1000. (%)

element **categoryBoilerHeater/TNMOC_EI**

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

element **categoryBoilerHeater/pollutionControlFactorTNMOC**

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

element **categoryBoilerHeater/VOC_EI**

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

element **categoryBoilerHeater/pollutionControlFactorVOC**

diagram	**pollutionControlFactorVOC** Percent of volatile organic compounds removed by pollution control measures. Valid values: 0 to 1000. (%)
type	**doubleInclusive100**
properties	content simple default 0
facets	Kind Value Annotation

	minInclusive 0 maxInclusive 100
annotation	documentation Percent of volatile organic compounds removed by pollution control measures. Valid values: 0 to 1000. (%)

element **categoryBoilerHeater/TOC_EI**

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

element **categoryBoilerHeater/pollutionControlFactorTOC**

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

element **categoryBoilerHeater/THC_EI**

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

element **categoryBoilerHeater/pollutionControlFactorHC**

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

	minInclusive 0 maxInclusive 100
annotation	documentation Percent of hydrocarbons removed by pollution control measures. Valid values: 0 to 100. (%)

element **categoryBoilerHeater/NOx_EI**

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

element **categoryBoilerHeater/pollutionControlFactorNOx**

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

element **categoryBoilerHeater/constantTermSOx**

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

element **categoryBoilerHeater/sulfurTermSOx**

diagram	**sulfurTermSOx** SOx sulfur EI term, fuel dependent. Valid values: 0 to 1000. (Kg/1000 m^3 - %Sulfur, or Kg/Kiloliter - %Sulfur, or Kg/Metric Ton - %Sulfur)
type	**doubleInclusive1000**
properties	content simple

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

element **categoryBoilerHeater/pollutionControlFactorSOx**

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

element **categoryBoilerHeater/constantTermPm10**

diagram	**constantTermPm10** PM10 emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)
type	**doubleInclusive1000**
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation PM10 emissions Index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)

element **categoryBoilerHeater/sulfurTermPm10**

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

element **categoryBoilerHeater/ashTermPm10**

diagram	**ashTermPm10** PM10 ash term. Valid values: 0 to 1000.(Kg/Metric Ton - %Ash)
type	**doubleInclusive1000**

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

element **categoryBoilerHeater/fuelAshContent**

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

element **categoryBoilerHeater/pollutionControlFactorPM10**

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

element **categoryBoilerHeater/pm25ToPm10Ratio**

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

element **categoryBoilerHeater/fuelCalciumSulfurRatio**

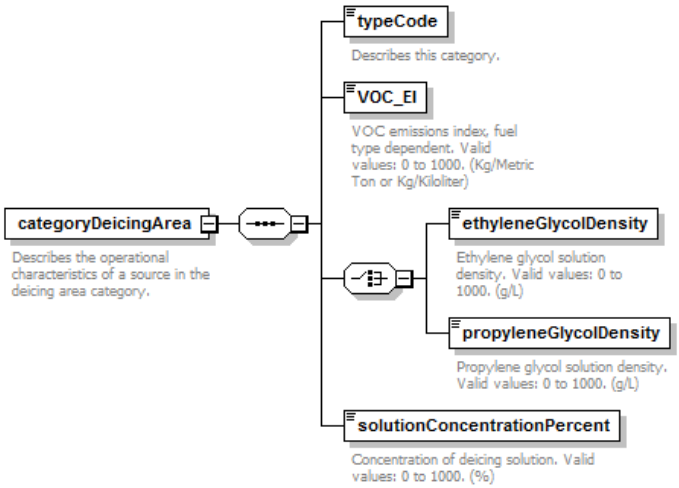
diagram	**fuelCalciumSulfurRatio** Ratio of calcium to sulfur within the fuel. Valid values: 0 to 1000. (dimensionless)
type	**doubleExclusive1000**
properties	minOcc 0

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

element **categoryBoilerHeater/fuelSulfurContent**

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

element **categoryDeicingArea**

diagram	
properties	content complex
children	**typeCode** **VOC_EI** **ethyleneGlycolDensity** **propyleneGlycolDensity** **solutionConcentrationPercent**
used by	element **stationarySource**
annotation	documentation Describes the operational characteristics of a source in the deicing area category.

element **categoryDeicingArea/typeCode**

diagram	**typeCode** Describes this category.
type	**int1to4**
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 4
annotation	documentation Describes this category.

element **categoryDeicingArea/VOC_EI**

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

element **categoryDeicingArea/ethyleneGlycolDensity**

diagram	**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)

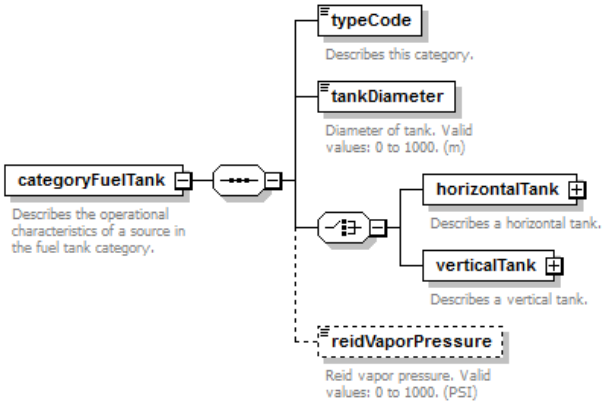
element **categoryDeicingArea/propyleneGlycolDensity**

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)

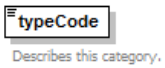
element **categoryDeicingArea/solutionConcentrationPercent**

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. (%)

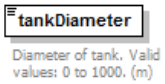
element **categoryFuelTank**

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

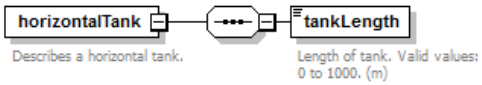
element **categoryFuelTank/typeCode**

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

element **categoryFuelTank/tankDiameter**

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

element **categoryFuelTank/horizontalTank**

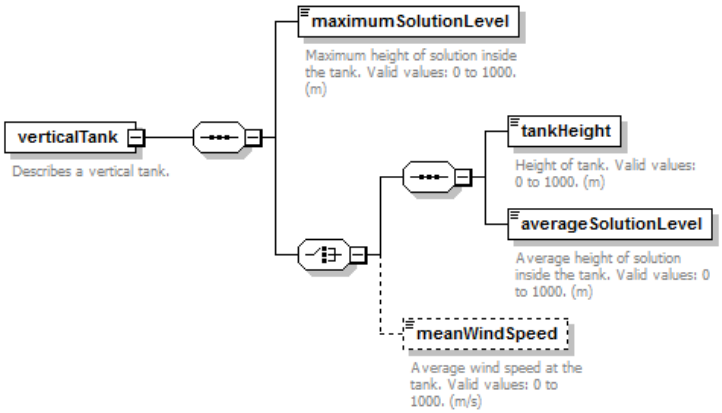
diagram	
properties	content complex
children	**tankLength**
annotation	documentation Describes a horizontal tank.

element **categoryFuelTank/horizontalTank/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/verticalTank**

diagram	
properties	content complex
children	**maximumSolutionLevel** **tankHeight** **averageSolutionLevel** **meanWindSpeed**
annotation	documentation Describes a vertical tank.

element **categoryFuelTank/verticalTank/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/verticalTank/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/verticalTank/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/verticalTank/meanWindSpeed**

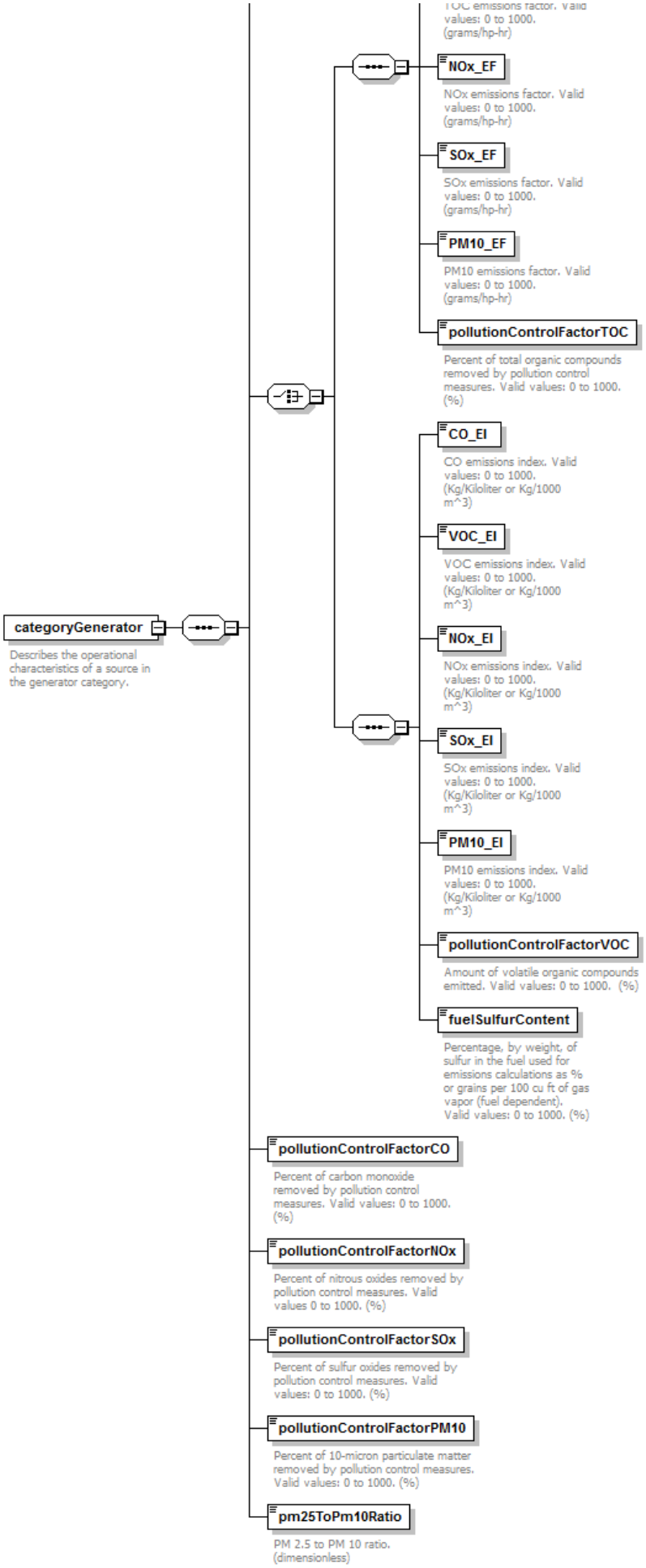
diagram	**meanWindSpeed** Average wind speed at the tank. Valid values: 0 to 1000. (m/s)
type	**doubleExclusive100**
properties	minOcc 0 maxOcc 1 content simple default 5
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation Average w ind speed at the tank. Valid values: 0 to 1000. (m/s)

element **categoryFuelTank/reidVaporPressure**

diagram	**reidVaporPressure** Reid vapor pressure. Valid values: 0 to 1000. (PSI)
type	**int6to13**
properties	minOcc 0 maxOcc 1 content simple default 10
facets	Kind Value Annotation minInclusive 6 maxInclusive 13
annotation	documentation Reid vapor pressure. Valid values: 0 to 1000. (PSI)

element **categoryGenerator**

diagram	**typeCode** Describes this category. **powerRatingHorsepower** The rated power of the generator in horsepower. Valid values: 0 to 10000. (hp) **CO_EF** CO emissions factor. Valid values: 0 to 1000. (grams/hp-hr) **TOC_EF**


TOC emissions factor. Valid values: 0 to 1000. (grams/hp-hr)
NOx_EF
NOx emissions factor. Valid values: 0 to 1000. (grams/hp-hr)
SOx_EF
SOx emissions factor. Valid values: 0 to 1000. (grams/hp-hr)
PM10_EF
PM10 emissions factor. Valid values: 0 to 1000. (grams/hp-hr)
pollutionControlFactorTOC
Percent of total organic compounds removed by pollution control measures. Valid values: 0 to 1000. (%)
CO_EI
CO emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m^3)
VOC_EI
VOC emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m^3)
NOx_EI
NOx emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m^3)
SOx_EI
SOx emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m^3)
PM10_EI
PM10 emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m^3)
pollutionControlFactorVOC
Amount of volatile organic compounds emitted. Valid values: 0 to 1000. (%)
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. (%)
categoryGenerator
Describes the operational characteristics of a source in the generator category.
pollutionControlFactorCO
Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 1000. (%)
pollutionControlFactorNOx
Percent of nitrous oxides removed by pollution control measures. Valid values 0 to 1000. (%)
pollutionControlFactorSOx
Percent of sulfur oxides removed by pollution control measures. Valid values: 0 to 1000. (%)
pollutionControlFactorPM10
Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 1000. (%)
pm25ToPm10Ratio
PM 2.5 to PM 10 ratio. (dimensionless)

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

element **categoryGenerator/powerRatingHorsepower**

diagram	**powerRatingHorsepower** The rated power of the generator in horsepower. Valid values: 0 to 10000. (hp)
type	**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 1000. (%)
type	**doubleInclusive100**
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100

annotation	documentation Percent of total organic compounds removed by pollution control measures. Valid values: 0 to 1000. (%)

element **categoryGenerator/CO_EI**

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

element **categoryGenerator/VOC_EI**

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

element **categoryGenerator/NOx_EI**

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

element **categoryGenerator/SOx_EI**

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

annotation	documentation SOx emissions index. Valid values: 0 to 1000. (Kg/Kiloliter or Kg/1000 m^3)

element **categoryGenerator/PM10_EI**

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

element **categoryGenerator/pollutionControlFactorVOC**

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

element **categoryGenerator/fuelSulfurContent**

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

element **categoryGenerator/pollutionControlFactorCO**

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

annotation	documentation Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 1000. (%)

element **categoryGenerator/pollutionControlFactorNOx**

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

element **categoryGenerator/pollutionControlFactorSOx**

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

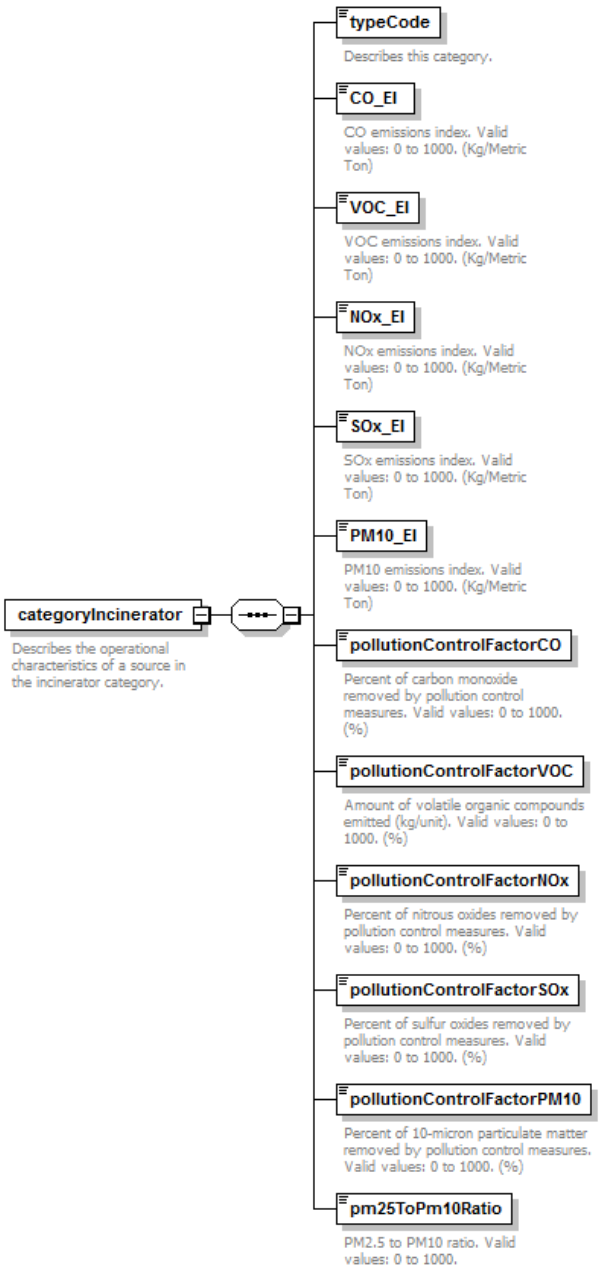
element **categoryGenerator/pollutionControlFactorPM10**

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

element **categoryGenerator/pm25ToPm10Ratio**

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

element **categoryIncinerator**

diagram	
properties	content complex
children	**typeCode** **CO_EI** **VOC_EI** **NOx_EI** **SOx_EI** **PM10_EI** **pollutionControlFactorCO** **pollutionControlFactorVOC** **pollutionControlFactorNOx** **pollutionControlFactorSOx** **pollutionControlFactorPM10** **pm25ToPm10Ratio**
used by	element **stationarySource**
annotation	documentation Describes the operational characteristics of a source in the incinerator category.

element **categoryIncinerator/typeCode**

diagram	
type	**int1to2**
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 2

annotation	documentation Describes this category.

element **categoryIncinerator/CO_EI**

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

element **categoryIncinerator/VOC_EI**

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

element **categoryIncinerator/NOx_EI**

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

element **categoryIncinerator/SOx_EI**

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

element **categoryIncinerator/PM10_EI**

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

element **categoryIncinerator/pollutionControlFactorCO**

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

element **categoryIncinerator/pollutionControlFactorVOC**

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

element **categoryIncinerator/pollutionControlFactorNOx**

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

element **categoryIncinerator/pollutionControlFactorSOx**

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

element **categoryIncinerator/pollutionControlFactorPM10**

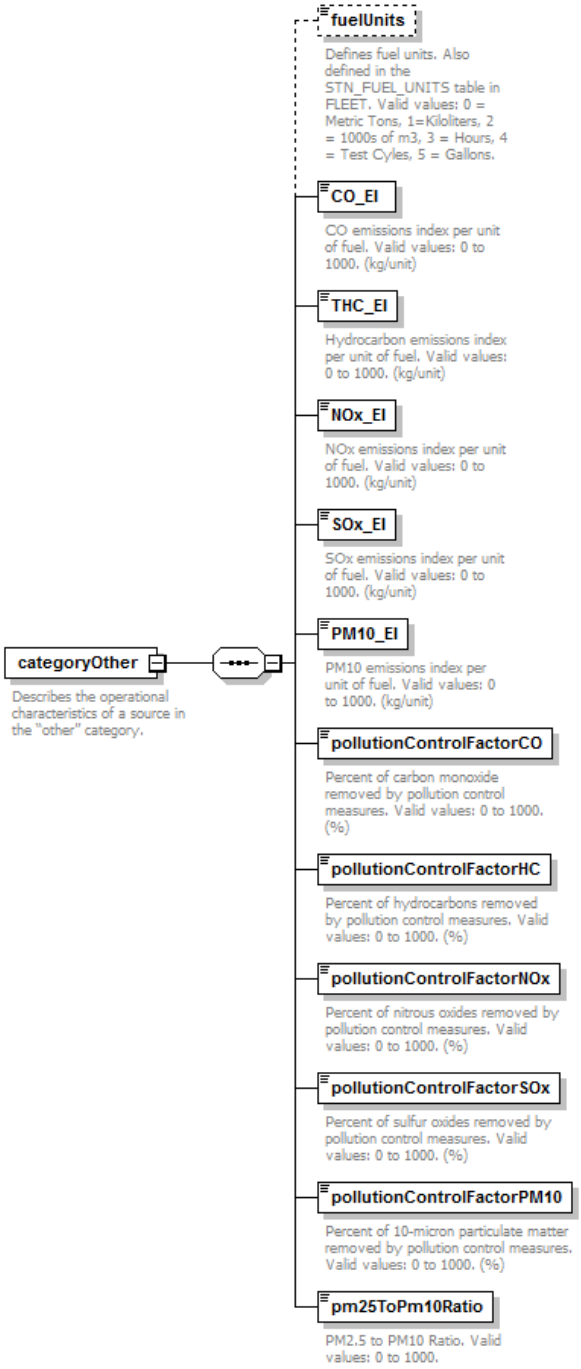
diagram	**pollutionControlFactorPM10** Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 1000. (%)
type	**doubleInclusive100**
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent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

element **categoryIncinerator/pm25ToPm10Ratio**

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

element **categoryOther**

diagram	



properties	content complex
children	**fuelUnits** **CO_EI** **THC_EI** **NOx_EI** **SOx_EI** **PM10_EI** **pollutionControlFactorCO** **pollutionControlFactorHC** **pollutionControlFactorNOx** **pollutionControlFactorSOx** **pollutionControlFactorPM10** **pm25ToPm10Ratio**
used by	element **stationarySource**
annotation	documentation Describes the operational characteristics of a source in the “other” category.

element **categoryOther/fuelUnits**

diagram	**fuelUnits** Defines fuel units. Also defined in the STN_FUEL_UNITS table in FLEET. Valid values: 0 = Metric Tons, 1=Kiloliters, 2 = 1000s of m3, 3 = Hours, 4 = Test Cyles, 5 = Gallons.
type	**int0to5**
properties	minOcc 0

	maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 5
annotation	documentation Defines fuel units. Also defined in the STN_FUEL_UNITS table in FLEET. Valid values: 0 = Metric Tons, 1=Kiloliters, 2 = 1000s of m3, 3 = Hours, 4 = Test Cyles, 5 = Gallons.

element **categoryOther/CO_EI**

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

element **categoryOther/THC_EI**

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

element **categoryOther/NOx_EI**

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

element **categoryOther/SOx_EI**

diagram	SOx_EI SOx emissions index per unit of fuel. Valid values: 0 to 1000. (kg/unit)
type	**doubleInclusive1000**
properties	content simple

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

element **categoryOther/PM10_EI**

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

element **categoryOther/pollutionControlFactorCO**

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

element **categoryOther/pollutionControlFactorHC**

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

element **categoryOther/pollutionControlFactorNOx**

diagram	**pollutionControlFactorNOx** Percent of nitrous oxides removed by pollution control measures. Valid values: 0 to 1000. (%)
type	**doubleInclusive100**
properties	content simple default 0

facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of nitrous oxides removed by pollution control measures. Valid values: 0 to 1000. (%)

element **categoryOther/pollutionControlFactorSOx**

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

element **categoryOther/pollutionControlFactorPM10**

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

element **categoryOther/pm25ToPm10Ratio**

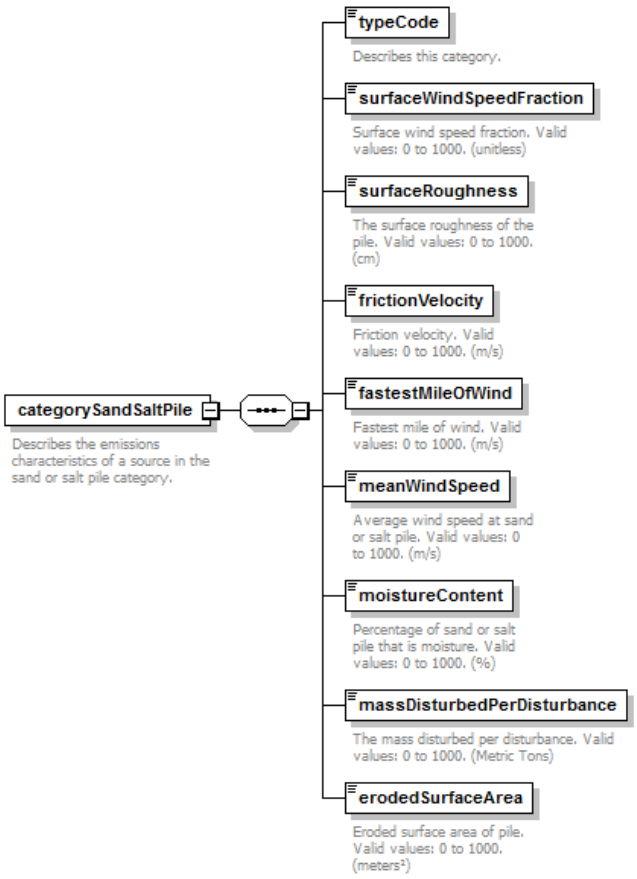
diagram	**pm25ToPm10Ratio** PM2.5 to PM10 Ratio. Valid values: 0 to 1000.
type	**doubleInclusive1**
properties	content simple default 1
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation PM2.5 to PM10 Ratio. Valid values: 0 to 1000.

element **categoryRecordCode**

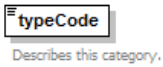
diagram	**categoryRecordCode** An integer value for a category to use as the basis of a new stationary source operation. This value comes from the CATEGORY_REC_ID column in the STN_CATEGORY table in the AEDT FLEET database. **recordCode** An integer value for a category to use as the basis of a new stationary 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.

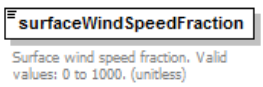
element **categorySandSaltPile**

diagram	
properties	content complex
children	**typeCode** **surfaceWindSpeedFraction** **surfaceRoughness** **frictionVelocity** **fastestMileOfWind** **meanWindSpeed** **moistureContent** **massDisturbedPerDisturbance** **erodedSurfaceArea**
used by	element **stationarySource**
annotation	documentation Describes the emissions characteristics of a source in the sand or salt pile category.

element **categorySandSaltPile/typeCode**

diagram	
type	**int1to5**
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 5
annotation	documentation Describes this category.

element **categorySandSaltPile/surfaceWindSpeedFraction**

diagram	

type	**doubleInclusive1**
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation Surface w ind speed fraction. Valid values: 0 to 1000. (unitless)

element **categorySandSaltPile/surfaceRoughness**

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

element **categorySandSaltPile/frictionVelocity**

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

element **categorySandSaltPile/fastestMileOfWind**

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

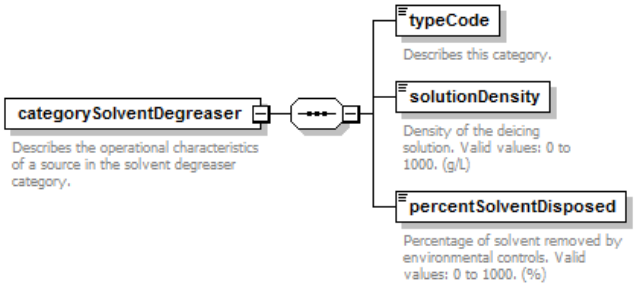
diagram	**massDisturbedPerDisturbance** The mass disturbed per disturbance. Valid values: 0 to 1000. (Metric Tons)
type	**doubleExclusive1000**
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation The mass disturbed per disturbance.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



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

element **categorySolventDegreaser/typeCode**

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

element **categorySolventDegreaser/solutionDensity**

diagram	**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 **categorySurfaceCoatingPainting**

diagram	**categorySurfaceCoatingPainting** Describes the operational characteristics of a source in the surface coating or painting category. **typeCode** Describes this 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 1000. (%)
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** Describes this category.
type	**int1to8**
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 8
annotation	documentation Describes this category.

element **categorySurfaceCoatingPainting/VOC_EI**

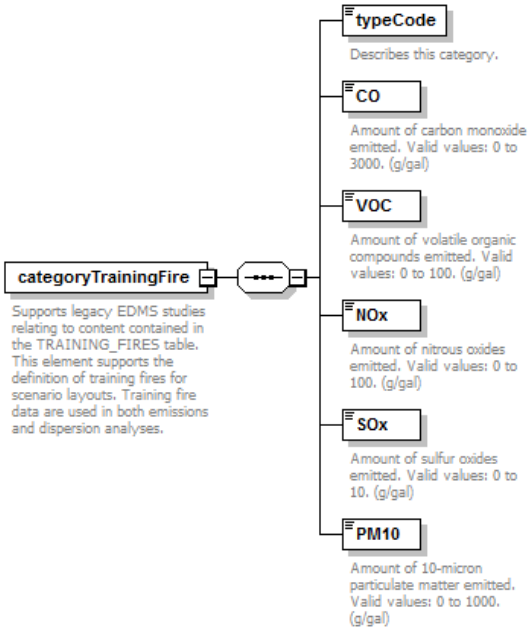
diagram	**VOC_EI** VOC emissions index. Valid values: 0 to 1000. (kg/kiloliter)
type	**doubleInclusive1000**
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation VOC emissions index. Valid values: 0 to 1000. (kg/kiloliter)

element **categorySurfaceCoatingPainting/pollutionControlFactorVOC**

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

element **categoryTrainingFire**

diagram	

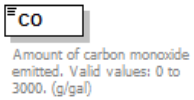


properties	content complex
children	**typeCode** **CO** **VOC** **NOx** **SOx** **PM10**
used by	element **stationarySource**
annotation	documentation Supports legacy EDMS studies relating to content contained in the TRAINING_FIRES table. This element supports the definition of training fires for scenario layouts. Training fire data are used in both emissions and dispersion analyses.

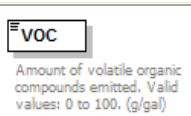
element **categoryTrainingFire/typeCode**

diagram	
type	**int1to5**
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 5
annotation	documentation Describes this category.

element **categoryTrainingFire/CO**

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

element **categoryTrainingFire/VOC**

diagram	
type	**xs:double**
properties	content simple

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

element **categoryTrainingFire/NOx**

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

element **categoryTrainingFire/SOx**

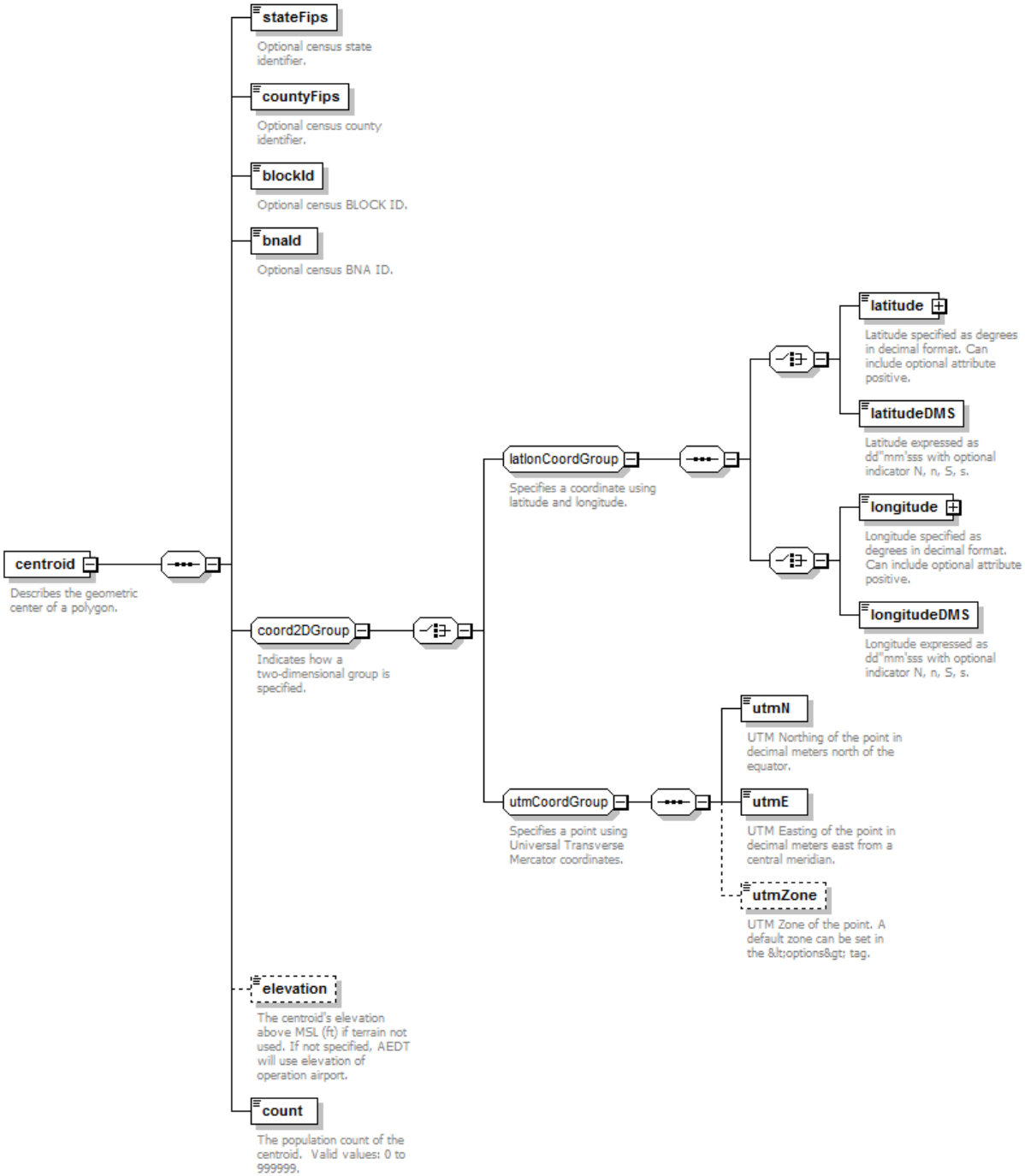
diagram	SOx Amount of sulfur oxides emitted. Valid values: 0 to 10. (g/gal)
type	**xs:double**
properties	content simple
annotation	documentation Amount of sulfur oxides emitted. Valid values: 0 to 10. (g/gal)

element **categoryTrainingFire/PM10**

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

element **centroid**

diagram	



properties	content complex
children	**stateFips** **countyFips** **blockId** **bnaId** **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	**stateFips** Optional census state identifier.
type	**xs:int**
properties	content simple
annotation	documentation Optional census state identifier.

element **centroid/countyFips**

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

element **centroid/blockId**

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

element **centroid/bnaId**

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

element **centroid/elevation**

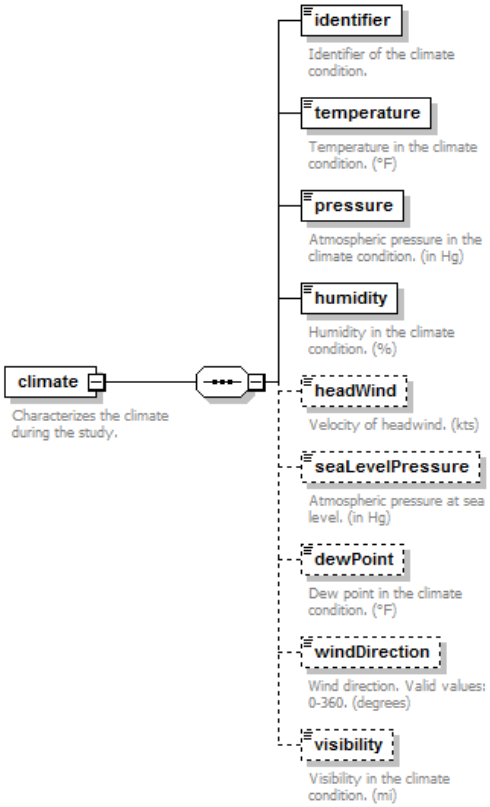
diagram	**elevation** The centroid's elevation above MSL (ft) if terrain not used. If not specified, AEDT will use elevation of operation airport.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The centroid's elevation above MSL (ft) if terrain not used. If not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

element **centroid/count**

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

element **climate**

diagram	



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

element **climate/identifier**

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

element **climate/pressure**

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

element **climate/headWind**

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

element **climate/seaLevelPressure**

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

element **climate/dewPoint**

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

element **climate/windDirection**

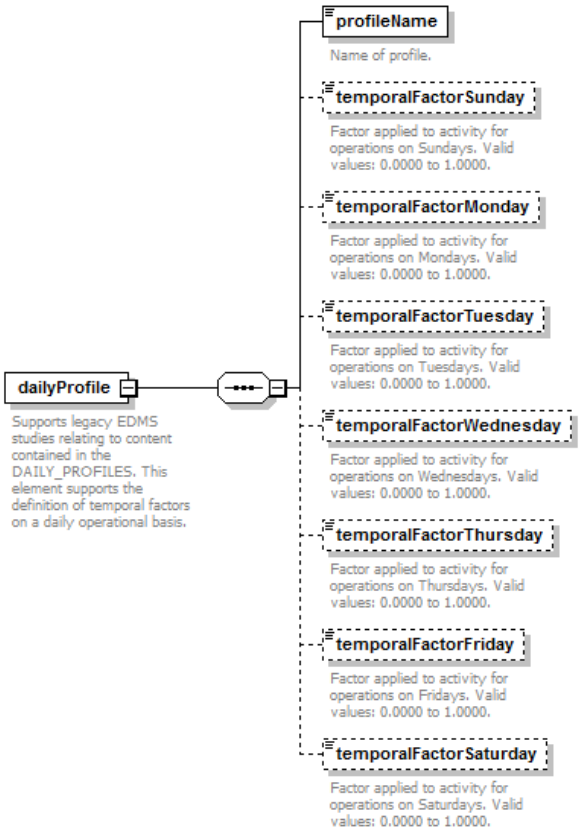
diagram	**windDirection** Wind direction. Valid values: 0-360. (degrees)
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple

annotation	documentation Wind direction. Valid values: 0-360. (degrees)

element **climate/visibility**

diagram	**visibility** Visibility in the climate condition. (mi)
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 legacy EDMS studies relating to content contained in the DAILY_PROFILES. This element supports the definition of temporal factors on a daily operational basis.

element **dailyProfile/profileName**

diagram	**profileName** Name of profile.
type	**string100**
properties	content simple
facets	Kind Value Annotation minLength 0

	maxLength 100
annotation	documentation Name of profile.

element **dailyProfile/temporalFactorSunday**

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

element **dailyProfile/temporalFactorMonday**

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

element **dailyProfile/temporalFactorTuesday**

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

element **dailyProfile/temporalFactorWednesday**

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

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

element **dailyProfile/temporalFactorThursday**

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

element **dailyProfile/temporalFactorFriday**

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

element **dailyProfile/temporalFactorSaturday**

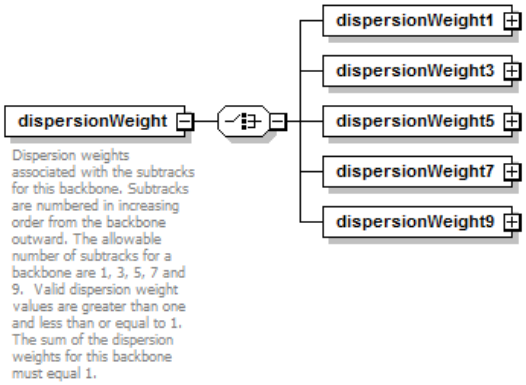
diagram	**temporalFactorSaturday** Factor applied to activity for operations on Saturdays. Valid values: 0.0000 to 1.0000.
type	**doubleMin0**
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations on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

element **dailyProfileSet**

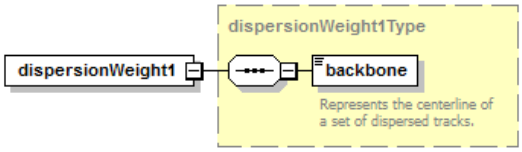
diagram	**dailyProfileSet** Supports the definition and use of DAILY_PROFILES for the daily variation of operations. **dailyProfile** 0..∞ Supports legacy EDMS studies relating to content contained in the DAILY_PROFILES. This element supports the definition of temporal factors on a daily operational basis.
properties	content complex
children	**dailyProfile**
used by	element **operationalProfileSet** complexType **airportLayoutType**
annotation	documentation

	Supports the definition and use of DAILY_PROFILES for the daily variation of operations.

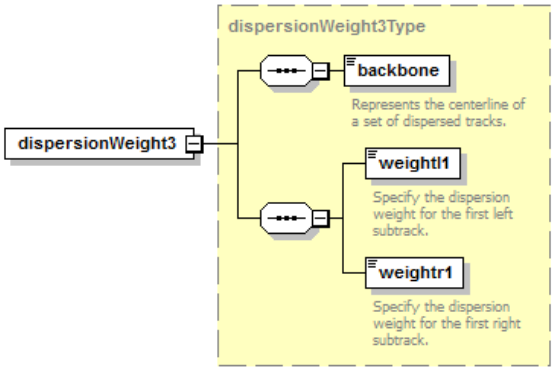
element **dispersionWeight**

diagram	
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**

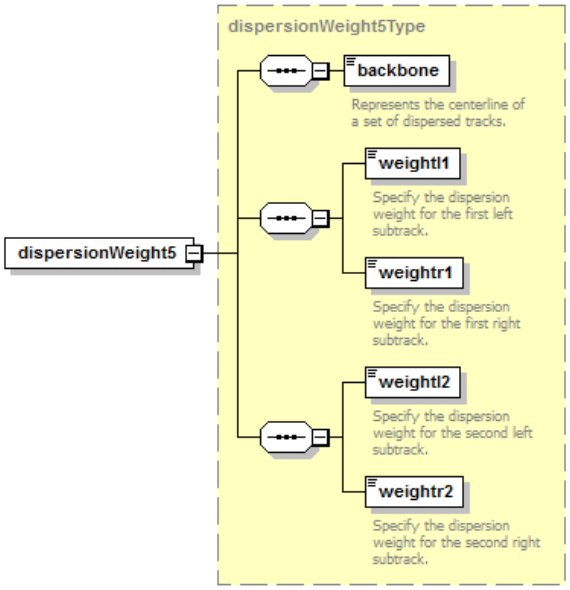
diagram	
type	**dispersionWeight1Type**
properties	content complex
children	**backbone**

element **dispersionWeight/dispersionWeight3**

diagram	
type	**dispersionWeight3Type**
properties	content complex
children	**backbone** **weightl1** **weightr1**

element **dispersionWeight/dispersionWeight5**

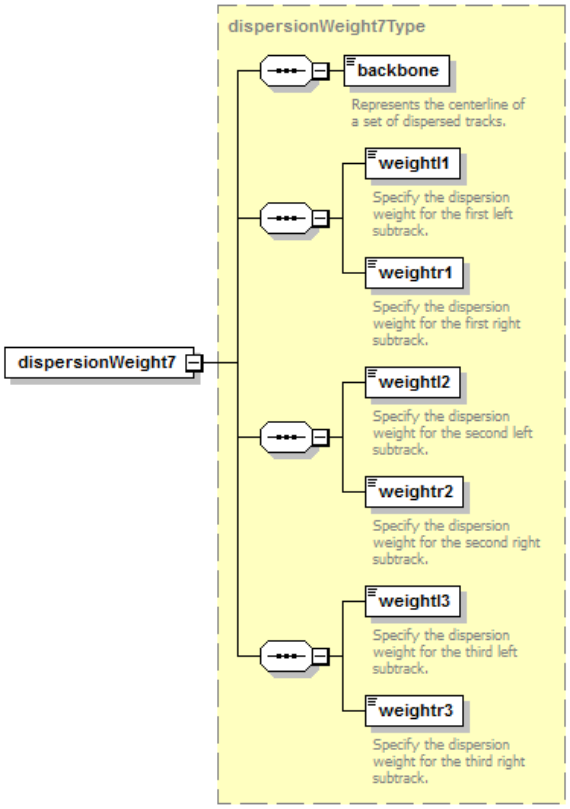
diagram	



type	**dispersionWeight5Type**
properties	content complex
children	**backbone** **weightl1** **weightr1** **weightl2** **weightr2**

element **dispersionWeight/dispersionWeight7**

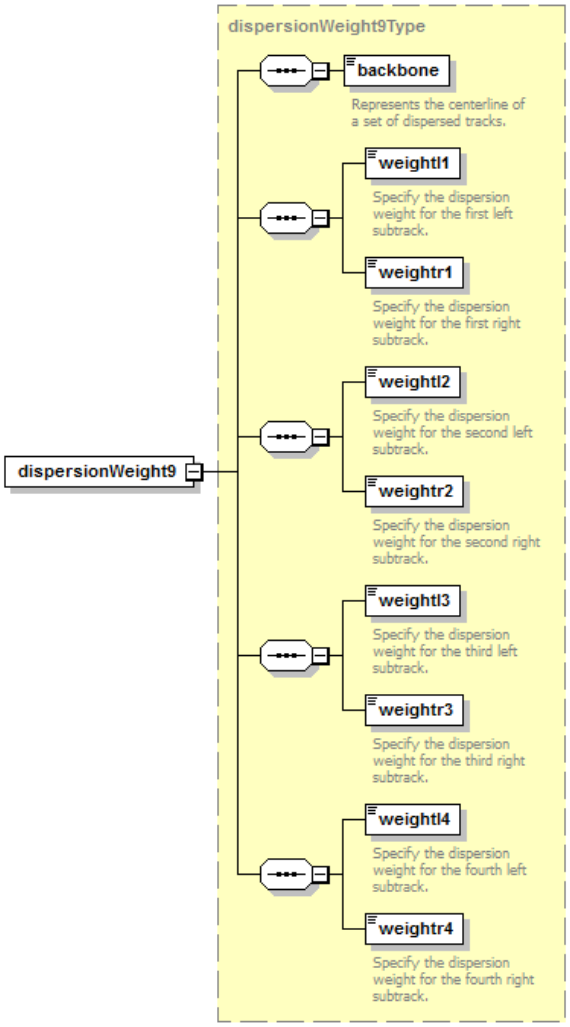
diagram



type	**dispersionWeight7Type**
properties	content complex
children	**backbone** **weightl1** **weightr1** **weightl2** **weightr2** **weightl3** **weightr3**

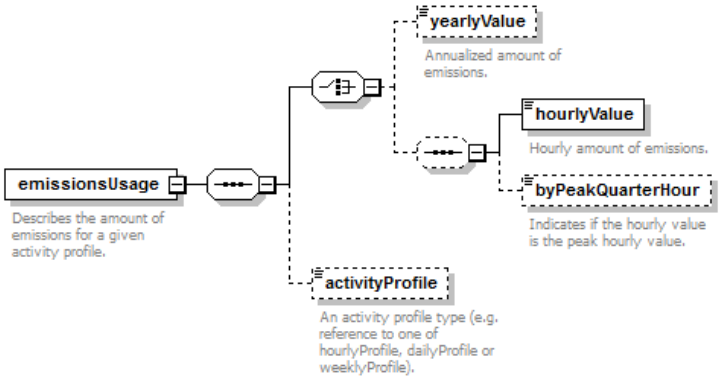
element **dispersionWeight/dispersionWeight9**

diagram



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

element **emissionsUsage**

diagram	
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	

	yearlyValue Annualized amount of emissions.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Annualized amount of emissions.

element **emissionsUsage/hourlyValue**

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

element **emissionsUsage/byPeakQuarterHour**

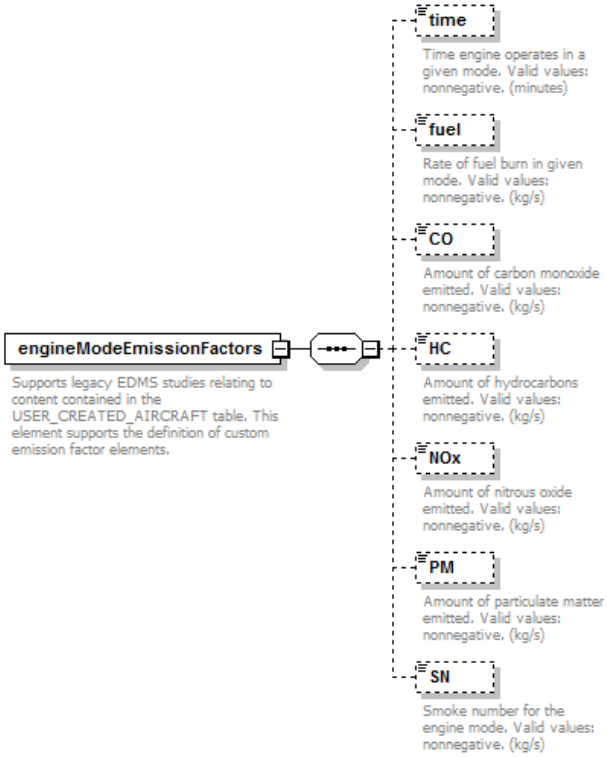
diagram	**byPeakQuarterHour** Indicates if the hourly value is the peak hourly value.
type	**xs:boolean**
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation Indicates if the hourly value is the peak hourly value.

element **emissionsUsage/activityProfile**

diagram	**activityProfile** An activity profile type (e.g. reference to one of hourlyProfile, dailyProfile or weeklyProfile).
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 w eeklyProfile).

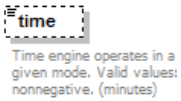
element **engineModeEmissionFactors**

diagram	

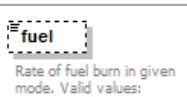


properties	content complex
children	**time fuel CO HC NOx PM SN**
annotation	documentation Supports legacy EDMS studies relating to content contained in the USER_CREATED_AIRCRAFT table. This element supports the definition of custom emission factor elements.

element **engineModeEmissionFactors/time**

diagram	
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	
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**

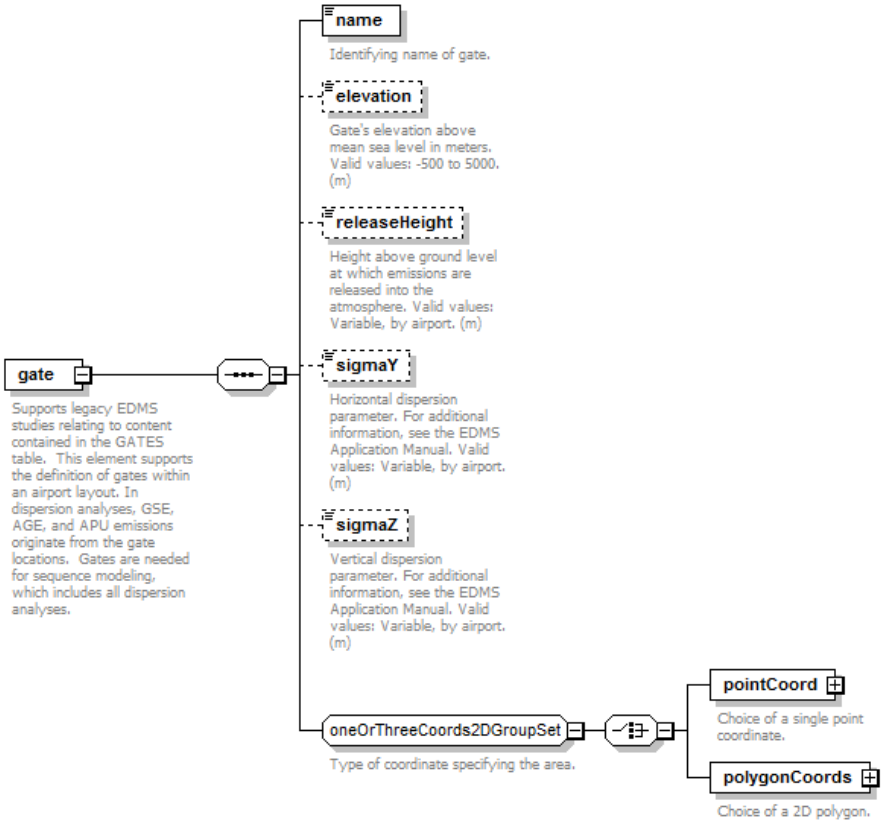
diagram	PM Amount of particulate matter emitted. Valid values: nonnegative. (kg/s)
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Amount of particulate matter emitted. Valid values: nonnegative. (kg/s)

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 legacy EDMS studies relating to content contained in the GATES table. This element supports the definition of gates within an airport layout. In dispersion analyses, GSE, AGE, and APU emissions originate from the gate locations. Gates are needed for sequence modeling, which includes all dispersion analyses.

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

element **gate/sigmaY**

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

element **gate/sigmaZ**

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

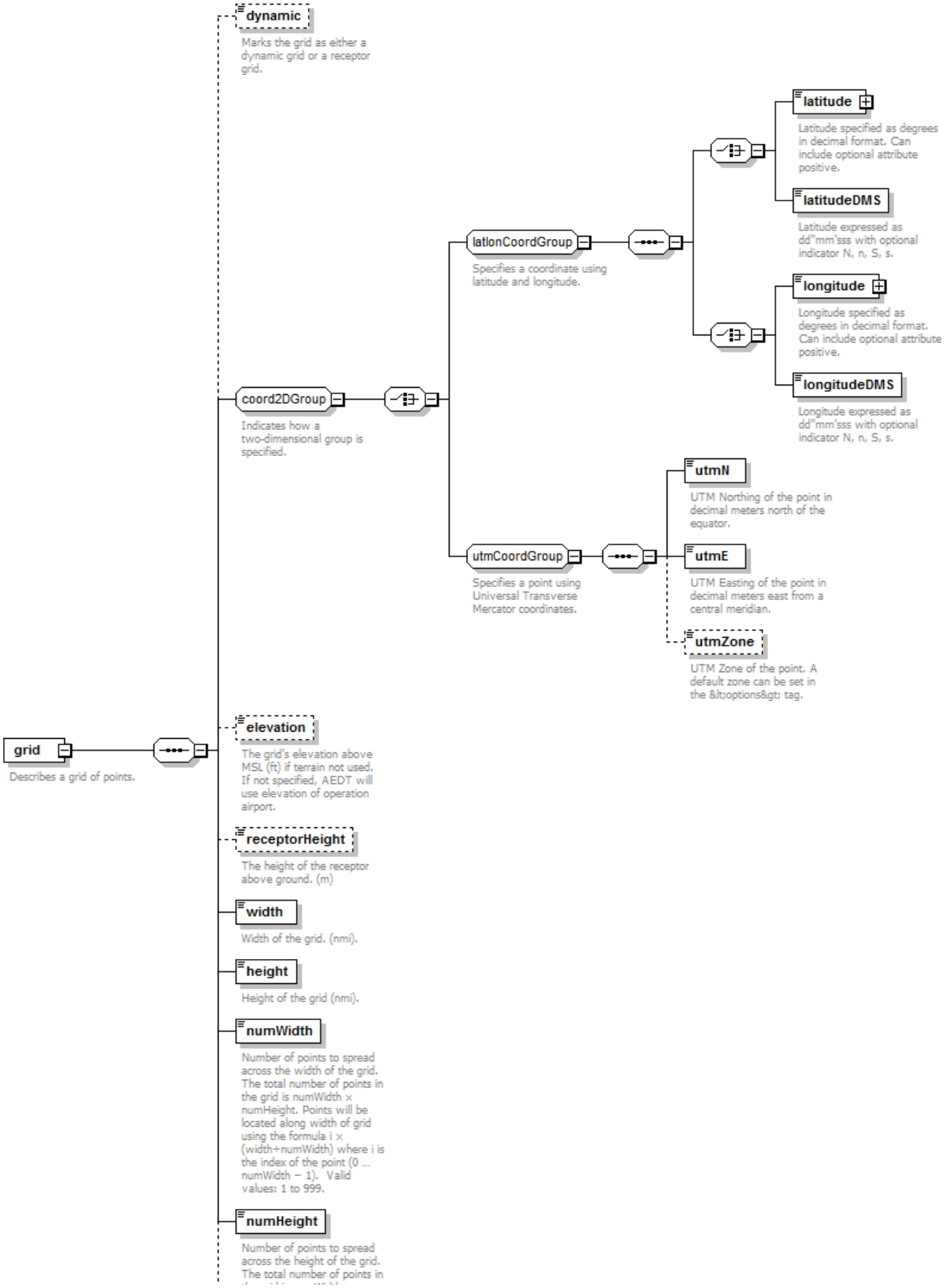
element **gateSet**

diagram	**gateSet** Supports legacy EDMS studies relating to content contained in the GATES table. This element supports the definition of gates within an airport layout. In dispersion analyses, GSE, AGE, and APU emissions originate from the gate locations. Gates are needed for sequence modeling, which includes all dispersion analyses. **gate** 1..∞ Supports legacy EDMS studies relating to content contained in the GATES table. This element supports the definition of gates within an airport layout. In dispersion analyses, GSE, AGE, and APU emissions originate from the gate locations. Gates are needed for sequence modeling, which includes all dispersion analyses.

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

element **grid**

diagram



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

element **grid/dynamic**

diagram	**dynamic** Marks the grid as either a dynamic grid or a receptor grid.
type	**xs:boolean**
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation Marks the grid as either a dynamic grid or a receptor grid.

element **grid/elevation**

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

element **grid/receptorHeight**

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

element **grid/width**

diagram	**width** Width of the grid. (nmi).

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

element **grid/height**

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

element **grid/numWidth**

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

element **grid/numHeight**

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

element **grid/xrOffset**

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

element **grid/ydOffset**

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

element **groundSupportEquipmentGateAssignment**

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

element **groundSupportEquipmentGateAssignment/gate**

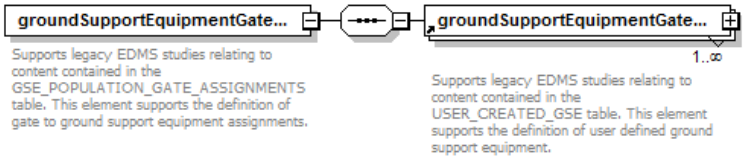
diagram	**gate** Gate to which GSE is assigned.
type	**string20**
properties	content simple
used by	element **gateSet**
facets	Kind Value Annotation minLength 0 maxLength 20
annotation	documentation Gate to w hich GSE is assigned.

element **groundSupportEquipmentGateAssignment/fractionAssigned**

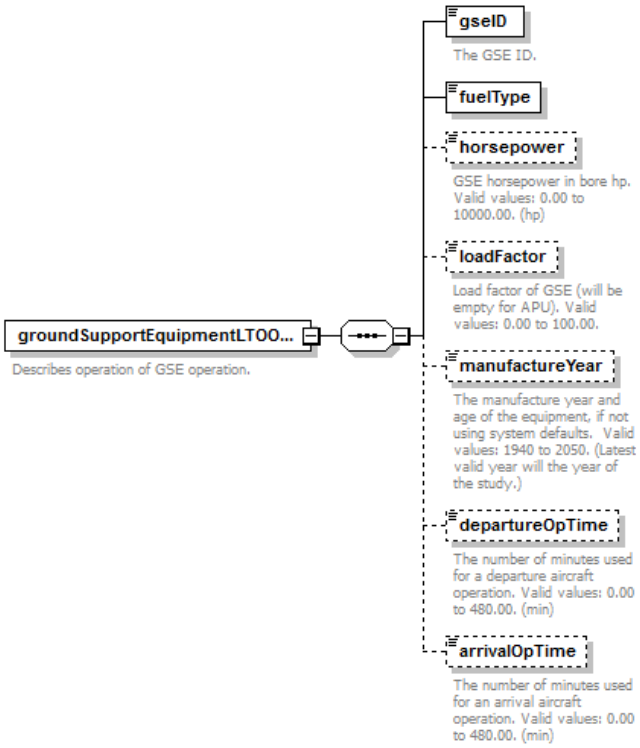
diagram	**fractionAssigned** Fraction of GSE assigned to this gate. Must sum to 1.0 for all gate assignments for the GSE. Valid values: 0.0 to 1.0.
type	**doubleInclusive1**
properties	content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation Fraction of GSE assigned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

element **groundSupportEquipmentGateAssignmentSet**

diagram	

	
properties	content complex
children	**groundSupportEquipmentGateAssignment**
used by	element **groundSupportEquipmentPopulationOperation**
annotation	documentation Supports legacy EDMS studies relating to content contained in the GSE_POPULATION_GATE_ASSIGNMENTS table. This element supports the definition of gate to ground support equipment assignments.

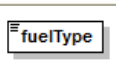
element **groundSupportEquipmentLTOOperation**

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

element **groundSupportEquipmentLTOOperation/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 **groundSupportEquipmentLTOOperation/horsepower**

diagram	**horsepower** GSE horsepower in bore hp. Valid values: 0.00 to 10000.00. (hp)
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation GSE horsepow er in bore hp. Valid values: 0.00 to 10000.00. (hp)

element **groundSupportEquipmentLTOOperation/loadFactor**

diagram	**loadFactor** Load factor of GSE (will be empty for APU). Valid values: 0.00 to 100.00.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Load factor of GSE (w ill be empty for APU). Valid values: 0.00 to 100.00.

element **groundSupportEquipmentLTOOperation/manufactureYear**

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

element **groundSupportEquipmentLTOOperation/departureOpTime**

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

element **groundSupportEquipmentLTOOperation/arrivalOpTime**

diagram	

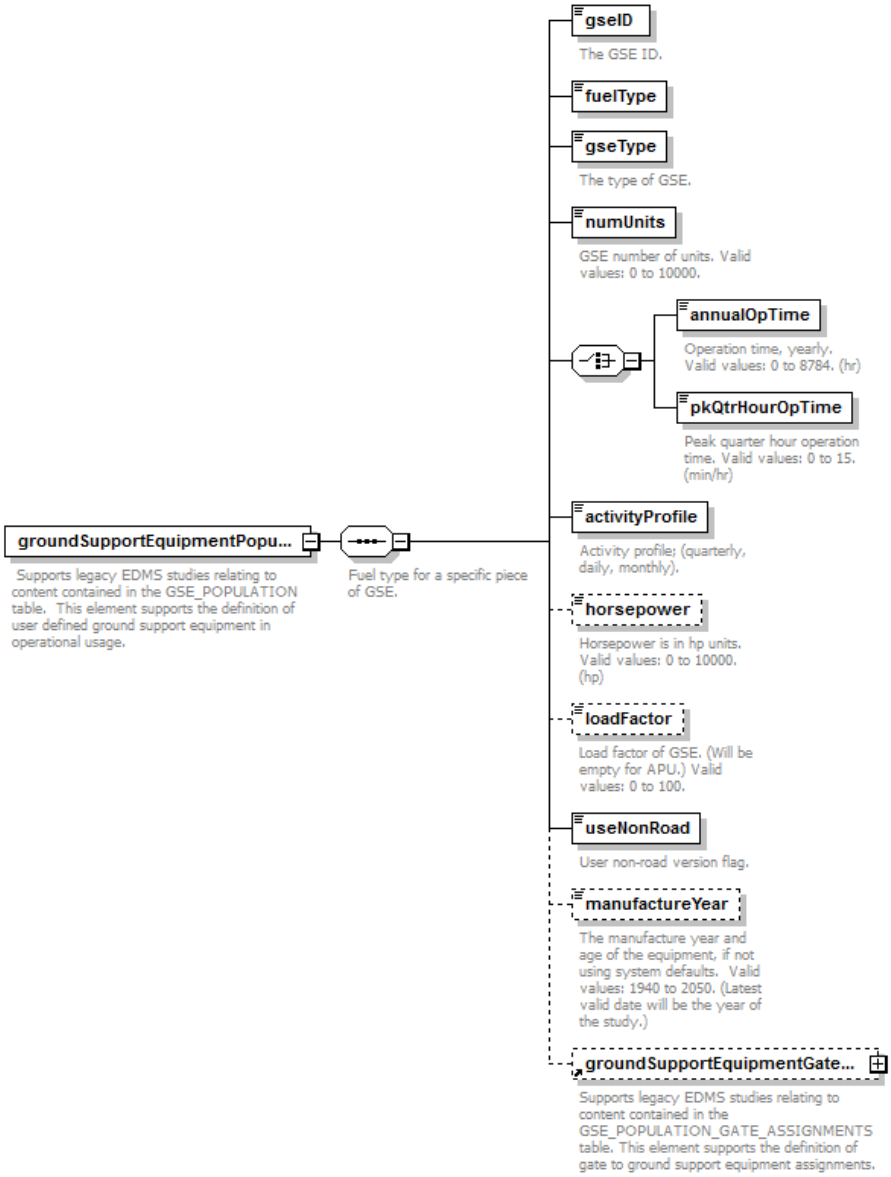
	arrivalOpTime The number of minutes used for an arrival aircraft operation. Valid values: 0.00 to 480.00. (min)
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The number of minutes used for an arrival aircraft operation. Valid values: 0.00 to 480.00. (min)

element **groundSupportEquipmentLTOOperationSet**

diagram	**groundSupportEquipmentLTOO...** — **groundSupportEquipmentLTOO...** 1..∞ Supports legacy EDMS studies relating to content contained in the GSE_POPULATION table. This element supports the definition of user defined ground support equipment in operational usage. Describes operation of GSE operation.
properties	content complex
children	**groundSupportEquipmentLTOOperation**
used by	complexType **aircraftType**
annotation	documentation Supports legacy EDMS studies relating to content contained in the GSE_POPULATION table. This element supports the definition of user defined ground support equipment in operational usage.

element **groundSupportEquipmentPopulationOperation**

diagram	



properties	content complex
children	**gseID** **fuelType** **gseType** **numUnits** **annualOpTime** **pkQtrHourOpTime** **activityProfile** **horsepower** **loadFactor** **useNonRoad** **manufactureYear** **groundSupportEquipmentGateAssignmentSet**
used by	element **groundSupportEquipmentPopulationOperationSet**
annotation	documentation Supports legacy EDMS studies relating to content contained in the GSE_POPULATION table. This element supports the definition of user defined ground support equipment in operational usage.

element **groundSupportEquipmentPopulationOperation/gseID**

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

element **groundSupportEquipmentPopulationOperation/fuelType**

diagram	**fuelType**
type	**fuelType**

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

element **groundSupportEquipmentPopulationOperation/gseType**

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

element **groundSupportEquipmentPopulationOperation/numUnits**

diagram	**numUnits** GSE number of units. Valid values: 0 to 10000.
type	**xs:double**
properties	content simple
annotation	documentation GSE number of units. Valid values: 0 to 10000.

element **groundSupportEquipmentPopulationOperation/annualOpTime**

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

element **groundSupportEquipmentPopulationOperation/pkQtrHourOpTime**

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

element **groundSupportEquipmentPopulationOperation/activityProfile**

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

element **groundSupportEquipmentPopulationOperation/horsepower**

diagram	**horsepower** 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**

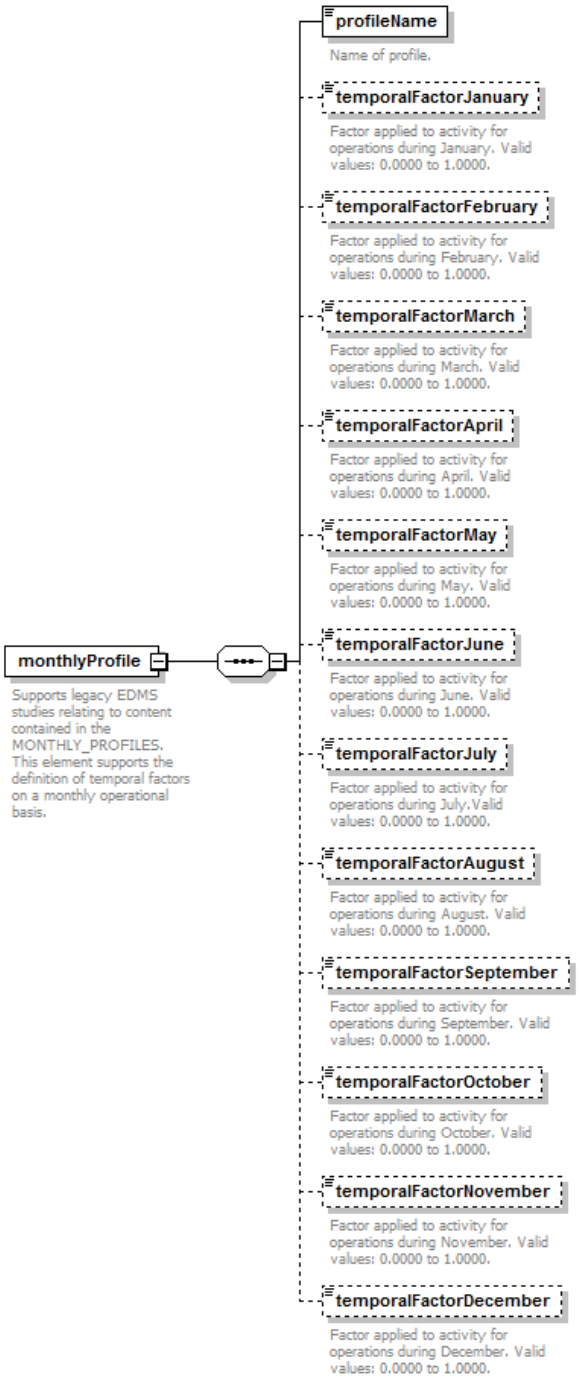
diagram	**manufactureYear** The manufacture year and age of the equipment, if not using system defaults. Valid values: 1940 to 2050. (Latest valid date will be the year of the study.)
type	**xs:int**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The manufacture year and age of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

element **groundSupportEquipmentPopulationOperationSet**

diagram	**groundSupportEquipmentPopu...** Supports legacy EDMS studies relating to content contained in the GSE_POPULATION table. This element supports the definition of user defined ground support equipment in operational usage. **groundSupportEquipmentPopu...** 1..∞ Supports legacy EDMS studies relating to content contained in the GSE_POPULATION table. This element supports the definition of user defined ground support equipment in operational usage.
properties	content complex
children	**groundSupportEquipmentPopulationOperation**
used by	group **airportActivityGroup**

annotation	documentation Supports legacy EDMS studies relating to content contained in the GSE_POPULATION table. This element supports the definition of user defined ground support equipment in operational usage.

element **monthlyProfile**

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 legacy EDMS studies relating to content contained in the MONTHLY_PROFILES. This element supports the definition of temporal factors on a monthly operational basis.

element **monthlyProfile/profileName**

diagram	

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

element **monthlyProfile/temporalFactorJanuary**

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

element **monthlyProfile/temporalFactorFebruary**

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

element **monthlyProfile/temporalFactorMarch**

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

element **monthlyProfile/temporalFactorApril**

diagram	**temporalFactorApril** Factor applied to activity for operations during April. Valid values: 0.0000 to 1.0000.

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

element **monthlyProfile/temporalFactorJune**

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

element **monthlyProfile/temporalFactorJuly**

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

element **monthlyProfile/temporalFactorAugust**

diagram	**temporalFactorAugust** Factor applied to activity for operations during August. Valid values: 0.0000 to 1.0000.
type	**doubleMin0**
properties	minOcc 0

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

element **monthlyProfile/temporalFactorSeptember**

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

element **monthlyProfile/temporalFactorOctober**

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

element **monthlyProfile/temporalFactorNovember**

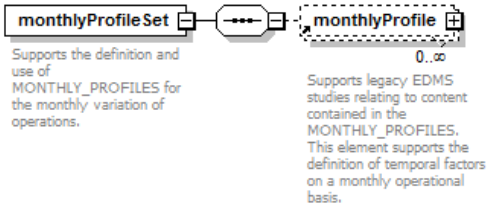
diagram	**temporalFactorNovember** Factor applied to activity for operations during November. Valid values: 0.0000 to 1.0000.
type	**doubleMin0**
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations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

element **monthlyProfile/temporalFactorDecember**

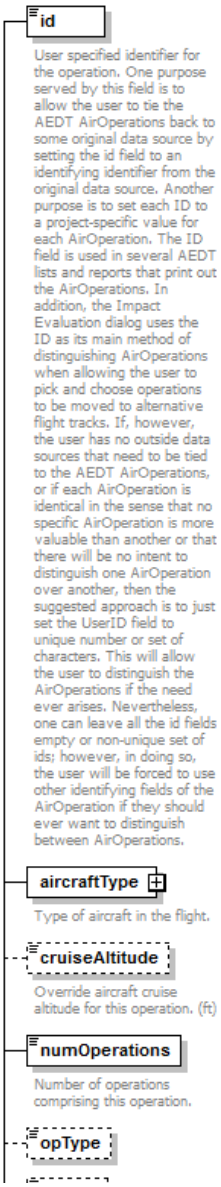
diagram	**temporalFactorDecember** Factor applied to activity for operations during December. Valid values: 0.0000 to 1.0000.
type	**doubleMin0**
properties	minOcc 0 maxOcc 1 content simple

facets	Kind Value Annotation minInclusive 0
annotation	documentation Factor applied to activity for operations during December. Valid values: 0.0000 to 1.0000.

element **monthlyProfileSet**

diagram	
properties	content complex
children	**monthlyProfile**
used by	element **operationalProfileSet** complexType **airportLayoutType**
annotation	documentation Supports the definition and use of MONTHLY_PROFILES for the monthly variation of operations.

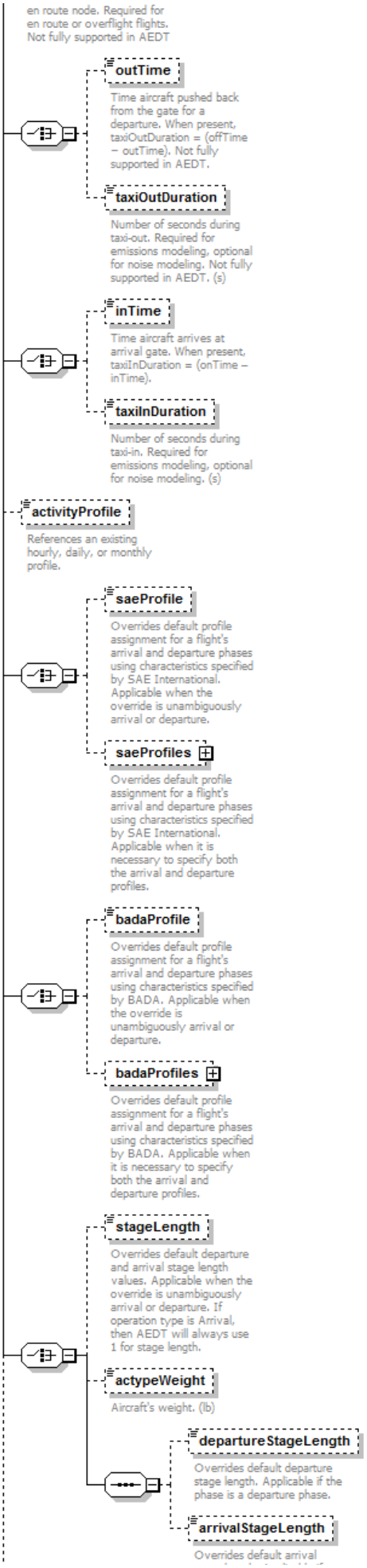
element **operation**

diagram	

operation

Describes an aircraft flight operation.

- **carrier**
  Carrier flying the flight. Not fully supported in AEDT.
- **flightNumber**
  Flight number. Not fully supported in AEDT.
- **tailNumber**
  Flight's tail number. Not fully supported in AEDT.
- **userType**
  User-defined aircraft type. Cannot be an aircraftType. Not fully supported in AEDT.
- **userParam**
  User-defined parameter associated with the operation. Not fully supported in AEDT.
- **departureAirport**
  Departure airport's ICAO code. Required if the operation is used with a <flight> or <operation> element. Also required if used with a <trackOpSet> modeling departures, circuits, runups, or touch-and-goes.
- **departureRunway**
  Airport's departure runway ID. Required if the operation is used with a <flight> or a <trackOpSet> modeling departures, circuits, runups, or touch-and-goes.
- **departureGate**
  Airport's departure gate. Not fully supported in AEDT.
- **departureApuTime**
  Number of minutes the auxiliary power unit is attached to a departing aircraft. (min)
- **arrivalAirport**
  Arrival airport's ICAO code. Required if the operation is used with a <flight> or <operation> element. Also required if used with a <trackOpSet> modeling arrivals, circuits, runups, or touch-and-goes.
- **arrivalRunway**
  Airport's arrival runway ID. Required if the operation is used with a <flight> or a <trackOpSet> modeling arrivals, circuits, runups, or touch-and-goes.
- **arrivalGate**
  Airport's arrival gate. Not fully supported in AEDT.
- **arrivalApuTime**
  Number of minutes the auxiliary power unit is attached to an arrival aircraft. (min)
- **offTime**
  Wheels-off time. Required for any departure or runup, circuit, runup, or touch-and-go operation.
- **onTime**
  Wheels on time. Required for any arrival operation.
- **enrouteStartTime**
  Time aircraft reaches the first

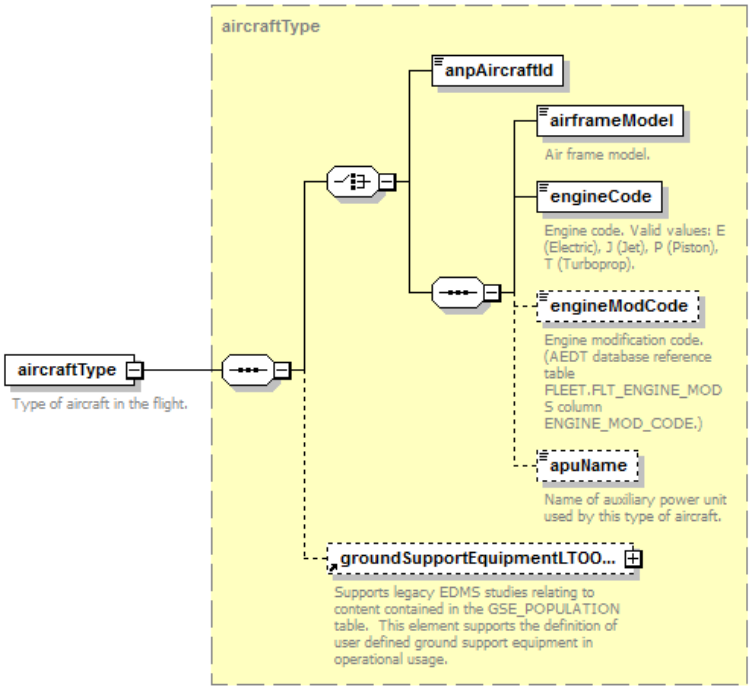

en route node. Required for en route or overflight flights. Not fully supported in AEDT
outTime
Time aircraft pushed back from the gate for a departure. When present, taxiOutDuration = (offTime – outTime). Not fully supported in AEDT.
taxiOutDuration
Number of seconds during taxi-out. Required for emissions modeling, optional for noise modeling. Not fully supported in AEDT. (s)
inTime
Time aircraft arrives at arrival gate. When present, taxiInDuration = (onTime – inTime).
taxiInDuration
Number of seconds during taxi-in. Required for emissions modeling, optional for noise modeling. (s)
activityProfile
References an existing hourly, daily, or monthly profile.
saeProfile
Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by SAE International. Applicable when the override is unambiguously arrival or departure.
saeProfiles
Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by SAE International. Applicable when it is necessary to specify both the arrival and departure profiles.
badaProfile
Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by BADA. Applicable when the override is unambiguously arrival or departure.
badaProfiles
Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by BADA. Applicable when it is necessary to specify both the arrival and departure profiles.
stageLength
Overrides default departure and arrival stage length values. Applicable when the override is unambiguously arrival or departure. If operation type is Arrival, then AEDT will always use 1 for stage length.
actypeWeight
Aircraft's weight. (lb)
departureStageLength
Overrides default departure stage length. Applicable if the phase is a departure phase.
arrivalStageLength
Overrides default arrival

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

element **operation/id**

diagram	**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	
type	**aircraftType**
properties	content complex
children	**anpAircraftId airframeModel engineCode engineModCode apuName groundSupportEquipmentLTOOperationSet**
annotation	documentation Type of aircraft in the flight.

element **operation/cruiseAltitude**

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

element **operation/numOperations**

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

element **operation/opType**

diagram	**opType**
type	**opType**
properties	minOcc 0 maxOcc 1

	content simple
facets	Kind Value Annotation pattern A|Arrival|D|Departure|V|Overflight|F|Circuit|T|TouchAndGo|R|Runup|W|RunwayToRunway|L|LTO|LandingTakoff|X|Taxi

element **operation/carrier**

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

element **operation/flightNumber**

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

element **operation/tailNumber**

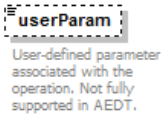
diagram	**tailNumber** Flight's tail number. Not fully supported in AEDT.
type	**string8**
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation Flight's tail number. Not fully supported in AEDT.

element **operation/userType**

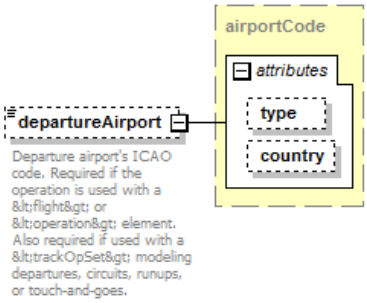
diagram	**userType** User-defined aircraft type. Cannot be an aircraftType. Not fully supported in AEDT.
type	**string12**
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0

	maxLength 12
annotation	documentation User-defined aircraft type. Cannot be an aircraftType. Not fully supported in AEDT.

element **operation/userParam**

diagram	
type	**string16**
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 16
annotation	documentation User-defined parameter associated w ith 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 w ith a <flight> or <operation> element. Also required if used w ith 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.

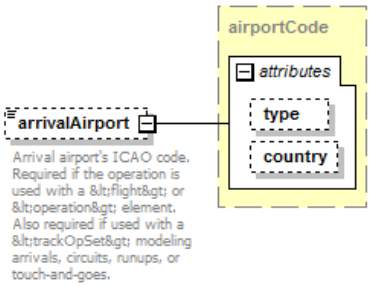
element **operation/departureGate**

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

element **operation/offTime**

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

element **operation/onTime**

diagram	

	onTime Wheels on time. Required for any arrival operation.
type	**xs:dateTime**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Wheels on time. Required for any arrival operation.

element **operation/enrouteStartTime**

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

element **operation/outTime**

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

element **operation/taxiOutDuration**

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

element **operation/inTime**

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

annotation	documentation Time aircraft arrives at arrival gate. When present, taxiInDuration = (onTime – inTime).

element **operation/taxiInDuration**

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

element **operation/activityProfile**

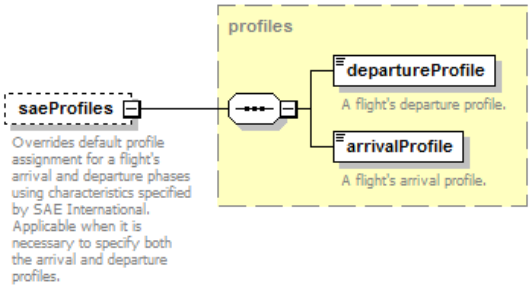
diagram	**activityProfile** References an existing hourly, daily, or monthly profile.
type	**string100**
properties	minOcc 0 maxOcc 1 content simple
used by	element **activityProfileSet**
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation References an existing hourly, daily,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

element **operation/saeProfile**

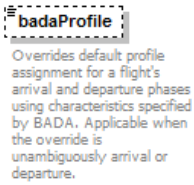
diagram	**saeProfile** Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by SAE International. Applicable when the override is unambiguously arrival or departure.
type	**profileType**
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by SAE International. Applicable w hen the override is unambiguously arrival or departure.

element **operation/saeProfiles**

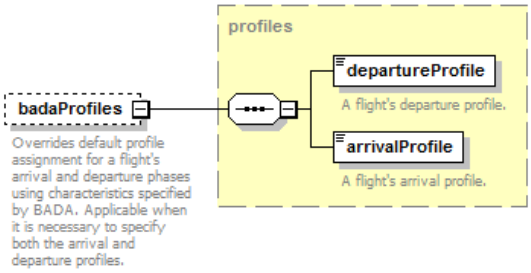
diagram	

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

element **operation/badaProfile**

diagram	
type	**profileType**
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by BADA. Applicable w hen the override is unambiguously arrival or departure.

element **operation/badaProfiles**

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

element **operation/stageLength**

diagram	

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

element **operation/actypeWeight**

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

element **operation/departureStageLength**

diagram	**departureStageLength** Overrides default departure stage length. Applicable if the phase is a departure phase.
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	**arrivalStageLength** Overrides default arrival stage length. Applicable if the phase is an arrival phase. If operation type is Arrival, then AEDT will always use 1 for stage length.
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	**glideSlope** Glide slope angle for this operation. (degrees)
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Glide slope angle for this operation. (degrees)

element **operation/fuelSulfurContent**

diagram	**fuelSulfurContent** 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	**operationalProfileSet** **quarterHourlyProfileSet** Supports the definition and use of QUARTER_HOURLY_PROFILES for the quarter hourly variation of operations. **dailyProfileSet** Supports the definition and use of DAILY_PROFILES for the daily variation of operations. **monthlyProfileSet** Supports the definition and use of MONTHLY_PROFILES for the monthly variation of operations. **activityProfileSet** Supports the definition and use of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES variation of operations.
properties	content complex
children	**quarterHourlyProfileSet** **dailyProfileSet** **monthlyProfileSet** **activityProfileSet**
used by	element **AsifXml**

element **operations**

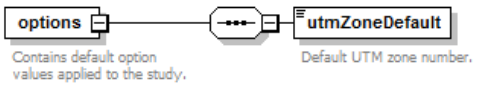
diagram	*attributes* **dummy** **operations** Contains a list of aircraft flight operations. **operation** 1..∞ Describes an aircraft flight operation.
properties	content complex

children	**operation**
used by	element **trackOpSet**
attributes	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

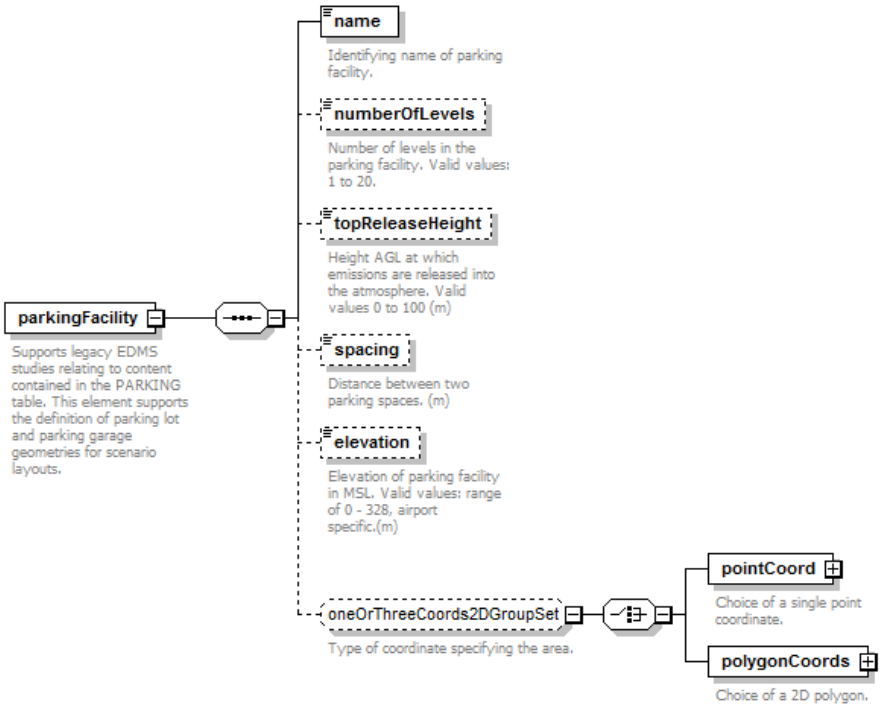
element **options**

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 Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage geometries for scenario layouts.

element **parkingFacility/name**

diagram	**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)

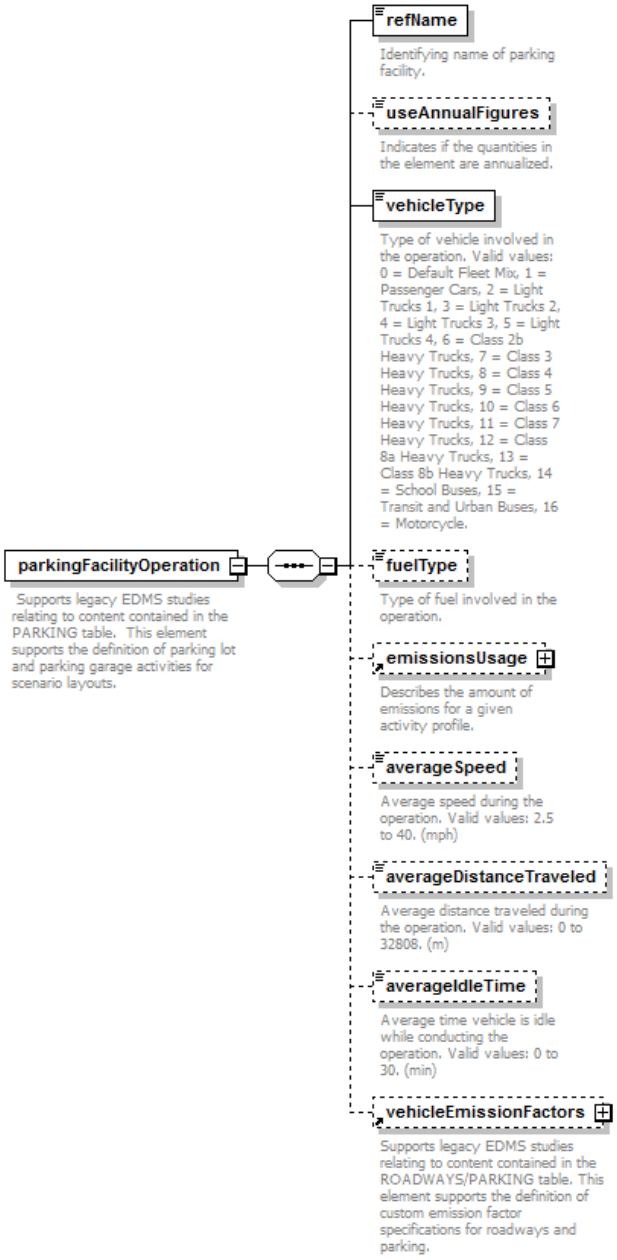
element **parkingFacility/elevation**

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 Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage activities for scenario layouts.

element **parkingFacilityOperation/refName**

diagram	**refName** 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 **parkingFacilityOperation/useAnnualFigures**

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

element **parkingFacilityOperation/vehicleType**

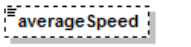
diagram	**vehicleType** Type of vehicle involved in the operation. Valid values: 0 = Default Fleet Mix, 1 = Passenger Cars, 2 = Light Trucks 1, 3 = Light Trucks 2, 4 = Light Trucks 3, 5 = Light Trucks 4, 6 = Class 2b Heavy Trucks, 7 = Class 3 Heavy Trucks, 8 = Class 4 Heavy Trucks, 9 = Class 5 Heavy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

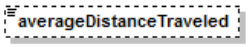
diagram	**fuelType** Type of fuel involved in the operation.
type	**fuelType**
properties	minOcc 0 maxOcc 1 content simple default G

facets	Kind Value 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.

element **parkingFacilityOperation/averageSpeed**

diagram	 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)

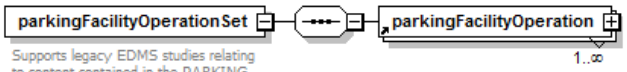
element **parkingFacilityOperation/averageDistanceTraveled**

diagram	 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)

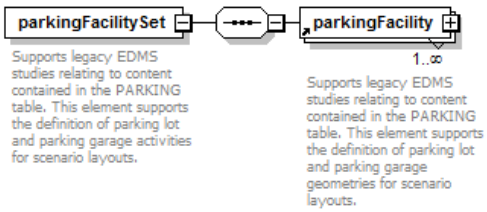
element **parkingFacilityOperation/averageIdleTime**

diagram	 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 w hile conducting the operation. Valid values: 0 to 30. (min)

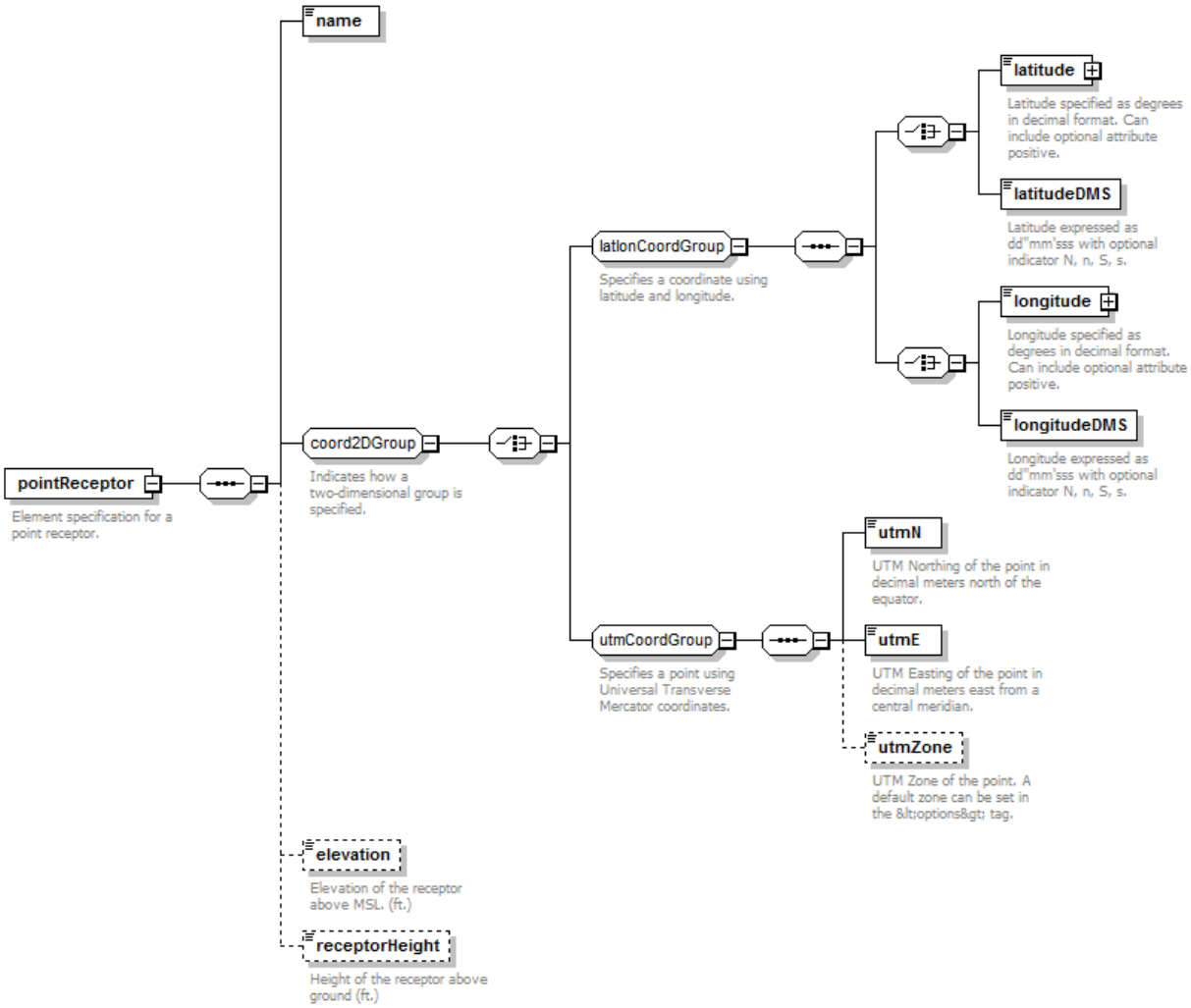
element **parkingFacilityOperationSet**

diagram	 Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage activities for scenario layouts. Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage activities for scenario layouts.
properties	content complex
children	**parkingFacilityOperation**
used by	group **airportActivityGroup**
annotation	documentation Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage activities for scenario layouts.

element **parkingFacilitySet**

diagram	
properties	content complex
children	**parkingFacility**
used by	complexType **airportLayoutType**
annotation	documentation Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage activities for scenario layouts.

element **pointReceptor**

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

element **pointReceptor/name**

diagram	

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

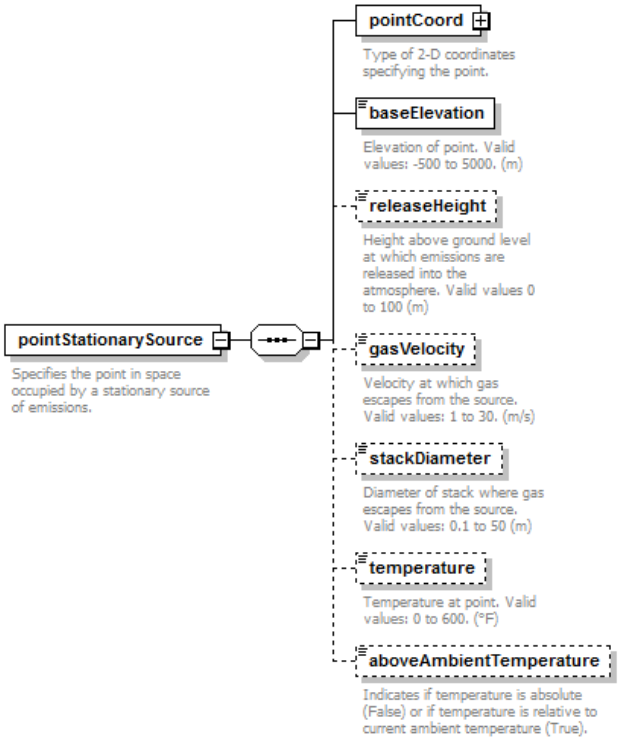
element **pointReceptor/elevation**

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

element **pointReceptor/receptorHeight**

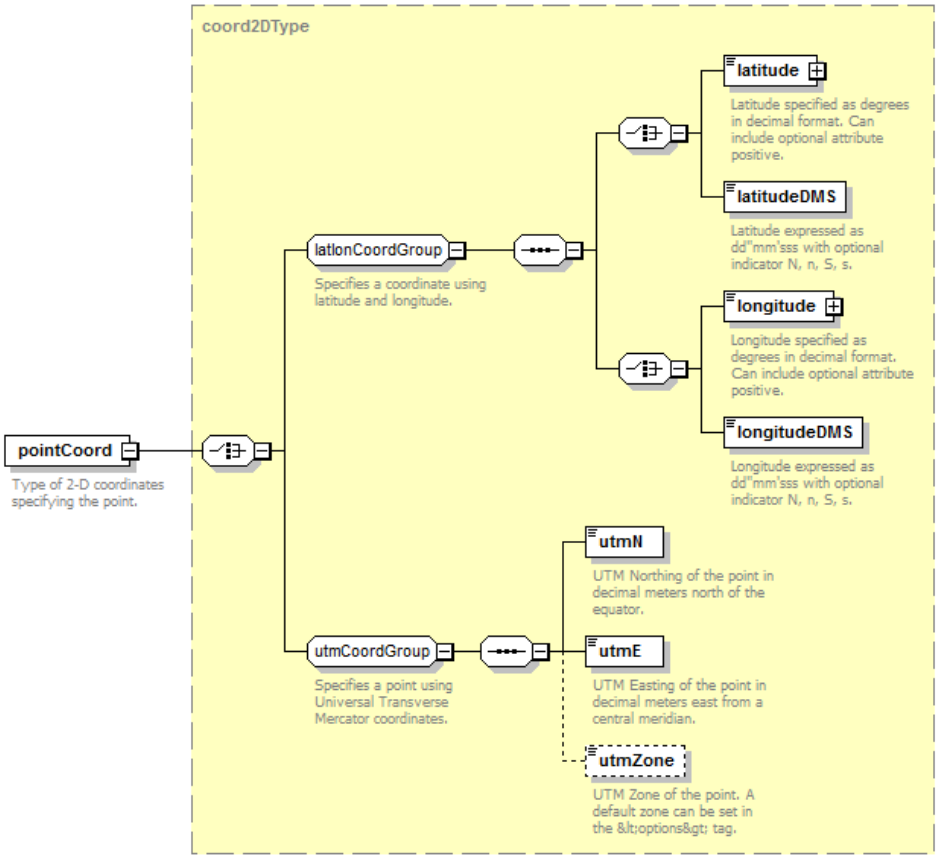
diagram	receptorHeight Height of the receptor above ground (ft.)
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Height of the receptor above ground (ft.)

element **pointStationarySource**

diagram	
properties	content complex
children	pointCoord baseElevation releaseHeight gasVelocity stackDiameter temperature aboveAmbientTemperature

used by	element **stationarySource**
annotation	documentation Specifies the point in space occupied by a stationary source of emissions.

element **pointStationarySource/pointCoord**

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

element **pointStationarySource/baseElevation**

diagram	**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 w hich 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. Valid values: 1 to 30. (m/s)
type	**doubleInclusiveRange1to30**
properties	minOcc 0 maxOcc 1 content simple default 1
facets	Kind Value Annotation minInclusive 1 maxInclusive 30
annotation	documentation Velocity at w hich gas escapes from the source. Valid values: 1 to 30. (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 w here gas escapes from the source. Valid values: 0.1 to 50 (m)

element **pointStationarySource/temperature**

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

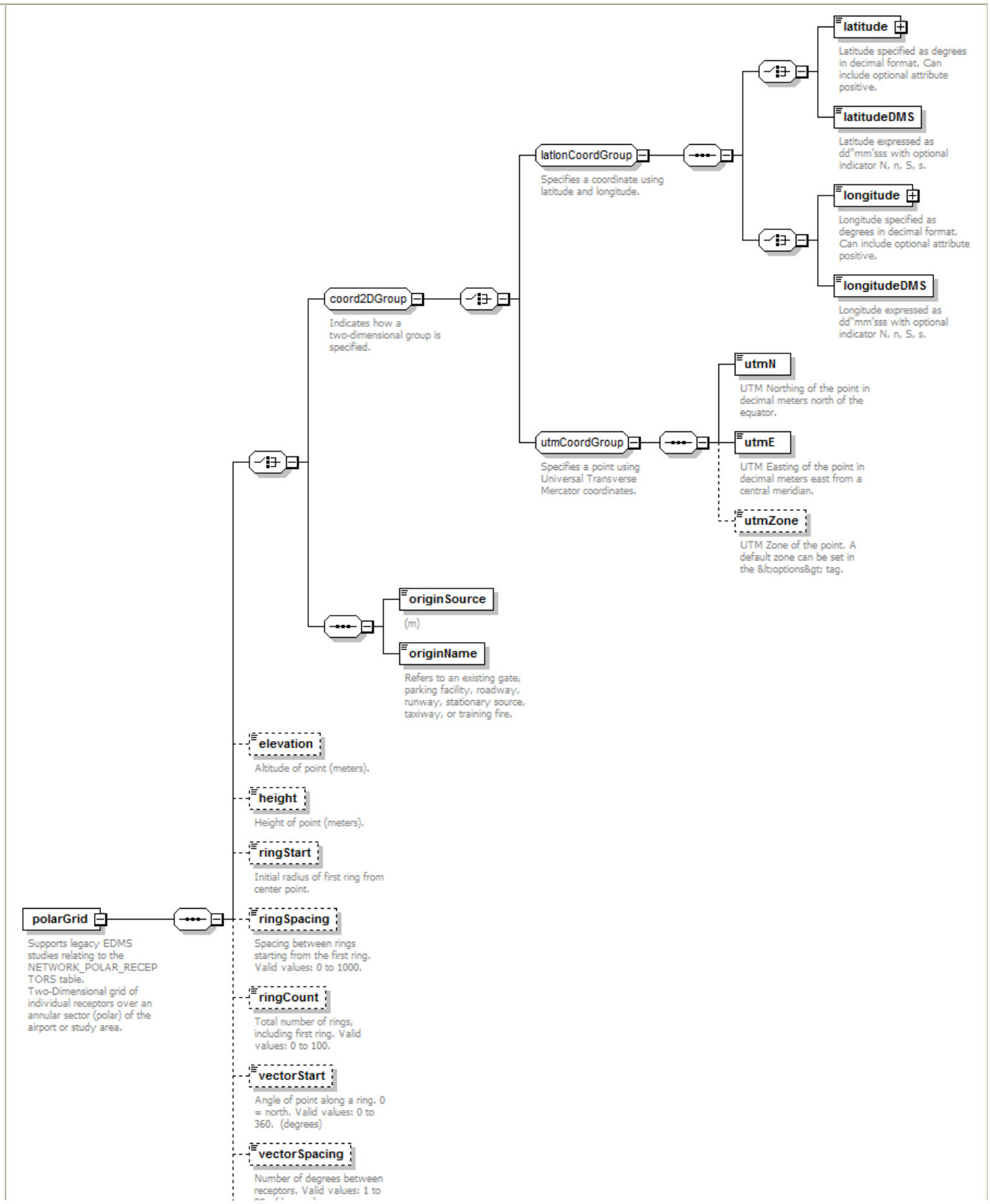
element **pointStationarySource/aboveAmbientTemperature**

diagram	**aboveAmbientTemperature** Indicates if temperature is absolute (False) or if temperature is relative to current ambient temperature (True).

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

element **polarGrid**

diagram



	90. (degrees) **vectorCount** Number of receptors along the ring. Valid values: 1 to 36. **xrOffset** The X-offset of the receptor grid in nautical miles. **ydOffset** The Y-offset of the receptor grid in nautical miles.
properties	content complex
children	**latitude** **latitudeDMS** **longitude** **longitudeDMS** **utmN** **utmE** **utmZone** **originSource** **originName** **elevation** **height** **ringStart** **ringSpacing** **ringCount** **vectorStart** **vectorSpacing** **vectorCount** **xrOffset** **ydOffset**
used by	group **receptorGroup**
annotation	documentation Supports legacy EDMS studies relating to the NETWORK_POLAR_RECEPTORS table. Two-Dimensional grid of individual receptors over an annular sector (polar) of the airport or study area.

element **polarGrid/originSource**

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

element **polarGrid/originName**

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

element **polarGrid/elevation**

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

element **polarGrid/height**

diagram	**height** Height of point (meters).

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

element **polarGrid/ringStart**

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

element **polarGrid/ringSpacing**

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

element **polarGrid/ringCount**

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

element **polarGrid/vectorStart**

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

element **polarGrid/vectorSpacing**

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

element **polarGrid/vectorCount**

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

element **polarGrid/xrOffset**

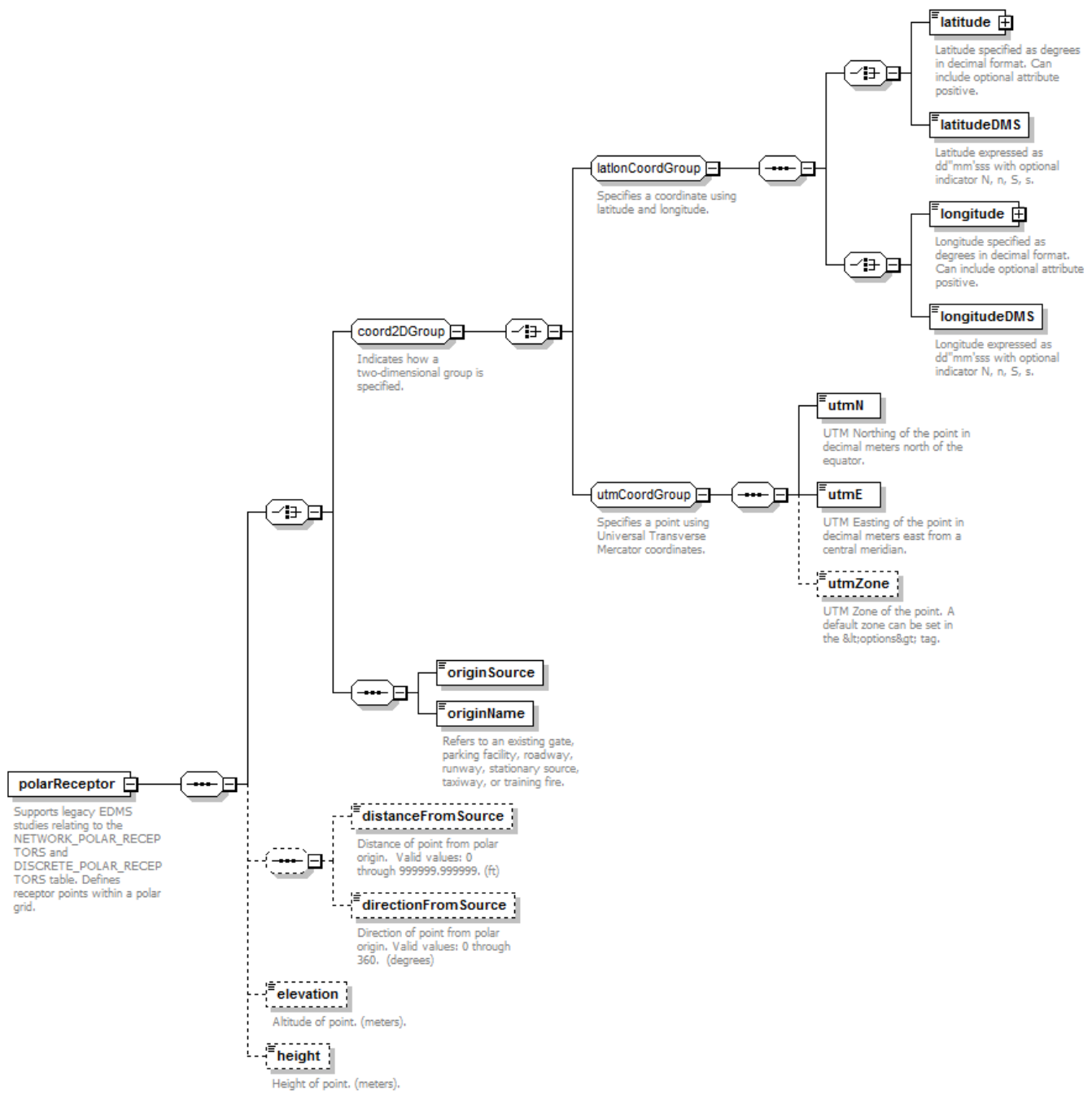
diagram	**xrOffset** The X-offset of the receptor grid in nautical miles.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation The X-offset of the receptor grid in nautical miles.

element **polarGrid/ydOffset**

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

element **polarReceptor**

diagram	



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

element **polarReceptor/originSource**

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

element **polarReceptor/originName**

diagram	

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

element **polarReceptor/distanceFromSource**

diagram	**distanceFromSource** 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	**directionFromSource** Direction of point from polar origin. Valid values: 0 through 360. (degrees)
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**

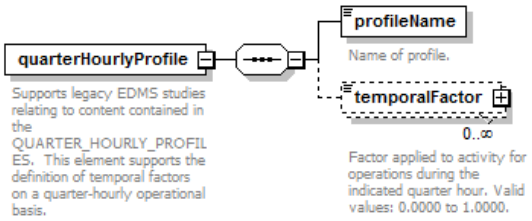
diagram	**elevation** Altitude of point. (meters).
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Altitude of point. (meters).

element **polarReceptor/height**

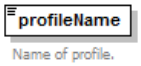
diagram	**height** Height of point. (meters).
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation

	Height of point. (meters).

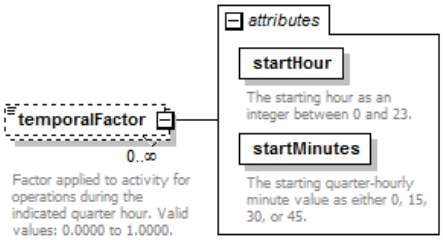
element **quarterHourlyProfile**

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

element **quarterHourlyProfile/profileName**

diagram	
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**

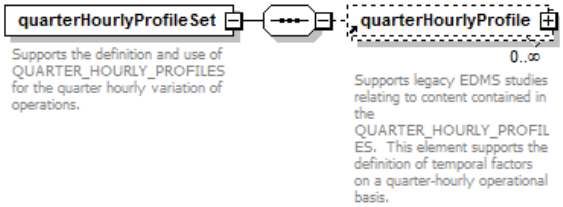
type	**int0to23**

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**

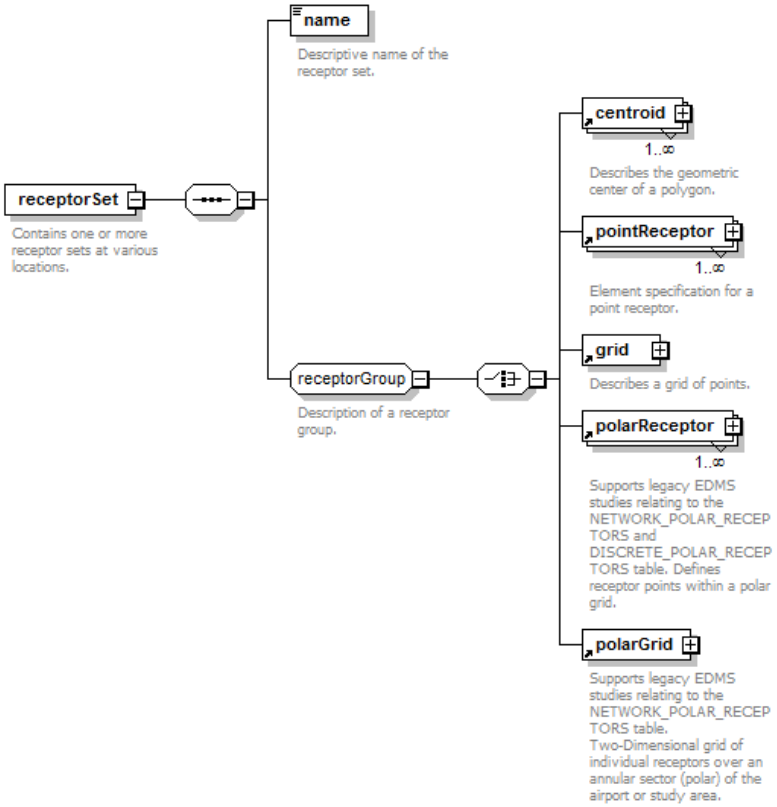
type	**quarterHourMinutes**
properties	use required
facets	Kind Value Annotation enumeration 0 enumeration 15 enumeration 30 enumeration 45
annotation	documentation The starting quarter-hourly minute value as either 0, 15, 30, or 45.

element **quarterHourlyProfileSet**

diagram	
properties	content complex
children	**quarterHourlyProfile**
used by	element **operationalProfileSet** complexType **airportLayoutType**
annotation	documentation Supports the definition and use of QUARTER_HOURLY_PROFILES for the quarter hourly variation of operations.

element **receptorSet**

diagram	

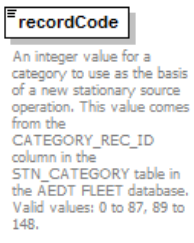


properties	content complex
children	**name** **centroid** **pointReceptor** **grid** **polarReceptor** **polarGrid**
used by	elements **AsifXml** **study**
annotation	documentation Contains one or more receptor sets at various locations.

element **receptorSet/name**

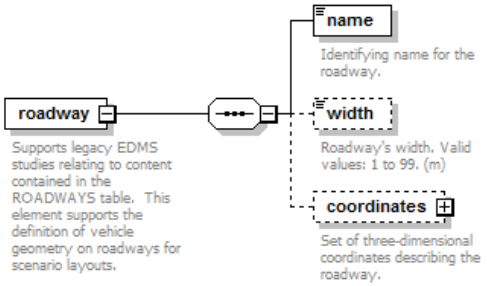
diagram	
type	**string255**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Descriptive name of the receptor set.

element **recordCode**

diagram	
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	
properties	content complex
children	**name** **width** **coordinates**
used by	element **roadwaySet**
annotation	documentation Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle geometry on roadways for scenario layouts.

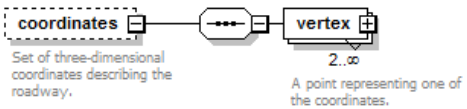
element **roadway/name**

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

element **roadway/width**

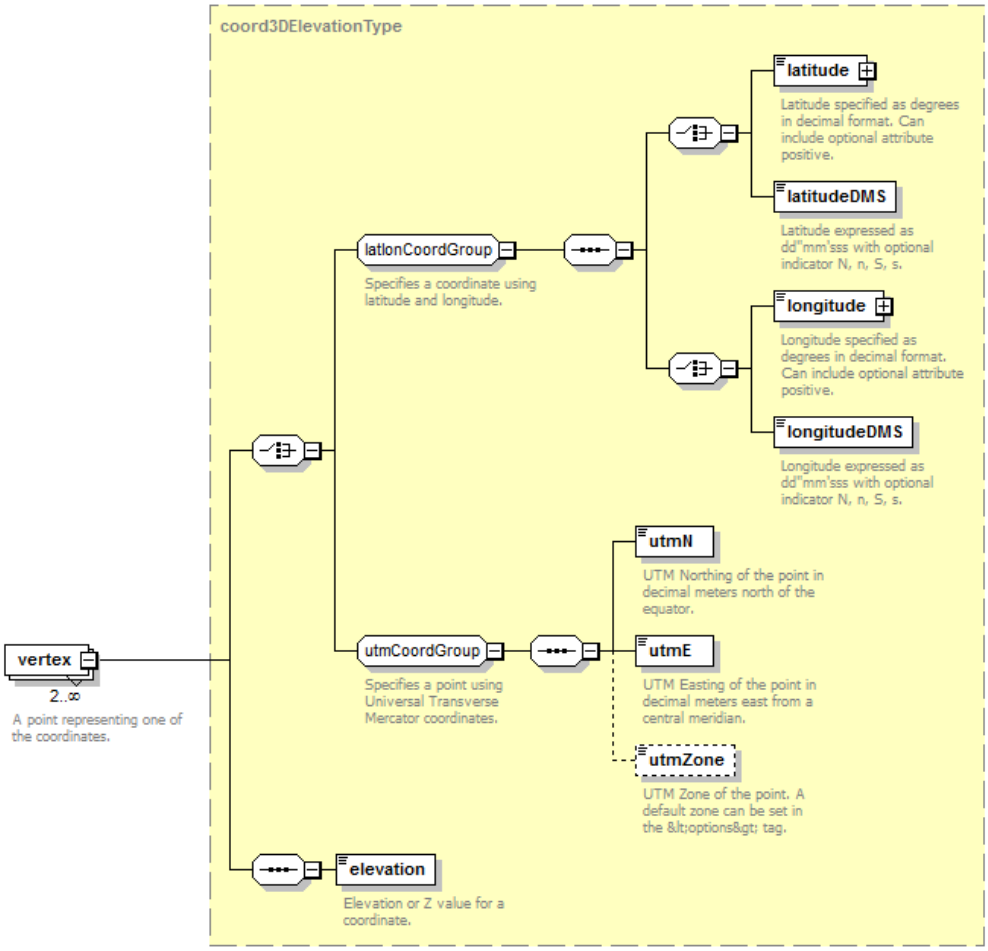
diagram	
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Roadway's width. Valid values: 1 to 99. (m)

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**

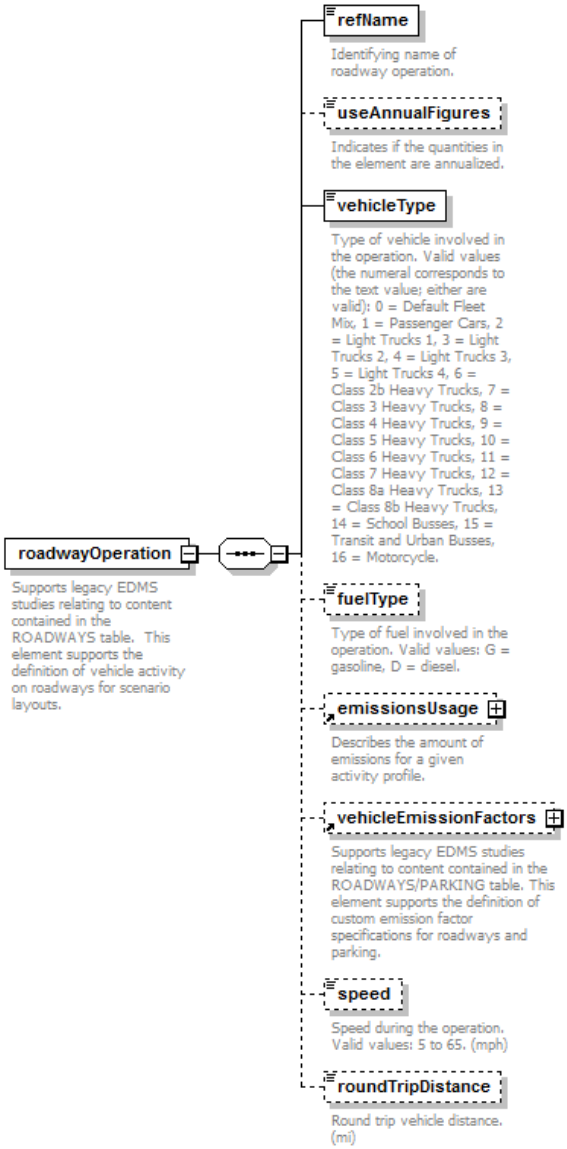
diagram



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.

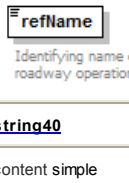
element **roadwayOperation**

diagram



properties	content complex
children	**refName** **useAnnualFigures** **vehicleType** **fuelType** **emissionsUsage** **vehicleEmissionFactors** **speed** **roundTripDistance**
used by	element **roadwayOperationSet**
annotation	documentation Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle activity on roadways for scenario layouts.

element **roadwayOperation/refName**

diagram	
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**

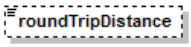
diagram	**fuelType** Type of fuel involved in the operation. Valid values: G = gasoline, D = diesel.
type	**fuelType**
properties	minOcc 0 maxOcc 1 content simple default G
facets	Kind Value Annotation pattern G|Gasoline|D|Diesel|C|Compressed Natural Gas|L|Liquefied Petroleum Gas|E|Electric
annotation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

element **roadwayOperation/speed**

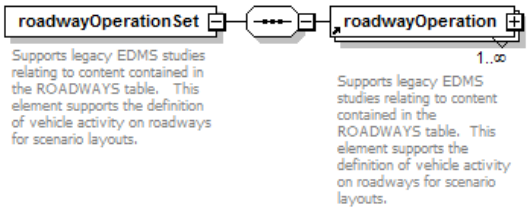
diagram	**speed** Speed during the operation. Valid values: 5 to 65. (mph)
type	**int5to65**
properties	minOcc 0 maxOcc 1

	content simple default 35
facets	Kind Value Annotation minInclusive 5 maxInclusive 65
annotation	documentation Speed during the operation. Valid values: 5 to 65. (mph)

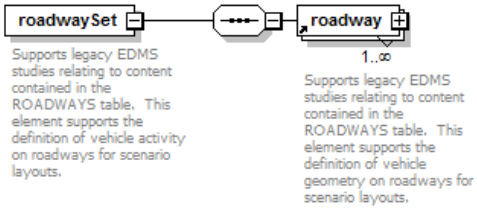
element **roadwayOperation/roundTripDistance**

diagram	 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**

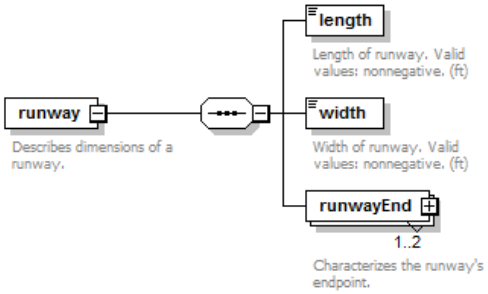
diagram	
properties	content complex
children	**roadwayOperation**
used by	group **airportActivityGroup**
annotation	documentation Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle activity on roadways for scenario layouts.

element **roadwaySet**

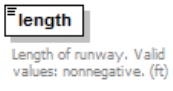
diagram	
properties	content complex
children	**roadway**
used by	complexType **airportLayoutType**
annotation	documentation Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle activity on roadways for scenario layouts.

element **runway**

diagram	

	
properties	content complex
children	**length** **width** **runwayEnd**
used by	element **runwaySet**
annotation	documentation Describes dimensions of a runway.

element **runway/length**

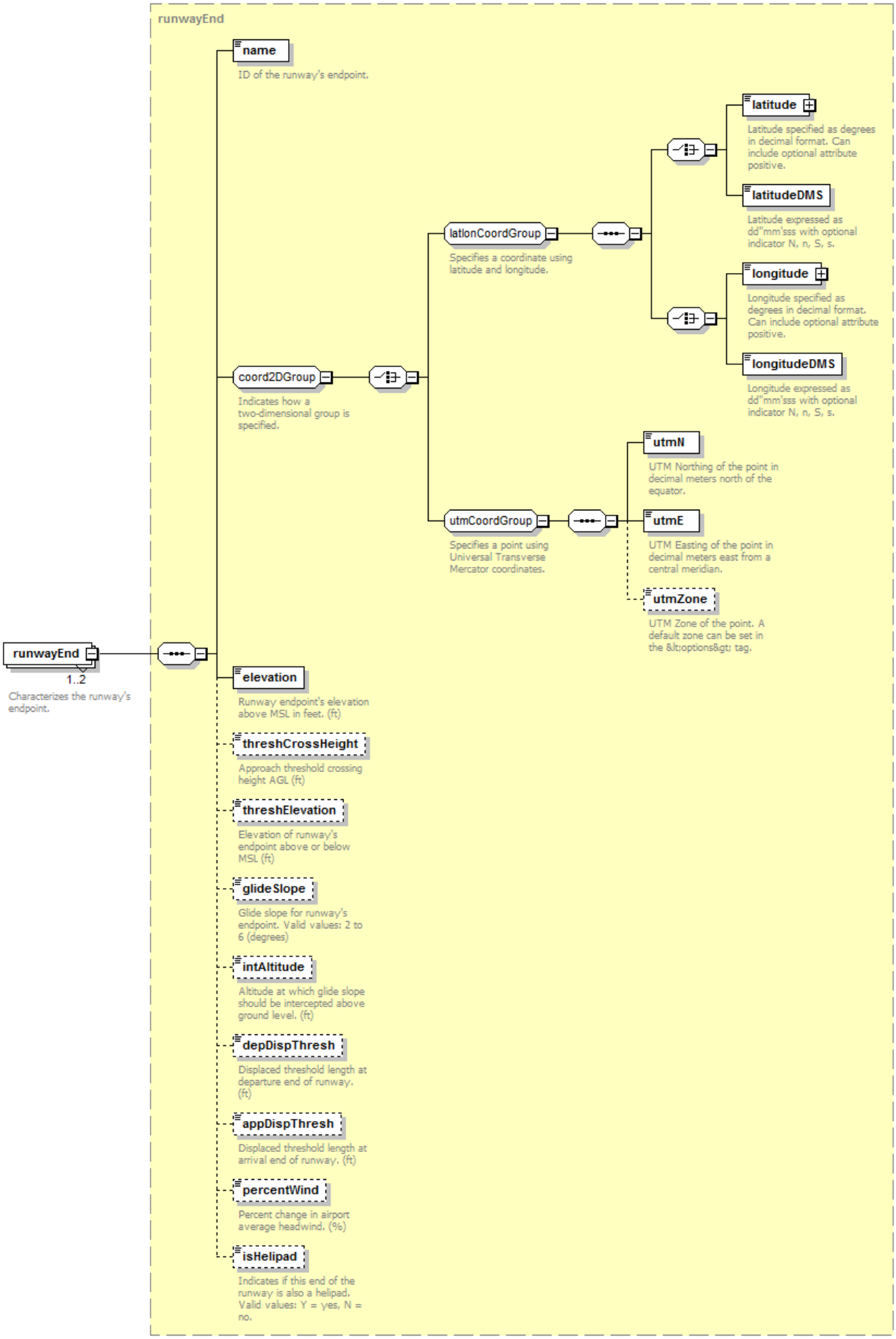
diagram	
type	**xs:short**
properties	content simple
annotation	documentation Length of runway. Valid values: nonnegative. (ft)

element **runway/width**

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

element **runway/runwayEnd**

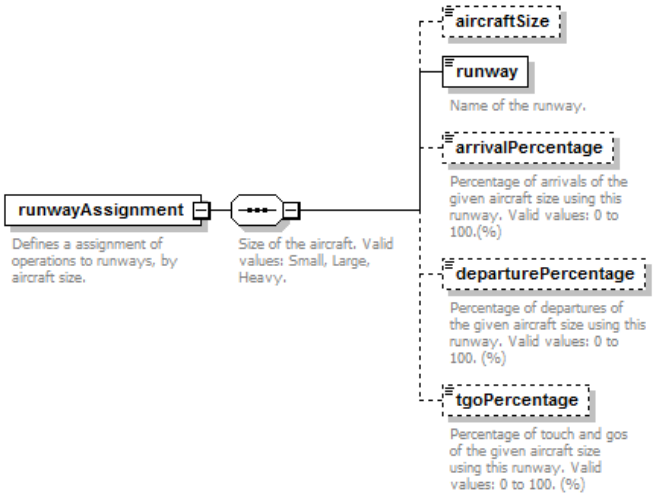
diagram	



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

element **runwayAssignment/runway**

diagram	runway Name of the runway.
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	**arrivalPercentage** Percentage of arrivals of the given aircraft size using this runway. Valid values: 0 to 100.(%)
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	**departurePercentage** Percentage of departures of the given aircraft size using this runway. Valid values: 0 to 100. (%)
type	**doubleInclusive100**
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percentage of departures of the given aircraft size using this runway. Valid values: 0 to 100. (%)

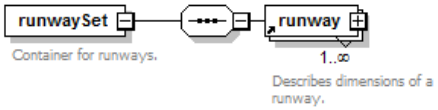
element **runwayAssignment/tgoPercentage**

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

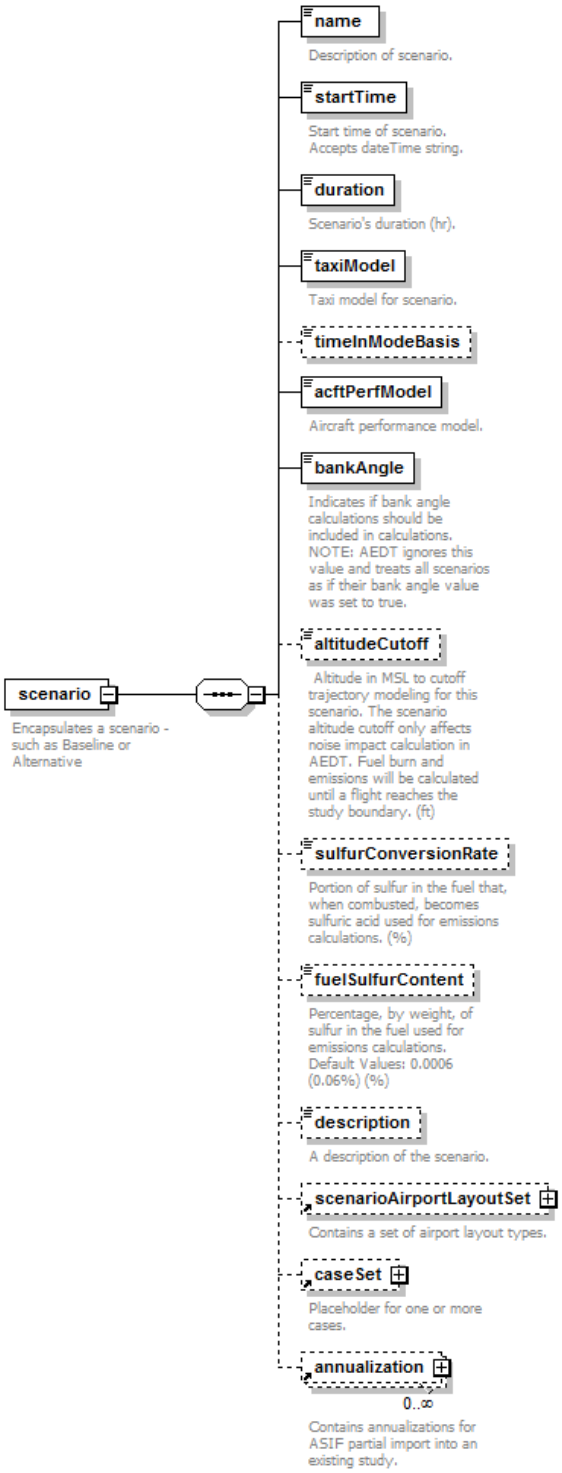
element **runwayAssignmentSet**

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

element **runwaySet**

diagram	
properties	content complex
children	**runway**
used by	complexType **airportLayoutType**
annotation	documentation Container for runways.

element **scenario**

diagram	
properties	content complex

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

element **scenario/name**

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

element **scenario/startTime**

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

element **scenario/duration**

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

element **scenario/taxiModel**

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

element **scenario/timeInModeBasis**

diagram	**timeInModeBasis**
type	**timeInModeBasisType**
properties	minOcc 0 maxOcc 1 content simple

	default ICAO
facets	Kind Value Annotation enumeration Performance enumeration ICAO

element **scenario/acftPerfModel**

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

element **scenario/bankAngle**

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

element **scenario/altitudeCutoff**

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

element **scenario/sulfurConversionRate**

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

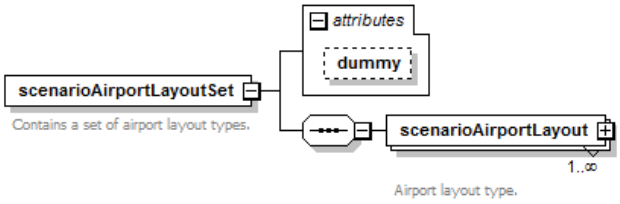
element **scenario/fuelSulfurContent**

diagram	**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 w eight, of sulfur in the fuel used for emissions calculations. Default Values: 0.0006 (0.06%) (%)

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**

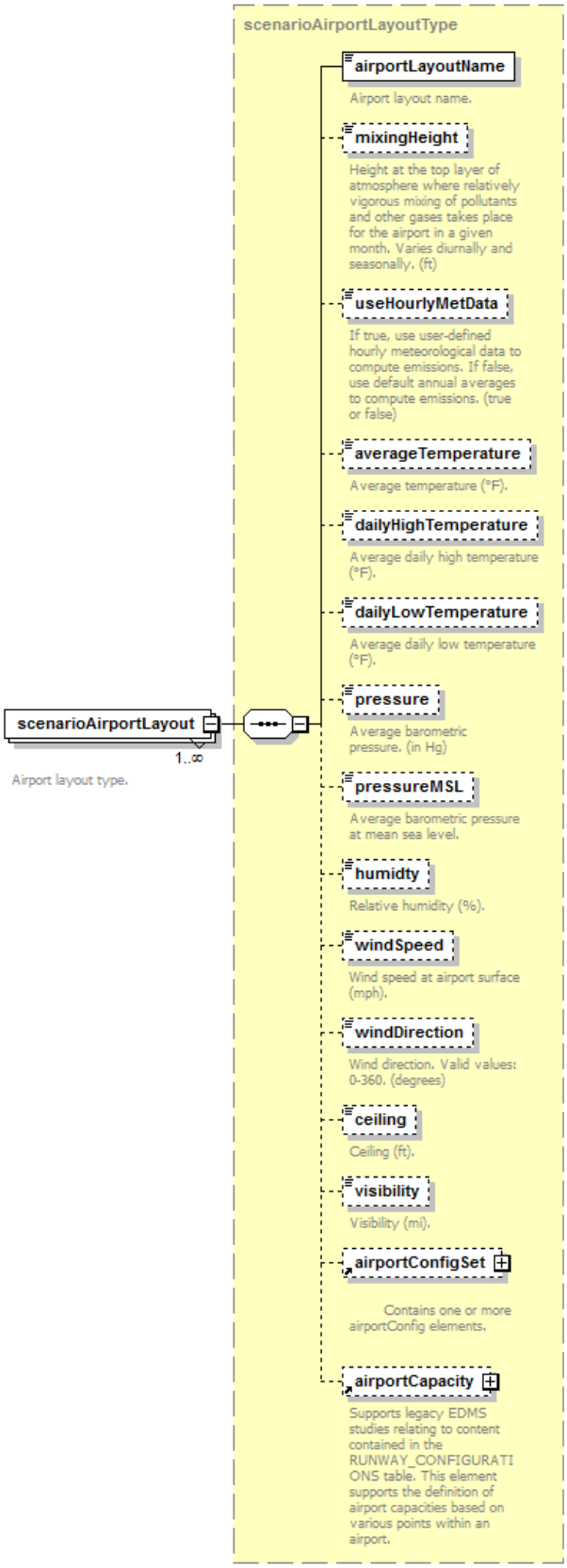
diagram	
properties	content complex
children	**scenarioAirportLayout**
used by	element **scenario**
attributes	Name Type Use Default Fixed Annotation dummy **xs:int** optional
annotation	documentation Contains a set of airport layout types.

attribute **scenarioAirportLayoutSet/@dummy**

type	**xs:int**
properties	use optional

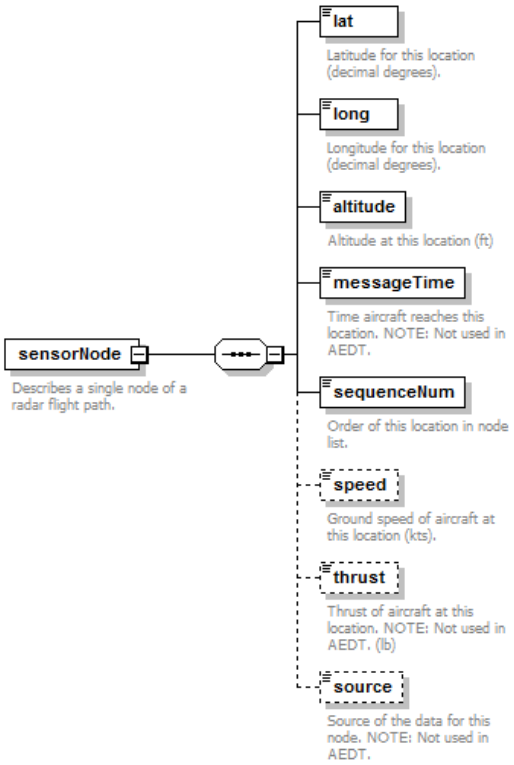
element **scenarioAirportLayoutSet/scenarioAirportLayout**

diagram	

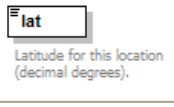


type	**scenarioAirportLayoutType**
properties	minOcc 1 maxOcc unbounded content complex
children	**airportLayoutName** **mixingHeight** **useHourlyMetData** **averageTemperature** **dailyHighTemperature** **dailyLowTemperature** **pressure** **pressureMSL** **humidty** **windSpeed** **windDirection**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

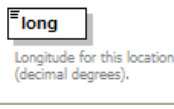
element **sensorNode**

diagram	
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.

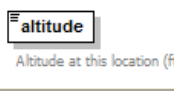
element **sensorNode/lat**

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

element **sensorNode/long**

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

element **sensorNode/altitude**

diagram	
type	**xs:double**

properties	content simple
annotation	documentation Altitude at this location (ft)

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

element **sensorNode/thrust**

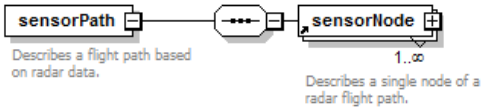
diagram	**thrust** Thrust of aircraft at this location. NOTE: Not used in AEDT. (lb)
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Thrust of aircraft at this location. NOTE: Not used in AEDT. (lb)

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	**sensorNode**
used by	element **trackOpSet**
annotation	documentation Describes a flight path based on radar data.

element **stationarySource**

diagram	

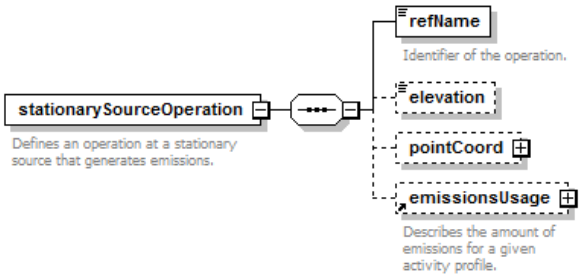
properties	content complex

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.

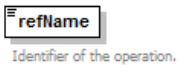
element **stationarySource/name**

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	
properties	content complex
children	**refName** **elevation** **pointCoord** **emissionsUsage**
used by	element **stationarySourceOperationSet**
annotation	documentation Defines an operation at a stationary source that generates emissions.

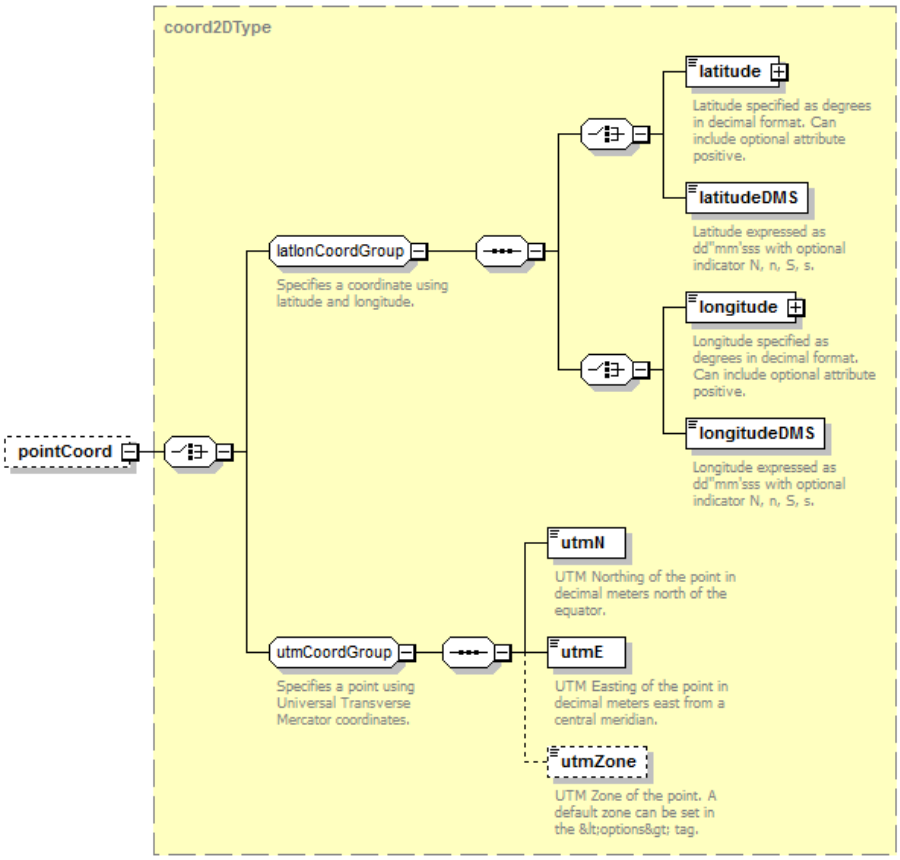
element **stationarySourceOperation/refName**

diagram	
type	**string40**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Identifier of the operation.

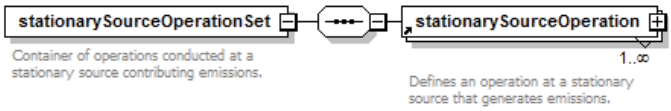
element **stationarySourceOperation/elevation**

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

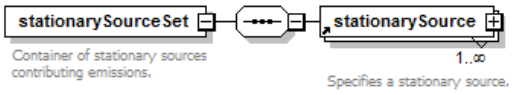
element **stationarySourceOperation/pointCoord**

diagram	
type	**coord2DType**
properties	minOcc 0 maxOcc 1 content complex
children	**latitude** **latitudeDMS** **longitude** **longitudeDMS** **utmN** **utmE** **utmZone**

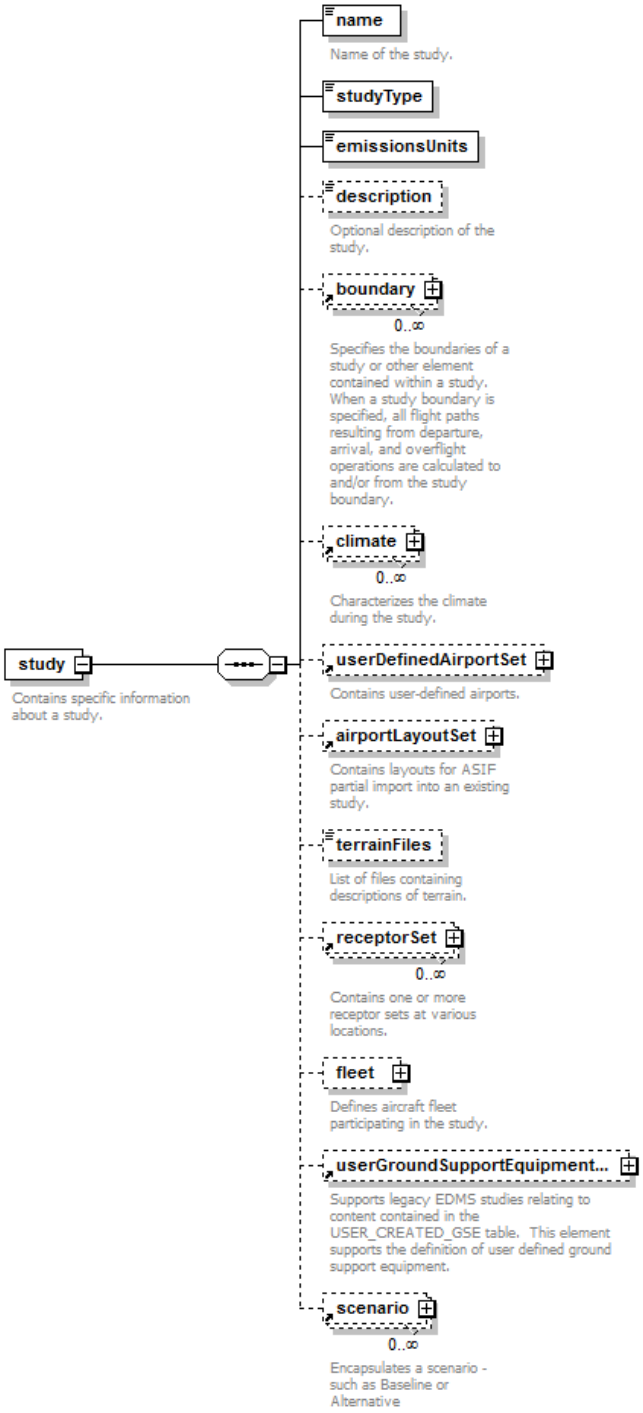
element **stationarySourceOperationSet**

diagram	
properties	content complex
children	**stationarySourceOperation**
used by	group **airportActivityGroup**
annotation	documentation Container of operations conducted at a stationary source contributing emissions.

element **stationarySourceSet**

diagram	
properties	content complex
children	**stationarySource**
used by	element **AsifXml** complexType **airportLayoutType**
annotation	documentation Container of stationary sources contributing emissions.

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

element **study/emissionsUnits**

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

element **study/description**

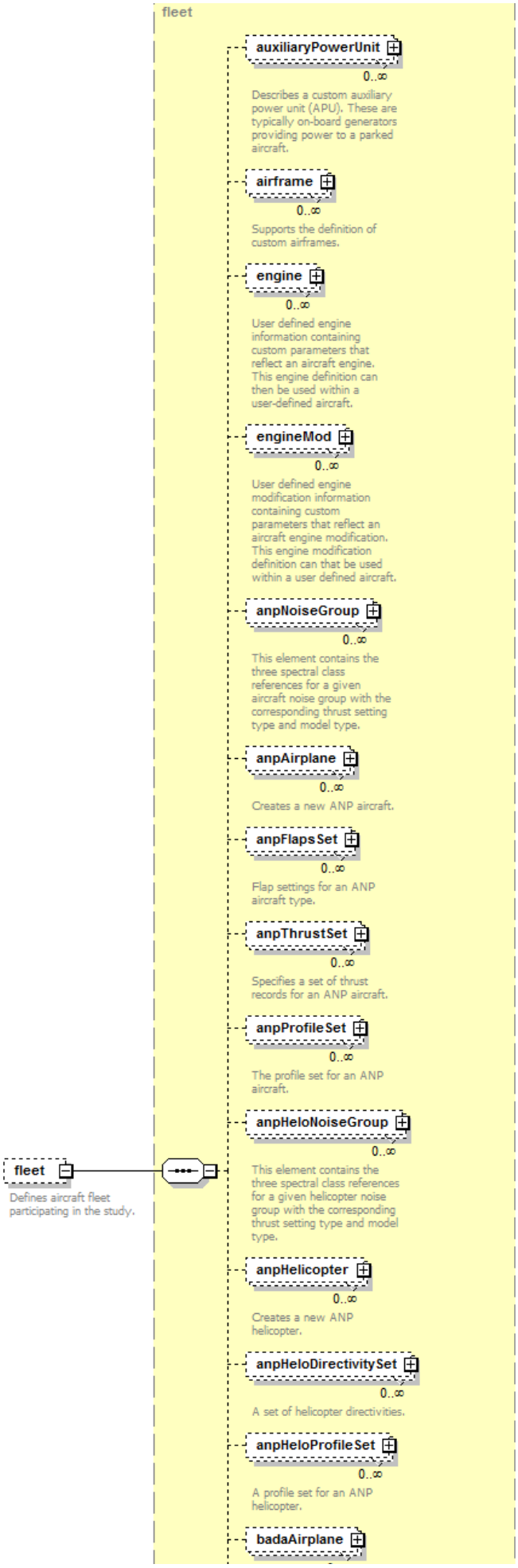
diagram	description Optional description of the study.
type	**string255**
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Optional description of the study.

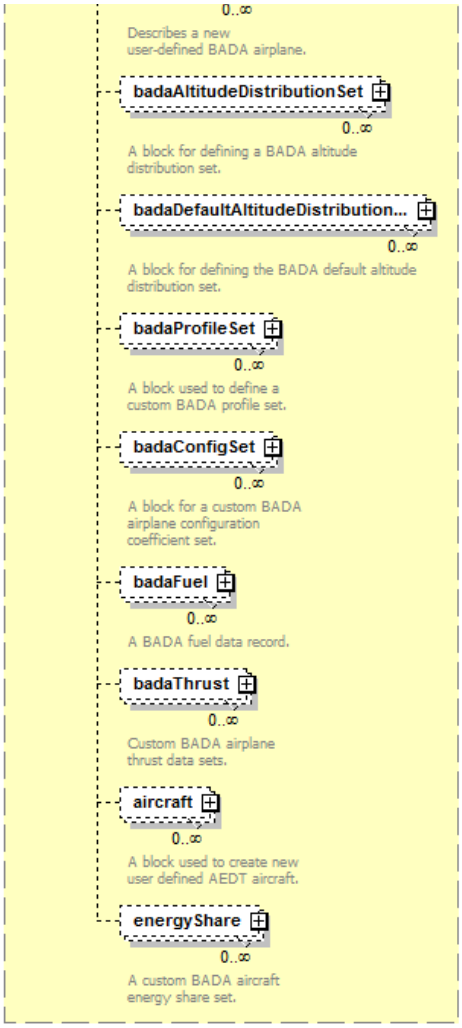
element **study/terrainFiles**

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

element **study/fleet**

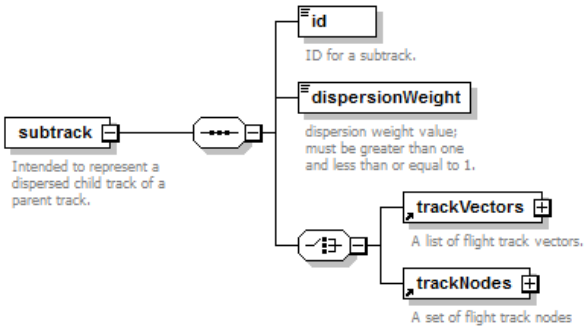
diagram


fleet
auxiliaryPowerUnit
0..∞
Describes a custom auxiliary power unit (APU). These are typically on-board generators providing power to a parked aircraft.
airframe
0..∞
Supports the definition of custom airframes.
engine
0..∞
User defined engine information containing custom parameters that reflect an aircraft engine. This engine definition can then be used within a user-defined aircraft.
engineMod
0..∞
User defined engine modification information containing custom parameters that reflect an aircraft engine modification. This engine modification definition can that be used within a user defined aircraft.
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
fleet
Defines aircraft fleet participating in the study.



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

element **subtrack**

diagram	
properties	content complex
children	**id** **dispersionWeight** **trackVectors** **trackNodes**
used by	element **track**
annotation	documentation Intended to represent a dispersed child track of a parent track.

element **subtrack/id**

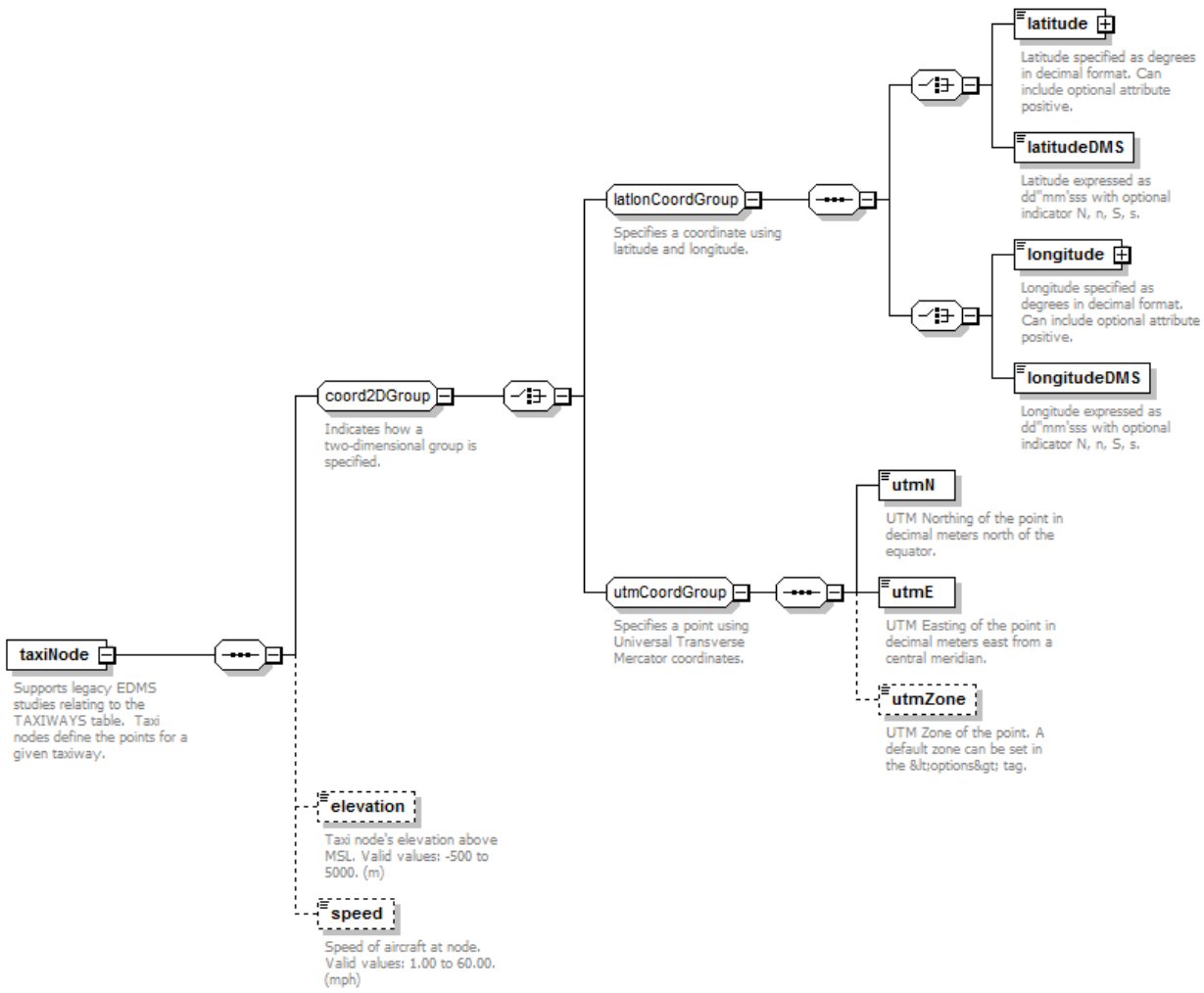
diagram	**id** ID for a subtrack.
type	**xs:int**
properties	content simple
annotation	documentation ID for a subtrack.

element **subtrack/dispersionWeight**

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

element **taxiNode**

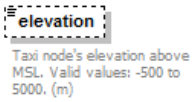
diagram



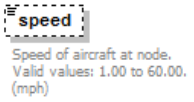
properties	content complex
children	**latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation speed**
used by	element **taxiNodeSet**

annotation	documentation Supports legacy EDMS studies relating to the TAXIWAYS table. Taxi nodes define the points for a given taxiway.

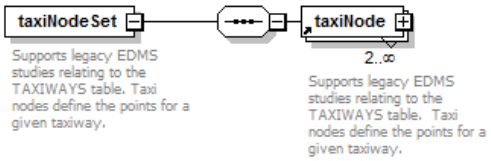
element **taxiNode/elevation**

diagram	
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**

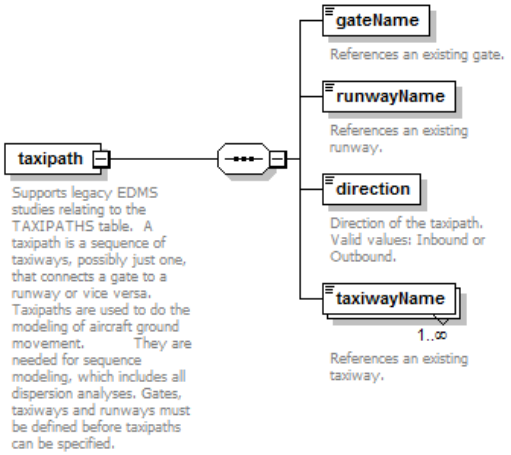
diagram	
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Speed of aircraft at node. Valid values: 1.00 to 60.00. (mph)

element **taxiNodeSet**

diagram	
properties	content complex
children	**taxiNode**
used by	element **taxiway**
annotation	documentation Supports legacy EDMS studies relating to the TAXIWAYS table. Taxi nodes define the points for a given taxiway.

element **taxipath**

diagram	

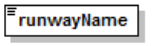


properties	content complex
children	**gateName** **runwayName** **direction** **taxiwayName**
used by	element **taxipathSet**
annotation	documentation Supports legacy EDMS studies relating to the TAXIPATHS table. A taxipath is a sequence of taxiw ays, possibly just one, that connects a gate to a runw ay or vice versa. Taxipaths are used to do the modeling of aircraft ground movement. They are needed for sequence modeling, w hich includes all dispersion analyses. Gates, taxiw ays and runw ays must be defined before taxipaths can be specified.

element **taxipath/gateName**

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

element **taxipath/runwayName**

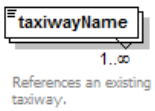
diagram	
type	**string8**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation References an existing runw ay.

element **taxipath/direction**

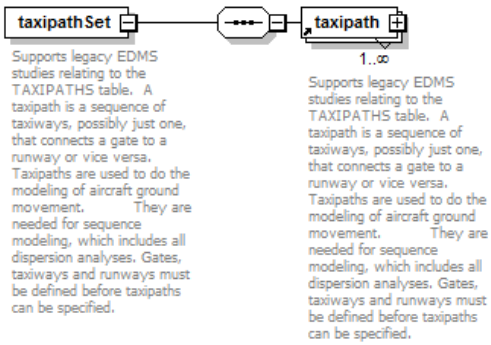
diagram	
type	**directionType**
properties	content simple
facets	Kind Value Annotation pattern A|Arrival|D|Departure|I|Inbound|O|Outbound

annotation	documentation Direction of the taxipath. Valid values: Inbound or Outbound.

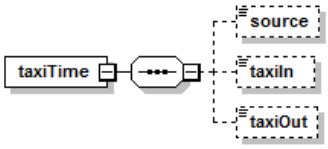
element **taxipath/taxiwayName**

diagram	
type	**string20**
properties	minOcc 1 maxOcc unbounded content simple
facets	Kind Value Annotation minLength 0 maxLength 20
annotation	documentation References an existing taxiw ay.

element **taxipathSet**

diagram	
properties	content complex
children	**taxipath**
used by	complexType **airportLayoutType**
annotation	documentation Supports legacy EDMS studies relating to the TAXIPATHS table. A taxipath is a sequence of taxiw ays, possibly just one, that connects a gate to a runw ay or vice versa. Taxipaths are used to do the modeling of aircraft ground movement. They are needed for sequence modeling, w hich includes all dispersion analyses. Gates, taxiw ays and runw ays must be defined before taxipaths can be specified.

element **taxiTime**

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

element **taxiTime/source**

diagram	
type	**string6**
properties	minOcc 0 maxOcc 1 content simple

facets	Kind Value Annotation minLength 0 maxLength 6

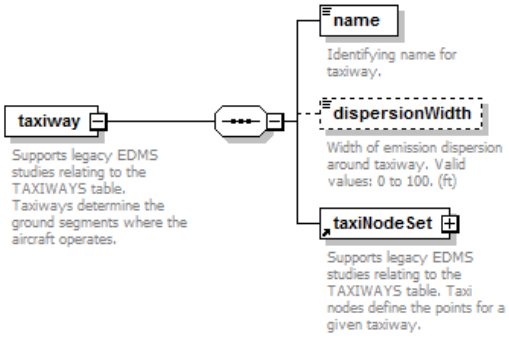
element **taxiTime/taxiIn**

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

element **taxiTime/taxiOut**

diagram	taxiOut
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 legacy EDMS studies relating to the TAXIWAYS table. Taxiways determine the ground segments where the aircraft operates.

element **taxiway/name**

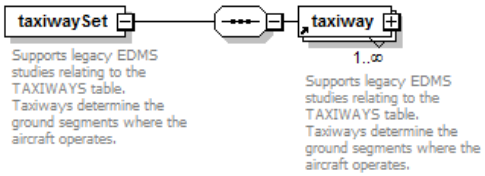
diagram	name Identifying name for taxiway.
type	**string20**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 20
annotation	documentation Identifying name for taxiway.

element **taxiway/dispersionWidth**

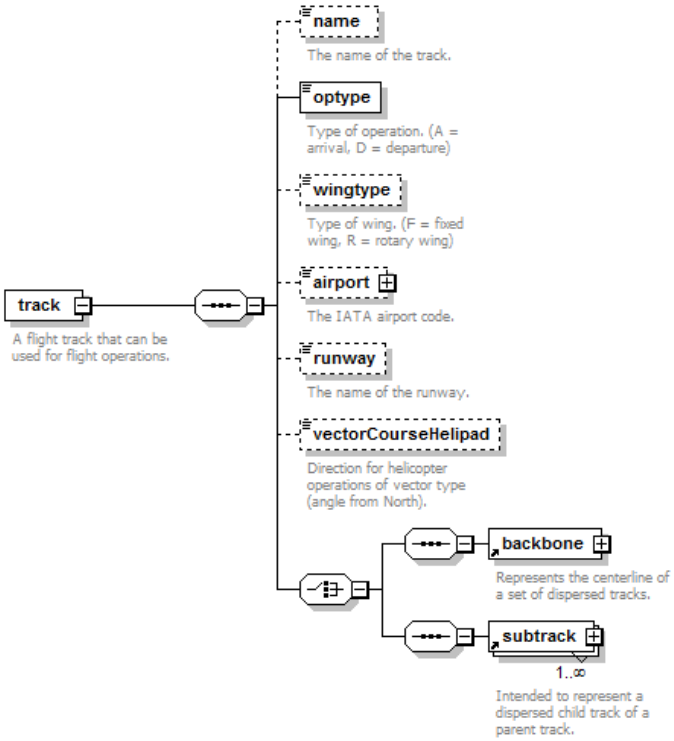
diagram	dispersionWidth Width of emission dispersion around taxiway. Valid values: 0 to 100. (ft)

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. (ft)

element **taxiwaySet**

diagram	
properties	content complex
children	**taxiway**
used by	complexType **airportLayoutType**
annotation	documentation Supports legacy EDMS studies relating to the TAXIWAYS 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	name The name of the track.
type	**string64**
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 64
annotation	documentation The name of the track.

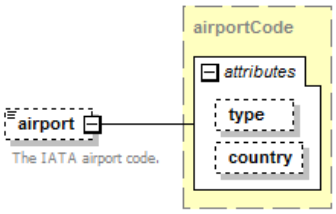
element **track/optype**

diagram	optype Type of operation. (A = arrival, D = departure)
type	**opType**
properties	content simple
facets	Kind Value Annotation pattern A|Arrival|D|Departure|V|Overflight|F|Circuit|T|TouchAndGo|R|Runup|W|Runw ayToRunw ay|L|LTO|LandingTakoff|X|Taxi
annotation	documentation Type of operation. (A = arrival, D = departure)

element **track/wingtype**

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

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**

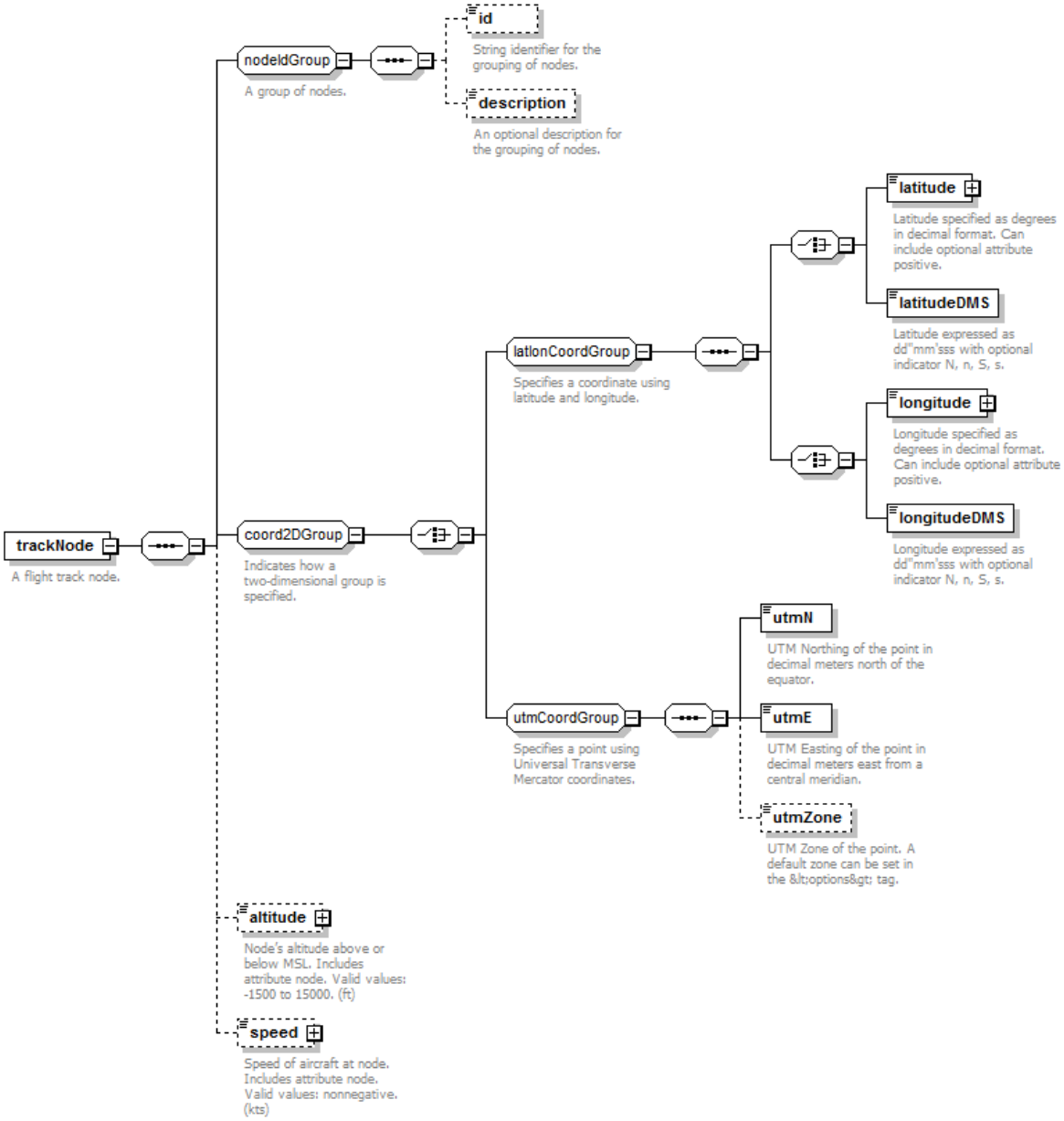
diagram	**runway** The name of the runway.
type	**string8**
properties	minOcc 0 maxOcc 1 content simple
used by	element **runwaySet**
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation The name of the runway.

element **track/vectorCourseHelipad**

diagram	**vectorCourseHelipad** Direction for helicopter operations of vector type (angle from North).
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Direction for helicopter operations of vector type (angle from North).

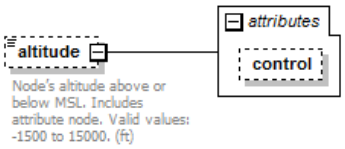
element **trackNode**

diagram	



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

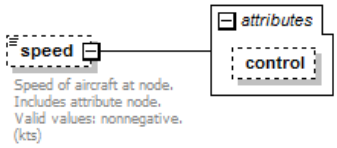
element **trackNode/altitude**

diagram	
type	extension of **xs:double**
properties	minOcc 0 maxOcc 1 content complex
attributes	Name: control; Type: **nodeControlType**; Use: optional; Default; Fixed; Annotation
annotation	documentation Node's altitude above or below MSL. Includes attribute node. Valid values: -1500 to 15000. (ft)

attribute **trackNode/altitude/@control**

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

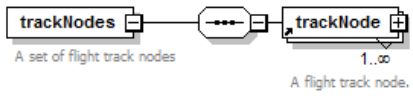
element **trackNode/speed**

diagram	
type	extension of **xs:double**
properties	minOcc 0 maxOcc 1 content complex
attributes	Name Type Use Default Fixed Annotation control **nodeControlType** optional
annotation	documentation Speed of aircraft at node. Includes attribute node. Valid values: nonnegative. (kts)

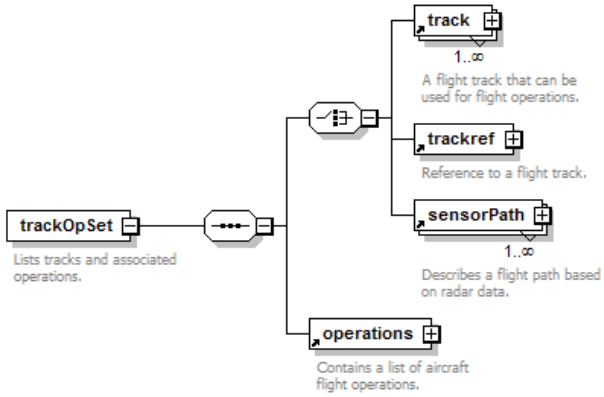
attribute **trackNode/speed/@control**

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

element **trackNodes**

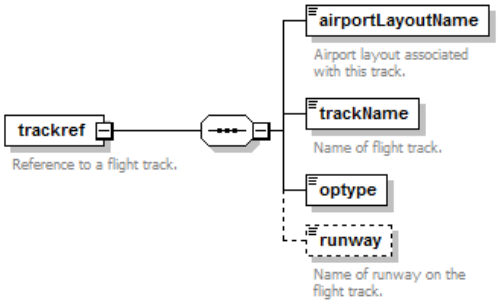
diagram	
properties	content complex
children	**trackNode**
used by	element **subtrack**
annotation	documentation A set of flight track nodes

element **trackOpSet**

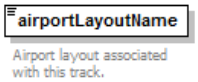
diagram	
properties	content complex
children	**track** **trackref** **sensorPath** **operations**

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

element **trackref/trackName**

diagram	
type	**string64**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 64
annotation	documentation Name of flight track.

element **trackref/optype**

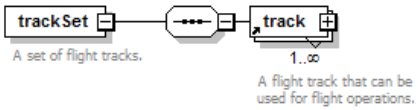
diagram	
type	**opType**
properties	content simple
facets	Kind Value Annotation pattern A|Arrival|D|Departure|V|Overflight|F|Circuit|T|TouchAndGo|R|Runup|W|RunwayToRunway|L|LTO|LandingTakoff|X|Taxi

element **trackref/runway**

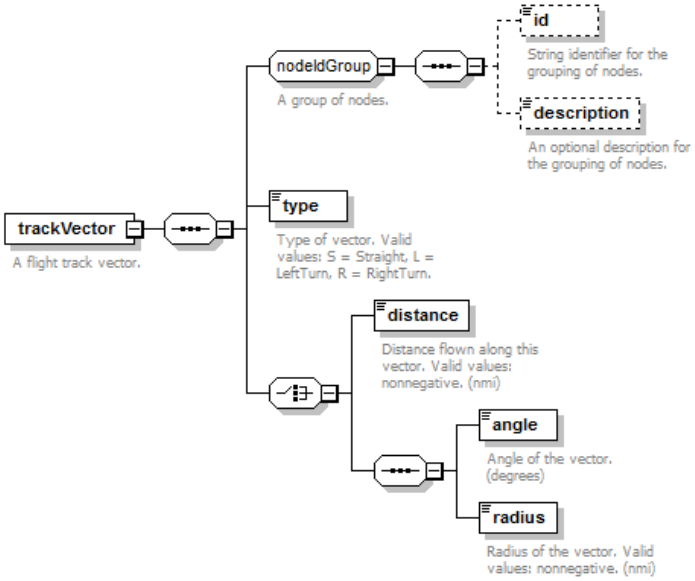
diagram	

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

element **trackVector**

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

element **trackVector/type**

diagram	type 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 flow n along this vector. Valid values: nonnegative. (nmi)

element **trackVector/angle**

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

element **trackVector/radius**

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

element **trackVectors**

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

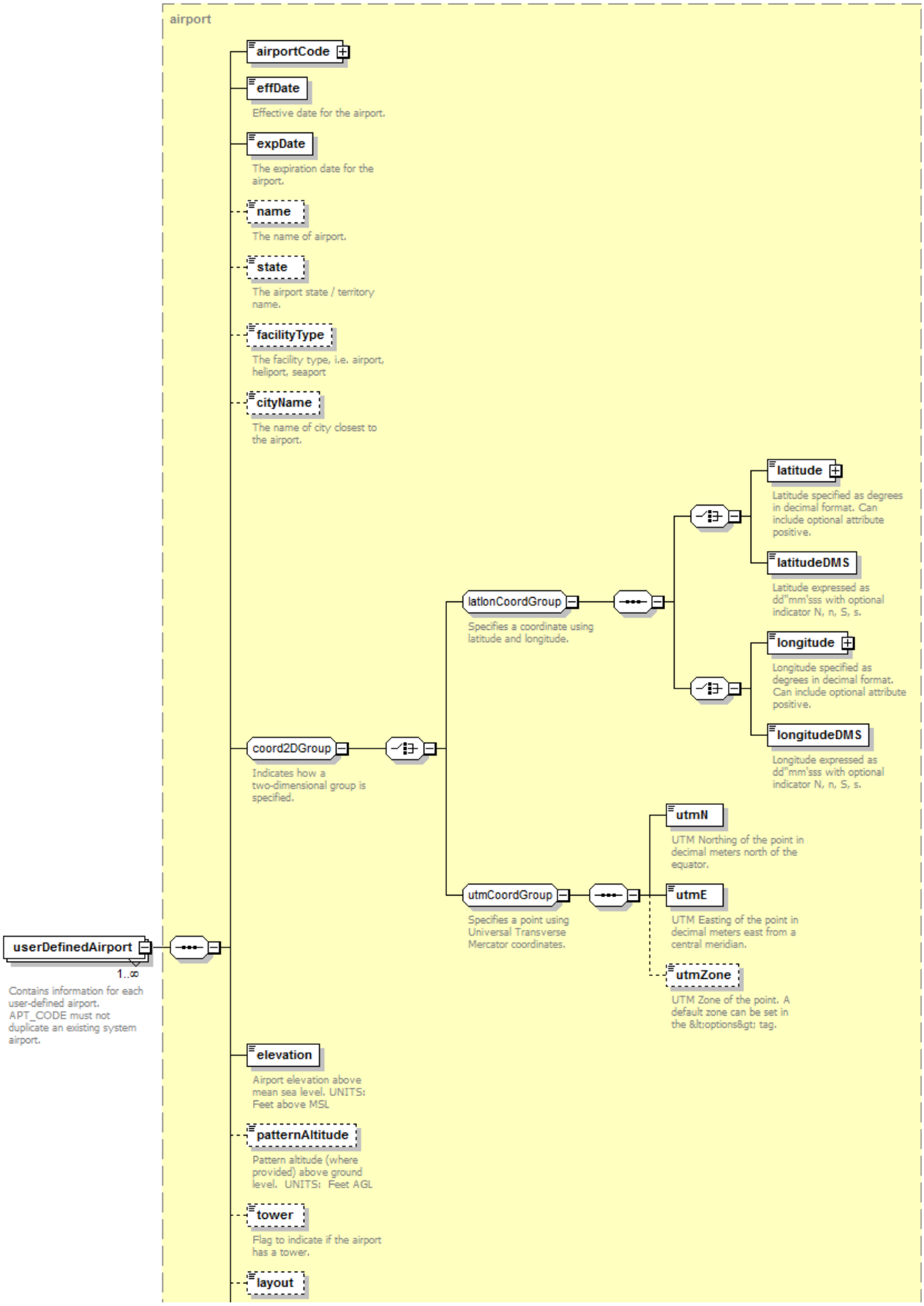
element **userDefinedAirportSet**

diagram	**userDefinedAirportSet** — **userDefinedAirport** 1..∞ Contains user-defined airports. Contains information for each user-defined airport. APT_CODE must not duplicate an existing system airport.
properties	content complex
children	**userDefinedAirport**

used by	element **study**
annotation	documentation Contains user-defined airports.

element **userDefinedAirportSet/userDefinedAirport**

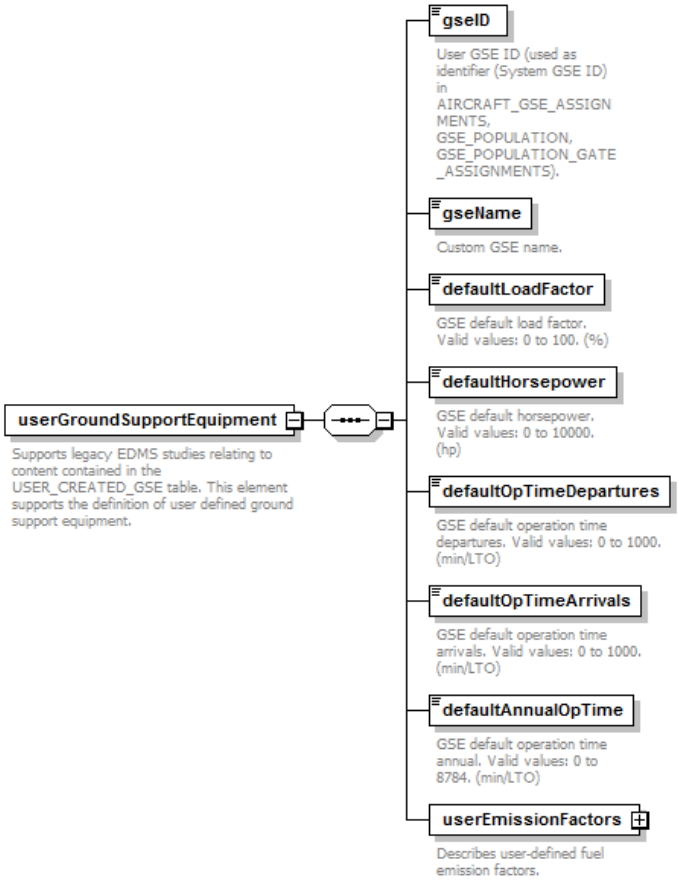
diagram



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** **dafifId** **faaId** **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	



properties	content complex
children	**gseID** **gseName** **defaultLoadFactor** **defaultHorsepower** **defaultOpTimeDepartures** **defaultOpTimeArrivals** **defaultAnnualOpTime** **userEmissionFactors**
used by	element **userGroundSupportEquipmentSet**
annotation	documentation Supports legacy EDMS studies relating to content contained in the USER_CREATED_GSE table. This element supports the definition of user defined ground support equipment.

element **userGroundSupportEquipment/gseID**

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

element **userGroundSupportEquipment/defaultHorsepower**

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

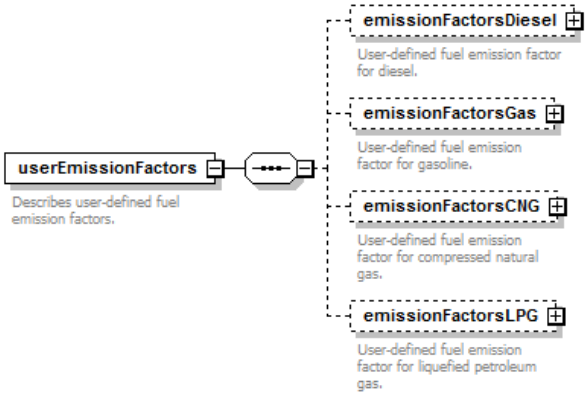
diagram	**defaultOpTimeArrivals** GSE default operation time arrivals. Valid values: 0 to 1000. (min/LTO)
type	**xs:double**
properties	content simple
annotation	documentation GSE default operation time arrivals. Valid values: 0 to 1000. (min/LTO)

element **userGroundSupportEquipment/defaultAnnualOpTime**

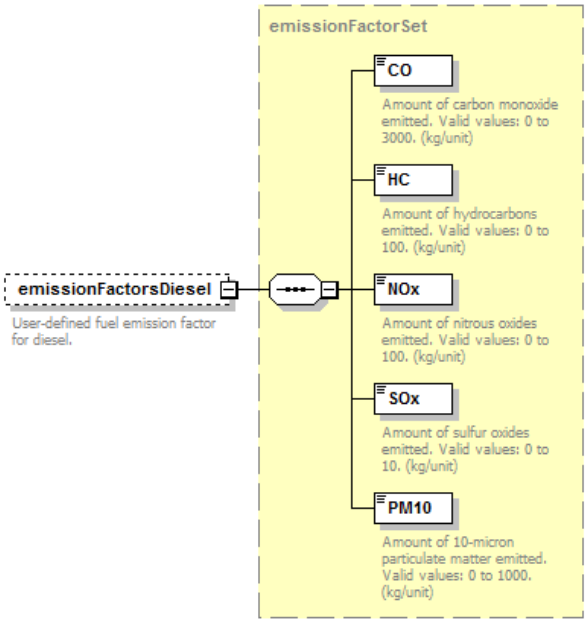
diagram	**defaultAnnualOpTime** GSE default operation time annual. Valid values: 0 to 8784. (min/LTO)
type	**xs:double**
properties	content simple
annotation	documentation GSE default operation time annual. Valid values: 0 to 8784. (min/LTO)

element **userGroundSupportEquipment/userEmissionFactors**

diagram	

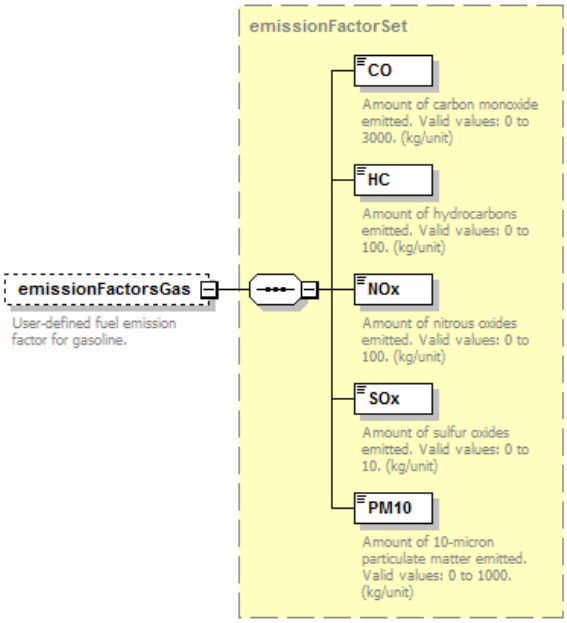
	
properties	content complex
children	**emissionFactorsDiesel** **emissionFactorsGas** **emissionFactorsCNG** **emissionFactorsLPG**
annotation	documentation Describes user-defined fuel emission factors.

element **userGroundSupportEquipment/userEmissionFactors/emissionFactorsDiesel**

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

element **userGroundSupportEquipment/userEmissionFactors/emissionFactorsGas**

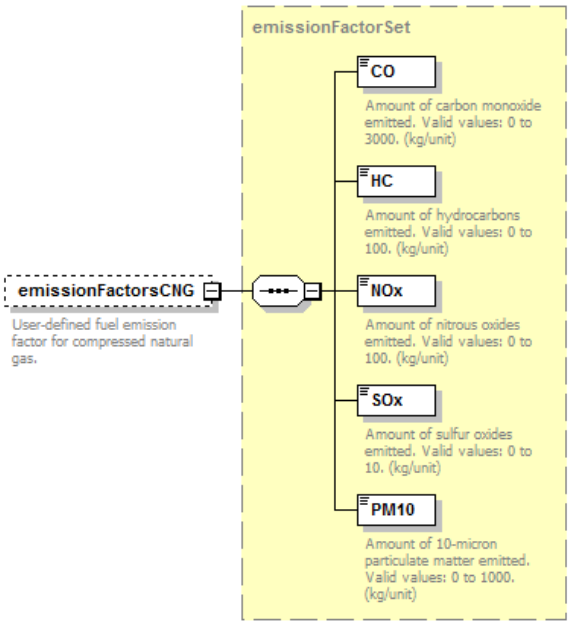
diagram	



type	**emissionFactorSet**
properties	minOcc 0 maxOcc 1 content complex
children	**CO** **HC** **NOx** **SOx** **PM10**
annotation	documentation User-defined fuel emission factor for gasoline.

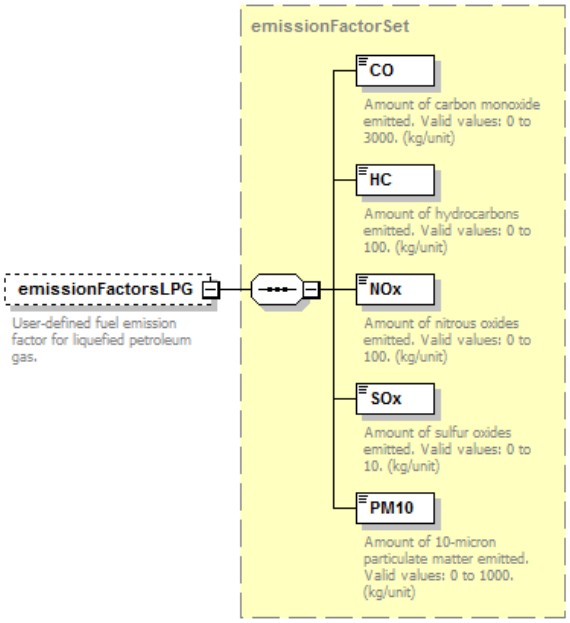
element **userGroundSupportEquipment/userEmissionFactors/emissionFactorsCNG**

diagram

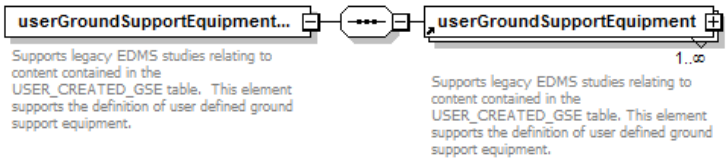


type	**emissionFactorSet**
properties	minOcc 0 maxOcc 1 content complex
children	**CO** **HC** **NOx** **SOx** **PM10**
annotation	documentation User-defined fuel emission factor for compressed natural gas.

element **userGroundSupportEquipment/userEmissionFactors/emissionFactorsLPG**

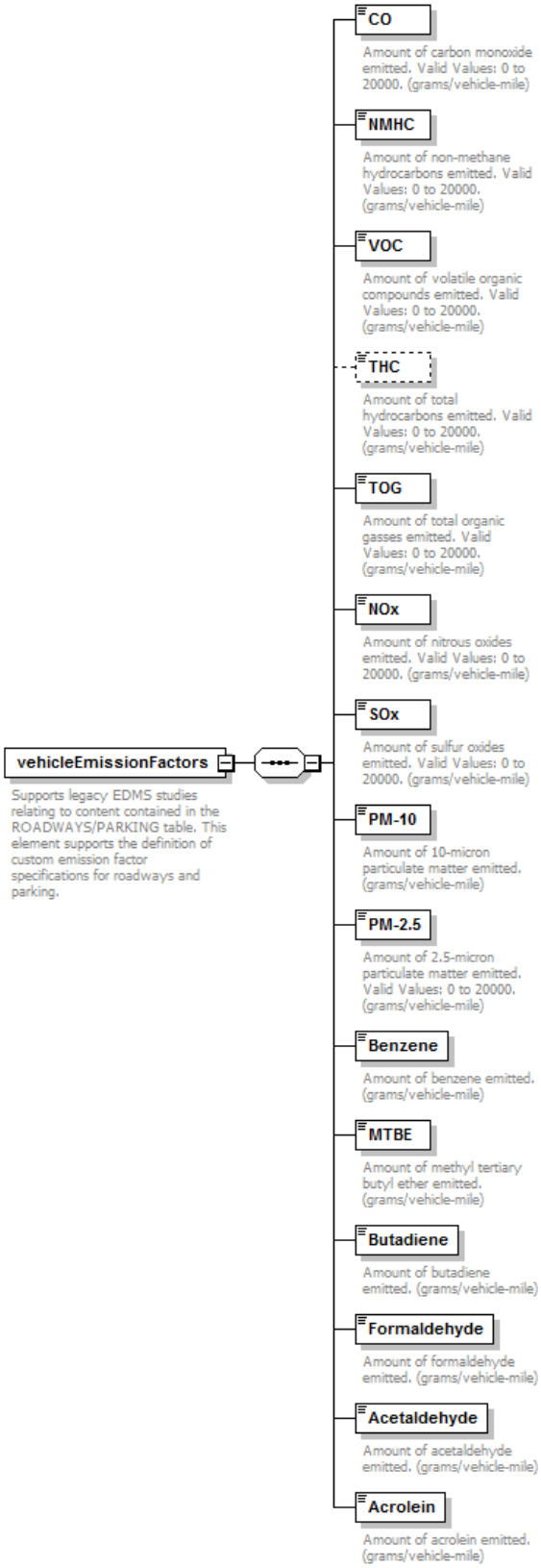
diagram	
type	**emissionFactorSet**
properties	minOcc 0 maxOcc 1 content complex
children	**CO** **HC** **NOx** **SOx** **PM10**
annotation	documentation User-defined fuel emission factor for liquefied petroleum gas.

element **userGroundSupportEquipmentSet**

diagram	
properties	content complex
children	**userGroundSupportEquipment**
used by	elements **AsifXml** **study**
annotation	documentation Supports legacy EDMS studies relating to content contained in the USER_CREATED_GSE table. This element supports the definition of user defined ground support equipment.

element **vehicleEmissionFactors**

diagram	



properties	content complex
children	**CO** **NMHC** **VOC** **THC** **TOG** **NOx** **SOx** **PM-10** **PM-2.5** **Benzene** **MTBE** **Butadiene** **Formaldehyde** **Acetaldehyde** **Acrolein**
used by	elements **parkingFacilityOperation** **roadwayOperation**
annotation	documentation Supports legacy EDMS studies relating to content contained in the ROADWAYS/PARKING table. This element supports the definition of custom emission factor specifications for roadw ays and parking.

element **vehicleEmissionFactors/CO**

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

element **vehicleEmissionFactors/NMHC**

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

element **vehicleEmissionFactors/VOC**

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

element **vehicleEmissionFactors/THC**

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

element **vehicleEmissionFactors/TOG**

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

element **vehicleEmissionFactors/NOx**

diagram	

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

element **vehicleEmissionFactors/SOx**

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

element **vehicleEmissionFactors/PM-10**

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**

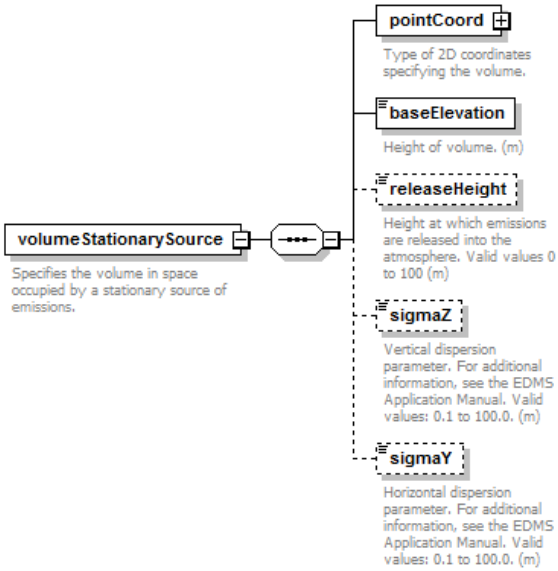
diagram	**Acetaldehyde** Amount of acetaldehyde emitted. (grams/vehicle-mile)
type	**xs:double**
properties	content simple
annotation	documentation Amount of acetaldehyde emitted. (grams/vehicle-mile)

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**

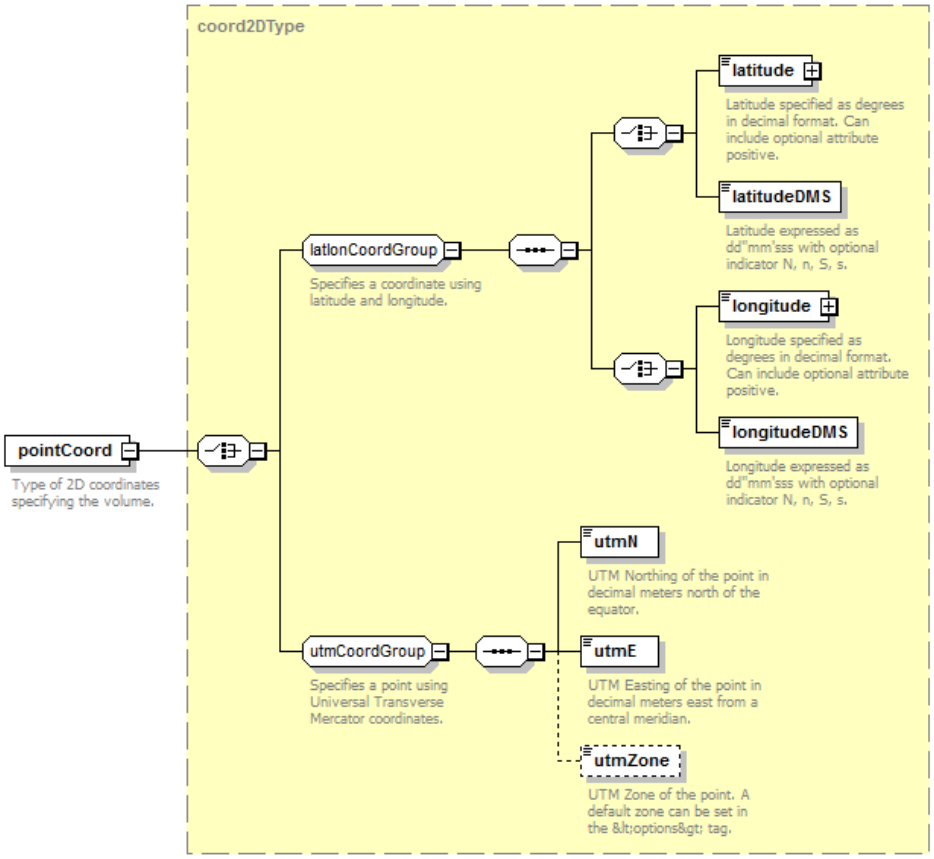
diagram	



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	**baseElevation** Height of volume. (m)
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**

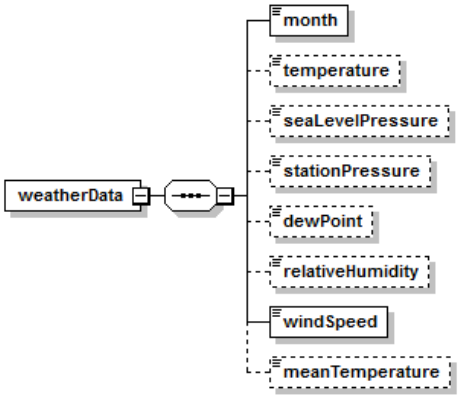
diagram	**sigmaZ** Vertical dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: 0.1 to 100.0. (m)
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Vertical dispersion parameter. For additional information, see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

element **volumeStationarySource/sigmaY**

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

element **weatherData**

diagram	



properties	content complex
children	month temperature seaLevelPressure stationPressure dewPoint relativeHumidity windSpeed meanTemperature
used by	element airportWeatherStation

element **weatherData/month**

diagram	month
type	string3
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 3

element **weatherData/temperature**

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

element **weatherData/seaLevelPressure**

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

element **weatherData/stationPressure**

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

element **weatherData/dewPoint**

diagram	dewPoint
type	**xs:decimal**
properties	minOcc 0 maxOcc 1

	content simple

element **weatherData/relativeHumidity**

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

element **weatherData/windSpeed**

diagram	windSpeed
type	**xs:decimal**
properties	content simple

element **weatherData/meanTemperature**

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

element **windRose**

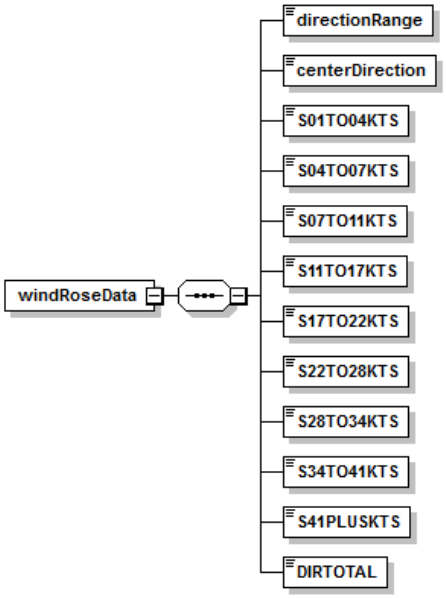
diagram	windRose windRoseStationId windRoseStation
properties	content complex
children	**windRoseStationId windRoseStation**
used by	complexType **airport**

element **windRose/windRoseStationId**

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

element **windRoseData**

diagram	



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

element **windRoseData/directionRange**

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

element **windRoseData/centerDirection**

diagram	centerDirection
type	**xs:int**
properties	content simple

element **windRoseData/S01TO04KTS**

diagram	S01TO04KTS
type	**xs:int**
properties	content simple

element **windRoseData/S04TO07KTS**

diagram	S04TO07KTS
type	**xs:int**
properties	content simple

element **windRoseData/S07TO11KTS**

diagram	S07TO11KTS
type	**xs:int**

properties	content simple

element **windRoseData/S11TO17KTS**

diagram	S11TO17KTS
type	**xs:int**
properties	content simple

element **windRoseData/S17TO22KTS**

diagram	S17TO22KTS
type	**xs:int**
properties	content simple

element **windRoseData/S22TO28KTS**

diagram	S22TO28KTS
type	**xs:int**
properties	content simple

element **windRoseData/S28TO34KTS**

diagram	S28TO34KTS
type	**xs:int**
properties	content simple

element **windRoseData/S34TO41KTS**

diagram	S34TO41KTS
type	**xs:int**
properties	content simple

element **windRoseData/S41PLUSKTS**

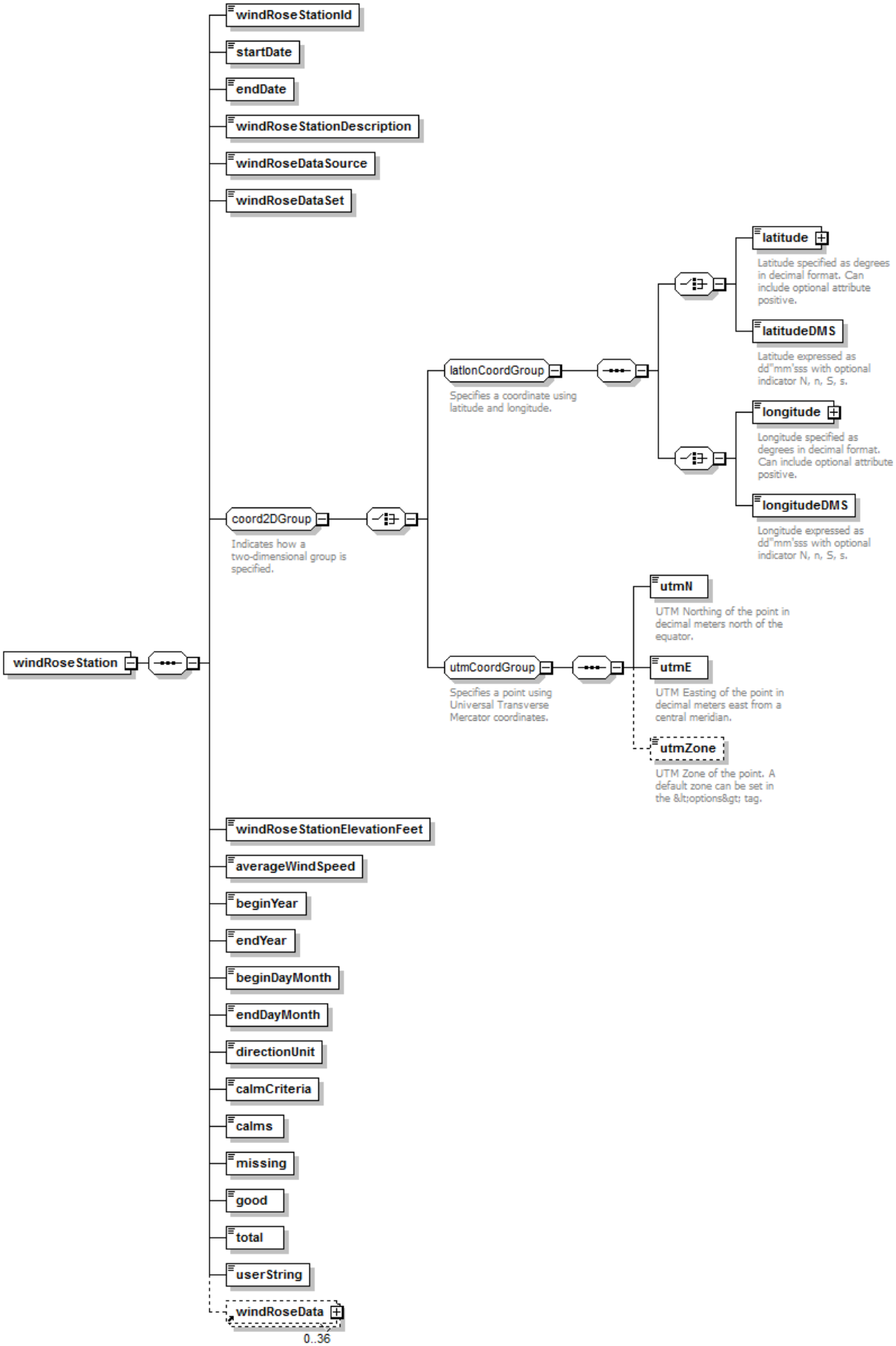
diagram	S41PLUSKTS
type	**xs:int**
properties	content simple

element **windRoseData/DIRTOTAL**

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

element **windRoseStation/startDate**

diagram	startDate
type	**xs:date**
properties	content simple

element **windRoseStation/endDate**

diagram	endDate
type	**xs:date**
properties	content simple

element **windRoseStation/windRoseStationDescription**

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

element **windRoseStation/windRoseDataSource**

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

element **windRoseStation/windRoseDataSet**

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

element **windRoseStation/windRoseStationElevationFeet**

diagram	windRoseStationElevationFeet

type	**xs:int**
properties	content simple

element **windRoseStation/averageWindSpeed**

diagram	averageWindSpeed
type	**xs:double**
properties	content simple

element **windRoseStation/beginYear**

diagram	beginYear
type	**xs:int**
properties	content simple

element **windRoseStation/endYear**

diagram	endYear
type	**xs:int**
properties	content simple

element **windRoseStation/beginDayMonth**

diagram	beginDayMonth
type	**string12**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 12

element **windRoseStation/endDayMonth**

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

element **windRoseStation/directionUnit**

diagram	directionUnit
type	**string9**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 9

element **windRoseStation/calmCriteria**

diagram	calmCriteria
type	**string11**

properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 11

element **windRoseStation/calms**

diagram	calms
type	**xs:int**
properties	content simple

element **windRoseStation/missing**

diagram	missing
type	**xs:int**
properties	content simple

element **windRoseStation/good**

diagram	good
type	**xs:int**
properties	content simple

element **windRoseStation/total**

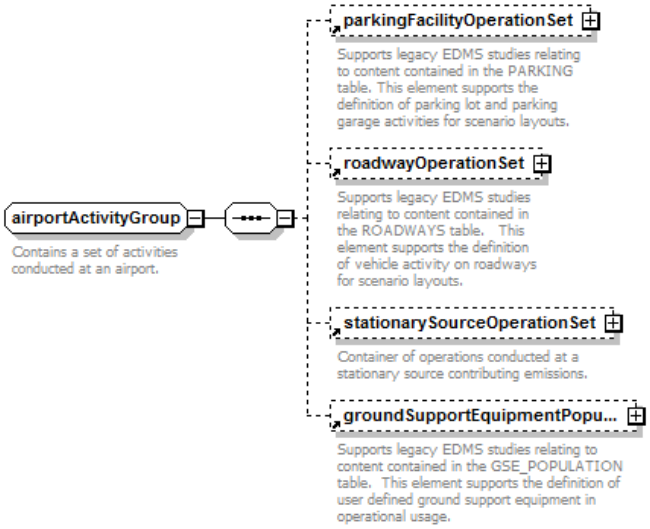
diagram	total
type	**xs:int**
properties	content simple

element **windRoseStation/userString**

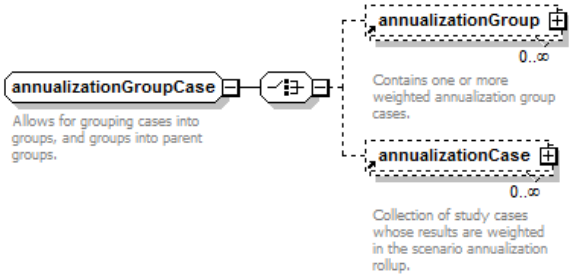
diagram	userString
type	**string11**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 11

group **airportActivityGroup**

diagram	

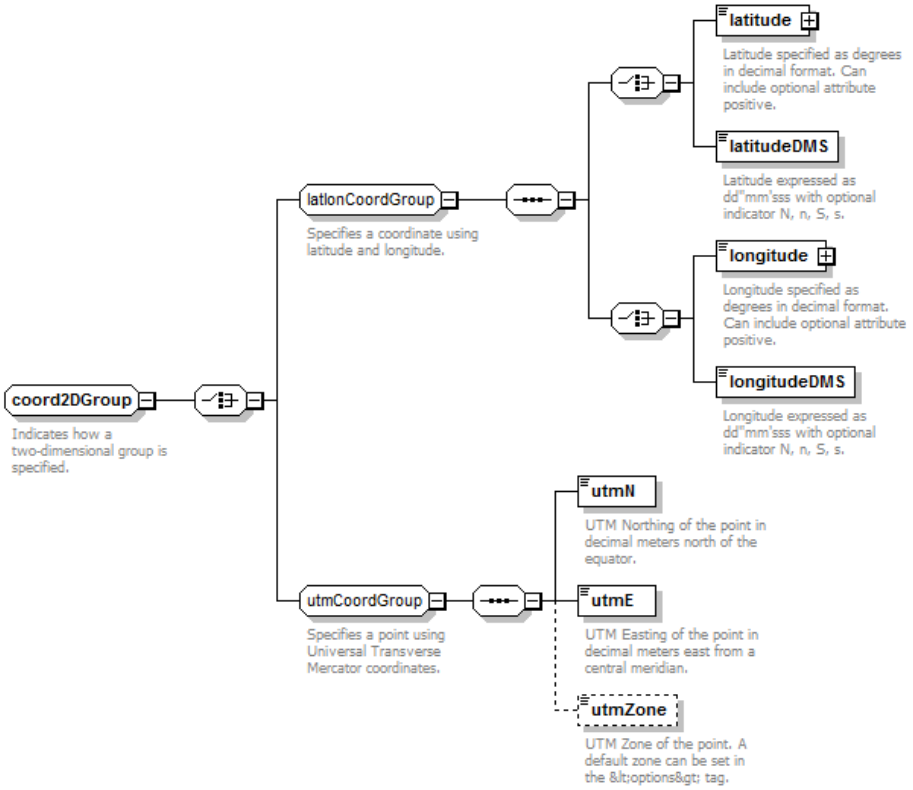
	
children	**parkingFacilityOperationSet** **roadwayOperationSet** **stationarySourceOperationSet** **groundSupportEquipmentPopulationOperationSet**
used by	element **case**
annotation	documentation Contains a set of activities conducted at an airport.

group **annualizationGroupCase**

diagram	
children	**annualizationGroup** **annualizationCase**
used by	element **annualizationGroup**
annotation	documentation Allows for grouping cases into groups, and groups into parent groups.

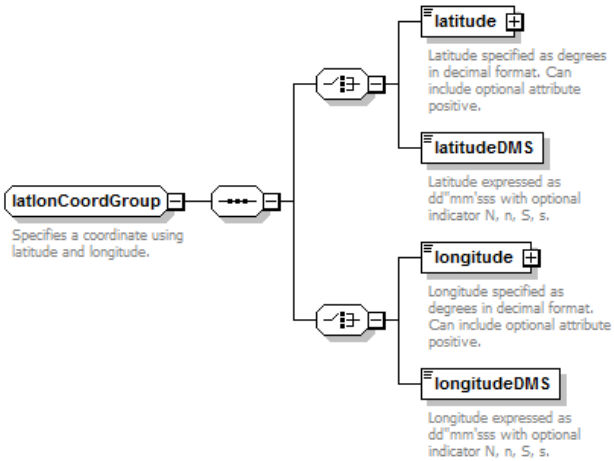
group **coord2DGroup**

diagram	



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	
children	**latitude** **latitudeDMS** **longitude** **longitudeDMS**
used by	complexType **coord2DType** group **coord2DGroup**
annotation	documentation Specifies a coordinate using latitude and longitude.

element **latlonCoordGroup/latitude**

diagram	

	latitude Latitude specified as degrees in decimal format. Can include optional attribute positive. latitudeDecimalType attributes positive
type	**latitudeDecimalType**
properties	content complex
attributes	Name: positive; Type: **derived by: xs:string**; Use: optional; Default: N; Fixed: ; Annotation:
annotation	documentation Latitude specified as degrees in decimal format. Can include optional attribute positive.

element **latIonCoordGroup/latitudeDMS**

diagram	latitudeDMS Latitude expressed as dd°mm'sss with optional indicator N, n, S, s.
type	**latitudeDMSType**
properties	content simple
facets	Kind: pattern; Value: [0-9]{2}[\-|:|"][0-9]{2}[\-|:|'][0-9]{2}(.[0-9]{3})?[N|n|S|s]; Annotation:
annotation	documentation Latitude expressed as dd°mm'sss with optional indicator N, n, S, s.

element **latIonCoordGroup/longitude**

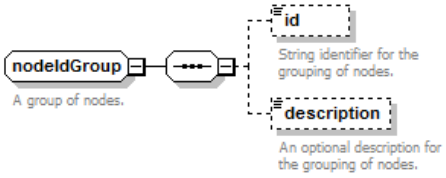
diagram	longitude Longitude specified as degrees in decimal format. Can include optional attribute positive. longitudeDecimalType attributes positive
type	**longitudeDecimalType**
properties	content complex
attributes	Name: positive; Type: **derived by: xs:string**; Use: optional; Default: E; Fixed: ; Annotation:
annotation	documentation Longitude specified as degrees in decimal format. Can include optional attribute positive.

element **latIonCoordGroup/longitudeDMS**

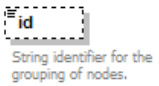
diagram	longitudeDMS Longitude expressed as dd°mm'sss with optional indicator N, n, S, s.
type	**longitudeDMSType**
properties	content simple
facets	Kind: pattern; Value: [0-9]?[0-9]{2}[\-|:|"][0-9]{2}[\-|:|'][0-9]{2}(.[0-9]{3})?[E|e|W|w]; Annotation:
annotation	documentation Longitude expressed as dd°mm'sss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

group **nodeIdGroup**

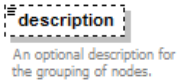
diagram	

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

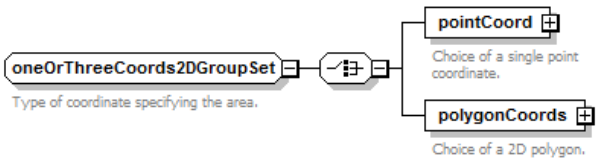
element **nodeIdGroup/id**

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**

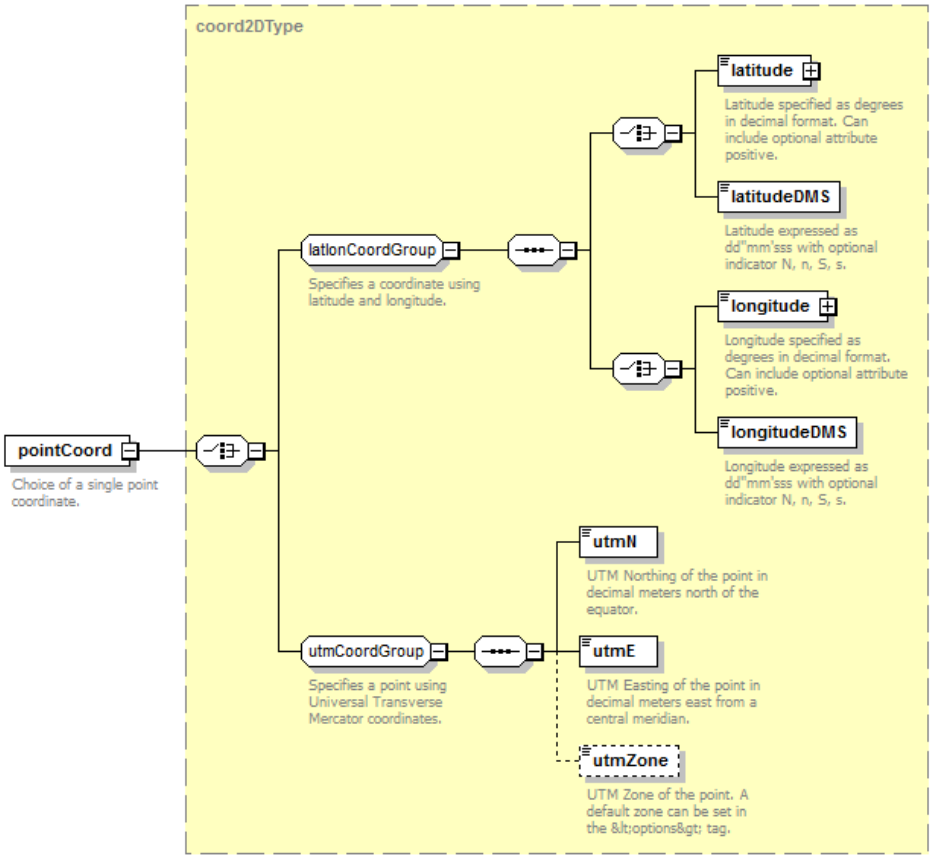
diagram	
type	**string16**
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 16
annotation	documentation An optional description for the grouping of nodes.

group **oneOrThreeCoords2DGroupSet**

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

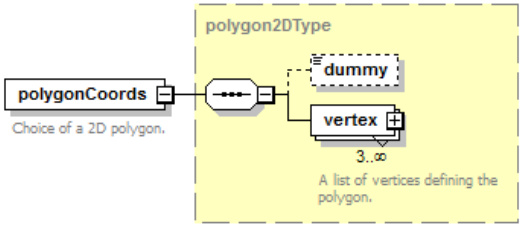
element **oneOrThreeCoords2DGroupSet/pointCoord**

diagram	



type	**coord2DType**
properties	content complex
children	**latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone**
annotation	documentation Choice of a single point coordinate.

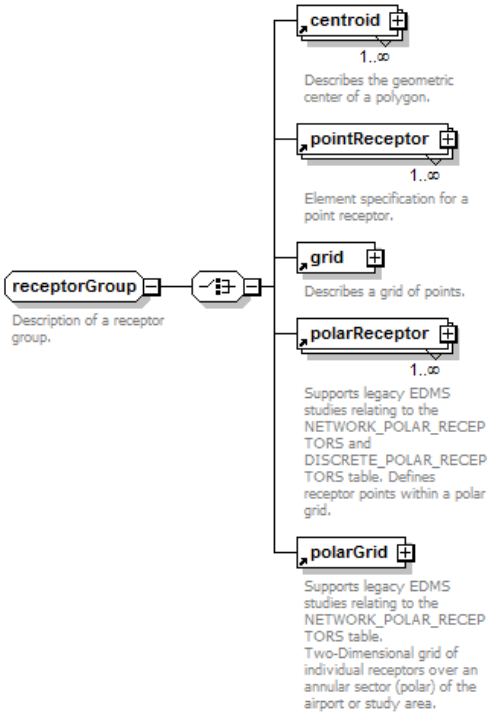
element **oneOrThreeCoords2DGroupSet/polygonCoords**

diagram	

type	**polygon2DType**
properties	content complex
children	**dummy vertex**
annotation	documentation Choice of a 2D polygon.

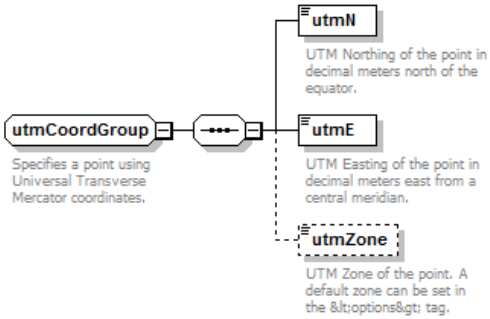
group **receptorGroup**

diagram	



children	**centroid** **pointReceptor** **grid** **polarReceptor** **polarGrid**
used by	element **receptorSet**
annotation	documentation Description of a receptor group.

group **utmCoordGroup**

diagram	
children	**utmN** **utmE** **utmZone**
used by	complexType **coord2DType** group **coord2DGroup**
annotation	documentation Specifies a point using Universal Transverse Mercator coordinates.

element **utmCoordGroup/utmN**

diagram	
type	**xs:double**
properties	content simple
annotation	documentation UTM Northing of the point in decimal meters north of the equator.

element **utmCoordGroup/utmE**

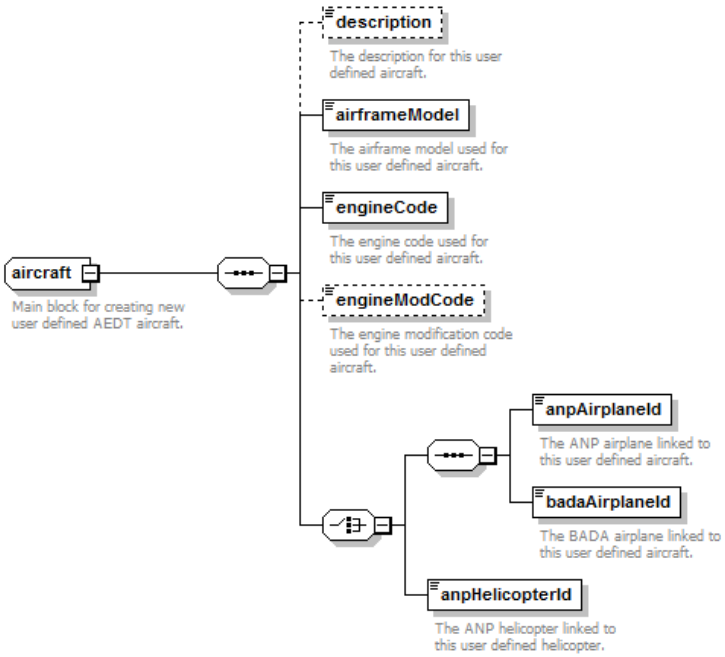
diagram	

	utmE UTM Easting of the point in decimal meters east from a central meridian.
type	**xs:double**
properties	content simple
annotation	documentation UTM Easting of the point in decimal meters east from a central meridian.

element **utmCoordGroup/utmZone**

diagram	**utmZone** UTM Zone of the point. A default zone can be set in the <options> tag.
type	**xs:int**
properties	minOcc 0 maxOcc 1 content simple default -1
annotation	documentation UTM Zone of the point. A default zone can be set in the <options> tag.

complexType **aircraft**

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

element **aircraft/description**

diagram	**description** The description for this user defined aircraft.
type	**string255**
properties	minOcc 0 maxOcc 1 content simple

facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The description for this user defined aircraft.

element **aircraft/airframeModel**

diagram	**airframeModel** The airframe model used for this user defined aircraft.
type	**airframeModel**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The airframe model used for this user defined aircraft.

element **aircraft/engineCode**

diagram	**engineCode** The engine code used for this user defined aircraft.
type	**engineCode**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The engine code used for this user defined aircraft.

element **aircraft/engineModCode**

diagram	**engineModCode** The engine modification code used for this user defined aircraft.
type	**engineModCode**
properties	minOcc 0 maxOcc 1 content simple default NONE
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation The engine modification code used for this user defined aircraft.

element **aircraft/anpAirplaneId**

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

element **aircraft/badaAirplaneId**

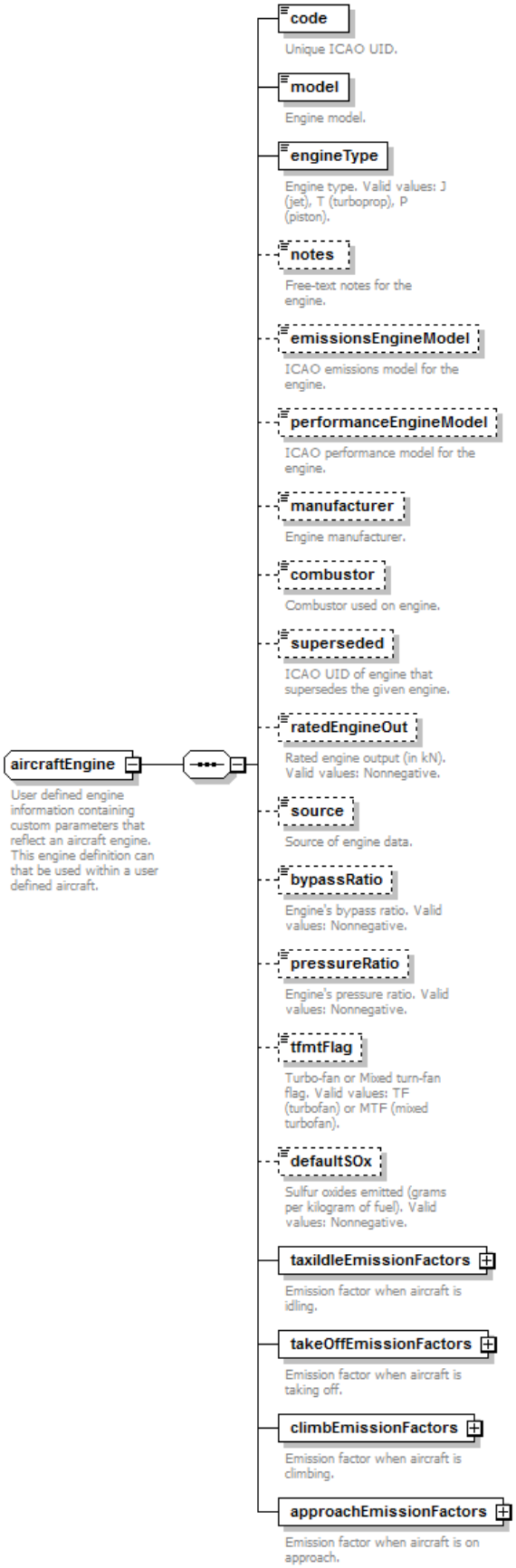
diagram	**badaAirplaneId** The BADA airplane linked to this user defined aircraft.
type	**badaAirplaneId**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The BADA airplane linked to this user defined aircraft.

element **aircraft/anpHelicopterId**

diagram	**anpHelicopterId** The ANP helicopter linked to this user defined helicopter.
type	**anpHeloId**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The ANP helicopter linked to this user defined helicopter.

complexType **aircraftEngine**

diagram	



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

element **aircraftEngine/engineType**

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

element **aircraftEngine/notes**

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

element **aircraftEngine/emissionsEngineModel**

diagram	**emissionsEngineModel** ICAO emissions model for the engine.
type	**string25**

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

element **aircraftEngine/performanceEngineModel**

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

element **aircraftEngine/manufacturer**

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

element **aircraftEngine/combustor**

diagram	**combustor** Combustor used on engine.
type	**string50**
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation Combustor used on engine.

element **aircraftEngine/superseded**

diagram	**superseded** ICAO UID of engine that supersedes the given engine.
type	**string10**
properties	minOcc 0 maxOcc 1

	content simple
facets	Kind Value Annotation minLength 0 maxLength 10
annotation	documentation ICAO UID of engine that supersedes the given engine.

element **aircraftEngine/ratedEngineOut**

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

element **aircraftEngine/source**

diagram	**source** Source of engine data.
type	**string100**
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Source of engine data.

element **aircraftEngine/bypassRatio**

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

element **aircraftEngine/pressureRatio**

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

element **aircraftEngine/tfmtFlag**

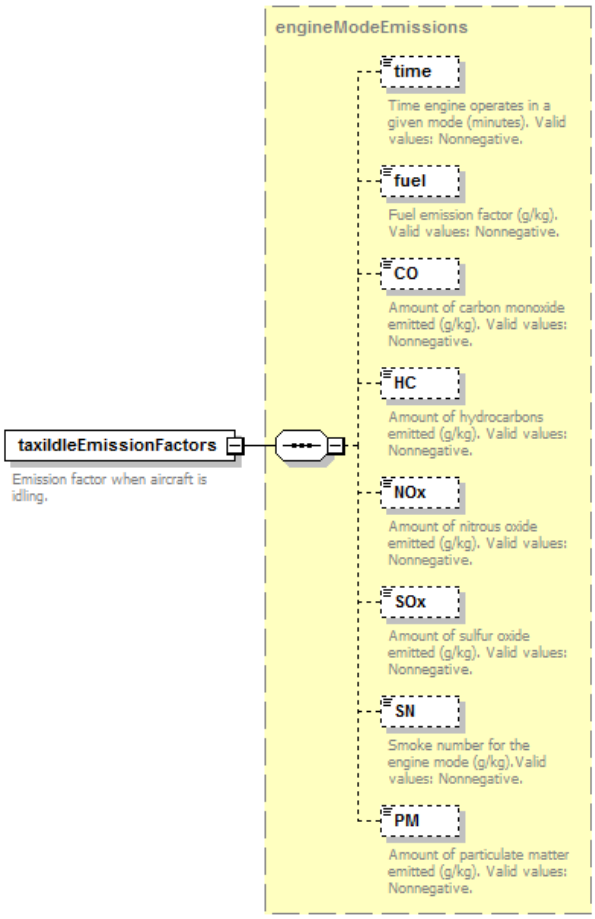
diagram	

	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**

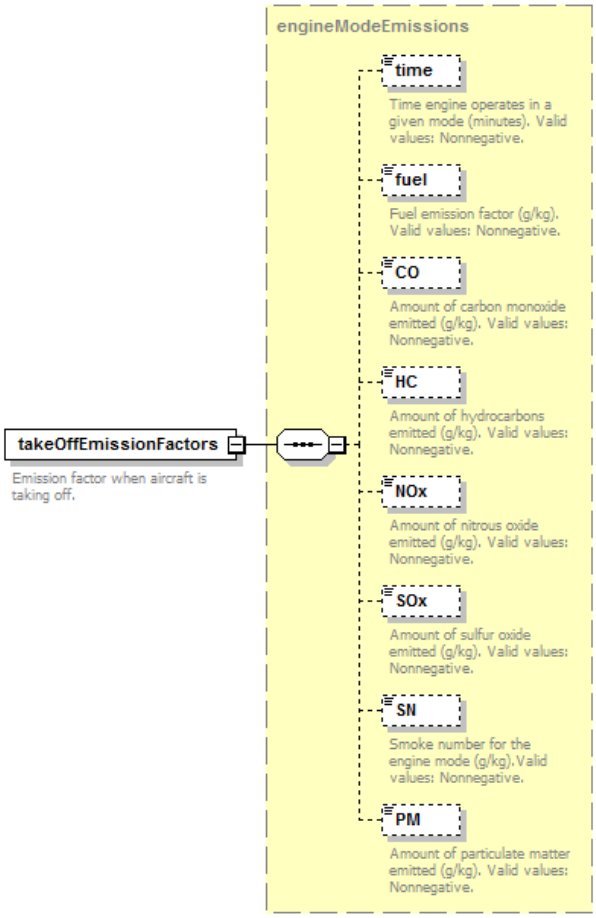
diagram	**defaultSOx** Sulfur oxides emitted (grams per kilogram of fuel). Valid values: Nonnegative.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Sulfur oxides emitted (grams per kilogram of fuel). Valid values: Nonnegative.

element **aircraftEngine/taxiIdleEmissionFactors**

diagram	
type	**engineModeEmissions**
properties	content complex

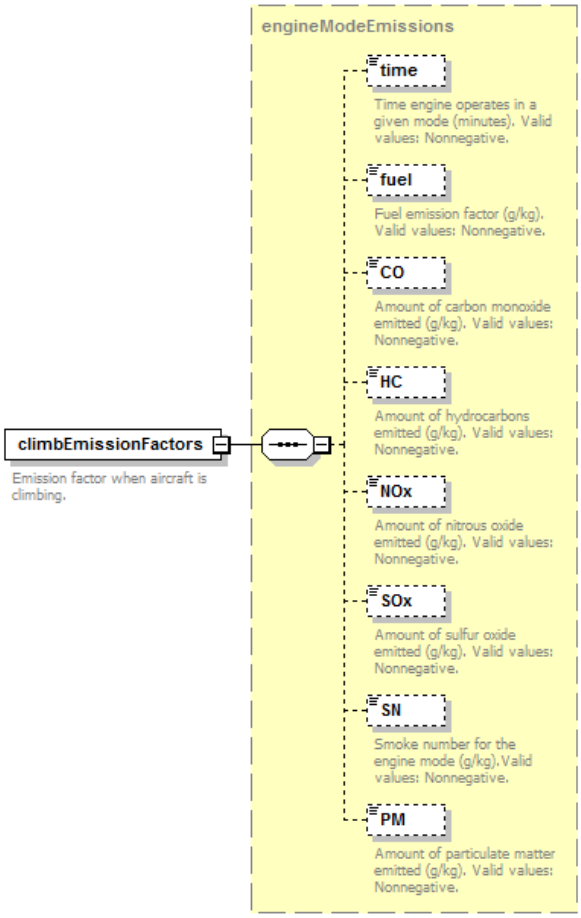
children	**time** **fuel** **CO** **HC** **NOx** **SOx** **SN** **PM**
annotation	documentation Emission factor when aircraft is idling.

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**

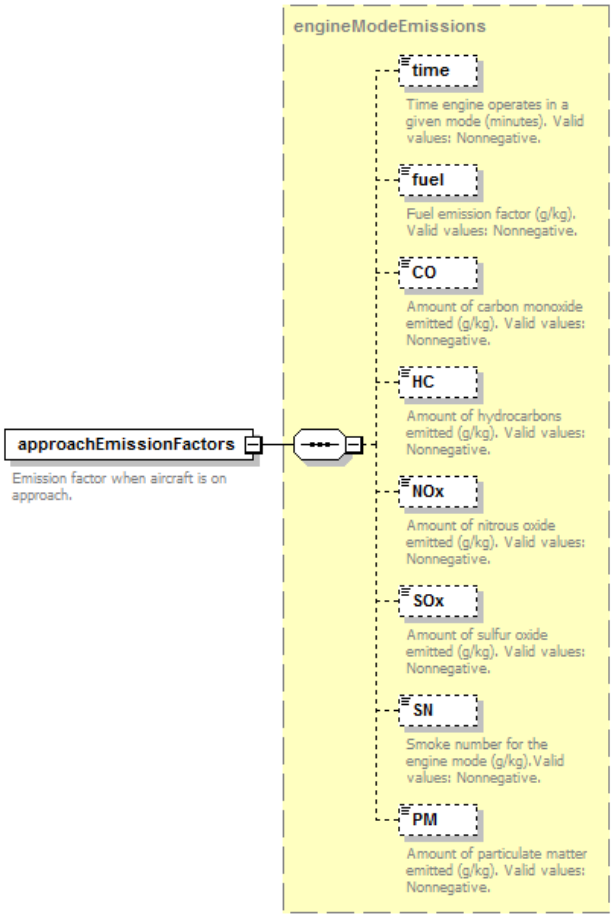
diagram	



type	**engineModeEmissions**
properties	content complex
children	**time** **fuel** **CO** **HC** **NOx** **SOx** **SN** **PM**
annotation	documentation Emission factor w hen aircraft is climbing.

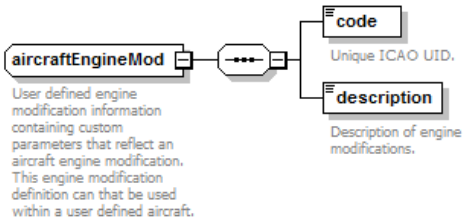
element **aircraftEngine/approachEmissionFactors**

diagram	



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

complexType **aircraftEngineMod**

diagram	
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 w ithin a user defined aircraft.

element **aircraftEngineMod/code**

diagram	
type	**engineModCode**
properties	content simple
facets	Kind Value Annotation minLength 0

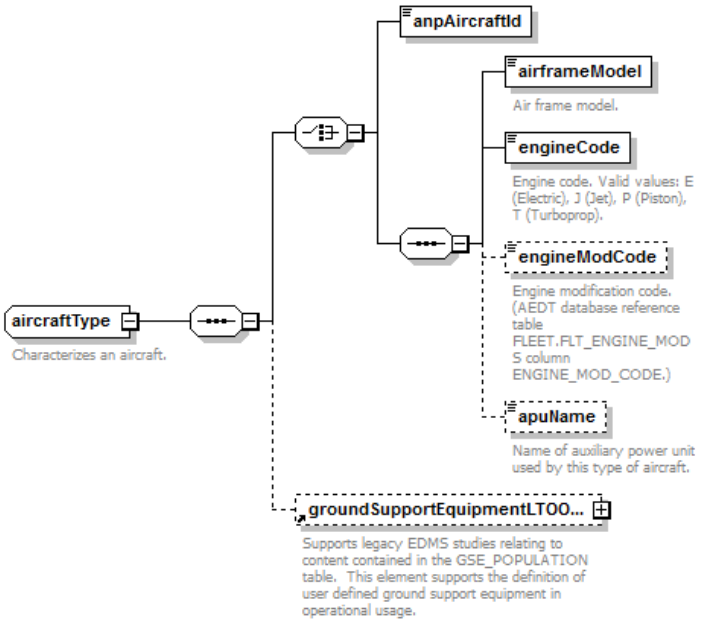
	maxLength 50
annotation	documentation Unique ICAO UID.

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** **groundSupportEquipmentLTOOperationSet**
used by	elements **operation/aircraftType** **runup/aircraftType**
annotation	documentation Characterizes an aircraft.

element **aircraftType/anpAircraftId**

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

element **aircraftType/airframeModel**

diagram	**airframeModel** Air frame model.
type	**string50**

properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation Air frame model.

element **aircraftType/engineCode**

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

element **aircraftType/engineModCode**

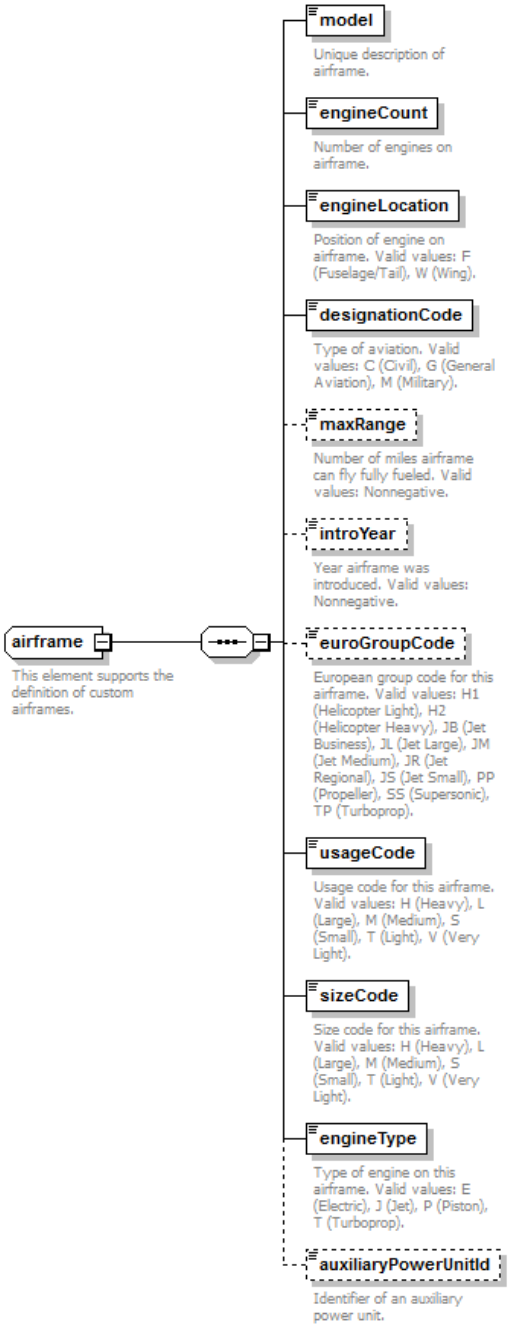
diagram	**engineModCode** Engine modification code. (AEDT database reference table FLEET.FLT_ENGINE_MODS column ENGINE_MOD_CODE.)
type	**engineModCode**
properties	minOcc 0 maxOcc 1 content simple default NONE
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation Engine modification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

element **aircraftType/apuName**

diagram	**apuName** Name of auxiliary power unit used by this type of aircraft.
type	**xs:string**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Name of auxiliary pow er unit used by this type of aircraft.

complexType **airframe**

diagram	



children	**model** **engineCount** **engineLocation** **designationCode** **maxRange** **introYear** **euroGroupCode** **usageCode** **sizeCode** **engineType** **auxiliaryPowerUnitId**
used by	element **fleet/airframe**
annotation	documentation This element supports the definition of custom airframes.

element **airframe/model**

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

element **airframe/engineCount**

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

element **airframe/engineLocation**

diagram	**engineLocation** Position of engine on airframe. Valid values: F (Fuselage/Tail), W (Wing).
type	**string1**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Position of engine on airframe. Valid values: F (Fuselage/Tail), W (Wing).

element **airframe/designationCode**

diagram	**designationCode** Type of aviation. Valid values: C (Civil), G (General Aviation), M (Military).
type	**string1**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of aviation. Valid values: C (Civil), G (General Aviation), M (Military).

element **airframe/maxRange**

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

element **airframe/introYear**

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

annotation	documentation Year airframe w as 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

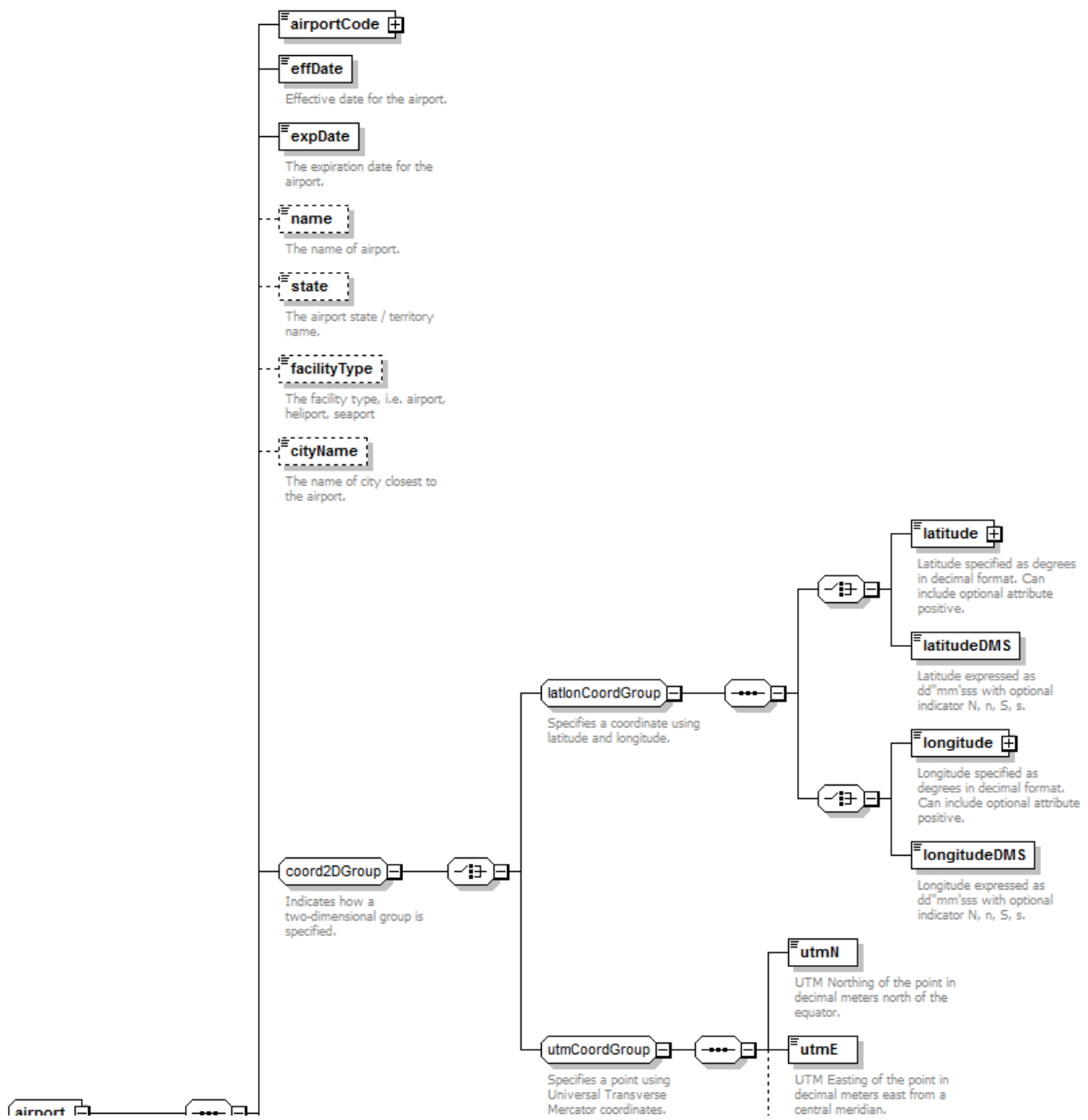
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of engine on this airframe. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop).

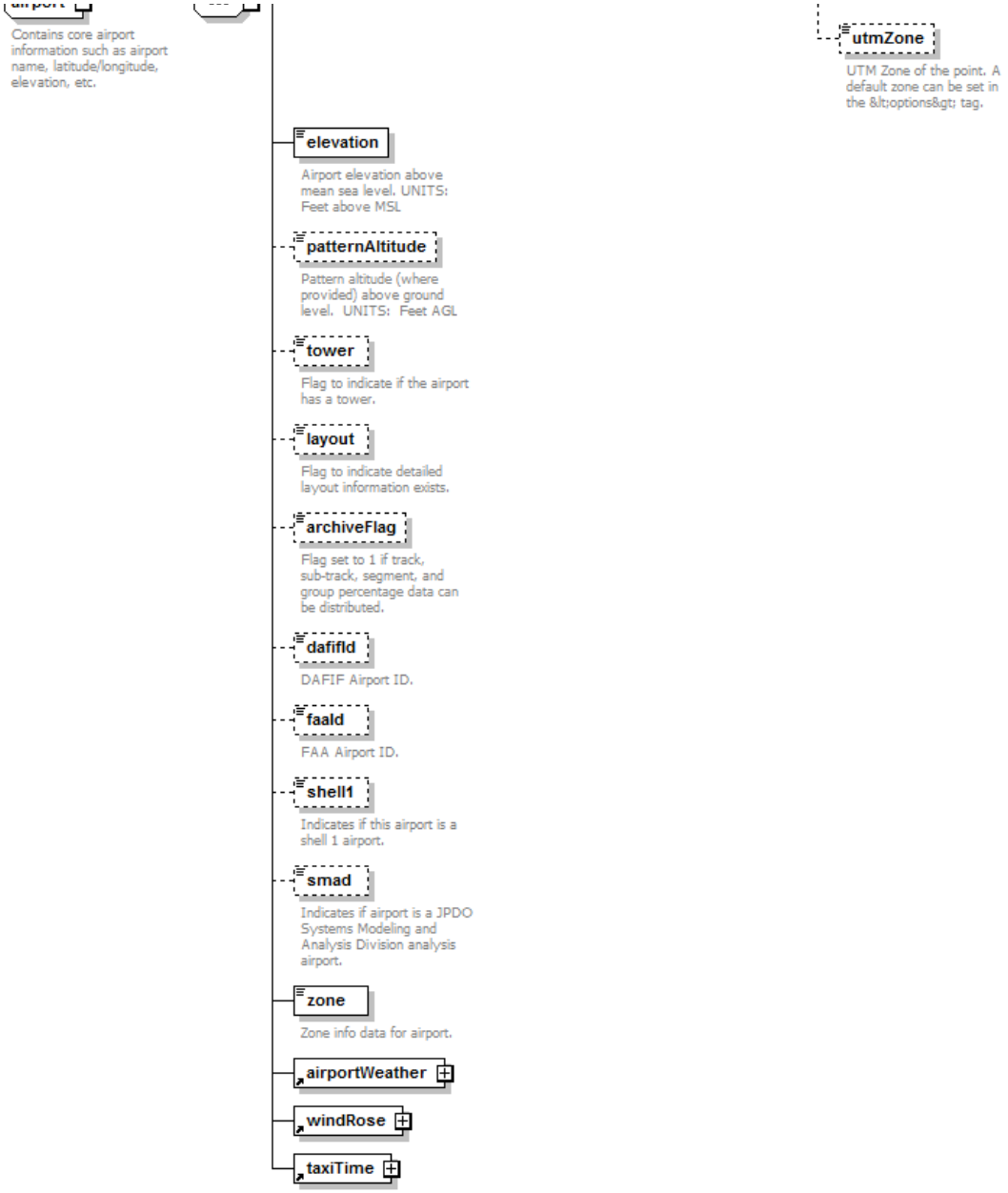
element **airframe/auxiliaryPowerUnitId**

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

complexType **airport**

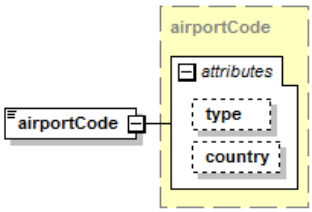
diagram





children	**airportCode effDate expDate name state facilityType cityName latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation patternAltitude tower layout archiveFlag dafifId faaId shell1 smad zone airportWeather windRose taxiTime**
used by	element **userDefinedAirportSet/userDefinedAirport**
annotation	documentation Contains core airport information such as airport name, latitude/longitude, elevation, etc.

element **airport/airportCode**

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

element **airport/expDate**

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

element **airport/name**

diagram	**name** The name of airport.
type	**string100**
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation The name of airport.

element **airport/state**

diagram	**state** The airport state / territory name.
type	**string50**
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation The airport state / territory name.

element **airport/facilityType**

diagram	**facilityType** The facility type, i.e. airport, heliport, seaport
type	**string25**
properties	minOcc 0

	maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 25
annotation	documentation The facility type, i.e. airport, heliport, seaport

element **airport/cityName**

diagram	**cityName** The name of city closest to the airport.
type	**string50**
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation The name of city closest to the airport.

element **airport/elevation**

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

element **airport/patternAltitude**

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

element **airport/tower**

diagram	**tower** Flag to indicate if the airport has a tower.
type	**xs:boolean**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Flag to indicate if the airport has a tow er.

element **airport/layout**

diagram	

	layout Flag to indicate detailed layout information exists.
type	**xs:boolean**
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation Flag to indicate detailed layout information exists.

element **airport/archiveFlag**

diagram	**archiveFlag** Flag set to 1 if track, sub-track, segment, and group percentage data can be distributed.
type	**xs:boolean**
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation Flag set to 1 if track, sub-track, segment, and group percentage data can be distributed.

element **airport/dafifId**

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

element **airport/faaId**

diagram	**faaId** 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	airportCode An airport code. attributes type country
type	extension of **string4**
properties	base string4
used by	elements **track/airport** **runup/airport** **airport/airportCode** **airportLayoutType/airportCode** **operation/arrivalAirport** **operation/departureAirport**
facets	Kind Value Annotation minLength 0 maxLength 4
attributes	Name Type Use Default Fixed Annotation type **airportCodeType** optional ANY country **string3** optional ANY
annotation	documentation An airport code.

attribute **airportCode/@type**

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

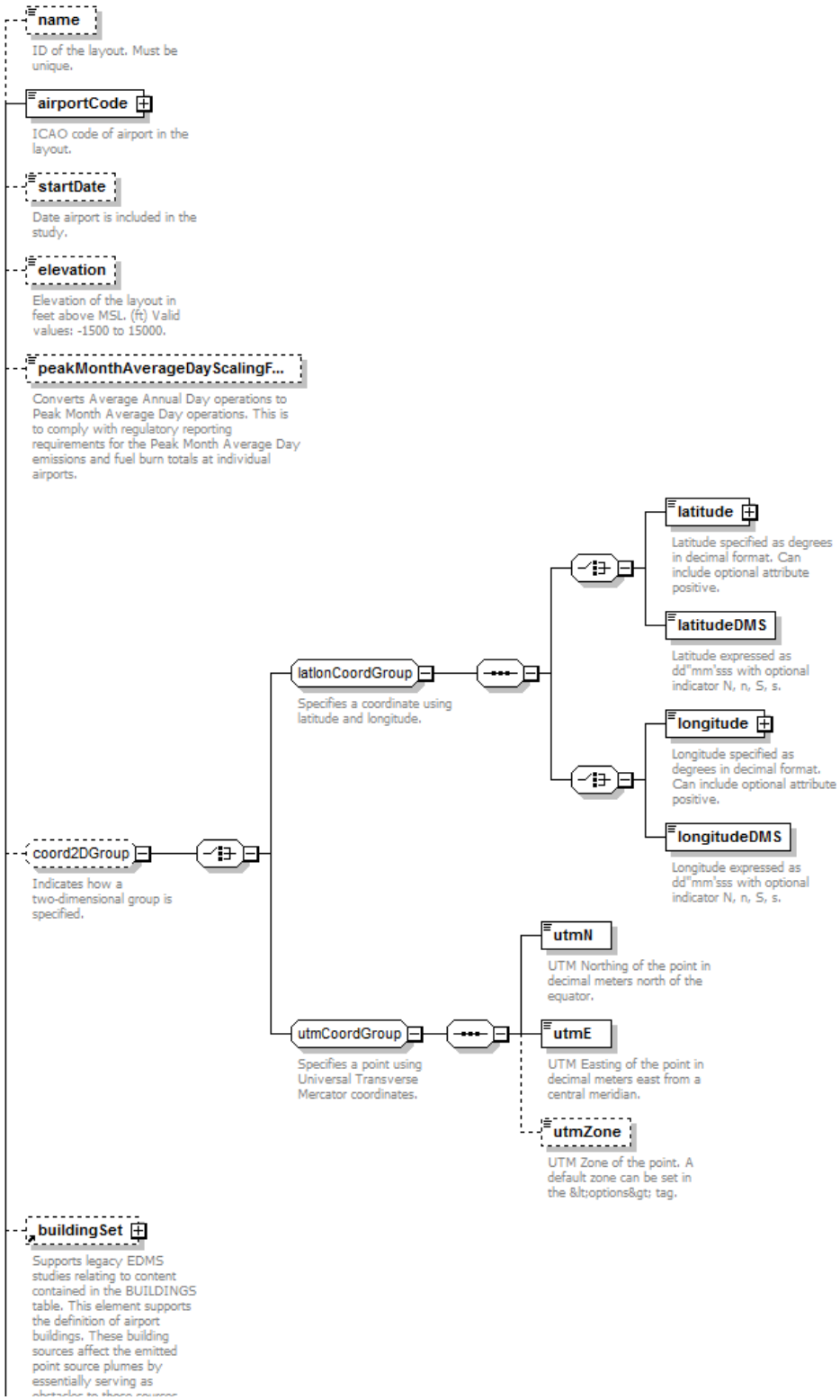
	enumeration OTHER enumeration ANY

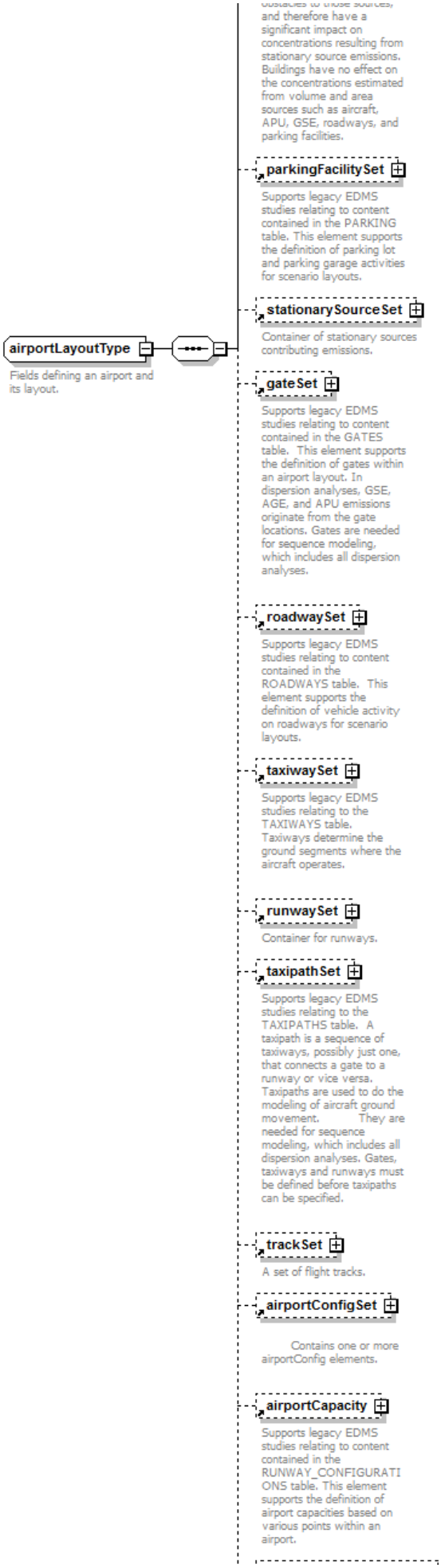
attribute **airportCode/@country**

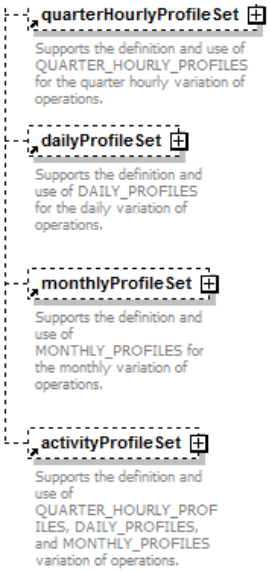
type	**string3**
properties	use optional default ANY
facets	Kind Value Annotation minLength 0 maxLength 3

complexType **airportLayoutType**

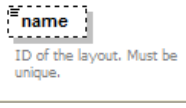
diagram



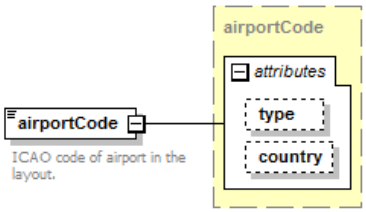

and therefore have a significant impact on concentrations resulting from stationary source emissions. Buildings have no effect on the concentrations estimated from volume and area sources such as aircraft, APU, GSE, roadways, and parking facilities.
parkingFacilitySet
Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage activities for scenario layouts.
stationarySourceSet
Container of stationary sources contributing emissions.
airportLayoutType
Fields defining an airport and its layout.
gateSet
Supports legacy EDMS studies relating to content contained in the GATES table. This element supports the definition of gates within an airport layout. In dispersion analyses, GSE, AGE, and APU emissions originate from the gate locations. Gates are needed for sequence modeling, which includes all dispersion analyses.
roadwaySet
Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle activity on roadways for scenario layouts.
taxiwaySet
Supports legacy EDMS studies relating to the TAXIWAYS table. Taxiways determine the ground segments where the aircraft operates.
runwaySet
Container for runways.
taxipathSet
Supports legacy EDMS studies relating to the TAXIPATHS table. A taxipath is a sequence of taxiways, possibly just one, that connects a gate to a runway or vice versa. Taxipaths are used to do the modeling of aircraft ground movement. They are needed for sequence modeling, which includes all dispersion analyses. Gates, taxiways and runways must be defined before taxipaths can be specified.
trackSet
A set of flight tracks.
airportConfigSet
Contains one or more airportConfig elements.
airportCapacity
Supports legacy EDMS studies relating to content contained in the RUNWAY_CONFIGURATIONS table. This element supports the definition of airport capacities based on various points within an airport.

	
children	**name** **airportCode** **startDate** **elevation** **peakMonthAverageDayScalingFactor** **latitude** **latitudeDMS** **longitude** **longitudeDMS** **utmN** **utmE** **utmZone** **buildingSet** **parkingFacilitySet** **stationarySourceSet** **gateSet** **roadwaySet** **taxiwaySet** **runwaySet** **taxipathSet** **trackSet** **airportConfigSet** **airportCapacity** **quarterHourlyProfileSet** **dailyProfileSet** **monthlyProfileSet** **activityProfileSet**
used by	element **airportLayoutSet/airportLayout**
annotation	documentation Fields defining an airport and its layout.

element **airportLayoutType/name**

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

element **airportLayoutType/airportCode**

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

element **airportLayoutType/elevation**

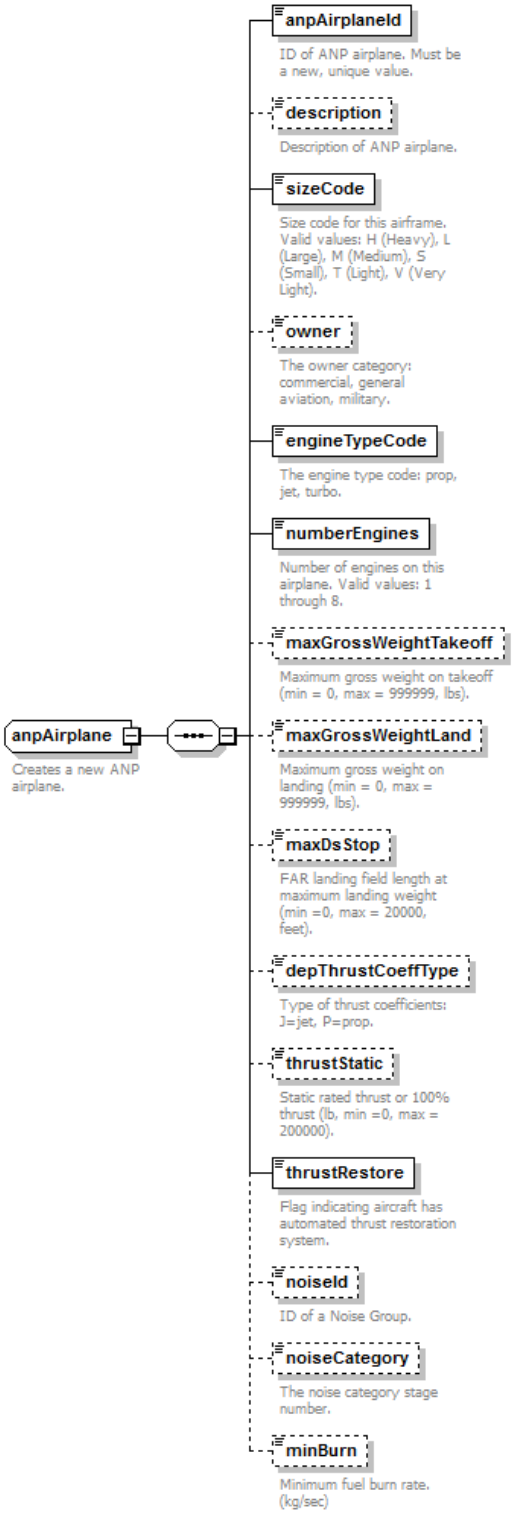
diagram	**elevation** Elevation of the layout in feet above MSL. (ft) Valid values: -1500 to 15000.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Elevation of the layout in feet above MSL. (ft) Valid values: -1500 to 15000.

element **airportLayoutType/peakMonthAverageDayScalingFactor**

diagram	**peakMonthAverageDayScalingF...** Converts Average Annual Day operations to Peak Month Average Day operations. This is to comply with regulatory reporting requirements for the Peak Month Average Day emissions and fuel burn totals at individual airports.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple default 1.0
annotation	documentation Converts Average Annual Day operations to Peak Month Average Day operations. This is to comply w ith regulatory reporting requirements for the Peak Month Average Day emissions and fuel burn totals at individual airports.

complexType **anpAirplane**

diagram	



children	**anpAirplaneId** **description** **sizeCode** **owner** **engineTypeCode** **numberEngines** **maxGrossWeightTakeoff** **maxGrossWeightLand** **maxDsStop** **depThrustCoeffType** **thrustStatic** **thrustRestore** **noiseId** **noiseCategory** **minBurn**
used by	element **fleet/anpAirplane**
annotation	documentation Creates a new ANP airplane.

element **anpAirplane/anpAirplaneId**

diagram	**anpAirplaneId** ID of ANP airplane. Must be a new, unique value.
type	**anpAirplaneId**

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

element **anpAirplane/description**

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

element **anpAirplane/sizeCode**

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

element **anpAirplane/owner**

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

element **anpAirplane/engineTypeCode**

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

	The engine type code: prop, jet, turbo.

element **anpAirplane/numberEngines**

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

element **anpAirplane/maxGrossWeightTakeoff**

diagram	**maxGrossWeightTakeoff** Maximum gross weight on takeoff (min = 0, max = 999999, lbs).
type	**xs:int**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Maximum gross w eight 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 w eight 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 w eight (min =0, max = 20000, feet).

element **anpAirplane/depThrustCoeffType**

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

	pattern Jet|J|Prop|P
annotation	documentation Type of thrust coefficients: J=jet, P=prop.

element **anpAirplane/thrustStatic**

diagram	**thrustStatic** Static rated thrust or 100% thrust (lb, min =0, max = 200000).
type	**xs:int**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Static rated thrust or 100% thrust (lb, min =0, max = 200000).

element **anpAirplane/thrustRestore**

diagram	**thrustRestore** Flag indicating aircraft has automated thrust restoration system.
type	**yesNoType**
properties	content simple default N
facets	Kind Value Annotation pattern Yes|Y|No|N
annotation	documentation Flag indicating aircraft has automated thrust restoration system.

element **anpAirplane/noiseId**

diagram	**noiseId** ID of a Noise Group.
type	**anpNoiseId**
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation ID of a Noise Group.

element **anpAirplane/noiseCategory**

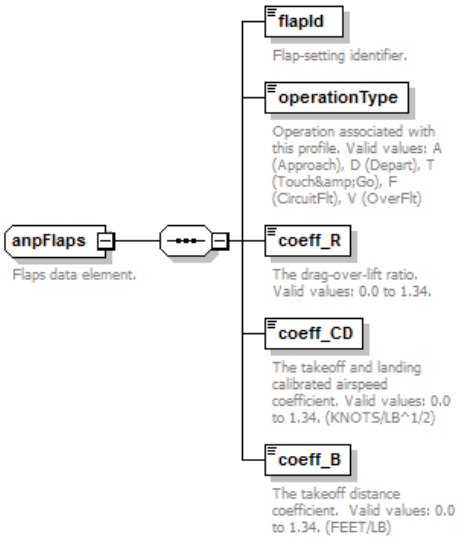
diagram	**noiseCategory** The noise category stage number.
type	**xs:int**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The noise category stage number.

element **anpAirplane/minBurn**

diagram	

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

complexType **anpFlaps**

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

element **anpFlaps/flapId**

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

element **anpFlaps/operationType**

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

	Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFlt), V (OverFlt)

element **anpFlaps/coeff_R**

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

element **anpFlaps/coeff_CD**

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

element **anpFlaps/coeff_B**

diagram	**coeff_B** The takeoff distance coefficient. Valid values: 0.0 to 1.34. (FEET/LB)
type	**xs:double**
properties	content simple
annotation	documentation The takeoff distance coefficient. Valid values: 0.0 to 1.34. (FEET/LB)

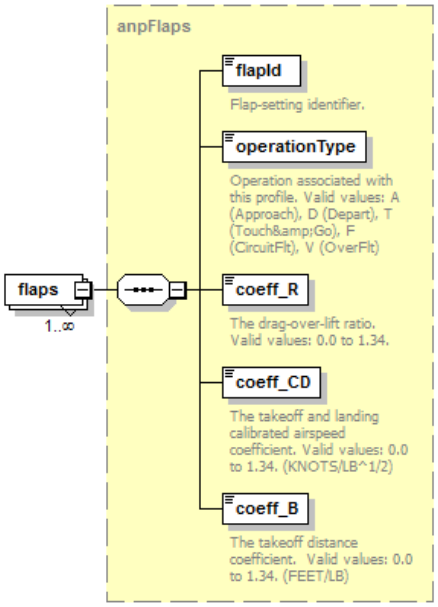
complexType **anpFlapsSet**

diagram	**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.

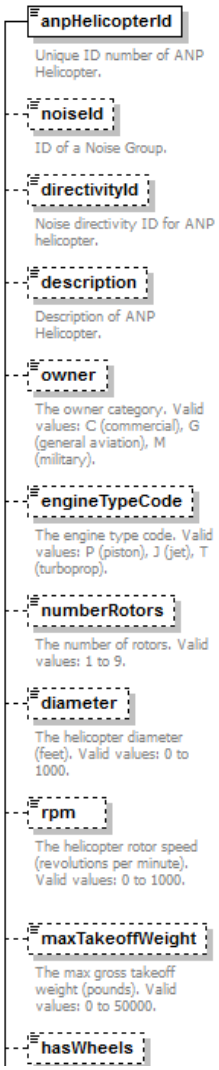
element **anpFlapsSet/anpAirplaneId**

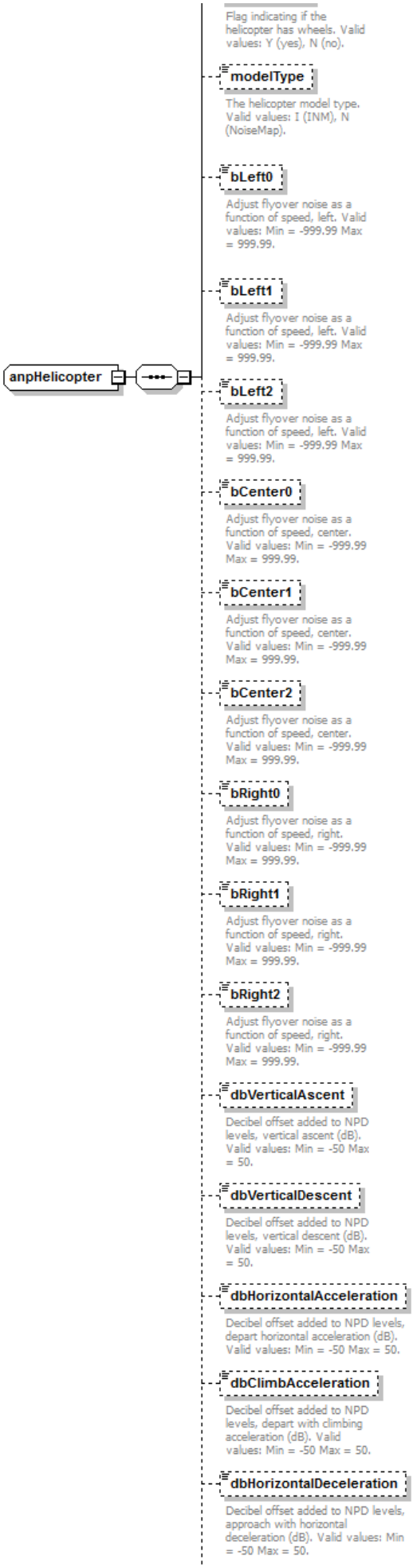
diagram	**anpAirplaneId** Airplane's ANP ID.
type	**anpAirplaneId**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's ANP ID.

element **anpFlapsSet/flaps**

diagram	
type	**anpFlaps**
properties	minOcc 1 maxOcc unbounded content complex
children	**flapId operationType coeff_R coeff_CD coeff_B**

complexType **anpHelicopter**

diagram	


anpHelicopter
Flag indicating if the helicopter has wheels. Valid values: Y (yes), N (no).
modelType
The helicopter model type. Valid values: I (INM), N (NoiseMap).
bLeft0
Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.
bLeft1
Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.
bLeft2
Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.
bCenter0
Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.
bCenter1
Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.
bCenter2
Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.
bRight0
Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.
bRight1
Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.
bRight2
Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.
dbVerticalAscent
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.
children	**anpHelicopterId** **noiseId** **directivityId** **description** **owner** **engineTypeCode** **numberRotors** **diameter** **rpm** **maxTakeoffWeight** **hasWheels** **modelType** **bLeft0** **bLeft1** **bLeft2** **bCenter0** **bCenter1** **bCenter2** **bRight0** **bRight1** **bRight2** **dbVerticalAscent** **dbVerticalDescent** **dbHorizontalAcceleration** **dbClimbAcceleration** **dbHorizontalDeceleration** **dbDescendDeceleration**
used by	element **fleet/anpHelicopter**

element **anpHelicopter/anpHelicopterId**

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

element **anpHelicopter/noiseId**

diagram	**noiseId** ID of a Noise Group.
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	**directivityId** Noise directivity ID for ANP helicopter.
type	**anpHeloDirectivityId**
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 12
annotation	documentation Noise directivity ID for ANP helicopter.

element **anpHelicopter/description**

diagram	**description** Description of ANP Helicopter.
type	**string255**
properties	minOcc 0 maxOcc 1 content simple

facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Description of ANP Helicopter.

element **anpHelicopter/owner**

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

element **anpHelicopter/engineTypeCode**

diagram	**engineTypeCode** The engine type code. Valid values: P (piston), J (jet), T (turboprop).
type	**engineType**
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern Jet|J|Turbo|Turboprop|T|Prop|Piston|P
annotation	documentation The engine type code. Valid values: P (piston), J (jet), T (turboprop).

element **anpHelicopter/numberRotors**

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

element **anpHelicopter/diameter**

diagram	**diameter** The helicopter diameter (feet). Valid values: 0 to 1000.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The helicopter diameter (feet). Valid values: 0 to 1000.

element **anpHelicopter/rpm**

diagram	**rpm** The helicopter rotor speed (revolutions per minute). Valid values: 0 to 1000.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The helicopter rotor speed (revolutions per minute). Valid values: 0 to 1000.

element **anpHelicopter/maxTakeoffWeight**

diagram	**maxTakeoffWeight** The max gross takeoff weight (pounds). Valid values: 0 to 50000.
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	**hasWheels** 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	**modelType** 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	

	bLeft0 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	bLeft1 Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.

element **anpHelicopter/bLeft2**

diagram	bLeft2 Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.

element **anpHelicopter/bCenter0**

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

element **anpHelicopter/bCenter1**

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

annotation	documentation Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.

element **anpHelicopter/bCenter2**

diagram	**bCenter2** Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.

element **anpHelicopter/bRight0**

diagram	**bRight0** Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.

element **anpHelicopter/bRight1**

diagram	**bRight1** Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.

element **anpHelicopter/bRight2**

diagram	**bRight2** Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.

element **anpHelicopter/dbVerticalAscent**

diagram	**dbVerticalAscent** Decibel offset added to NPD levels, vertical ascent (dB). Valid values: Min = -50 Max = 50.

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

element **anpHelicopter/dbVerticalDescent**

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

element **anpHelicopter/dbHorizontalAcceleration**

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

element **anpHelicopter/dbClimbAcceleration**

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

element **anpHelicopter/dbDescendDeceleration**

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

complexType **anpHeloDirectivity**

diagram

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

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

L180
Decibel adjustment at 180 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

L165
Decibel adjustment at 165 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

L150
Decibel adjustment at 150 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

L135
Decibel adjustment at 135 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

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

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

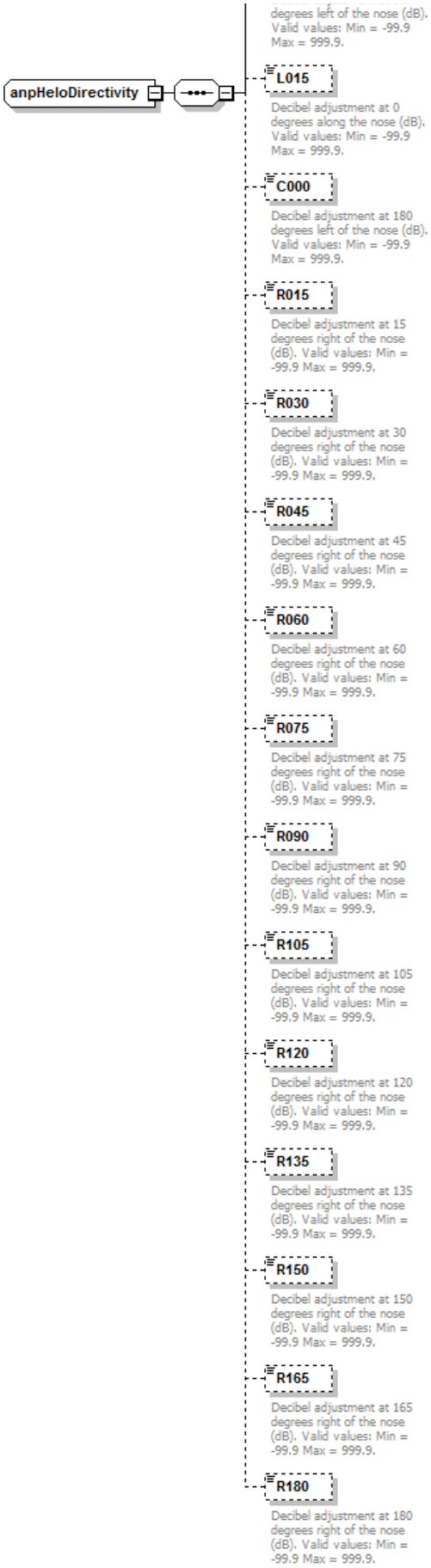
L090
Decibel adjustment at 90 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

L075
Decibel adjustment at 75 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

L060
Decibel adjustment at 60 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

L045
Decibel adjustment at 45 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

L030
Decibel adjustment at 30



children	**groundType** **opMode** **L180** **L165** **L150** **L135** **L120** **L105** **L090** **L075** **L060** **L045** **L030** **L015** **C000** **R015** **R030** **R045** **R060** **R075** **R090** **R105** **R120** **R135** **R150** **R165** **R180**
used by	element **anpHeloDirectivitySet/anpHeloDirectivity**

element **anpHeloDirectivity/groundType**

diagram	**groundType** Type of ground resistivity. Valid values: H (hard), S (soft), F (file), N (none).
type	**anpHeloGroundType**
properties	content simple
facets	Kind Value Annotation pattern Hard|H|Softw are|S|File|F|None|N
annotation	documentation Type of ground resistivity. Valid values: H (hard), S (soft), F (file), N (none).

element **anpHeloDirectivity/opMode**

diagram	**opMode** Operational Mode. Valid values: A (approach), D (departure).
type	**string1**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Operational Mode. Valid values: A (approach), D (departure).

element **anpHeloDirectivity/L180**

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

element **anpHeloDirectivity/L165**

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

element **anpHeloDirectivity/L150**

diagram	**L150** Decibel adjustment at 150 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	**xs:double**

properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 150 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/L135**

diagram	L135 Decibel adjustment at 135 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 135 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/L120**

diagram	L120 Decibel adjustment at 120 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 120 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/L105**

diagram	L105 Decibel adjustment at 105 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 105 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/L090**

diagram	L090 Decibel adjustment at 90 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 90 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/L075**

diagram	

	L075 Decibel adjustment at 75 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 75 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/L060**

diagram	L060 Decibel adjustment at 60 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 60 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/L045**

diagram	L045 Decibel adjustment at 45 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 45 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/L030**

diagram	L030 Decibel adjustment at 30 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 30 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/L015**

diagram	L015 Decibel adjustment at 0 degrees along the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple

annotation	documentation Decibel adjustment at 0 degrees along the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/C000**

diagram	C000 Decibel adjustment at 180 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 180 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R015**

diagram	R015 Decibel adjustment at 15 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 15 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R030**

diagram	R030 Decibel adjustment at 30 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 30 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R045**

diagram	R045 Decibel adjustment at 45 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 45 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R060**

diagram	R060 Decibel adjustment at 60 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 60 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R075**

diagram	**R075** Decibel adjustment at 75 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 75 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R090**

diagram	**R090** Decibel adjustment at 90 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 90 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R105**

diagram	**R105** Decibel adjustment at 105 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 105 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R120**

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

element **anpHeloDirectivity/R135**

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

element **anpHeloDirectivity/R150**

diagram	R150 Decibel adjustment at 150 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 150 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

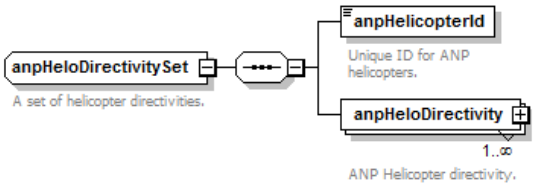
element **anpHeloDirectivity/R165**

diagram	R165 Decibel adjustment at 165 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 165 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R180**

diagram	R180 Decibel adjustment at 180 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 180 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

complexType **anpHeloDirectivitySet**

diagram	
children	**anpHelicopterId** **anpHeloDirectivity**
used by	element **fleet/anpHeloDirectivitySet**

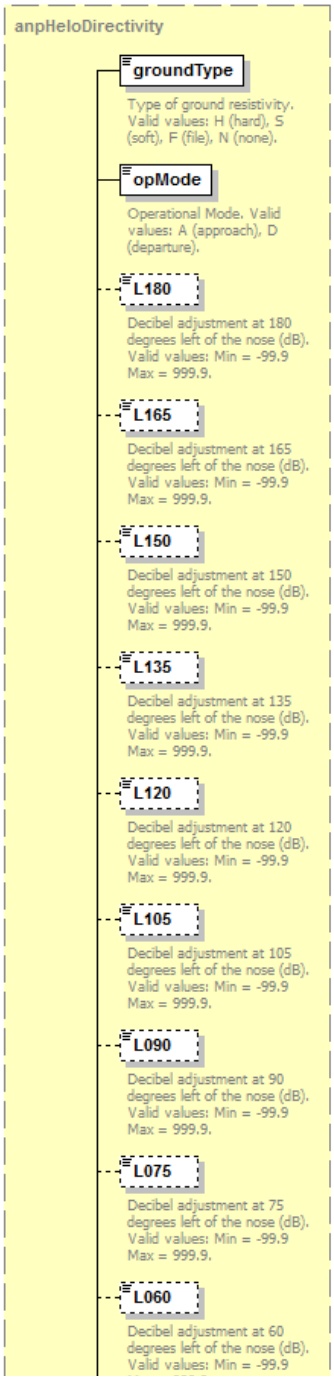
annotation	documentation A set of helicopter directivities.

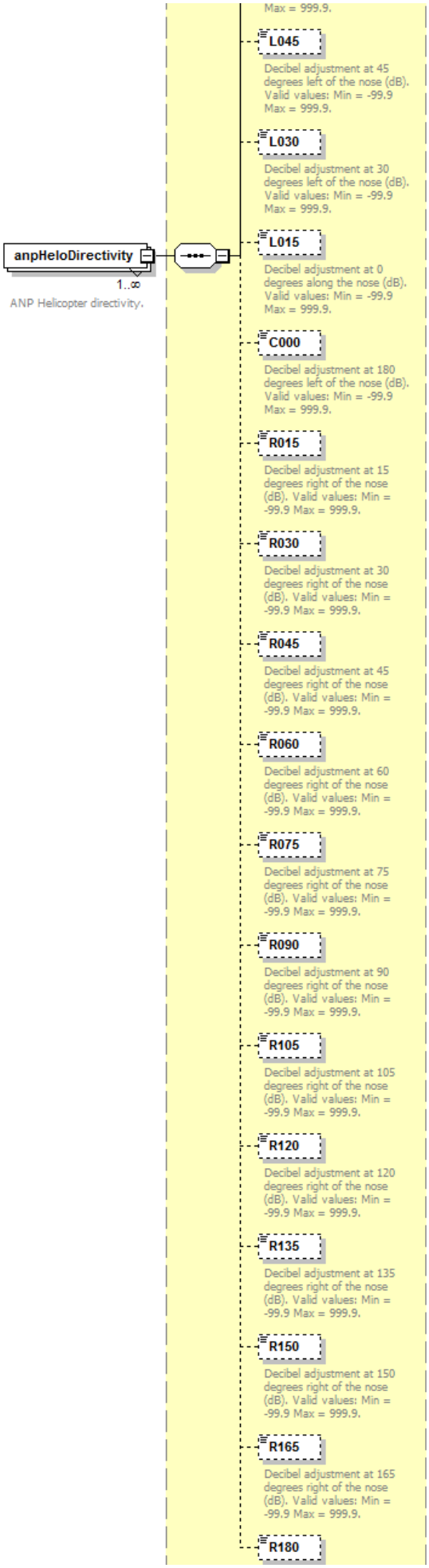
element **anpHeloDirectivitySet/anpHelicopterId**

diagram	**anpHelicopterId** Unique ID for ANP helicopters.
type	**anpHeloDirectId**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 12
annotation	documentation Unique ID for ANP helicopters.

element **anpHeloDirectivitySet/anpHeloDirectivity**

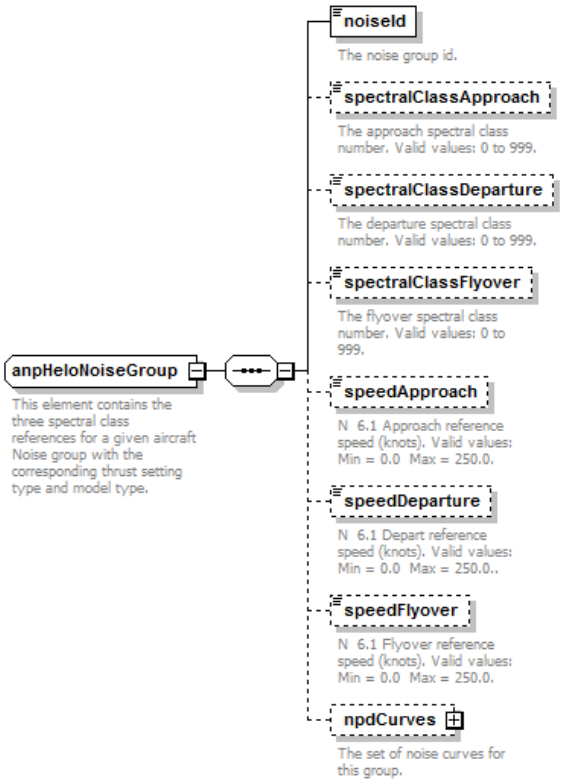
diagram



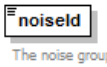

Max = 999.9.
anpHeloDirectivity
1..∞
ANP Helicopter directivity.
L045
Decibel adjustment at 45 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
L030
Decibel adjustment at 30 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
L015
Decibel adjustment at 0 degrees along the nose (dB). Valid values: Min = -99.9 Max = 999.9.
C000
Decibel adjustment at 180 degrees left of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
R015
Decibel adjustment at 15 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
R030
Decibel adjustment at 30 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
R045
Decibel adjustment at 45 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
R060
Decibel adjustment at 60 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
R075
Decibel adjustment at 75 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.
R090
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	
children	**noiseId spectralClassApproach spectralClassDeparture spectralClassFlyover speedApproach speedDeparture speedFlyover npdCurves**
used by	element **fleet/anpHeloNoiseGroup**
annotation	documentation This element contains the three spectral class references for a given aircraft Noise group w ith the corresponding thrust setting type and model type.

element **anpHeloNoiseGroup/noiseId**

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

element **anpHeloNoiseGroup/spectralClassApproach**

diagram	

	spectralClassApproach The approach spectral class number. Valid values: 0 to 999.
type	**xs:short**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The approach spectral class number. Valid values: 0 to 999.

element **anpHeloNoiseGroup/spectralClassDeparture**

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

element **anpHeloNoiseGroup/spectralClassFlyover**

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

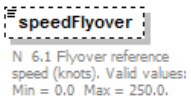
element **anpHeloNoiseGroup/speedApproach**

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

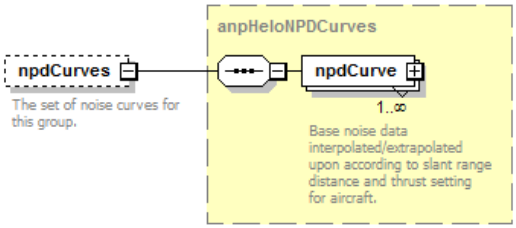
element **anpHeloNoiseGroup/speedDeparture**

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

element **anpHeloNoiseGroup/speedFlyover**

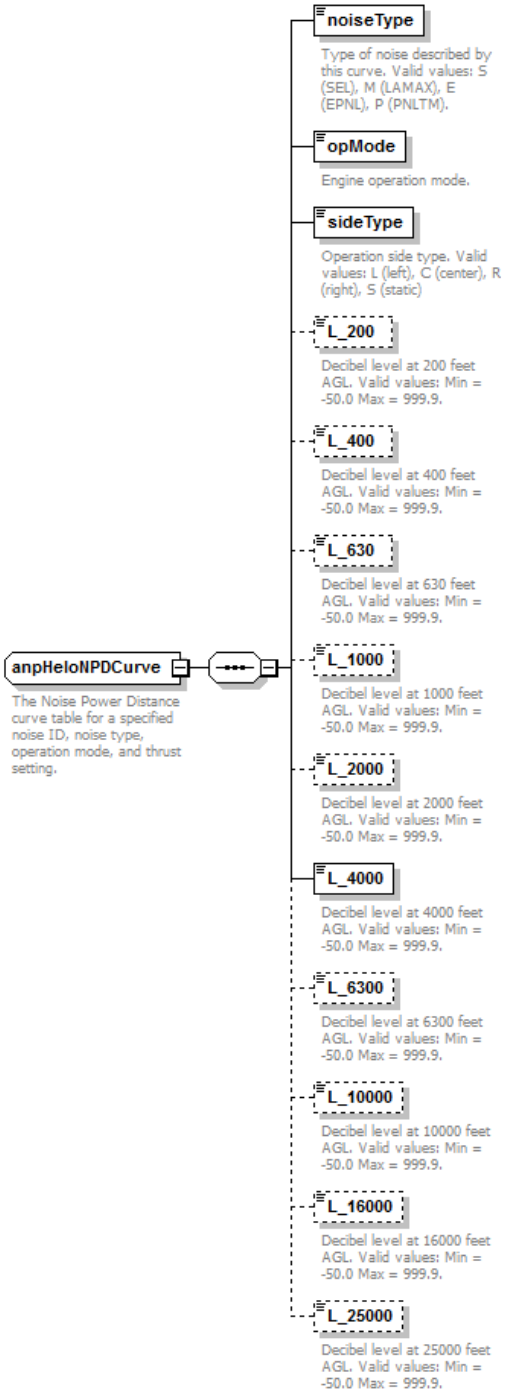
diagram	
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation N 6.1 Flyover reference speed (knots). Valid values: Min = 0.0 Max = 250.0.

element **anpHeloNoiseGroup/npdCurves**

diagram	
type	**anpHeloNPDCurves**
properties	minOcc 0 maxOcc 1 content complex
children	**npdCurve**
annotation	documentation The set of noise curves for this group.

complexType **anpHeloNPDCurve**

diagram	



children	**noiseType** **opMode** **sideType** **L_200** **L_400** **L_630** **L_1000** **L_2000** **L_4000** **L_6300** **L_10000** **L_16000** **L_25000**
used by	element **anpHeloNPDCurves/npdCurve**
annotation	documentation The Noise Pow er Distance curve table for a specified noise ID, noise type, operation mode, and thrust setting.

element **anpHeloNPDCurve/noiseType**

diagram	**noiseType** 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 **anpHeIoNPDCurve/opMode**

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

element **anpHeIoNPDCurve/sideType**

diagram	**sideType** Operation side type. Valid values: L (left), C (center), R (right), S (static)
type	**anpHeIoSideType**
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 **anpHeIoNPDCurve/L_200**

diagram	**L_200** Decibel level at 200 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 200 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpHeIoNPDCurve/L_400**

diagram	**L_400** Decibel level at 400 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 400 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpHeIoNPDCurve/L_630**

diagram	**L_630** Decibel level at 630 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	**xs:double**
properties	minOcc 0

	maxOcc 1 content simple
annotation	documentation Decibel level at 630 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpHeIoNPDCurve/L_1000**

diagram	L_1000 Decibel level at 1000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 1000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpHeIoNPDCurve/L_2000**

diagram	L_2000 Decibel level at 2000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 2000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpHeIoNPDCurve/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 **anpHeIoNPDCurve/L_6300**

diagram	L_6300 Decibel level at 6300 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 6300 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpHeIoNPDCurve/L_10000**

diagram	L_10000 Decibel level at 10000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	**xs:double**
properties	minOcc 0

	maxOcc 1 content simple
annotation	documentation Decibel level at 10000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

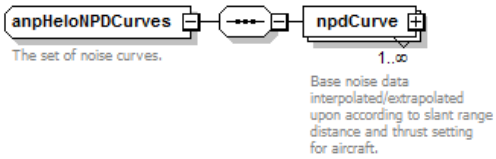
element **anpHeloNPDCurve/L_16000**

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

element **anpHeloNPDCurve/L_25000**

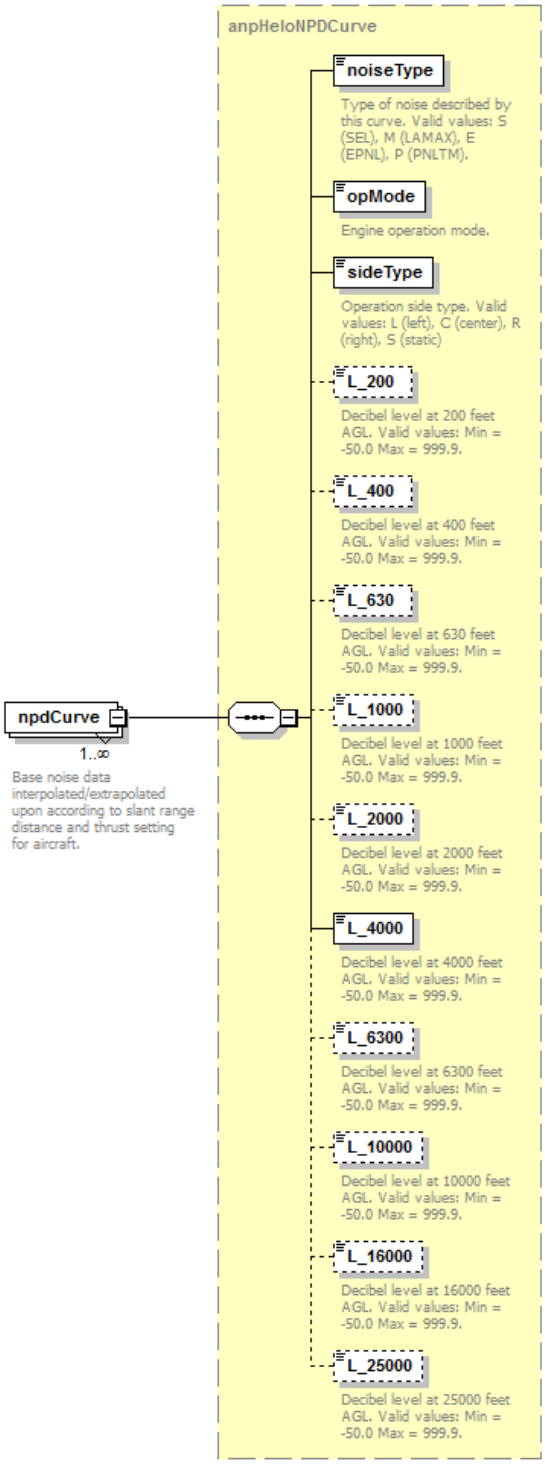
diagram	
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 25000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

complexType **anpHeloNPDCurves**

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

element **anpHeloNPDCurves/npdCurve**

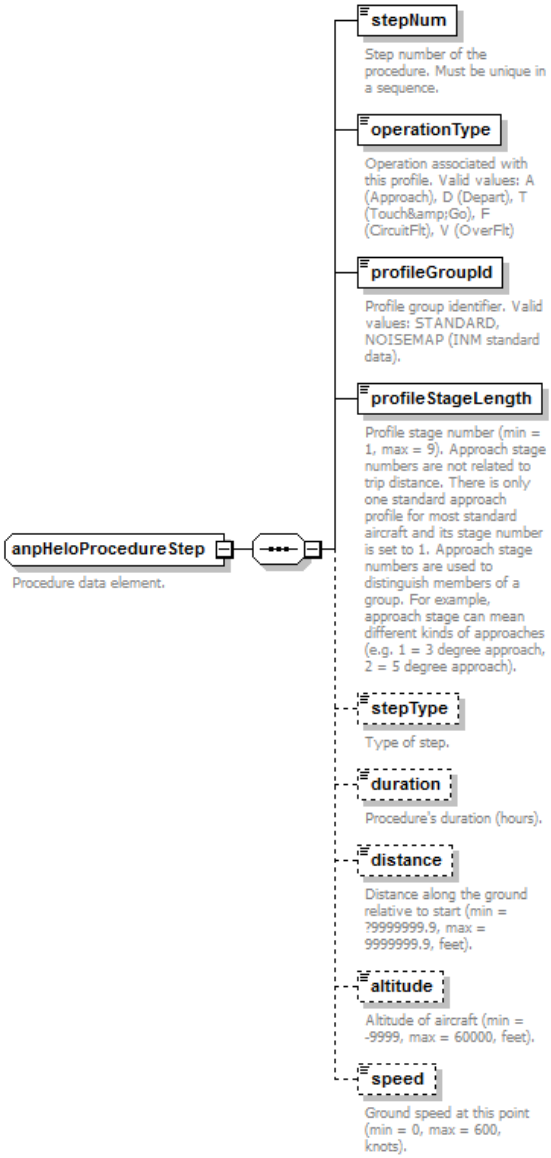
diagram	



type	**anpHeloNPDCurve**
properties	minOcc 1 maxOcc unbounded content complex
children	**noiseType** **opMode** **sideType** **L_200** **L_400** **L_630** **L_1000** **L_2000** **L_4000** **L_6300** **L_10000** **L_16000** **L_25000**
annotation	documentation Base noise data interpolated/extrapolated upon according to slant range distance and thrust setting for aircraft.

complexType **anpHeloProcedureStep**

diagram	



children	**stepNum** **operationType** **profileGroupId** **profileStageLength** **stepType** **duration** **distance** **altitude** **speed**
used by	element **anpHeloProfile/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 (CircuitFlt), V (OverFlt)
type	**string1**

properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Operation associated w ith this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFlt), V (OverFlt)

element **anpHeloProcedureStep/profileGroupId**

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

element **anpHeloProcedureStep/profileStageLength**

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

element **anpHeloProcedureStep/stepType**

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

element **anpHeloProcedureStep/duration**

diagram	

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

element **anpHeloProcedureStep/distance**

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

element **anpHeloProcedureStep/altitude**

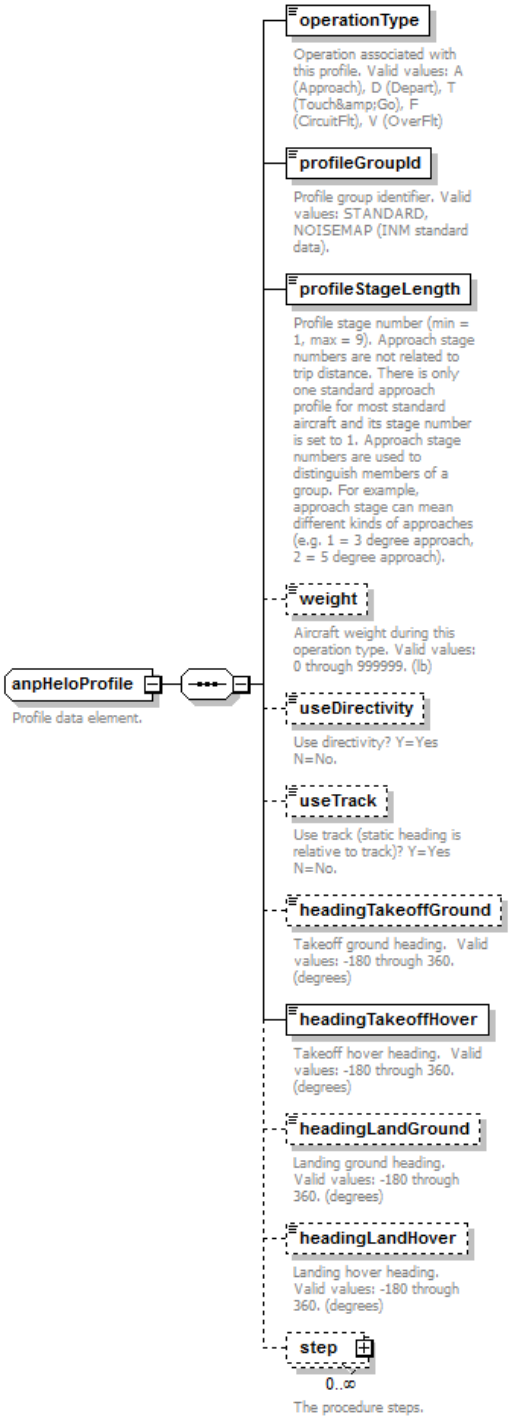
diagram	**altitude** Altitude of aircraft (min = -9999, max = 60000, feet).
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Altitude of aircraft (min = -9999, max = 60000, feet).

element **anpHeloProcedureStep/speed**

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

complexType **anpHeloProfile**

diagram	



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

element **anpHeloProfile/operationType**

diagram	**operationType** Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFlt), V (OverFlt)
type	**string1**
properties	content simple

facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFlt), V (OverFlt)

element **anpHeloProfile/profileGroupId**

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

element **anpHeloProfile/profileStageLength**

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

element **anpHeloProfile/weight**

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

element **anpHeloProfile/useDirectivity**

diagram	**useDirectivity** Use directivity? Y=Yes N=No.
type	**yesNoType**

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

element **anpHeloProfile/useTrack**

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

element **anpHeloProfile/headingTakeoffGround**

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

element **anpHeloProfile/headingTakeoffHover**

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

element **anpHeloProfile/headingLandGround**

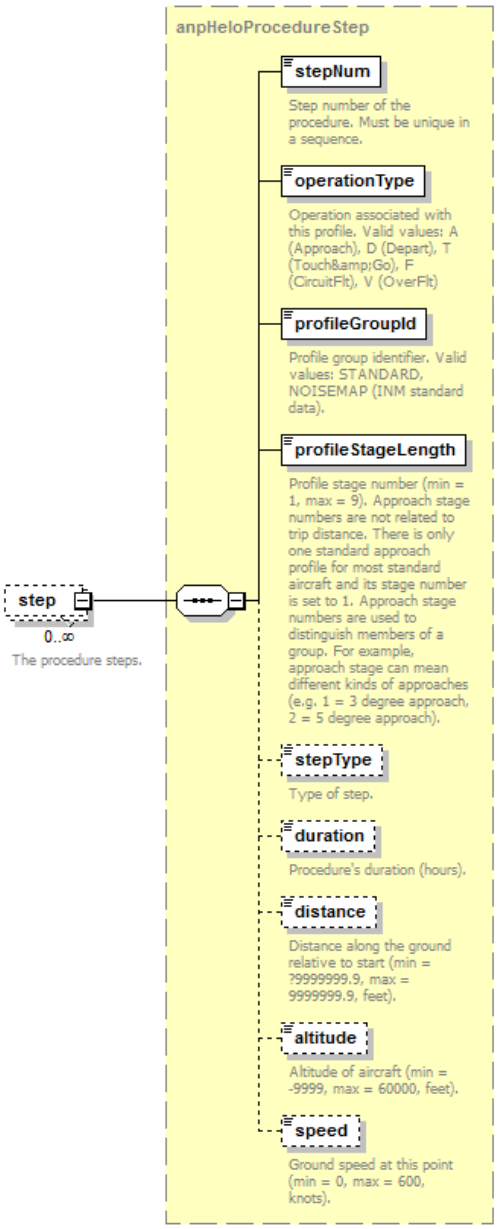
diagram	**headingLandGround** Landing ground heading. Valid values: -180 through 360. (degrees)
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Landing ground heading. Valid values: -180 through 360. (degrees)

element **anpHeloProfile/headingLandHover**

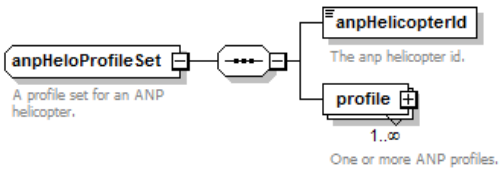
diagram	

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

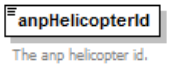
element **anpHeloProfile/step**

diagram	
type	**anpHeloProcedureStep**
properties	minOcc 0 maxOcc unbounded content complex
children	**stepNum operationType profileGroupId profileStageLength stepType duration distance altitude speed**
annotation	documentation The procedure steps.

complexType **anpHeloProfileSet**

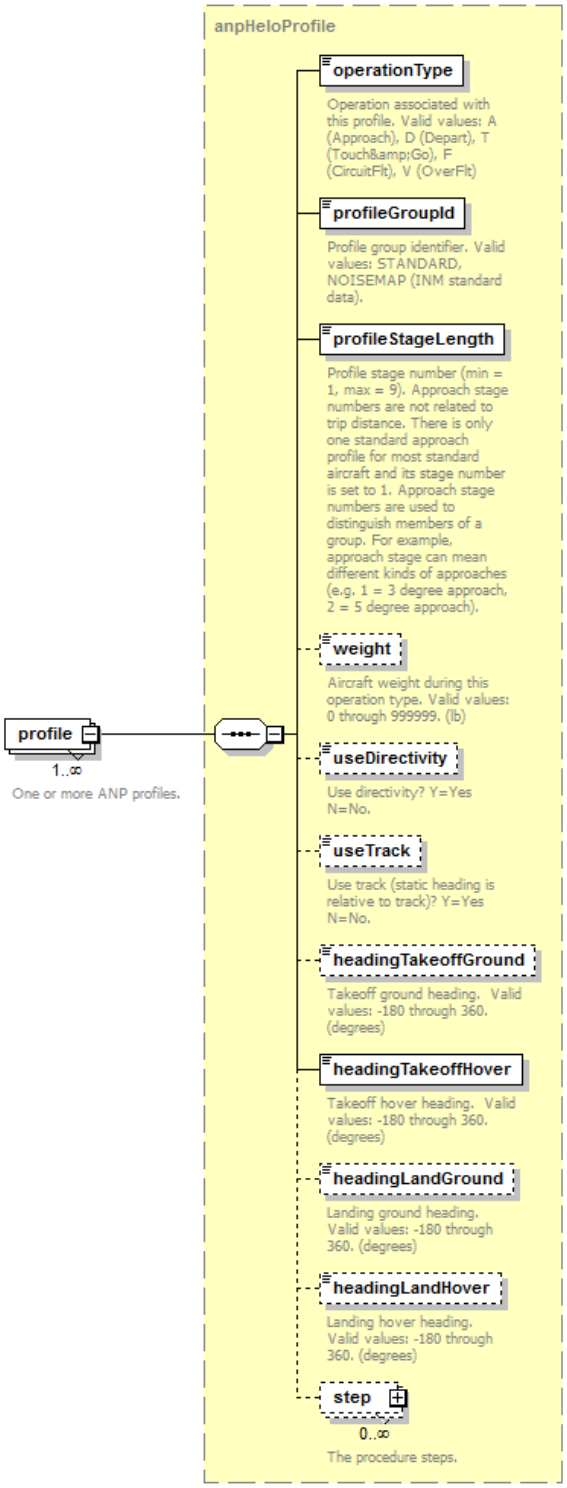
diagram	
children	**anpHelicopterId** **profile**
used by	element **fleet/anpHeloProfileSet**
annotation	documentation A profile set for an ANP helicopter.

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**

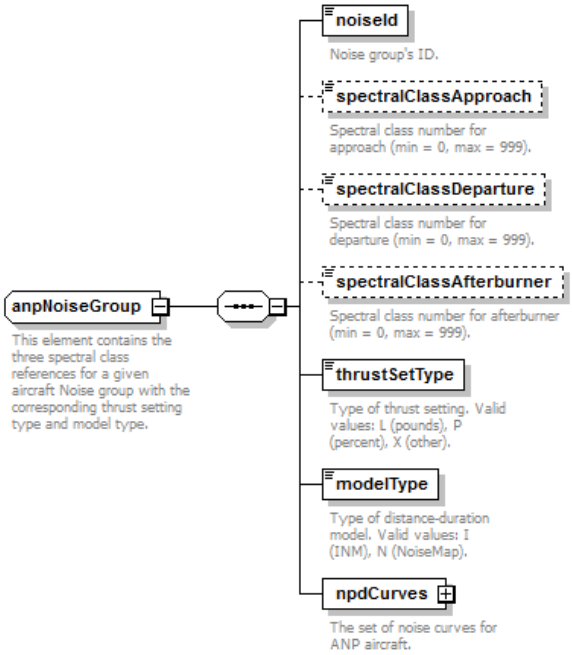
diagram	



type	**anpHeloProfile**
properties	minOcc 1 maxOcc unbounded content complex
children	**operationType** **profileGroupId** **profileStageLength** **weight** **useDirectivity** **useTrack** **headingTakeoffGround** **headingTakeoffHover** **headingLandGround** **headingLandHover** **step**
annotation	documentation One or more ANP profiles.

complexType **anpNoiseGroup**

diagram	



children	**noiseId** **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 w ith the corresponding thrust setting type and model type.

element **anpNoiseGroup/noiseId**

diagram	**noiseId** Noise group's ID.
type	**anpNoiseId**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Noise group's ID.

element **anpNoiseGroup/spectralClassApproach**

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

element **anpNoiseGroup/spectralClassDeparture**

diagram	**spectralClassDeparture** Spectral class number for departure (min = 0, max = 999).
type	**xs:short**
properties	minOcc 0 maxOcc 1 content simple

annotation	documentation Spectral class number for departure (min = 0, max = 999).

element **anpNoiseGroup/spectralClassAfterburner**

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

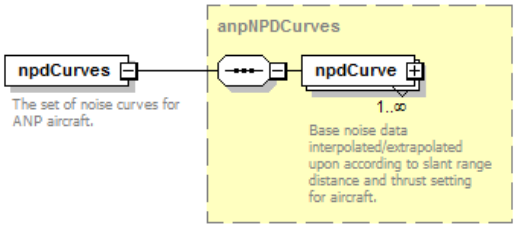
element **anpNoiseGroup/thrustSetType**

diagram	**thrustSetType** Type of thrust setting. Valid values: L (pounds), P (percent), X (other).
type	**string1**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of thrust setting. Valid values: L (pounds), P (percent), X (other).

element **anpNoiseGroup/modelType**

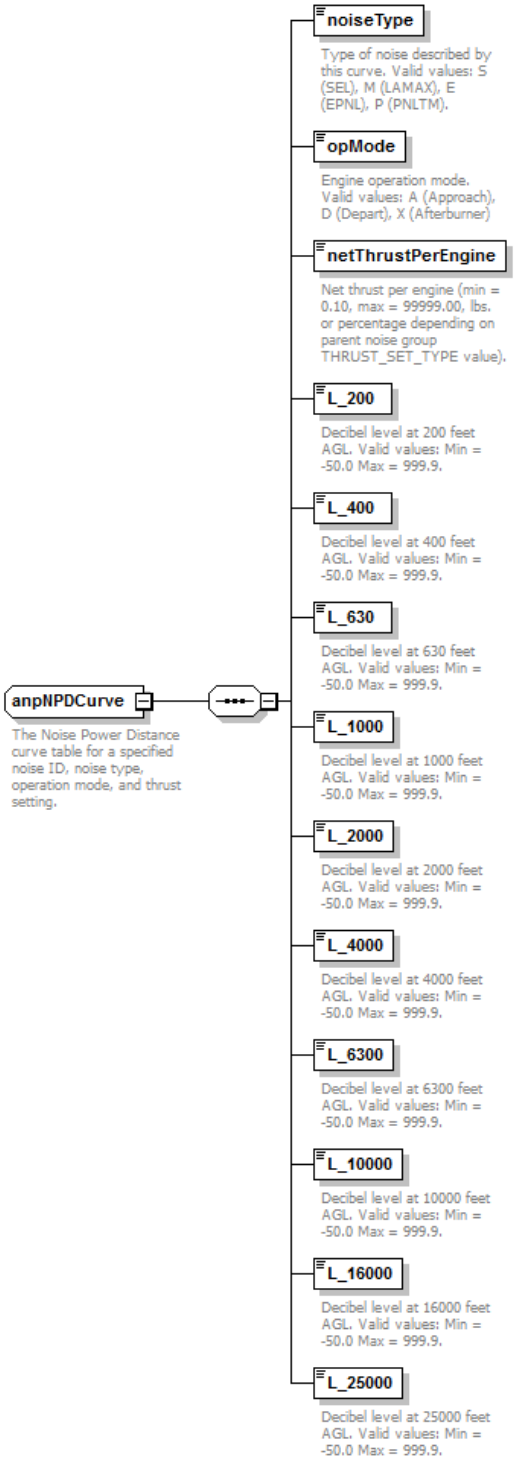
diagram	**modelType** Type of distance-duration model. Valid values: I (INM), N (NoiseMap).
type	**string1**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of distance-duration model. Valid values: I (INM), N (NoiseMap).

element **anpNoiseGroup/npdCurves**

diagram	
type	**anpNPDCurves**
properties	content complex
children	**npdCurve**
annotation	documentation The set of noise curves for ANP aircraft.

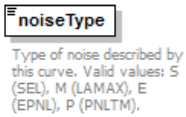
complexType **anpNPDCurve**

diagram	



children	**noiseType** **opMode** **netThrustPerEngine** **L_200** **L_400** **L_630** **L_1000** **L_2000** **L_4000** **L_6300** **L_10000** **L_16000** **L_25000**
used by	element **anpNPDCurves/npdCurve**
annotation	documentation The Noise Pow er Distance curve table for a specified noise ID, noise type, operation mode, and thrust setting.

element **anpNPDCurve/noiseType**

diagram	
type	**anpNpdNoiseType**
properties	content simple

facets	Kind Value Annotation pattern S|M|E|P
annotation	documentation Type of noise described by this curve. Valid values: S (SEL), M (LAMAX), E (EPNL), P (PNLTM).

element **anpNPDCurve/opMode**

diagram	**opMode** Engine operation mode. Valid values: A (Approach), D (Depart), X (Afterburner)
type	**anpNpdOpMode**
properties	content simple
facets	Kind Value Annotation pattern A|D|L|G|H|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	L_6300 Decibel level at 6300 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	**xs:double**
properties	content simple
annotation	documentation Decibel level at 6300 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpNPDCurve/L_10000**

diagram	L_10000 Decibel level at 10000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	**xs:double**
properties	content simple
annotation	documentation Decibel level at 10000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpNPDCurve/L_16000**

diagram	

	L_16000 Decibel level at 16000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	**xs:double**
properties	content simple
annotation	documentation Decibel level at 16000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpNPDCurve/L_25000**

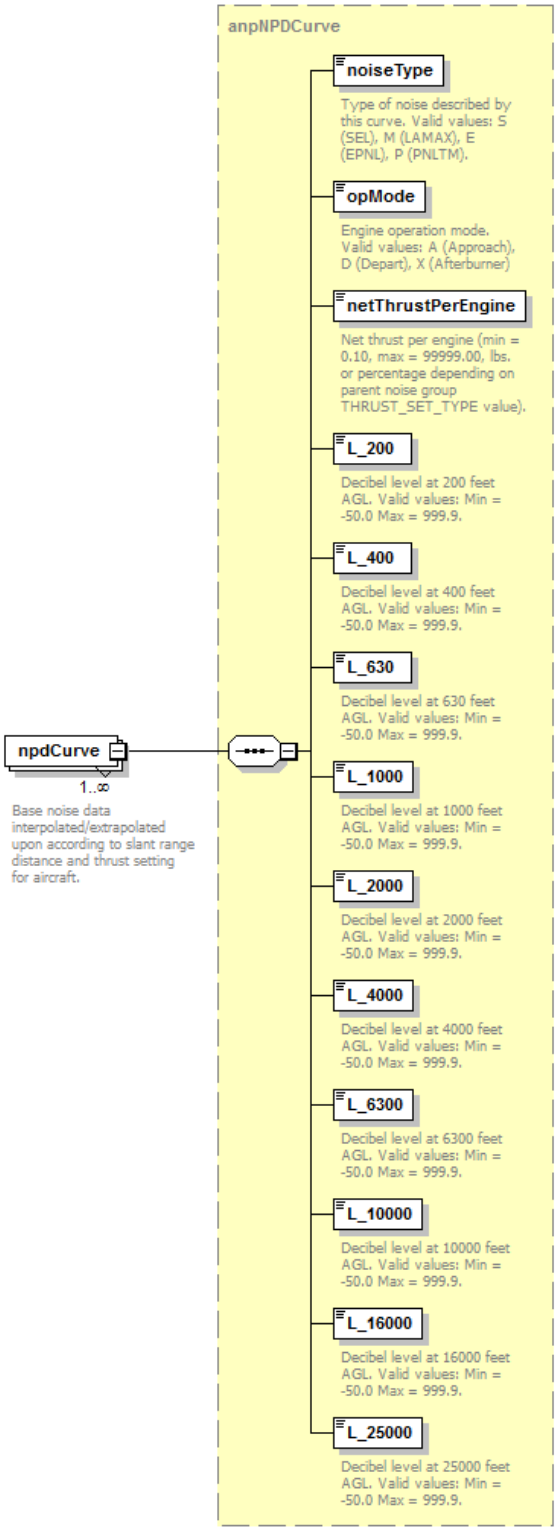
diagram	L_25000 Decibel level at 25000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	**xs:double**
properties	content simple
annotation	documentation Decibel level at 25000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

complexType **anpNPDCurves**

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

element **anpNPDCurves/npdCurve**

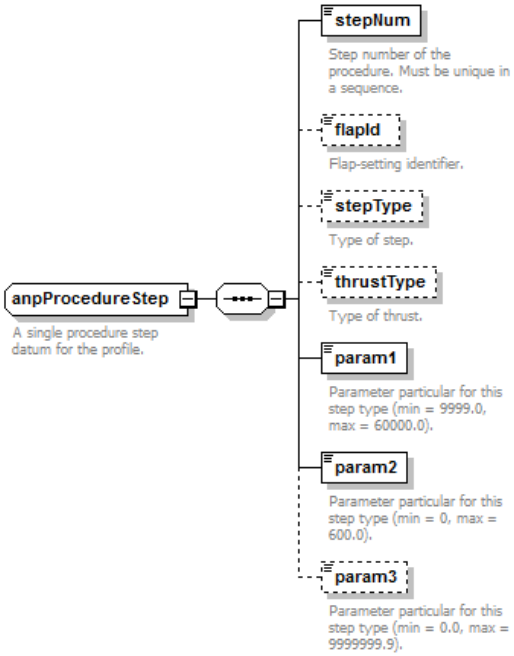
diagram	



type	**anpNPDCurve**
properties	minOcc 1 maxOcc unbounded content complex
children	**noiseType opMode netThrustPerEngine L_200 L_400 L_630 L_1000 L_2000 L_4000 L_6300 L_10000 L_16000 L_25000**
annotation	documentation Base noise data interpolated/extrapolated upon according to slant range distance and thrust setting for aircraft.

complexType **anpProcedureStep**

diagram	



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.
type	**string1**
properties	minOcc 0 maxOcc 1 content simple

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

element **anpProcedureStep/thrustType**

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

element **anpProcedureStep/param1**

diagram	param1 Parameter particular for this step type (min = 9999.0, max = 60000.0).
type	**xs:double**
properties	content simple
annotation	documentation Parameter particular for this step type (min = 9999.0, max = 60000.0).

element **anpProcedureStep/param2**

diagram	param2 Parameter particular for this step type (min = 0, max = 600.0).
type	**xs:double**
properties	content simple
annotation	documentation Parameter particular for this step type (min = 0, max = 600.0).

element **anpProcedureStep/param3**

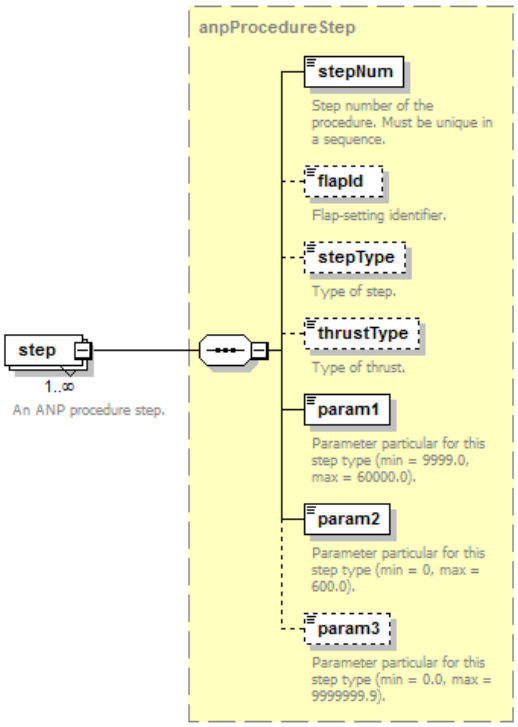
diagram	param3 Parameter particular for this step type (min = 0.0, max = 9999999.9).
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Parameter particular for this step type (min = 0.0, max = 9999999.9).

complexType **anpProcedureSteps**

diagram	anpProcedureSteps A set of procedure steps for the profile. step 1..∞ An ANP procedure step.
children	**step**

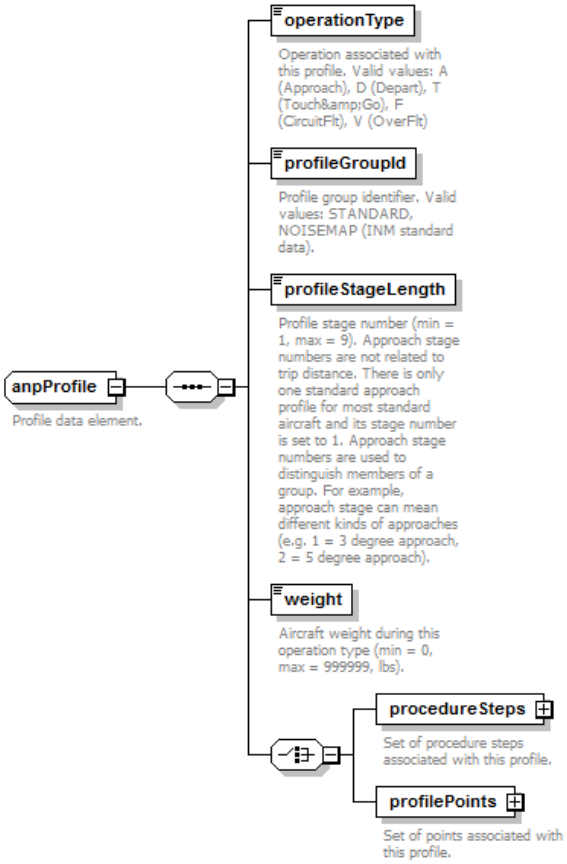
used by	element **anpProfile/procedureSteps**
annotation	documentation A set of procedure steps for the profile.

element **anpProcedureSteps/step**

diagram	
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**

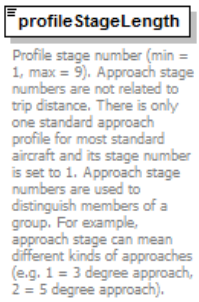
diagram	**operationType** Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&Go), F (CircuitFlt), V (OverFlt)
type	**string1**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Operation associated with this profile.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

element **anpProfile/profileGroupId**

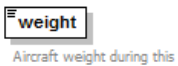
diagram	**profileGroupId** Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).
type	**string8**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation

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

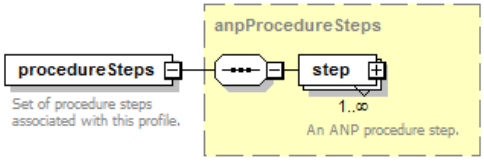
element **anpProfile/profileStageLength**

diagram	
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).

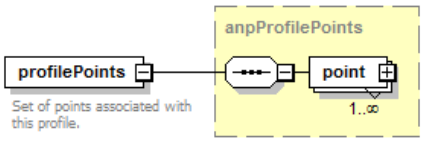
element **anpProfile/weight**

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

element **anpProfile/procedureSteps**

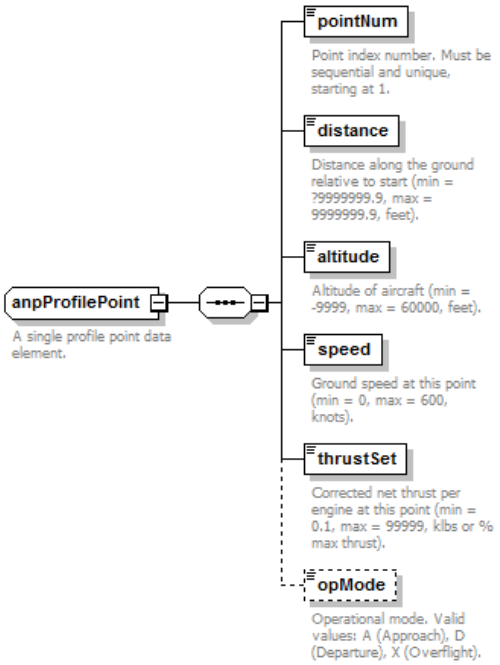
diagram	
type	**anpProcedureSteps**
properties	content complex
children	**step**
annotation	documentation Set of procedure steps associated with this profile.

element **anpProfile/profilePoints**

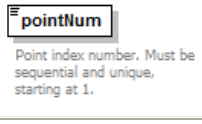
diagram	
type	**anpProfilePoints**
properties	content complex
children	**point**
annotation	documentation

	Set of points associated w ith this profile.

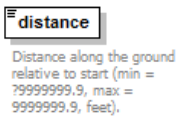
complexType **anpProfilePoint**

diagram	
children	**pointNum** **distance** **altitude** **speed** **thrustSet** **opMode**
used by	element **anpProfilePoints/point**
annotation	documentation A single profile point data element.

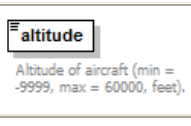
element **anpProfilePoint/pointNum**

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

element **anpProfilePoint/distance**

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

element **anpProfilePoint/altitude**

diagram	
type	**xs:double**
properties	content simple

annotation	documentation Altitude of aircraft (min = -9999, max = 60000, feet).

element **anpProfilePoint/speed**

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

element **anpProfilePoint/thrustSet**

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

element **anpProfilePoint/opMode**

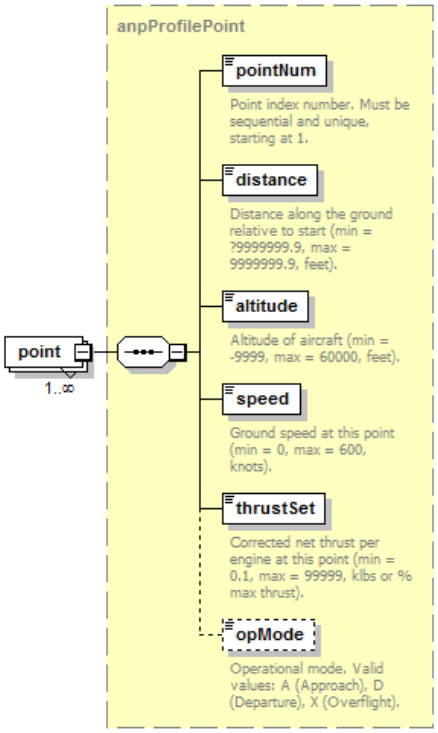
diagram	**opMode** Operational mode. Valid values: A (Approach), D (Departure), X (Overflight).
type	**string1**
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Operational mode. Valid values: A (Approach), D (Departure), X (Overflight).

complexType **anpProfilePoints**

diagram	**anpProfilePoints** — **point** 1..∞ A set of point profile data.
children	**point**
used by	element **anpProfile/profilePoints**
annotation	documentation A set of point profile data.

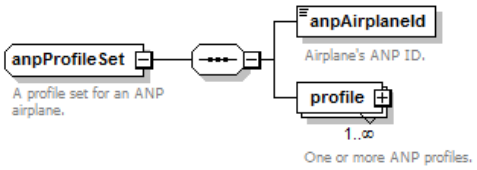
element **anpProfilePoints/point**

diagram	

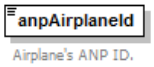


type	**anpProfilePoint**
properties	minOcc 1 maxOcc unbounded content complex
children	**pointNum** **distance** **altitude** **speed** **thrustSet** **opMode**

complexType **anpProfileSet**

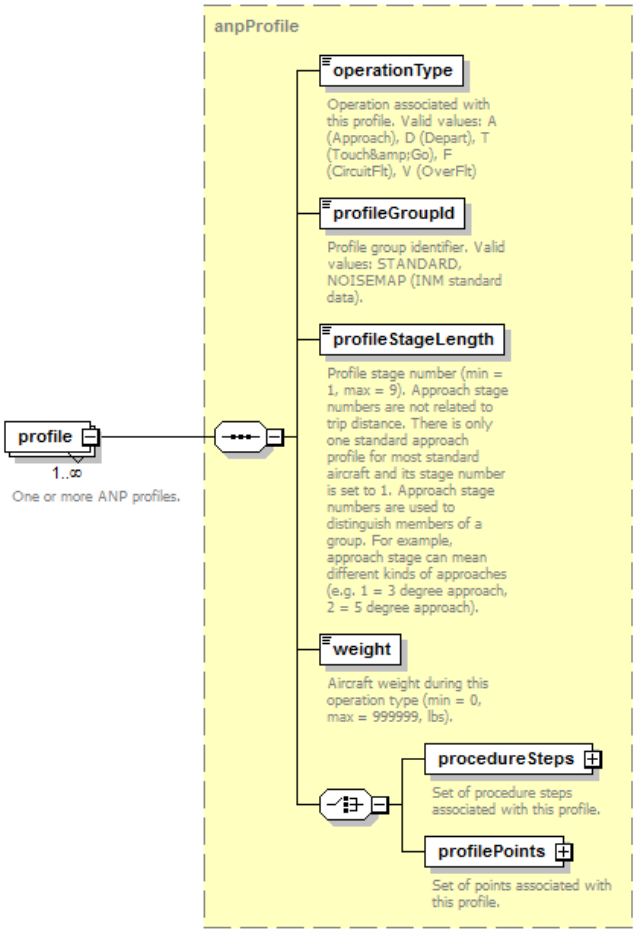
diagram	
children	**anpAirplaneId** **profile**
used by	element **fleet/anpProfileSet**
annotation	documentation A profile set for an ANP airplane.

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**

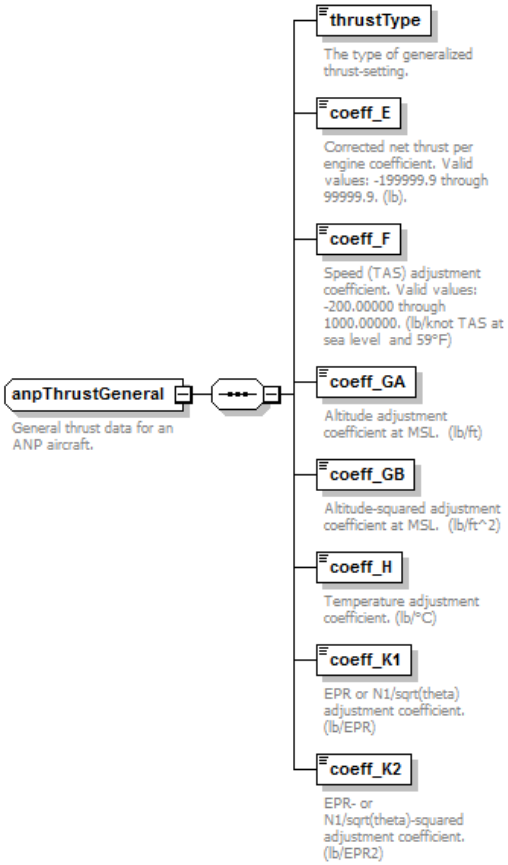
diagram	



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	



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	**thrustType** 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	**coeff_E** 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	

	coeff_F Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F)
type	**xs:double**
properties	content simple
annotation	documentation Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F)

element **anpThrustGeneral/coeff_GA**

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

element **anpThrustGeneral/coeff_GB**

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

element **anpThrustGeneral/coeff_H**

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

element **anpThrustGeneral/coeff_K1**

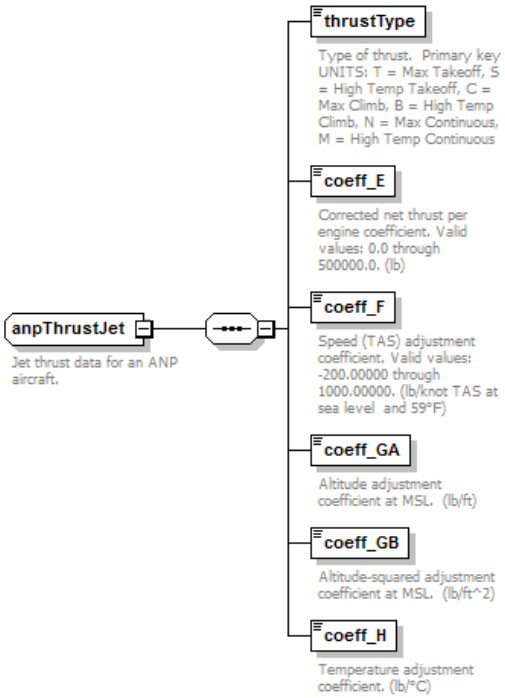
diagram	**coeff_K1** EPR or N1/sqrt(theta) adjustment coefficient. (lb/EPR)
type	**xs:double**
properties	content simple
annotation	documentation EPR or N1/sqrt(theta) adjustment coefficient. (lb/EPR)

element **anpThrustGeneral/coeff_K2**

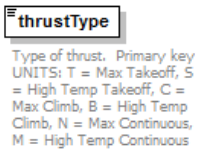
diagram	**coeff_K2** EPR- or N1/sqrt(theta)-squared adjustment coefficient. (lb/EPR2)
type	**xs:double**
properties	content simple

annotation	documentation EPR- or N1/sqrt(theta)-squared adjustment coefficient. (lb/EPR2)

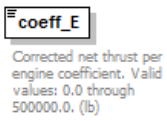
complexType **anpThrustJet**

diagram	
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	
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	
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.
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.

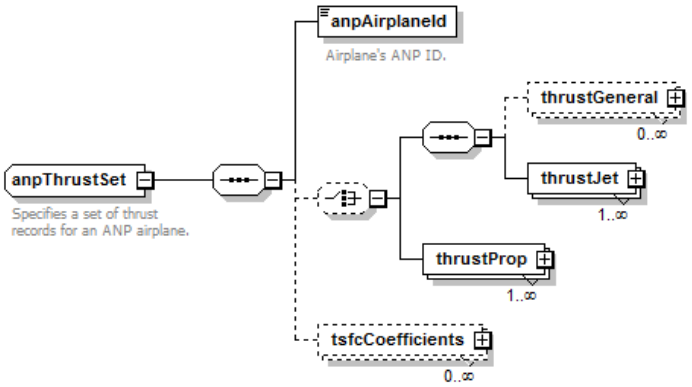
element **anpThrustProp/efficiency**

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 pow er per engine (HP). Valid values: 0 to 9999.9.

complexType **anpThrustSet**

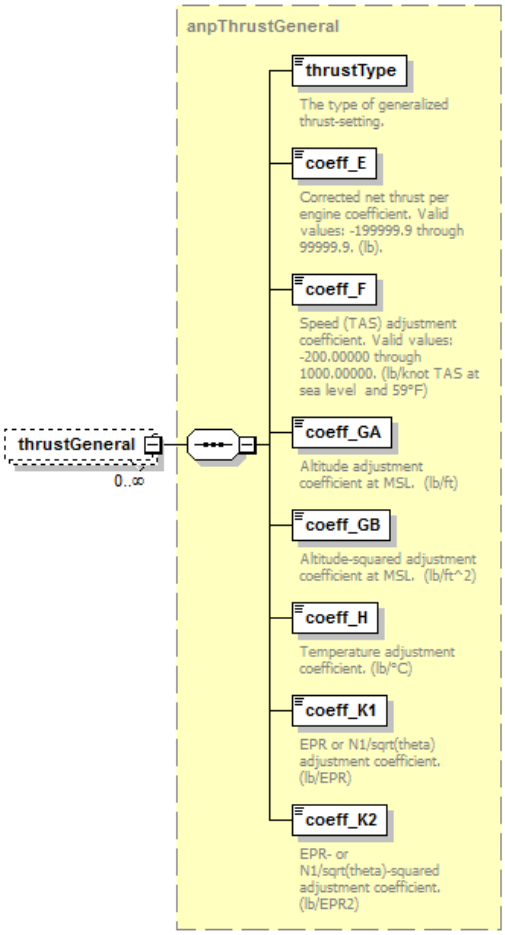
diagram	
children	**anpAirplaneId** **thrustGeneral** **thrustJet** **thrustProp** **tsfcCoefficients**
used by	element **fleet/anpThrustSet**
annotation	documentation Specifies a set of thrust records for an ANP airplane.

element **anpThrustSet/anpAirplaneId**

diagram	**anpAirplaneId** Airplane's ANP ID.
type	**anpAirplaneId**
properties	content simple
facets	Kind Value Annotation

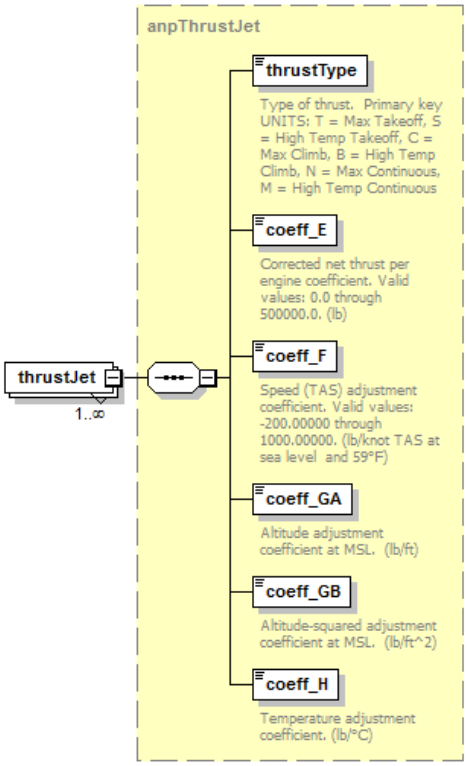
	minLength 0 maxLength 255
annotation	documentation Airplane's ANP ID.

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**

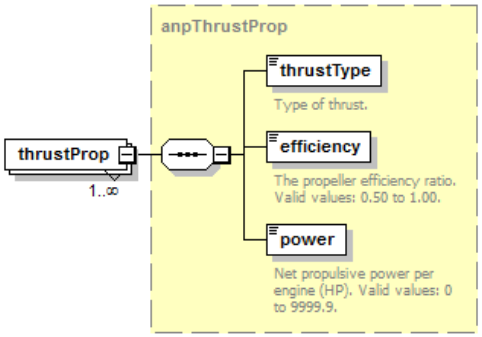
diagram	



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

element **anpThrustSet/thrustProp**

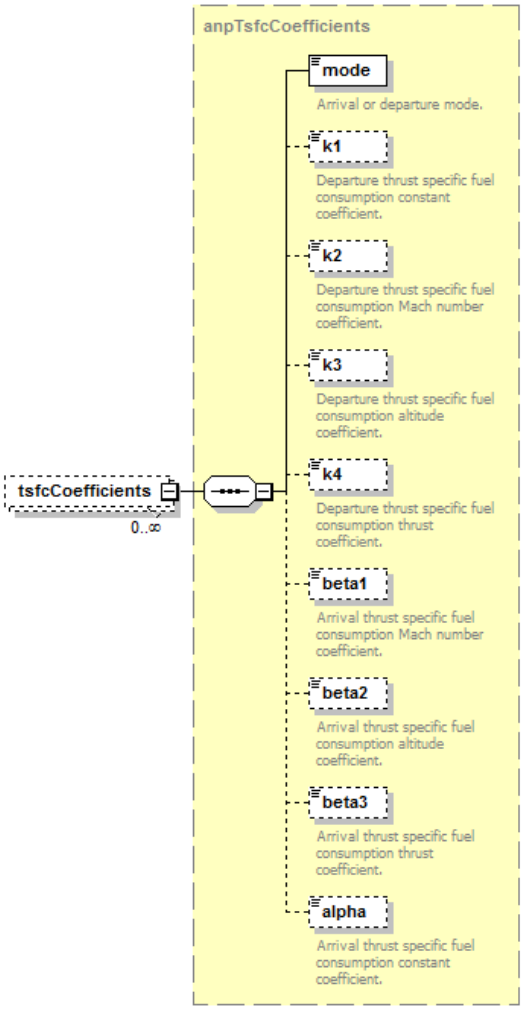
diagram



type	**anpThrustProp**
properties	minOcc 1 maxOcc unbounded content complex
children	**thrustType** **efficiency** **power**

element **anpThrustSet/tsfcCoefficients**

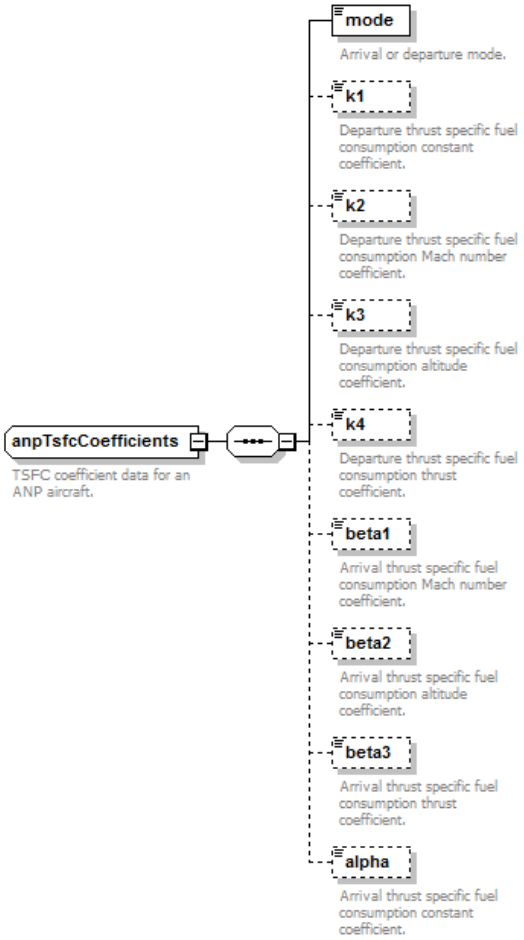
diagram



type	**anpTsfcCoefficients**
properties	minOcc 0 maxOcc unbounded content complex
children	**mode k1 k2 k3 k4 beta1 beta2 beta3 alpha**

complexType **anpTsfcCoefficients**

diagram	



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	**mode** Arrival or departure mode.
type	**string1**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Arrival or departure mode.

element **anpTsfcCoefficients/k1**

diagram	**k1** Departure thrust specific fuel consumption constant coefficient.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Departure thrust specific fuel consumption constant coefficient.

element **anpTsfcCoefficients/k2**

diagram	k2 Departure thrust specific fuel consumption Mach number coefficient.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Departure thrust specific fuel consumption Mach number coefficient.

element **anpTsfcCoefficients/k3**

diagram	k3 Departure thrust specific fuel consumption altitude coefficient.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Departure thrust specific fuel consumption altitude coefficient.

element **anpTsfcCoefficients/k4**

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

element **anpTsfcCoefficients/beta1**

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

element **anpTsfcCoefficients/beta2**

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

annotation	documentation Arrival thrust specific fuel consumption altitude coefficient.

element **anpTsfcCoefficients/beta3**

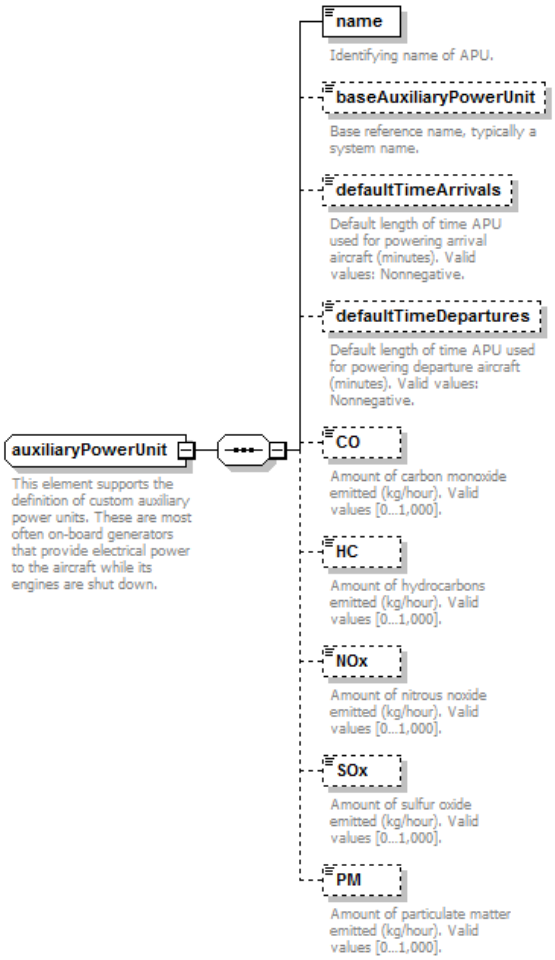
diagram	**beta3** Arrival thrust specific fuel consumption thrust coefficient.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Arrival thrust specific fuel consumption thrust coefficient.

element **anpTsfcCoefficients/alpha**

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

complexType **auxiliaryPowerUnit**

diagram



children	**name** **baseAuxiliaryPowerUnit** **defaultTimeArrivals** **defaultTimeDepartures** **CO** **HC** **NOx** **SOx** **PM**

used by	element **fleet/auxiliaryPowerUnit**
annotation	documentation This element supports the definition of custom auxiliary power units. These are most often on-board generators that provide electrical power to the aircraft while its engines are shut down.

element **auxiliaryPowerUnit/name**

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

element **auxiliaryPowerUnit/baseAuxiliaryPowerUnit**

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

element **auxiliaryPowerUnit/defaultTimeArrivals**

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

element **auxiliaryPowerUnit/defaultTimeDepartures**

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

element **auxiliaryPowerUnit/CO**

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

element **auxiliaryPowerUnit/HC**

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

element **auxiliaryPowerUnit/NOx**

diagram	NOx Amount of nitrous noxide emitted (kg/hour). Valid values [0...1,000].
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of nitrous noxide emitted (kg/hour). Valid values [0…1,000].

element **auxiliaryPowerUnit/SOx**

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

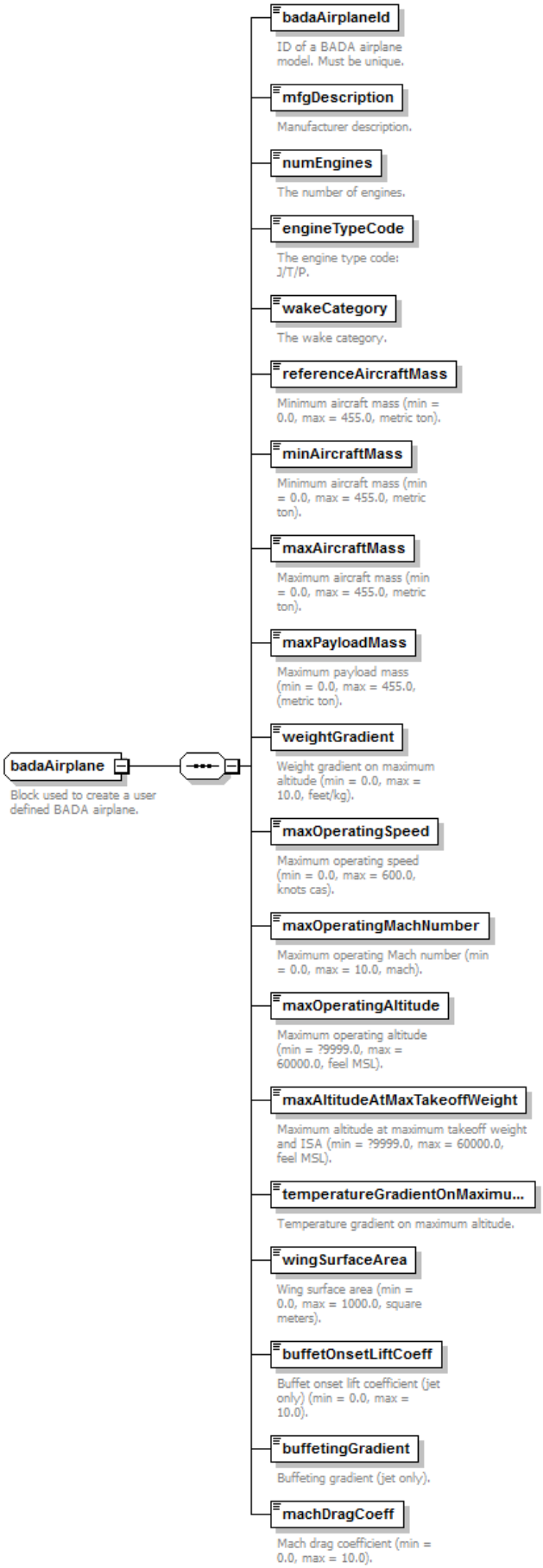
element **auxiliaryPowerUnit/PM**

diagram	PM Amount of particulate matter emitted (kg/hour). Valid values [0...1,000].
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple

annotation	documentation Amount of particulate matter emitted (kg/hour). Valid values [0…1,000].

complexType **badaAirplane**

diagram	



children **badaAirplaneId** **mfgDescription** **numEngines** **engineTypeCode** **wakeCategory** **referenceAircraftMass** **minAircraftMass** **maxAircraftMass** **maxPayloadMass** **weightGradient** **maxOperatingSpeed** **maxOperatingMachNumber** **maxOperatingAltitude** **maxAltitudeAtMaxTakeoffWeight** **temperatureGradientOnMaximumAltitude** **wingSurfaceArea** **buffetOnsetLiftCoeff** **buffetingGradient** **machDragCoeff**

used by	element **fleet/badaAirplane**
annotation	documentation Block used to create a user defined BADA airplane.

element **badaAirplane/badaAirplaneId**

diagram	**badaAirplaneId** ID of a BADA airplane model. Must be unique.
type	**badaAirplaneId**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation ID of a BADA airplane model. Must be unique.

element **badaAirplane/mfgDescription**

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

element **badaAirplane/numEngines**

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

element **badaAirplane/engineTypeCode**

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

element **badaAirplane/wakeCategory**

diagram	**wakeCategory** The wake category.
type	**badaWakeType**
properties	content simple
facets	Kind Value Annotation

	pattern Heavy|H|Light|L|Medium|M|SuperHeavy|J
annotation	documentation The w ake category.

element **badaAirplane/referenceAircraftMass**

diagram	**referenceAircraftMass** Minimum aircraft mass (min = 0.0, max = 455.0, metric ton).
type	**xs:double**
properties	content simple
annotation	documentation Minimum aircraft mass (min = 0.0, max = 455.0, metric ton).

element **badaAirplane/minAircraftMass**

diagram	**minAircraftMass** Minimum aircraft mass (min = 0.0, max = 455.0, metric ton).
type	**xs:double**
properties	content simple
annotation	documentation Minimum aircraft mass (min = 0.0, max = 455.0, metric ton).

element **badaAirplane/maxAircraftMass**

diagram	**maxAircraftMass** Maximum aircraft mass (min = 0.0, max = 455.0, metric ton).
type	**xs:double**
properties	content simple
annotation	documentation Maximum aircraft mass (min = 0.0, max = 455.0, metric ton).

element **badaAirplane/maxPayloadMass**

diagram	**maxPayloadMass** Maximum payload mass (min = 0.0, max = 455.0, (metric ton).
type	**xs:double**
properties	content simple
annotation	documentation Maximum payload mass (min = 0.0, max = 455.0, (metric ton).

element **badaAirplane/weightGradient**

diagram	**weightGradient** Weight gradient on maximum altitude (min = 0.0, max = 10.0, feet/kg).
type	**xs:double**
properties	content simple
annotation	documentation Weight gradient on maximum altitude (min = 0.0, max = 10.0, feet/kg).

element **badaAirplane/maxOperatingSpeed**

diagram	

	maxOperatingSpeed Maximum operating speed (min = 0.0, max = 600.0, knots cas).
type	**xs:double**
properties	content simple
annotation	documentation Maximum operating speed (min = 0.0, max = 600.0, knots cas).

element **badaAirplane/maxOperatingMachNumber**

diagram	**maxOperatingMachNumber** Maximum operating Mach number (min = 0.0, max = 10.0, mach).
type	**xs:double**
properties	content simple
annotation	documentation Maximum operating Mach number (min = 0.0, max = 10.0, mach).

element **badaAirplane/maxOperatingAltitude**

diagram	**maxOperatingAltitude** Maximum operating altitude (min = ?9999.0, max = 60000.0, feel MSL).
type	**xs:double**
properties	content simple
annotation	documentation Maximum operating altitude (min = ?9999.0, max = 60000.0, feel MSL).

element **badaAirplane/maxAltitudeAtMaxTakeoffWeight**

diagram	**maxAltitudeAtMaxTakeoffWeight** Maximum altitude at maximum takeoff weight and ISA (min = ?9999.0, max = 60000.0, feel MSL).
type	**xs:double**
properties	content simple
annotation	documentation Maximum altitude at maximum takeoff w eight and ISA (min = ?9999.0, max = 60000.0, feel MSL).

element **badaAirplane/temperatureGradientOnMaximumAltitude**

diagram	**temperatureGradientOnMaximu...** Temperature gradient on maximum altitude.
type	**xs:double**
properties	content simple
annotation	documentation Temperature gradient on maximum altitude.

element **badaAirplane/wingSurfaceArea**

diagram	**wingSurfaceArea** 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	**buffetOnsetLiftCoeff** 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	**buffetingGradient** Buffeting gradient (jet only).
type	**xs:double**
properties	content simple
annotation	documentation Buffeting gradient (jet only).

element **badaAirplane/machDragCoeff**

diagram	**machDragCoeff** 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	**badaAltitudeDistribution** BADA altitude distribution data. **altitudeCount** Flight counts for a selected altitude. **distanceMean** Mean distance for a selected altitude. (nMi). **distanceStddev** Standard deviation for the distance of a selected altitude. (nMi). **distanceLow** Min distance for a selected altitude. (nMi). **distanceHigh** Maximum distance for a selected altitude. (nMi). **altitude** The selected cruise altitude. (ft)
children	**altitudeCount** **distanceMean** **distanceStddev** **distanceLow** **distanceHigh** **altitude**
used by	element **badaAltitudeDistributionSet/altitudeDistribution**
annotation	documentation BADA altitude distribution data.

element **badaAltitudeDistribution/altitudeCount**

diagram	

	altitudeCount 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	**distanceMean** Mean distance for a selected altitude. (nMi).
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Mean distance for a selected altitude. (nMi).

element **badaAltitudeDistribution/distanceStddev**

diagram	**distanceStddev** Standard deviation for the distance of a selected altitude. (nMi).
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Standard deviation for the distance of a selected altitude. (nMi).

element **badaAltitudeDistribution/distanceLow**

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

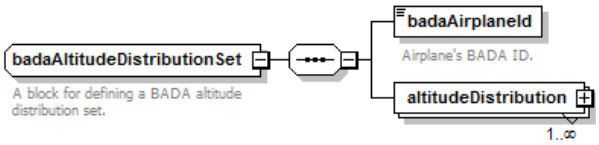
element **badaAltitudeDistribution/distanceHigh**

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

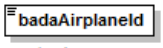
element **badaAltitudeDistribution/altitude**

diagram	
type	**xs:int**
properties	content simple
annotation	documentation The selected cruise altitude. (ft)

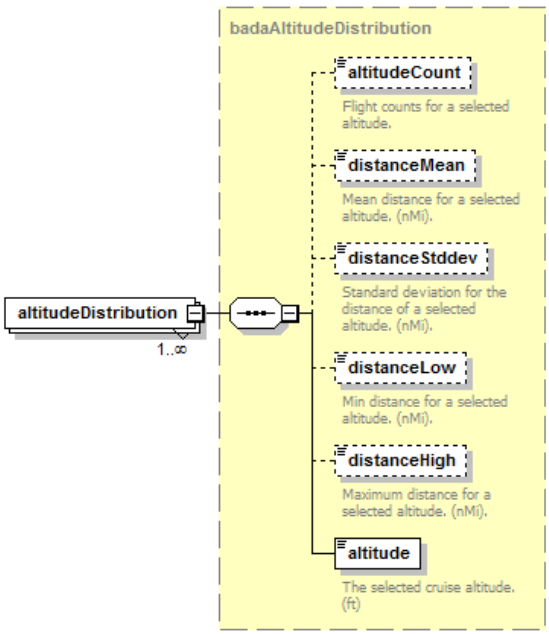
complexType **badaAltitudeDistributionSet**

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**

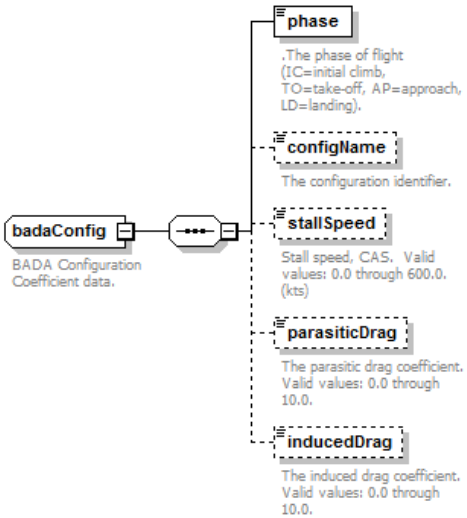
diagram	
type	**badaAirplaneId**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's BADA ID.

element **badaAltitudeDistributionSet/altitudeDistribution**

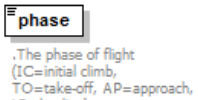
diagram	
type	**badaAltitudeDistribution**
properties	minOcc 1 maxOcc unbounded content complex

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.

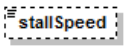
element **badaConfig/phase**

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**

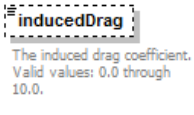
diagram	
type	**xs:double**

properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Stall speed, CAS. Valid values: 0.0 through 600.0. (kts)

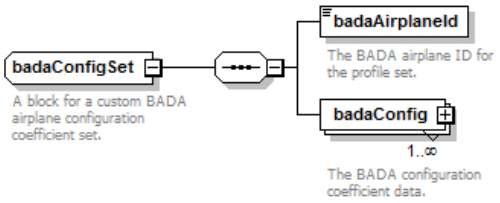
element **badaConfig/parasiticDrag**

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

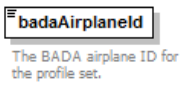
element **badaConfig/inducedDrag**

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

complexType **badaConfigSet**

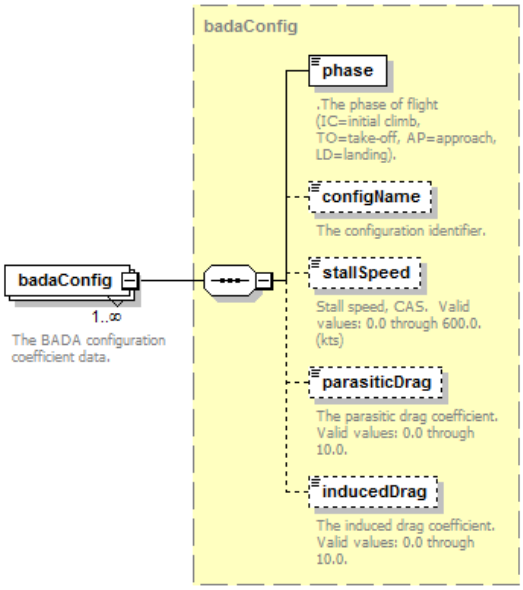
diagram	
children	**badaAirplaneId** **badaConfig**
used by	element **fleet/badaConfigSet**
annotation	documentation A block for a custom BADA airplane configuration coefficient set.

element **badaConfigSet/badaAirplaneId**

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

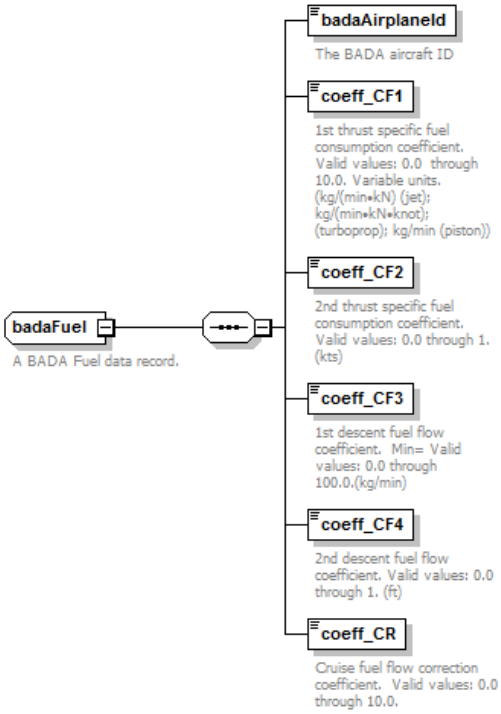
element **badaConfigSet/badaConfig**

diagram	



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	
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); (turboprop); kg/min (piston))
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. (kts)
type	**xs:double**
properties	content simple
annotation	documentation 2nd thrust specific fuel consumption coefficient. Valid values: 0.0 through 1. (kts)

element **badaFuel/coeff_CF3**

diagram	**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. (ft)
type	**xs:double**
properties	content simple
annotation	documentation 2nd descent fuel flow coefficient. Valid values: 0.0 through 1. (ft)

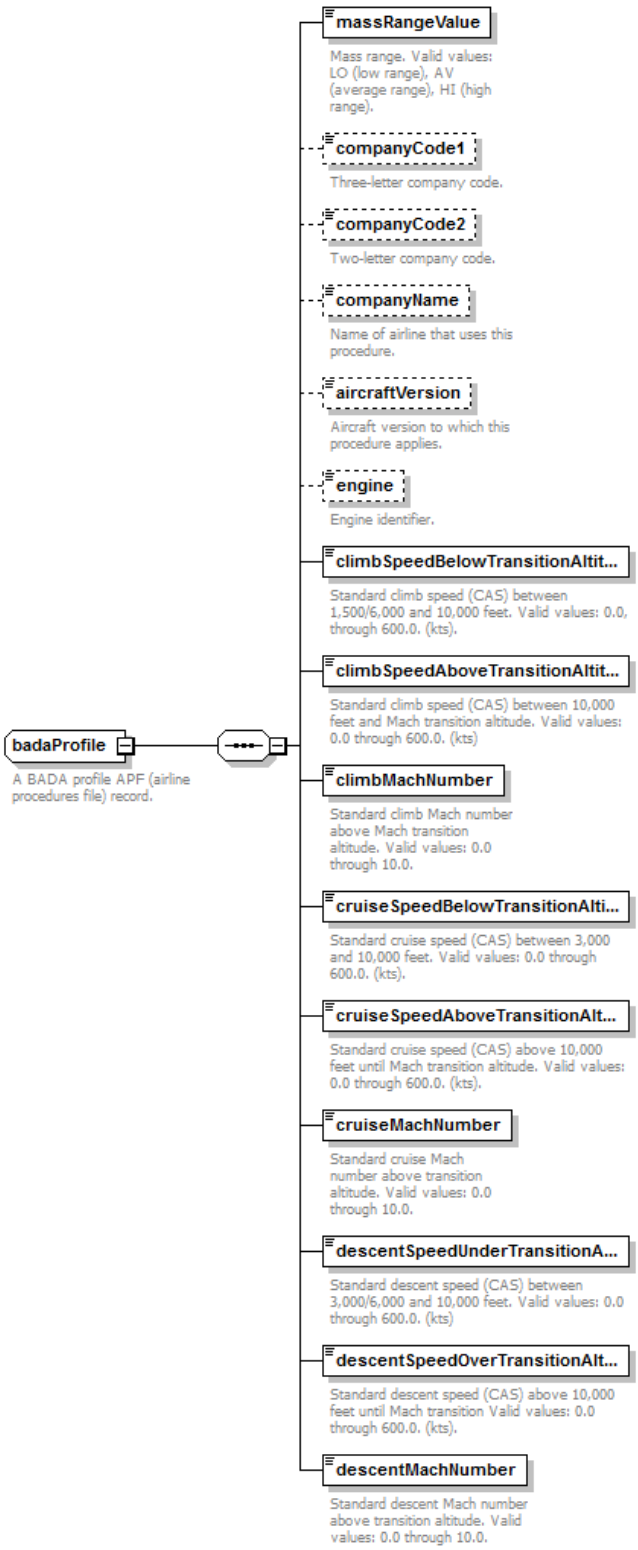
element **badaFuel/coeff_CR**

diagram	

	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



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	companyCode2 Two-letter company code.
type	string2
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 2
annotation	documentation Two-letter company code.

element **badaProfile/companyName**

diagram	companyName Name of airline that uses this procedure.
type	string15
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0

	maxLength 15
annotation	documentation Name of airline that uses this procedure.

element **badaProfile/aircraftVersion**

diagram	**aircraftVersion** Aircraft version to which this procedure applies.
type	**string12**
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 12
annotation	documentation Aircraft version to w hich this procedure applies.

element **badaProfile/engine**

diagram	**engine** Engine identifier.
type	**string12**
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 12
annotation	documentation Engine identifier.

element **badaProfile/climbSpeedBelowTransitionAltitude**

diagram	**climbSpeedBelowTransitionAltit...** Standard climb speed (CAS) between 1,500/6,000 and 10,000 feet. Valid values: 0.0, through 600.0. (kts).
type	**xs:short**
properties	content simple
annotation	documentation Standard climb speed (CAS) betw een 1,500/6,000 and 10,000 feet. Valid values: 0.0, through 600.0. (kts).

element **badaProfile/climbSpeedAboveTransitionAltitude**

diagram	**climbSpeedAboveTransitionAltit...** Standard climb speed (CAS) between 10,000 feet and Mach transition altitude. Valid values: 0.0 through 600.0. (kts)
type	**xs:short**
properties	content simple
annotation	documentation Standard climb speed (CAS) betw een 10,000 feet and Mach transition altitude. Valid values: 0.0 through 600.0. (kts)

element **badaProfile/climbMachNumber**

diagram	**climbMachNumber** Standard climb Mach number above Mach transition altitude. Valid values: 0.0 through 10.0.

type	**xs:double**
properties	content simple
annotation	documentation Standard climb Mach number above Mach transition altitude. Valid values: 0.0 through 10.0.

element **badaProfile/cruiseSpeedBelowTransitionAltitude**

diagram	**cruiseSpeedBelowTransitionAlti...** Standard cruise speed (CAS) between 3,000 and 10,000 feet. Valid values: 0.0 through 600.0. (kts).
type	**xs:short**
properties	content simple
annotation	documentation Standard cruise speed (CAS) between 3,000 and 10,000 feet. Valid values: 0.0 through 600.0. (kts).

element **badaProfile/cruiseSpeedAboveTransitionAltitude**

diagram	**cruiseSpeedAboveTransitionAlt...** Standard cruise speed (CAS) above 10,000 feet until Mach transition altitude. Valid values: 0.0 through 600.0. (kts).
type	**xs:short**
properties	content simple
annotation	documentation Standard cruise speed (CAS) above 10,000 feet until Mach transition altitude. Valid values: 0.0 through 600.0. (kts).

element **badaProfile/cruiseMachNumber**

diagram	**cruiseMachNumber** Standard cruise Mach number above transition altitude. Valid values: 0.0 through 10.0.
type	**xs:double**
properties	content simple
annotation	documentation Standard cruise Mach number above transition altitude. Valid values: 0.0 through 10.0.

element **badaProfile/descentSpeedUnderTransitionAltitude**

diagram	**descentSpeedUnderTransitionA...** Standard descent speed (CAS) between 3,000/6,000 and 10,000 feet. Valid values: 0.0 through 600.0. (kts)
type	**xs:short**
properties	content simple
annotation	documentation Standard descent speed (CAS) between 3,000/6,000 and 10,000 feet. Valid values: 0.0 through 600.0. (kts)

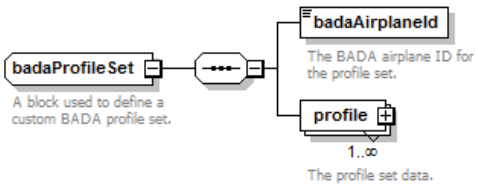
element **badaProfile/descentSpeedOverTransitionAltitude**

diagram	**descentSpeedOverTransitionAlt...** Standard descent speed (CAS) above 10,000 feet until Mach transition Valid values: 0.0 through 600.0. (kts).
type	**xs:short**
properties	content simple
annotation	documentation Standard descent speed (CAS) above 10,000 feet until Mach transition Valid values: 0.0 through 600.0. (kts).

element **badaProfile/descentMachNumber**

diagram	**descentMachNumber** Standard descent Mach number above transition altitude. Valid values: 0.0 through 10.0.
type	**xs:double**
properties	content simple
annotation	documentation Standard descent Mach number above transition altitude. Valid values: 0.0 through 10.0.

complexType **badaProfileSet**

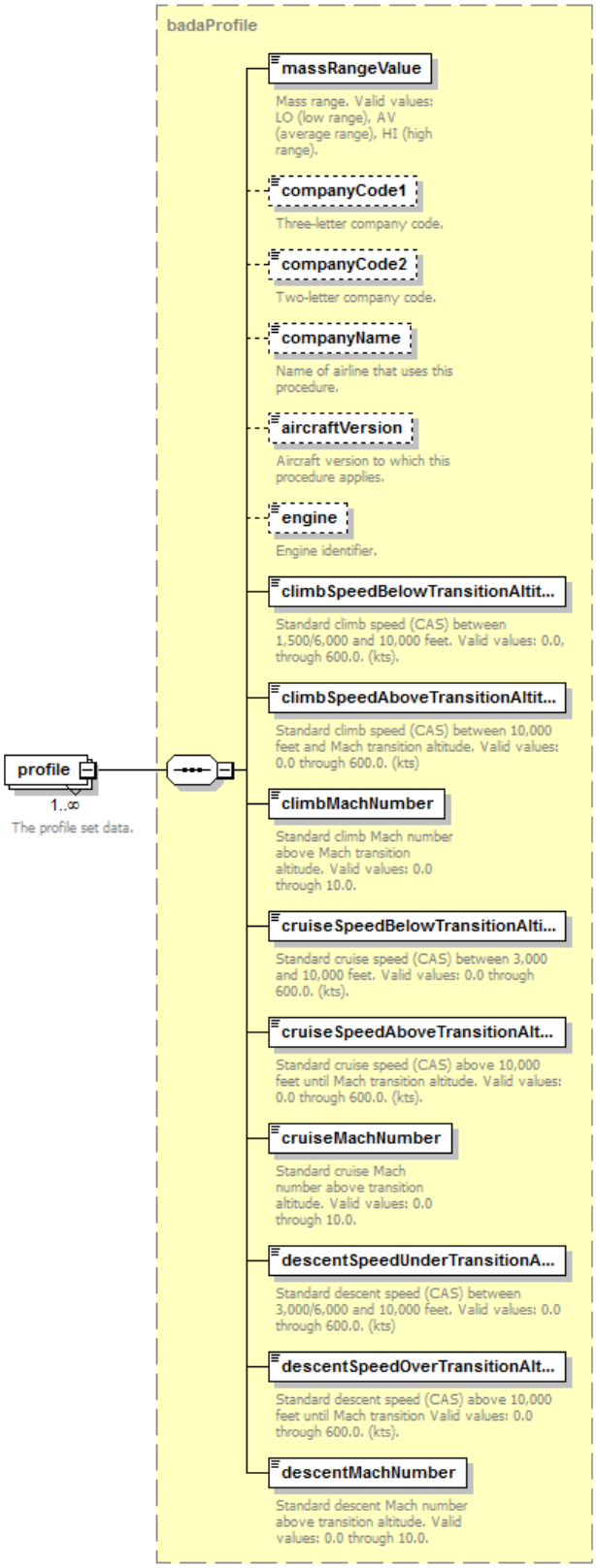
diagram	
children	**badaAirplaneId** **profile**
used by	element **fleet/badaProfileSet**
annotation	documentation A block used to define a custom BADA profile set.

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**

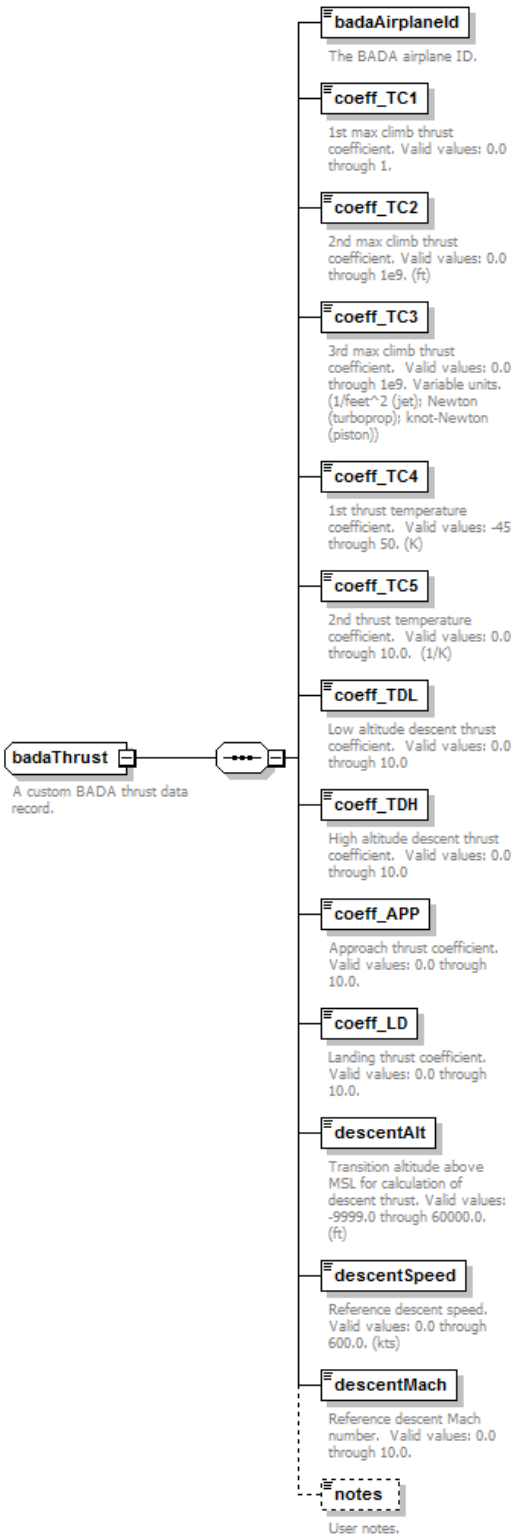
diagram	



type	**badaProfile**
properties	minOcc 1 maxOcc unbounded content complex
children	**massRangeValue** **companyCode1** **companyCode2** **companyName** **aircraftVersion** **engine** **climbSpeedBelowTransitionAltitude** **climbSpeedAboveTransitionAltitude** **climbMachNumber** **cruiseSpeedBelowTransitionAltitude** **cruiseSpeedAboveTransitionAltitude** **cruiseMachNumber** **descentSpeedUnderTransitionAltitude** **descentSpeedOverTransitionAltitude** **descentMachNumber**
annotation	documentation The profile set data.

complexType **badaThrust**

diagram



children	**badaAirplaneId** **coeff_TC1** **coeff_TC2** **coeff_TC3** **coeff_TC4** **coeff_TC5** **coeff_TDL** **coeff_TDH** **coeff_APP** **coeff_LD** **descentAlt** **descentSpeed** **descentMach** **notes**
used by	element **fleet/badaThrust**
annotation	documentation A custom BADA thrust data record.

element **badaThrust/badaAirplaneId**

diagram	

	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 **badaThrust/coeff_TC1**

diagram	**coeff_TC1** 1st max climb thrust coefficient. Valid values: 0.0 through 1.
type	**xs:double**
properties	content simple
annotation	documentation 1st max climb thrust coefficient. Valid values: 0.0 through 1.

element **badaThrust/coeff_TC2**

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

element **badaThrust/coeff_TC3**

diagram	**coeff_TC3** 3rd max climb thrust coefficient. Valid values: 0.0 through 1e9. 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: 0.0 through 1e9. 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 above MSL for calculation of descent thrust. Valid values: -9999.0 through 60000.0. (ft)
type	**xs:double**

properties	content simple
annotation	documentation Transition altitude above MSL for calculation of descent thrust. Valid values: -9999.0 through 60000.0. (ft)

element **badaThrust/descentSpeed**

diagram	**descentSpeed** Reference descent speed. Valid values: 0.0 through 600.0. (kts)
type	**xs:double**
properties	content simple
annotation	documentation Reference descent speed. Valid values: 0.0 through 600.0. (kts)

element **badaThrust/descentMach**

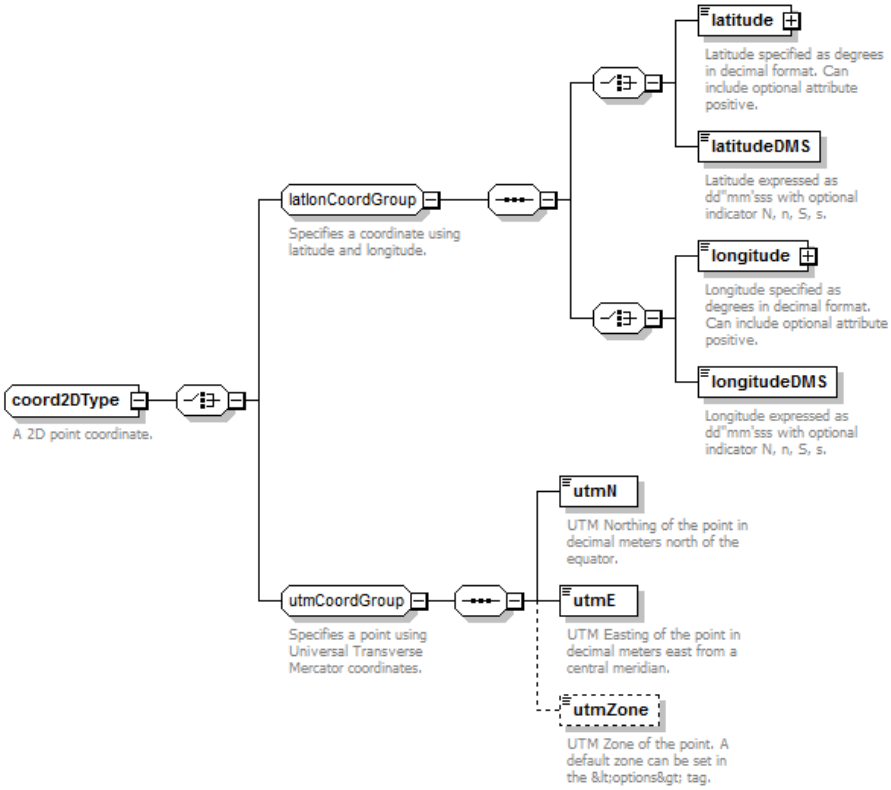
diagram	**descentMach** Reference descent Mach number. Valid values: 0.0 through 10.0.
type	**xs:float**
properties	content simple
annotation	documentation Reference descent Mach number. Valid values: 0.0 through 10.0.

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**

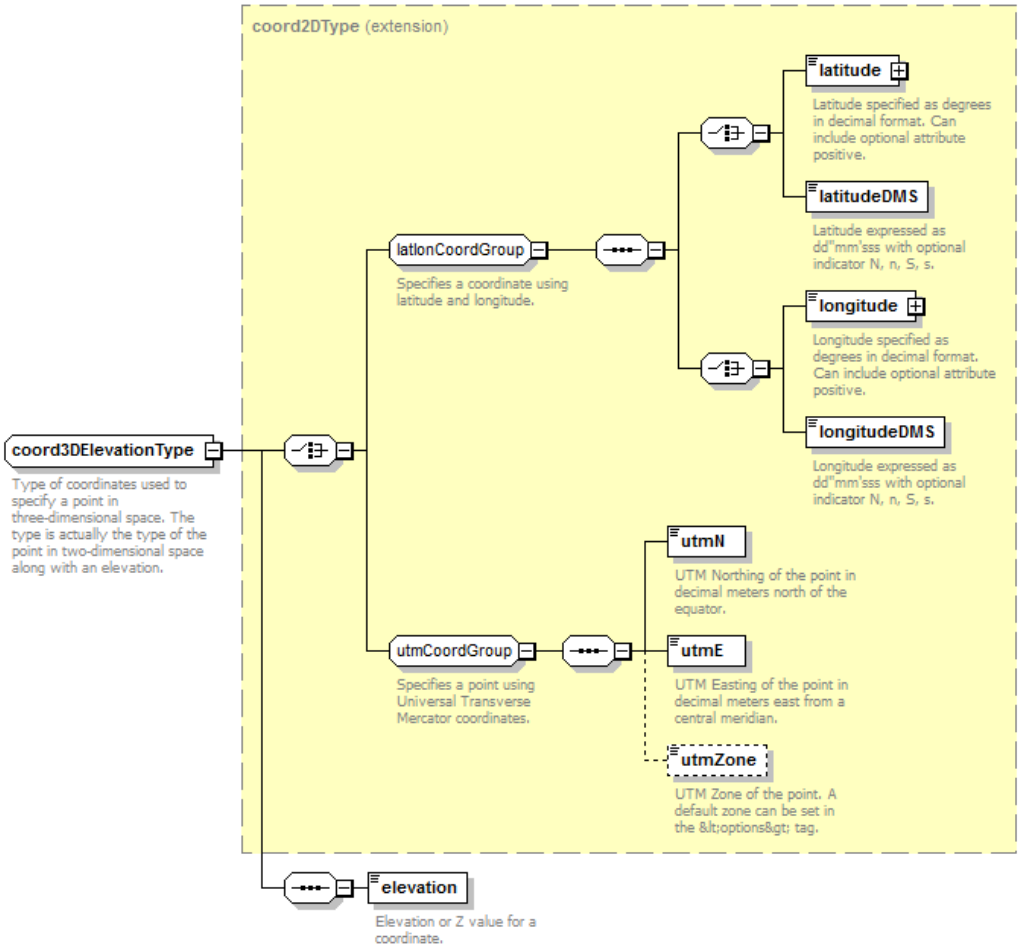
diagram	



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**

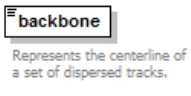
diagram	**elevation** Elevation or Z value for a coordinate.
type	**xs:float**
properties	content simple
annotation	documentation Elevation or Z value for a coordinate.

complexType **dispersionWeight1Type**

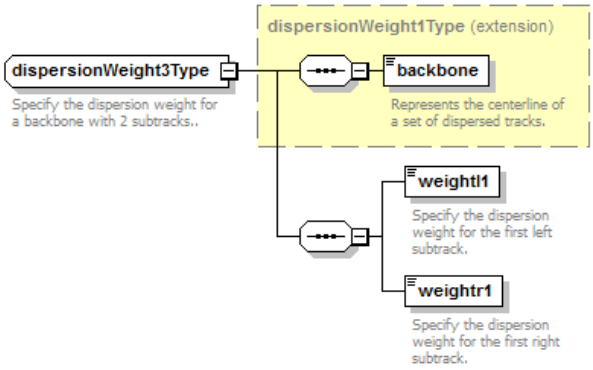
diagram	**dispersionWeight1Type** — **backbone** Abstract type used to specify the dispersion weight for the backbone subtrack. This type is intended only to be a base class and will not be used in ASIF files directly. Represents the centerline of a set of dispersed tracks.
children	**backbone**
used 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**

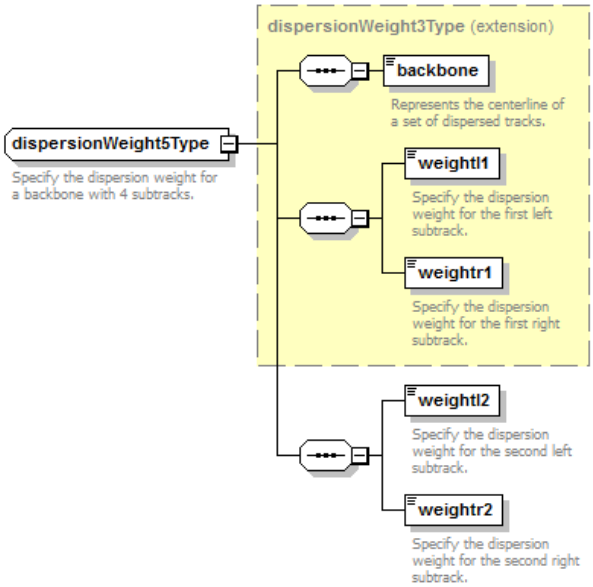
diagram	
type	**xs:double**
properties	content simple
annotation	documentation Specify the dispersion weight for the first left subtrack.

element **dispersionWeight3Type/weightr1**

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

complexType **dispersionWeight5Type**

diagram	



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**

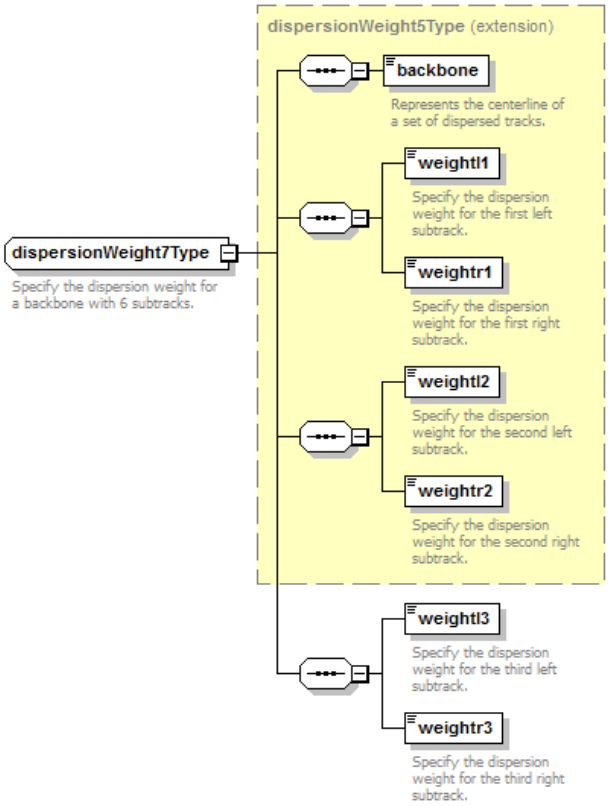
diagram	**weightl2** Specify the dispersion weight for the second left subtrack.
type	**xs:double**
properties	content simple
annotation	documentation Specify the dispersion weight for the second left subtrack.

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	



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 w eight for a backbone w ith 6 subtracks.

element **dispersionWeight7Type/weightl3**

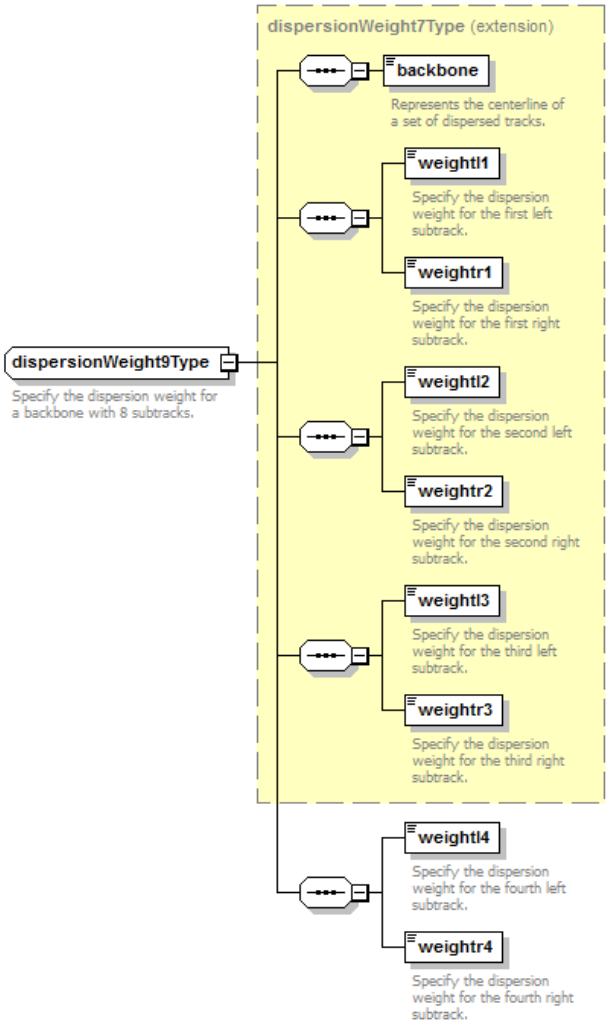
diagram	**weightl3** Specify the dispersion weight for the third left subtrack.
type	**xs:double**
properties	content simple
annotation	documentation Specify the dispersion w eight for the third left subtrack.

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 w eight for the third right subtrack.

complexType **dispersionWeight9Type**

diagram	



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**

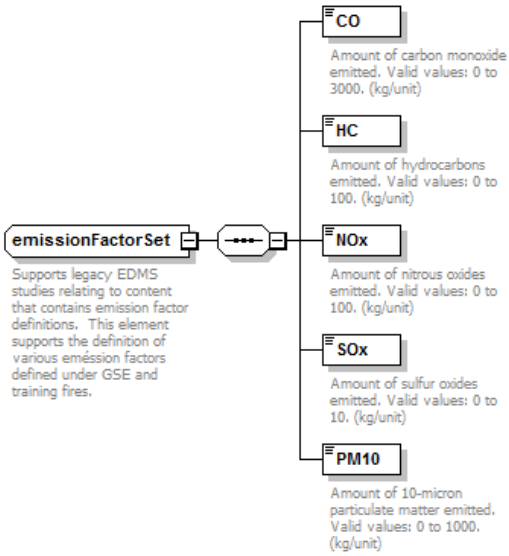
diagram	**weightl4** Specify the dispersion weight for the fourth left subtrack.
type	**xs:double**
properties	content simple
annotation	documentation Specify the dispersion weight for the fourth left subtrack.

element **dispersionWeight9Type/weightr4**

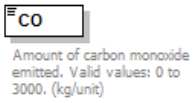
diagram	**weightr4** Specify the dispersion weight for the fourth right subtrack.
type	**xs:double**
properties	content simple
annotation	documentation

	Specify the dispersion w eight for the fourth right subtrack.

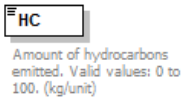
complexType **emissionFactorSet**

diagram	
children	**CO HC NOx SOx PM10**
used by	elements **userGroundSupportEquipment/userEmissionFactors/emissionFactorsCNG** **userGroundSupportEquipment/userEmissionFactors/emissionFactorsDiesel** **userGroundSupportEquipment/userEmissionFactors/emissionFactorsGas** **userGroundSupportEquipment/userEmissionFactors/emissionFactorsLPG**
annotation	documentation Supports legacy EDMS studies relating to content that contains emission factor definitions. This element supports the definition of various eméssion factors defined under GSE and training fires.

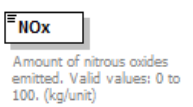
element **emissionFactorSet/CO**

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)

complexType **energyShare**

diagram	**energyShare** A custom BADA energy share. **anpAirplaneId** The ANP airplane ID. **badaAirplaneId** The BADA airplane ID. **transEnergyShare** 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**

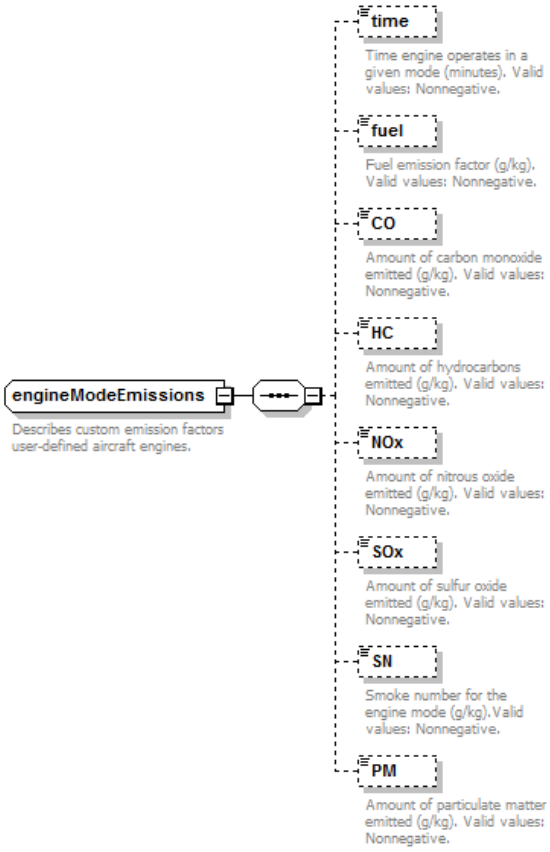
diagram	**badaAirplaneId** The BADA airplane ID.
type	**badaAirplaneId**
properties	content simple

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

element **engineModeEmissions/SOx**

diagram	

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

element **engineModeEmissions/SN**

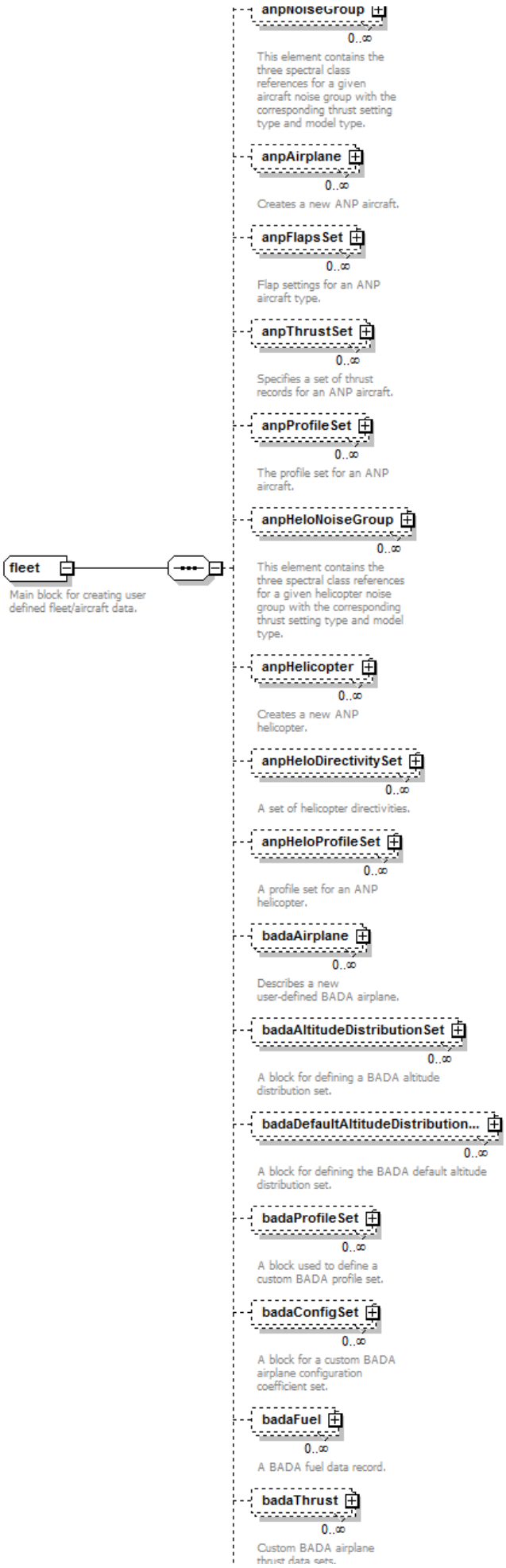
diagram	SN Smoke number for the engine mode (g/kg).Valid values: Nonnegative.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Smoke number for the engine mode (g/kg).Valid values: Nonnegative.

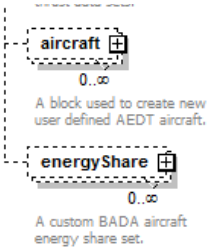
element **engineModeEmissions/PM**

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

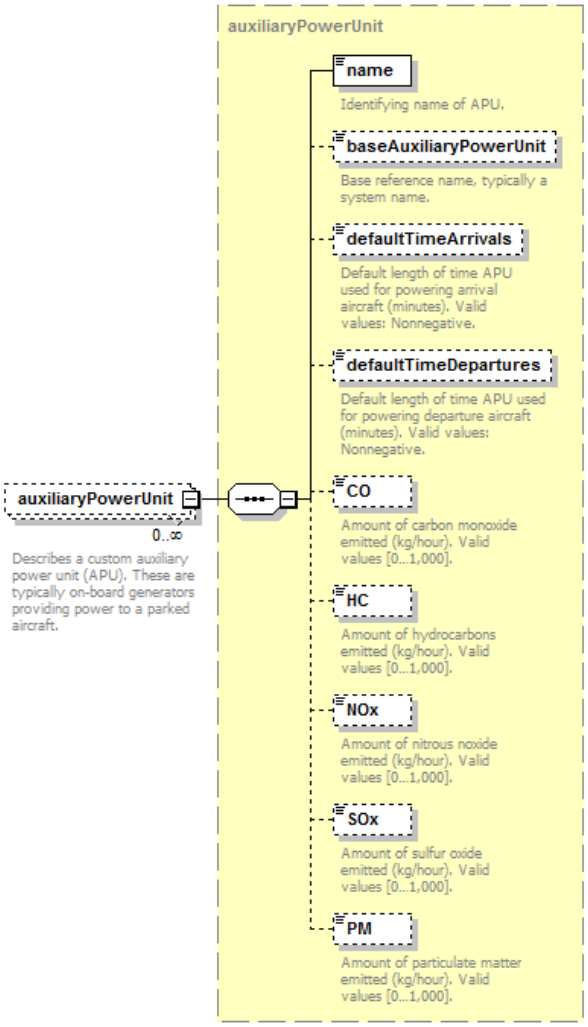
complexType **fleet**

diagram	auxiliaryPowerUnit 0..∞ Describes a custom auxiliary power unit (APU). These are typically on-board generators providing power to a parked aircraft. airframe 0..∞ Supports the definition of custom airframes. engine 0..∞ User defined engine information containing custom parameters that reflect an aircraft engine. This engine definition can then be used within a user-defined aircraft. engineMod 0..∞ User defined engine modification information containing custom parameters that reflect an aircraft engine modification. This engine modification definition can that be used within a user defined aircraft.


fleet
Main block for creating user defined fleet/aircraft 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..∞
A block for a custom BADA airplane configuration coefficient set.
badaFuel
0..∞
A BADA fuel data record.
badaThrust
0..∞
Custom BADA airplane thrust data sets.

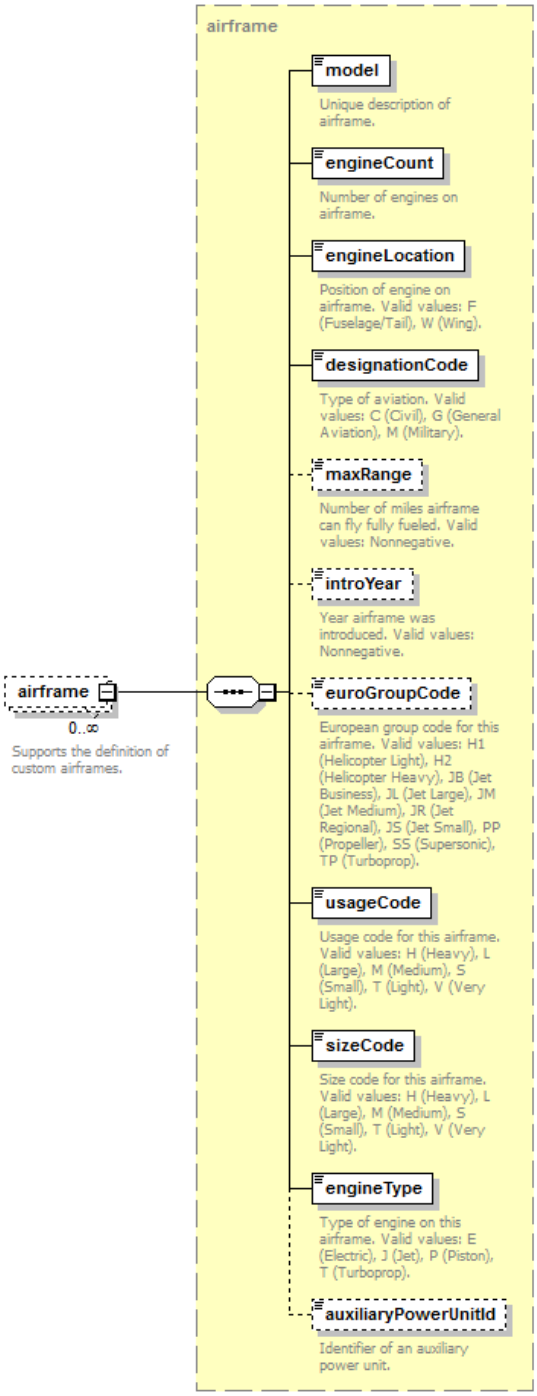
	
children	**auxiliaryPowerUnit** **airframe** **engine** **engineMod** **anpNoiseGroup** **anpAirplane** **anpFlapsSet** **anpThrustSet** **anpProfileSet** **anpHeloNoiseGroup** **anpHelicopter** **anpHeloDirectivitySet** **anpHeloProfileSet** **badaAirplane** **badaAltitudeDistributionSet** **badaDefaultAltitudeDistributionSet** **badaProfileSet** **badaConfigSet** **badaFuel** **badaThrust** **aircraft** **energyShare**
used by	elements **AsifXml/fleet** **study/fleet**
annotation	documentation Main block for creating user defined fleet/aircraft data.

element **fleet/auxiliaryPowerUnit**

diagram	
type	**auxiliaryPowerUnit**
properties	minOcc 0 maxOcc unbounded content complex
children	**name** **baseAuxiliaryPowerUnit** **defaultTimeArrivals** **defaultTimeDepartures** **CO** **HC** **NOx** **SOx** **PM**
annotation	documentation Describes a custom auxiliary pow er unit (APU). These are typically on-board generators providing pow er to a parked aircraft.

element **fleet/airframe**

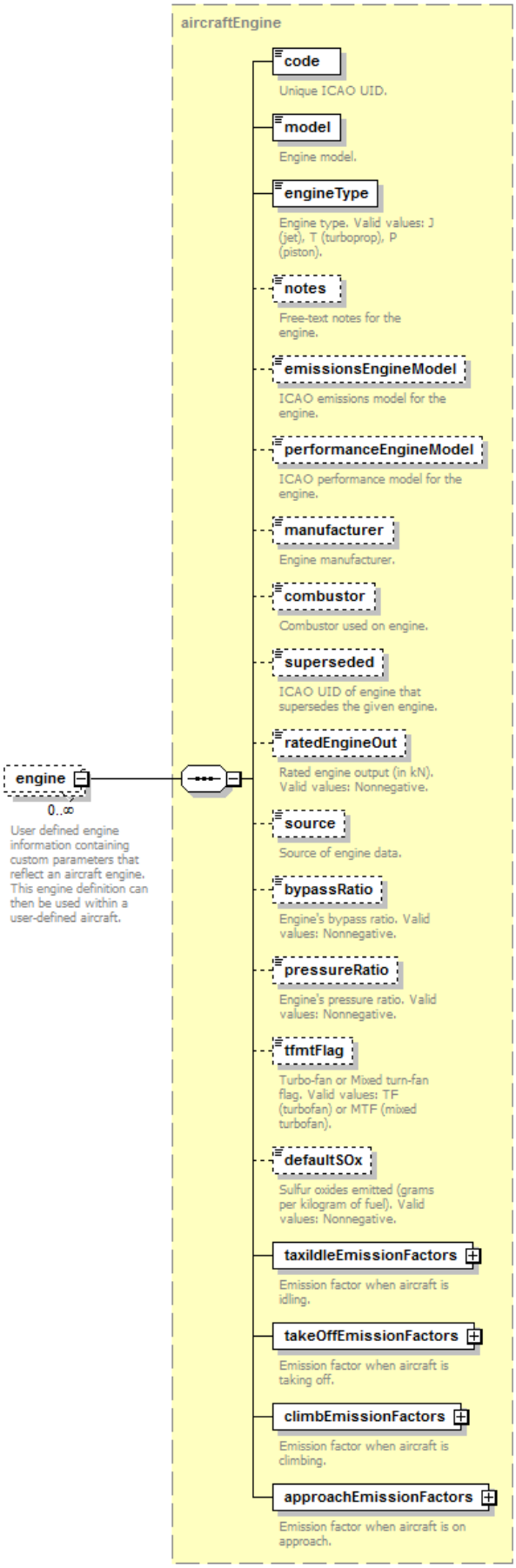
diagram	



type	**airframe**
properties	minOcc 0 maxOcc unbounded content complex
children	**model** **engineCount** **engineLocation** **designationCode** **maxRange** **introYear** **euroGroupCode** **usageCode** **sizeCode** **engineType** **auxiliaryPowerUnitId**
annotation	documentation Supports the definition of custom airframes.

element **fleet/engine**

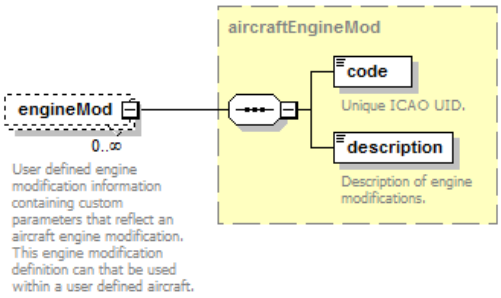
diagram	



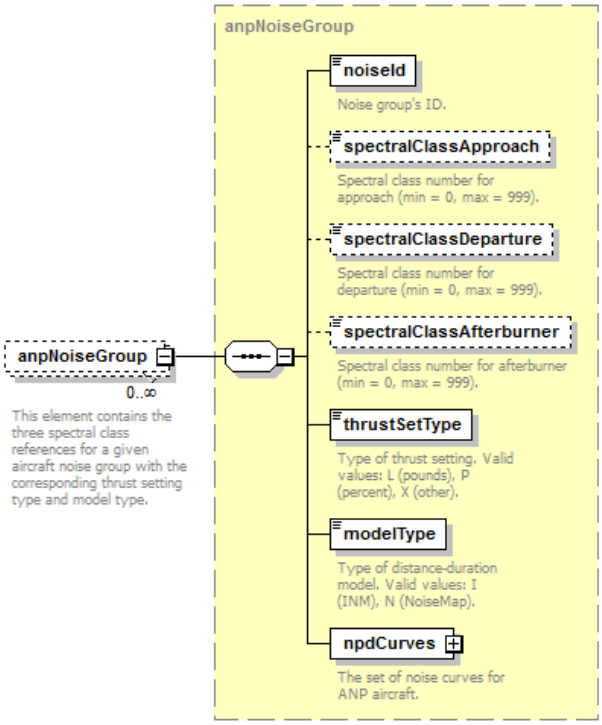
type	**aircraftEngine**
properties	minOcc 0 maxOcc unbounded content complex

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.

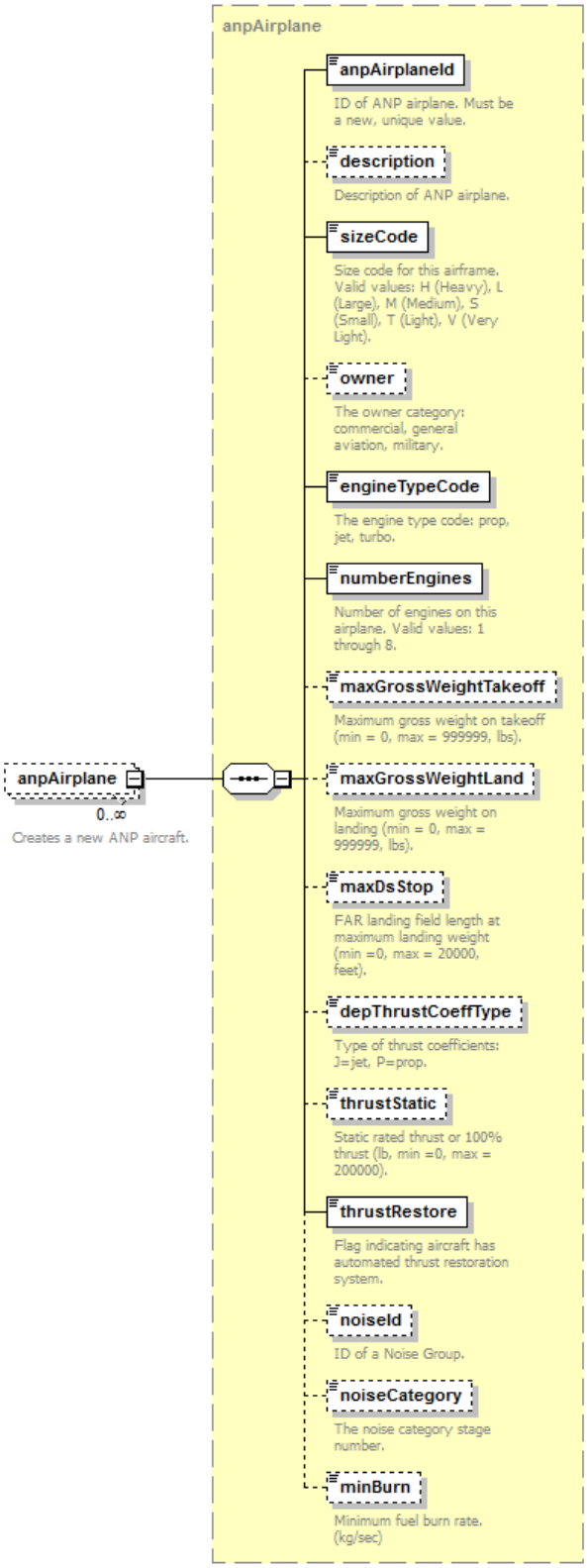
element **fleet/engineMod**

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.

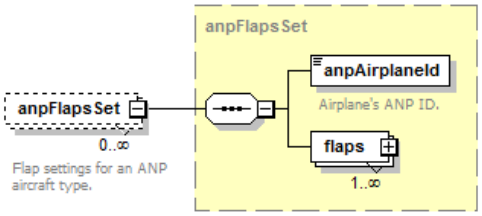
element **fleet/anpNoiseGroup**

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

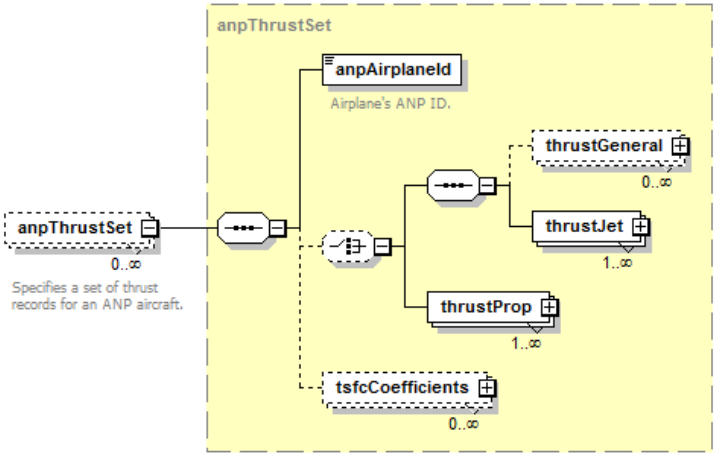
element **fleet/anpAirplane**

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**
annotation	documentation Creates a new ANP aircraft.

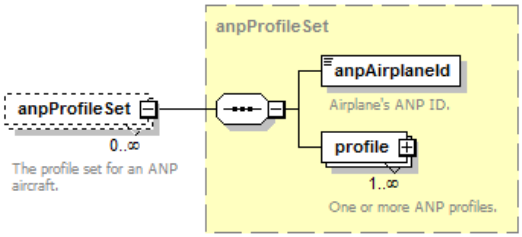
element **fleet/anpFlapsSet**

diagram	
type	**anpFlapsSet**
properties	minOcc 0 maxOcc unbounded content complex
children	**anpAirplaneId** **flaps**
annotation	documentation Flap settings for an ANP aircraft type.

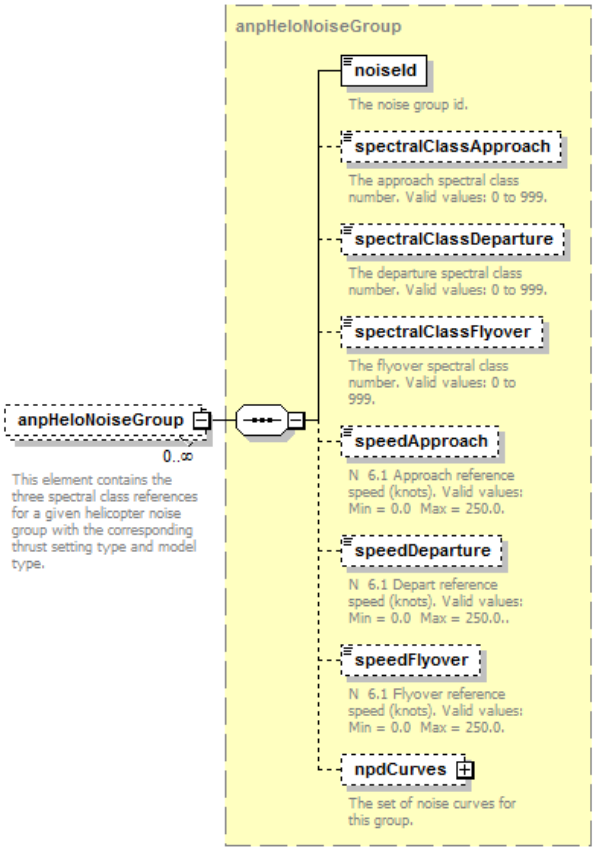
element **fleet/anpThrustSet**

diagram	
type	**anpThrustSet**
properties	minOcc 0 maxOcc unbounded content complex
children	**anpAirplaneId** **thrustGeneral** **thrustJet** **thrustProp** **tsfcCoefficients**
annotation	documentation Specifies a set of thrust records for an ANP aircraft.

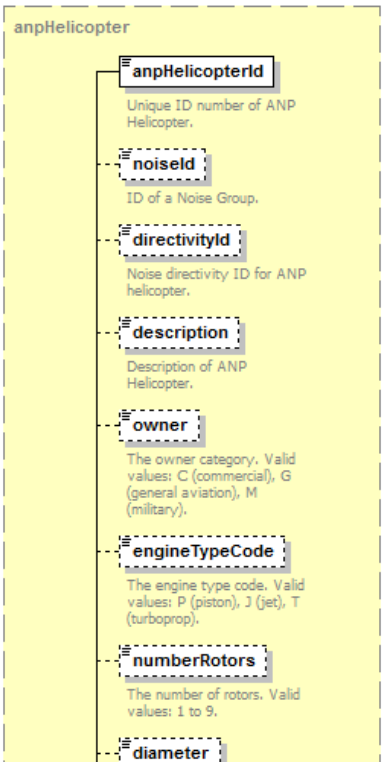
element **fleet/anpProfileSet**

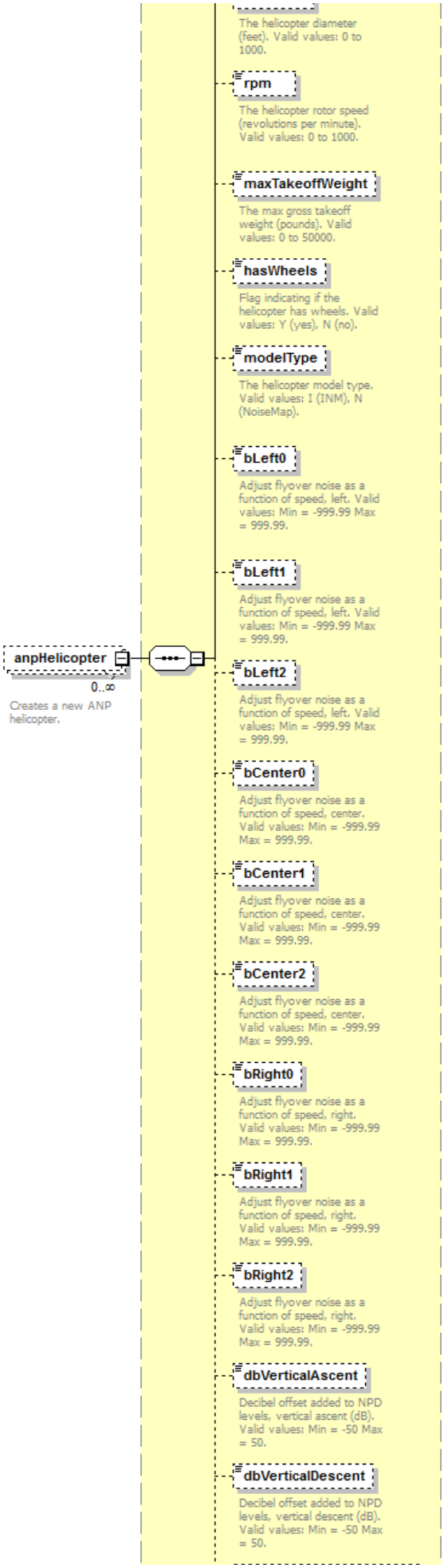
diagram	
type	**anpProfileSet**
properties	minOcc 0 maxOcc unbounded content complex
children	**anpAirplaneId** **profile**
annotation	documentation The profile set for an ANP aircraft.

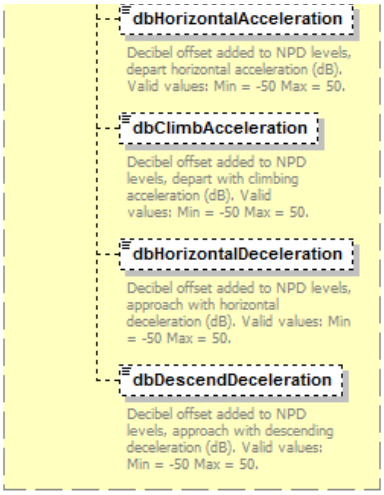
element **fleet/anpHeloNoiseGroup**

diagram	
type	anpHeloNoiseGroup
properties	minOcc 0 maxOcc unbounded content complex
children	noiseId spectralClassApproach spectralClassDeparture spectralClassFlyover speedApproach speedDeparture speedFlyover npdCurves
annotation	documentation This element contains the three spectral class references for a given helicopter noise group w ith the corresponding thrust setting type and model type.

element **fleet/anpHelicopter**

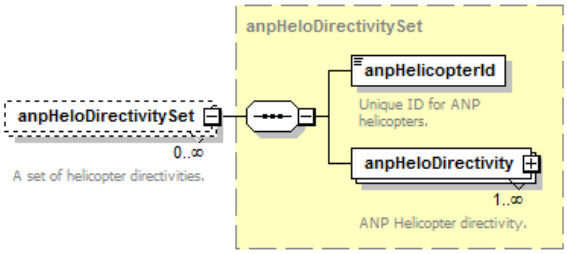
diagram	


The helicopter diameter (feet). Valid values: 0 to 1000.
rpm
The helicopter rotor speed (revolutions per minute). Valid values: 0 to 1000.
maxTakeoffWeight
The max gross takeoff weight (pounds). Valid values: 0 to 50000.
hasWheels
Flag indicating if the helicopter has wheels. Valid values: Y (yes), N (no).
modelType
The helicopter model type. Valid values: I (INM), N (NoiseMap).
bLeft0
Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.
bLeft1
Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.
anpHelicopter
0..∞
Creates a new ANP helicopter.
bLeft2
Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.
bCenter0
Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.
bCenter1
Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.
bCenter2
Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.
bRight0
Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.
bRight1
Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.
bRight2
Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.
dbVerticalAscent
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.

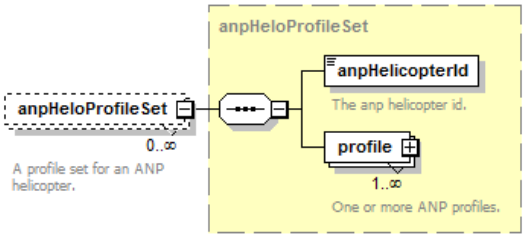


type	**anpHelicopter**
properties	minOcc 0 maxOcc unbounded content complex
children	**anpHelicopterId** **noiseId** **directivityId** **description** **owner** **engineTypeCode** **numberRotors** **diameter** **rpm** **maxTakeoffWeight** **hasWheels** **modelType** **bLeft0** **bLeft1** **bLeft2** **bCenter0** **bCenter1** **bCenter2** **bRight0** **bRight1** **bRight2** **dbVerticalAscent** **dbVerticalDescent** **dbHorizontalAcceleration** **dbClimbAcceleration** **dbHorizontalDeceleration** **dbDescendDeceleration**
annotation	documentation Creates a new ANP helicopter.

element **fleet/anpHeloDirectivitySet**

diagram	
type	**anpHeloDirectivitySet**
properties	minOcc 0 maxOcc unbounded content complex
children	**anpHelicopterId** **anpHeloDirectivity**
annotation	documentation A set of helicopter directivities.

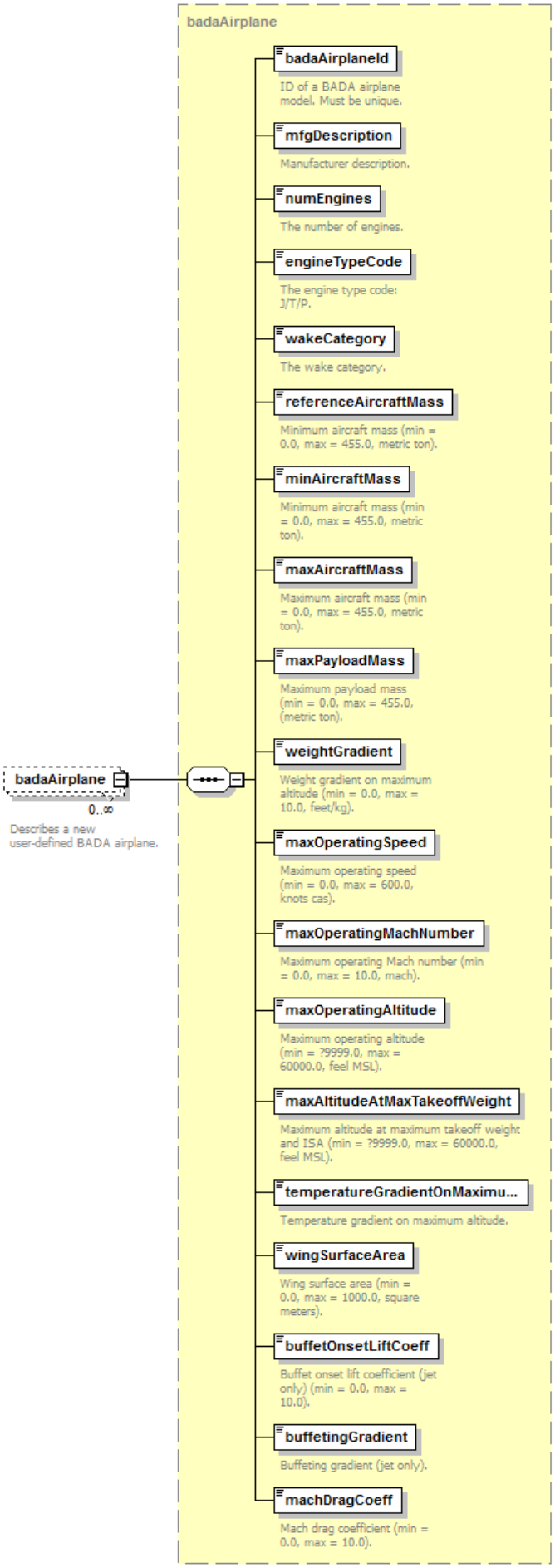
element **fleet/anpHeloProfileSet**

diagram	
type	**anpHeloProfileSet**
properties	minOcc 0 maxOcc unbounded content complex
children	**anpHelicopterId** **profile**
annotation	documentation

	A profile set for an ANP helicopter.

element **fleet/badaAirplane**

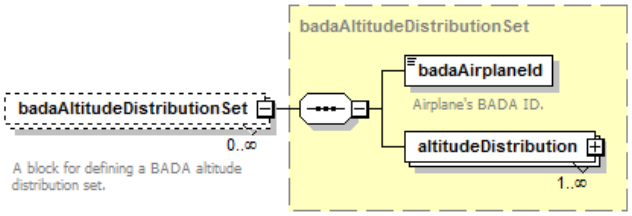
diagram	



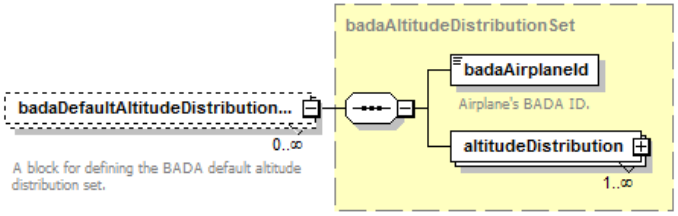
type	**badaAirplane**

properties	minOcc 0 maxOcc unbounded content complex
children	**badaAirplaneId** **mfgDescription** **numEngines** **engineTypeCode** **wakeCategory** **referenceAircraftMass** **minAircraftMass** **maxAircraftMass** **maxPayloadMass** **weightGradient** **maxOperatingSpeed** **maxOperatingMachNumber** **maxOperatingAltitude** **maxAltitudeAtMaxTakeoffWeight** **temperatureGradientOnMaximumAltitude** **wingSurfaceArea** **buffetOnsetLiftCoeff** **buffetingGradient** **machDragCoeff**
annotation	documentation Describes a new user-defined BADA airplane.

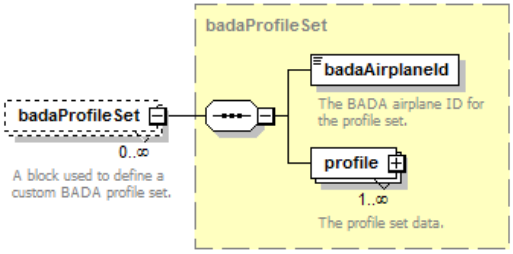
element **fleet/badaAltitudeDistributionSet**

diagram	
type	**badaAltitudeDistributionSet**
properties	minOcc 0 maxOcc unbounded content complex
children	**badaAirplaneId** **altitudeDistribution**
annotation	documentation A block for defining a BADA altitude distribution set.

element **fleet/badaDefaultAltitudeDistributionSet**

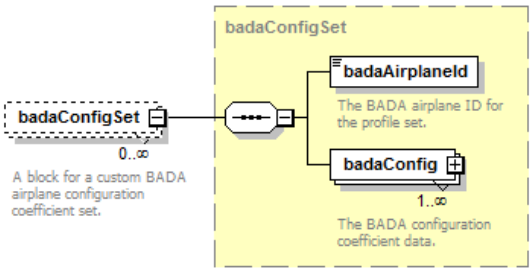
diagram	
type	**badaAltitudeDistributionSet**
properties	minOcc 0 maxOcc unbounded content complex
children	**badaAirplaneId** **altitudeDistribution**
annotation	documentation A block for defining the BADA default altitude distribution set.

element **fleet/badaProfileSet**

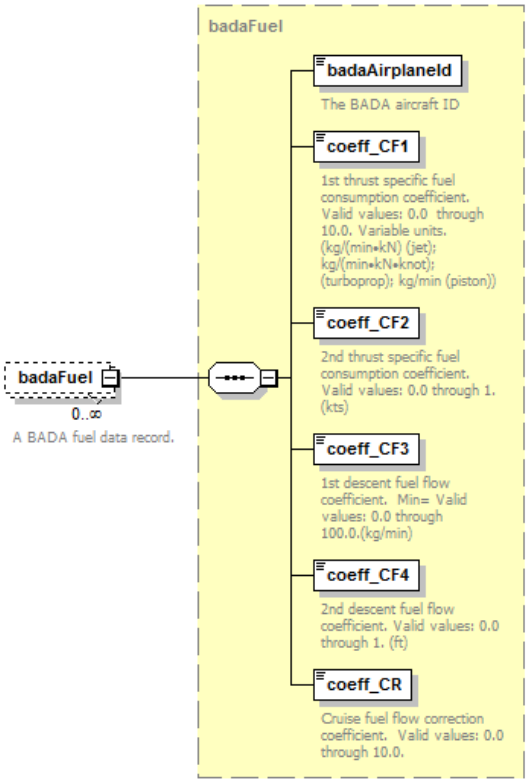
diagram	
type	**badaProfileSet**
properties	minOcc 0 maxOcc unbounded content complex
children	**badaAirplaneId** **profile**
annotation	documentation

	A block used to define a custom BADA profile set.

element **fleet/badaConfigSet**

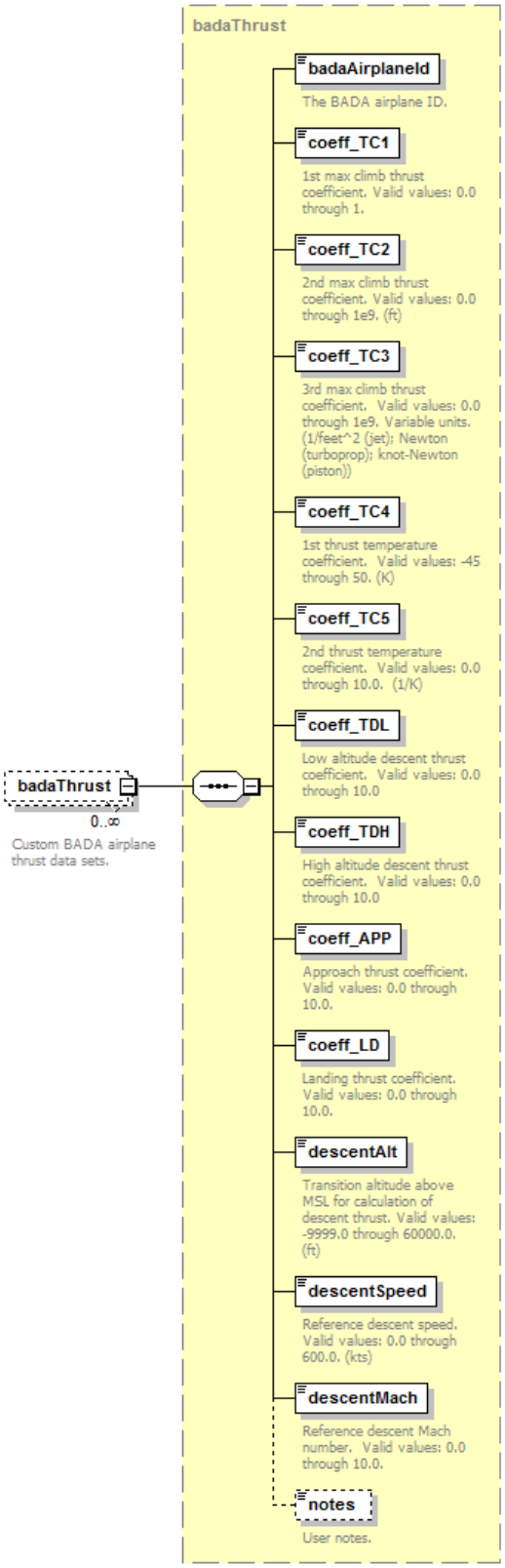
diagram	
type	**badaConfigSet**
properties	minOcc 0 maxOcc unbounded content complex
children	**badaAirplaneId** **badaConfig**
annotation	documentation A block for a custom BADA airplane configuration coefficient set.

element **fleet/badaFuel**

diagram	
type	**badaFuel**
properties	minOcc 0 maxOcc unbounded content complex
children	**badaAirplaneId** **coeff_CF1** **coeff_CF2** **coeff_CF3** **coeff_CF4** **coeff_CR**
annotation	documentation A BADA fuel data record.

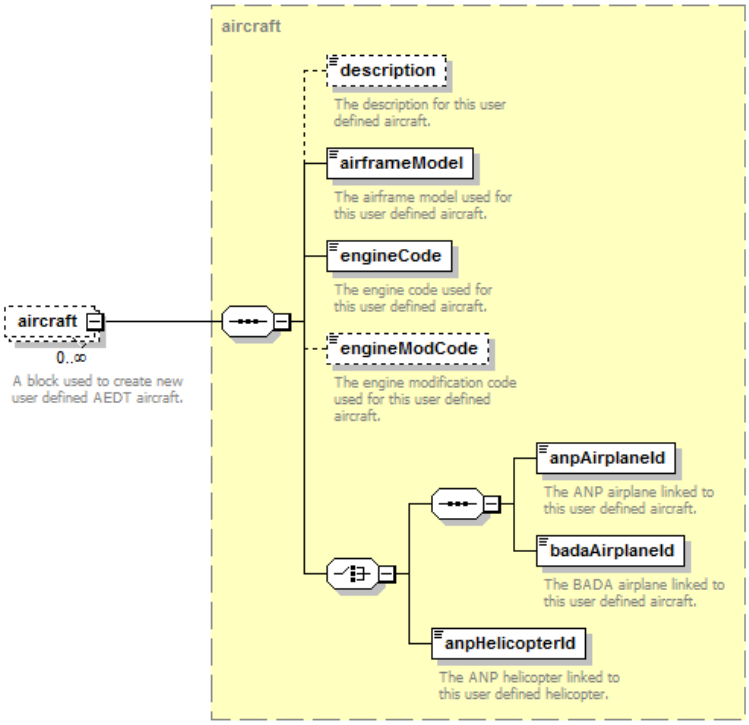
element **fleet/badaThrust**

diagram	

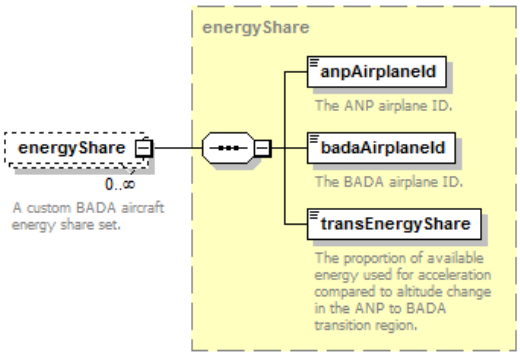


type	**badaThrust**
properties	minOcc 0 maxOcc unbounded content complex
children	**badaAirplaneId** **coeff_TC1** **coeff_TC2** **coeff_TC3** **coeff_TC4** **coeff_TC5** **coeff_TDL** **coeff_TDH** **coeff_APP** **coeff_LD** **descentAlt** **descentSpeed** **descentMach** **notes**
annotation	documentation Custom BADA airplane thrust data sets.

element **fleet/aircraft**

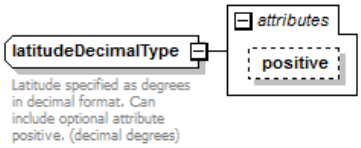
diagram	
type	**aircraft**
properties	minOcc 0 maxOcc unbounded content complex
children	**description** **airframeModel** **engineCode** **engineModCode** **anpAirplaneId** **badaAirplaneId** **anpHelicopterId**
annotation	documentation A block used to create new user defined AEDT aircraft.

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	

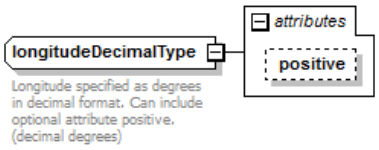


type	extension of **xs:double**
properties	base xs:double
used by	element **latlonCoordGroup/latitude**
attributes	Name / Type / Use / Default / Fixed / Annotation positive / **derived by: xs:string** / optional / N / /
annotation	documentation Latitude specified as degrees in decimal format. Can include 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

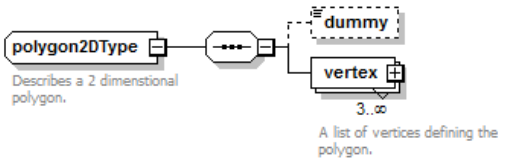
complexType **longitudeDecimalType**

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 / /
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**

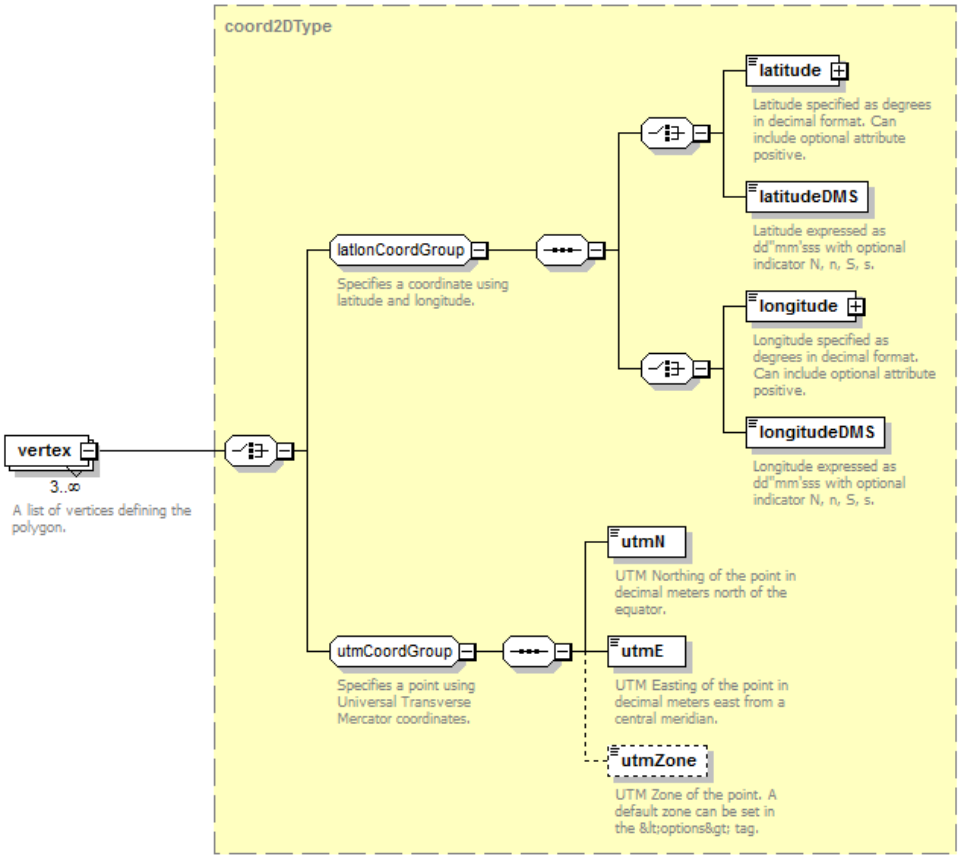
diagram	
children	**dummy** **vertex**
used by	elements **boundary/polygon** **oneOrThreeCoords2DGroupSet/polygonCoords**
annotation	documentation Describes a 2 dimenstional polygon.

element **polygon2DType/dummy**

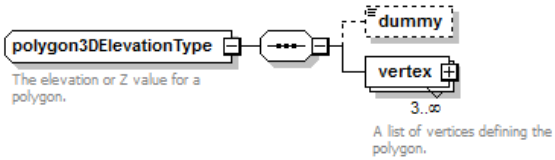
diagram	

	dummy
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**

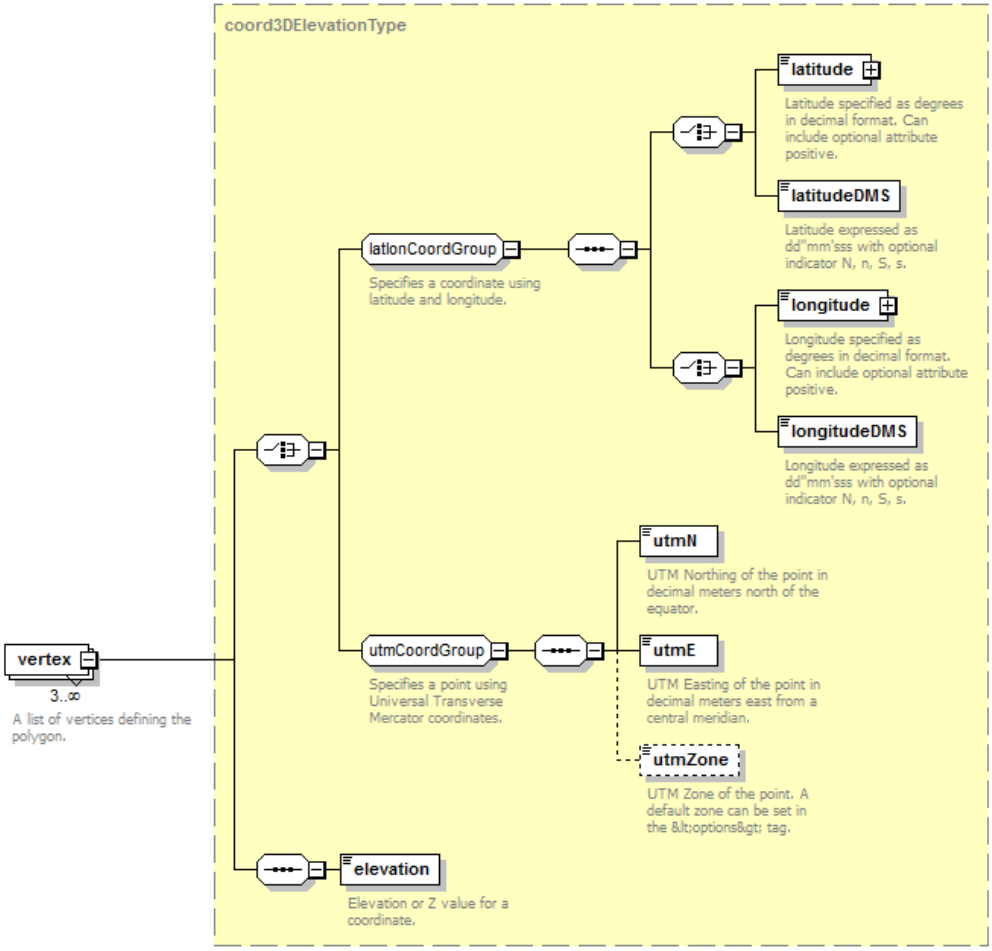
diagram	
children	**dummy vertex**
annotation	documentation The elevation or Z value for a polygon.

element **polygon3DElevationType/dummy**

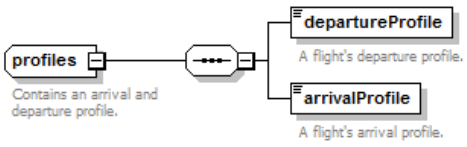
diagram	dummy
type	**xs:int**

properties	minOcc 0 maxOcc 1 content simple

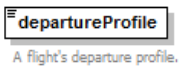
element **polygon3DElevationType/vertex**

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	

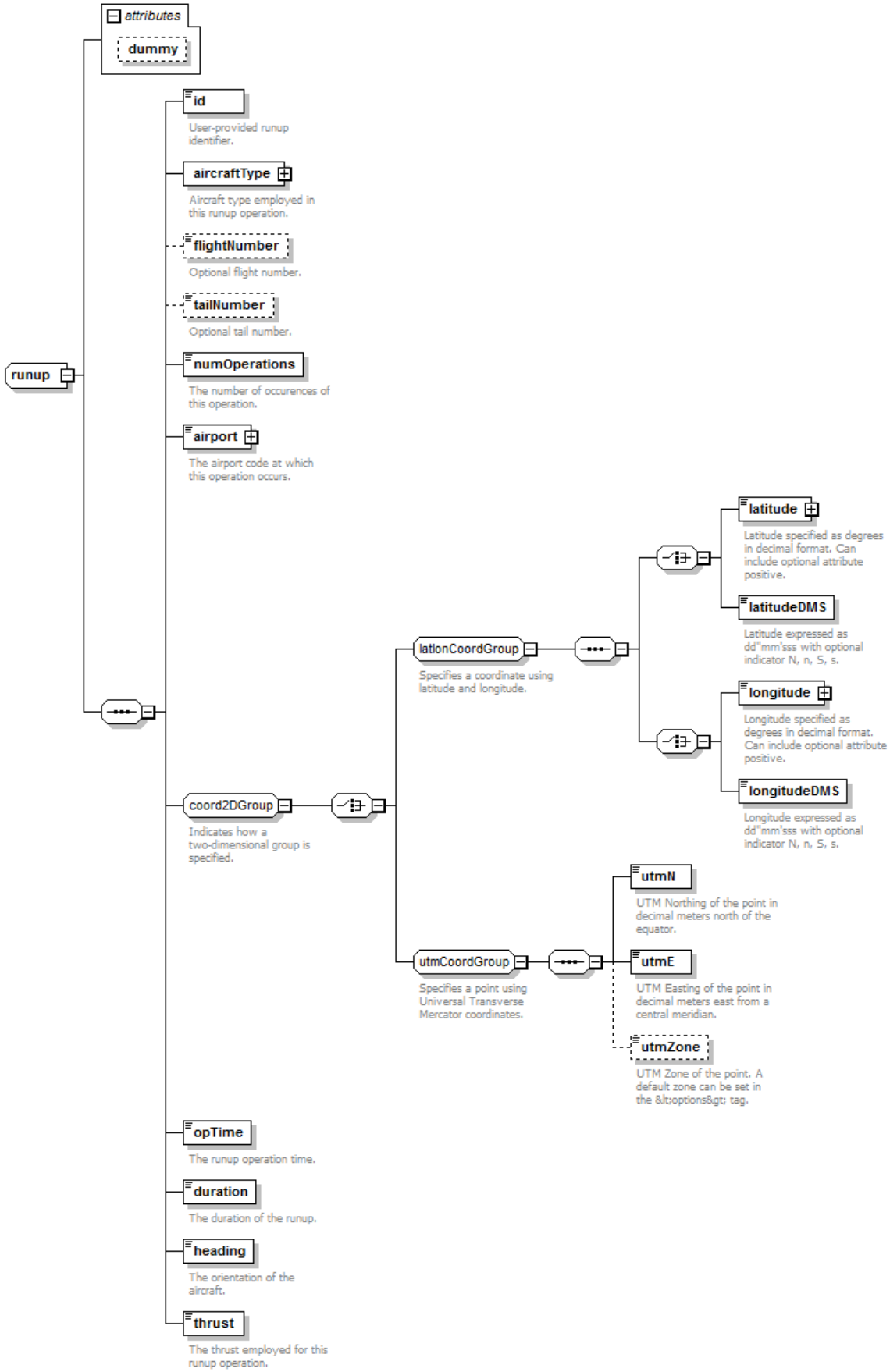
type	**profileType**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation A flight's departure profile.

element **profiles/arrivalProfile**

diagram	**arrivalProfile** A flight's arrival profile.
type	**profileType**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation A flight's arrival profile.

complexType **runup**

diagram	



children	**id** **aircraftType** **flightNumber** **tailNumber** **numOperations** **airport** **latitude** **latitudeDMS** **longitude** **longitudeDMS** **utmN** **utmE** **utmZone** **opTime** **duration** **heading** **thrust**
used by	elements **AsifXml/runup** **case/runup**
attributes	Name Type Use Default Fixed Annotation dummy **xs:int** optional

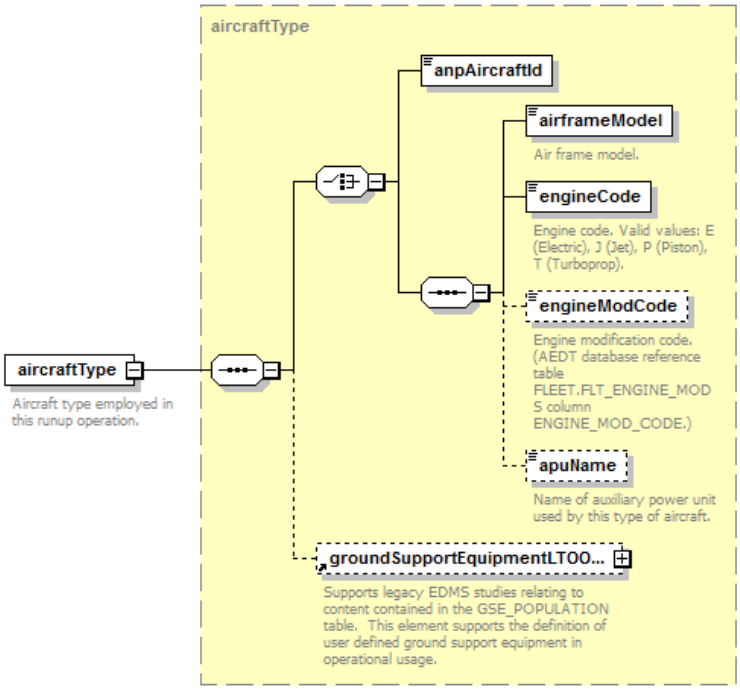
attribute **runup/@dummy**

type	**xs:int**
properties	use optional

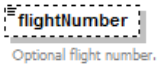
element **runup/id**

diagram	
type	**string16**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 16
annotation	documentation User-provided runup identifier.

element **runup/aircraftType**

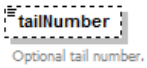
diagram	
type	**aircraftType**
properties	content complex
children	**anpAircraftId airframeModel engineCode engineModCode apuName groundSupportEquipmentLTOOperationSet**
annotation	documentation Aircraft type employed in this runup operation.

element **runup/flightNumber**

diagram	
type	**string16**
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 16

annotation	documentation Optional flight number.

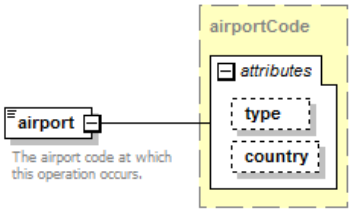
element **runup/tailNumber**

diagram	
type	**string8**
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation Optional tail number.

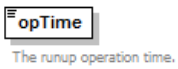
element **runup/numOperations**

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

element **runup/airport**

diagram	
type	**airportCode**
properties	content complex
facets	Kind Value Annotation minLength 0 maxLength 4
attributes	Name Type Use Default Fixed Annotation type **airportCodeType** optional ANY country **string3** optional ANY
annotation	documentation The airport code at w hich this operation occurs.

element **runup/opTime**

diagram	
type	**xs:dateTime**
properties	content simple
annotation	documentation The runup operation time.

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**

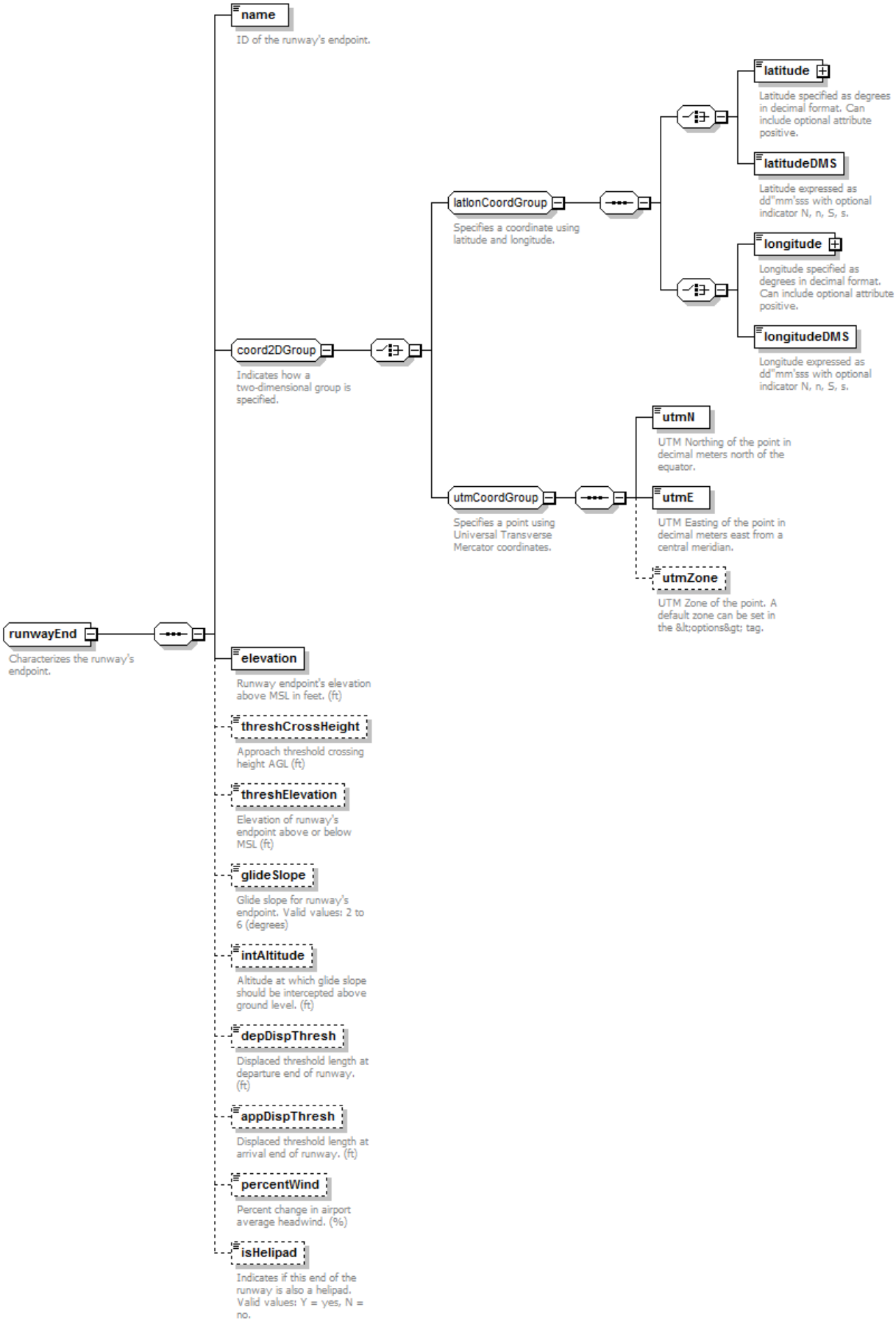
diagram	**heading** The orientation of the aircraft.
type	**xs:double**
properties	content simple
annotation	documentation The orientation of the aircraft.

element **runup/thrust**

diagram	**thrust** The thrust employed for this runup operation.
type	**xs:double**
properties	content simple
annotation	documentation The thrust employed for this runup operation.

complexType **runwayEnd**

diagram	



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	**name** ID of the runway's endpoint.
type	**string8**
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation ID of the runway's endpoint.

element **runwayEnd/elevation**

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

element **runwayEnd/threshCrossHeight**

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

element **runwayEnd/threshElevation**

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

element **runwayEnd/glideSlope**

diagram	**glideSlope** Glide slope for runway's endpoint. Valid values: 2 to 6 (degrees)
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple

annotation	documentation Glide slope for runway's endpoint. Valid values: 2 to 6 (degrees)

element **runwayEnd/intAltitude**

diagram	**intAltitude** Altitude at which glide slope should be intercepted above ground level. (ft)
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Altitude at which glide slope should be intercepted above ground level. (ft)

element **runwayEnd/depDispThresh**

diagram	**depDispThresh** Displaced threshold length at departure end of runway. (ft)
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Displaced threshold length at departure end of runway. (ft)

element **runwayEnd/appDispThresh**

diagram	**appDispThresh** Displaced threshold length at arrival end of runway. (ft)
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Displaced threshold length at arrival end of runway. (ft)

element **runwayEnd/percentWind**

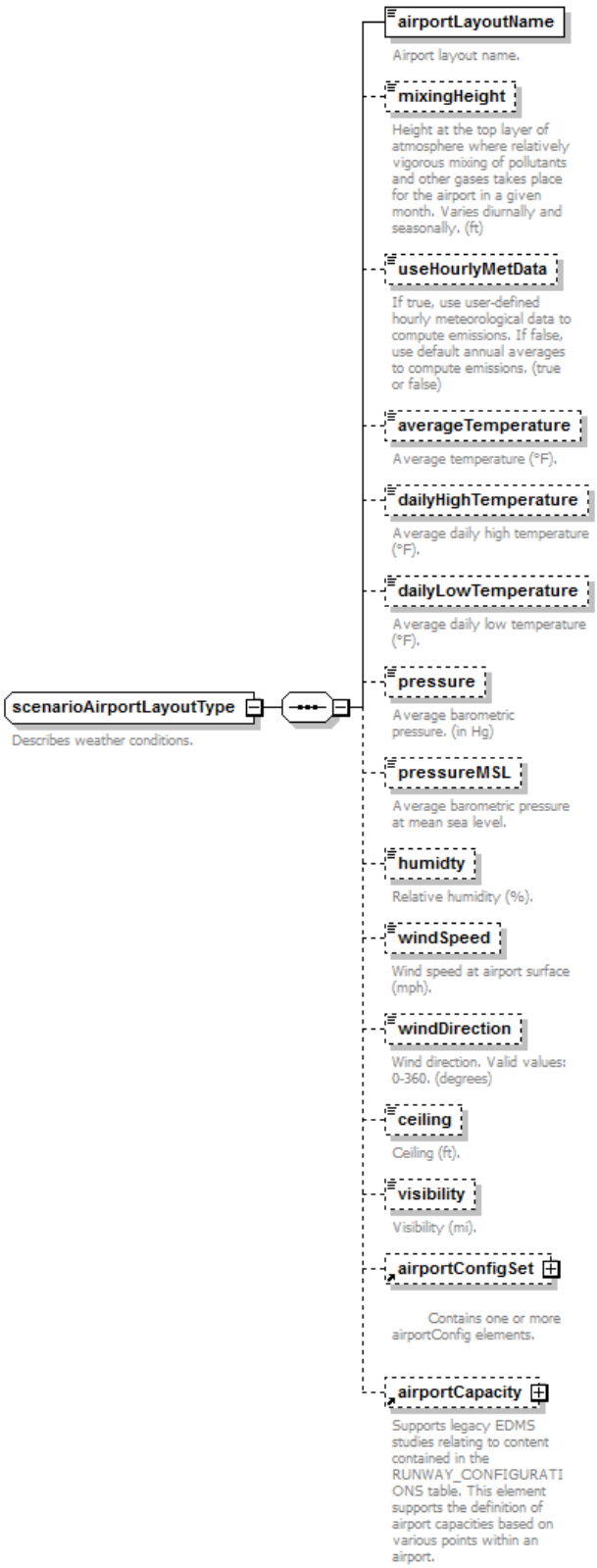
diagram	**percentWind** Percent change in airport average headwind. (%)
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Percent change in airport average headwind. (%)

element **runwayEnd/isHelipad**

diagram	**isHelipad** Indicates if this end of the runway is also a helipad. Valid values: Y = yes, N = no.
type	**xs:string**
properties	minOcc 0 maxOcc 1

	content simple
annotation	documentation Indicates if this end of the runw ay is also a helipad. Valid values: Y = yes, N = no.

complexType **scenarioAirportLayoutType**

diagram	
children	**airportLayoutName** **mixingHeight** **useHourlyMetData** **averageTemperature** **dailyHighTemperature** **dailyLowTemperature** **pressure** **pressureMSL** **humidty** **windSpeed** **windDirection** **ceiling** **visibility** **airportConfigSet** **airportCapacity**
used by	element **scenarioAirportLayoutSet/scenarioAirportLayout**
annotation	documentation

	Describes weather conditions.

element **scenarioAirportLayoutType/airportLayoutName**

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

element **scenarioAirportLayoutType/mixingHeight**

diagram	**mixingHeight** Height at the top layer of atmosphere where relatively vigorous mixing of pollutants and other gases takes place for the airport in a given month. Varies diurnally and seasonally. (ft)
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Height at the top layer of atmosphere where relatively vigorous mixing of pollutants and other gases takes place for the airport in a given month. Varies diurnally and seasonally. (ft)

element **scenarioAirportLayoutType/useHourlyMetData**

diagram	**useHourlyMetData** If true, use user-defined hourly meteorological data to compute emissions. If false, use default annual averages to compute emissions. (true or false)
type	**xs:boolean**
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation If true, use user-defined hourly meteorological data to compute emissions. If false, use default annual averages to compute emissions. (true or false)

element **scenarioAirportLayoutType/averageTemperature**

diagram	**averageTemperature** Average temperature (°F).
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Average temperature (°F).

element **scenarioAirportLayoutType/dailyHighTemperature**

diagram	

	dailyHighTemperature Average daily high temperature (°F).
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Average daily high temperature (°F).

element **scenarioAirportLayoutType/dailyLowTemperature**

diagram	**dailyLowTemperature** Average daily low temperature (°F).
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Average daily low temperature (°F).

element **scenarioAirportLayoutType/pressure**

diagram	**pressure** Average barometric pressure. (in Hg)
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Average barometric pressure. (in Hg)

element **scenarioAirportLayoutType/pressureMSL**

diagram	**pressureMSL** Average barometric pressure at mean sea level.
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Average barometric pressure at mean sea level.

element **scenarioAirportLayoutType/humidty**

diagram	**humidty** Relative humidity (%).
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Relative humidity (%).

element **scenarioAirportLayoutType/windSpeed**

diagram	**windSpeed** Wind speed at airport surface (mph).
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Wind speed at airport surface (mph).

element **scenarioAirportLayoutType/windDirection**

diagram	**windDirection** Wind direction. Valid values: 0-360. (degrees)
type	**int0to360**
properties	minOcc 0 maxOcc 1 content simple default 1
facets	Kind Value Annotation minInclusive 0 maxExclusive 360
annotation	documentation Wind direction. Valid values: 0-360. (degrees)

element **scenarioAirportLayoutType/ceiling**

diagram	**ceiling** Ceiling (ft).
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Ceiling (ft).

element **scenarioAirportLayoutType/visibility**

diagram	**visibility** Visibility (mi).
type	**xs:double**
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Visibility (mi).

simpleType **aircraftPerformanceModelType**

type	restriction of **xs:string**
properties	base xs:string
used by	element **scenario/acftPerfModel**
facets	Kind Value Annotation

	enumeration ICAO enumeration SAE1845
annotation	documentation Type of aircraft performance model. Valid values: ICAO, SAE1845.

simpleType **AircraftSizeType**

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

simpleType **airframeModel**

type	restriction of **xs:string**
properties	base xs:string
used by	elements **aircraft/airframeModel** **airframe/model**
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Refers to an existing airframe model.

simpleType **airportCodeType**

type	restriction of **xs:string**
properties	base xs:string
used by	attribute **airportCode/@type**
facets	Kind Value Annotation enumeration ICAO enumeration IATA enumeration FAA enumeration OTHER enumeration ANY
annotation	documentation The type of an airport code.

simpleType **anpAirplaneId**

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

simpleType **anpCoeffType**

type	restriction of **xs:string**
properties	base xs:string
used by	element **anpAirplane/depThrustCoeffType**
facets	Kind Value Annotation

	pattern Jet|J|Prop|P

simpleType **anpFlapId**

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

simpleType **anpHeloDirectId**

type	restriction of **xs:string**
properties	base xs:string
used by	element **anpHeloDirectivitySet/anpHelicopterId**
facets	Kind Value Annotation minLength 0 maxLength 12

simpleType **anpHeloDirectivityId**

type	restriction of **xs:string**
properties	base xs:string
used by	element **anpHelicopter/directivityId**
facets	Kind Value Annotation minLength 0 maxLength 12

simpleType **anpHeloGroundType**

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

simpleType **anpHeloId**

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

simpleType **anpHeloNoiseId**

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

simpleType **anpHeloSideType**

type	restriction of **xs:string**

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

simpleType **anpNoiseId**

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

simpleType **anpNpdNoiseType**

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

simpleType **anpNpdOpMode**

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

simpleType **anpOwnerType**

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

simpleType **anpSizeCode**

type	restriction of **xs:string**
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 pow er unit.

simpleType **badaAirplaneId**

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

simpleType **badaPhaseType**

type	restriction of **xs:string**
properties	base xs:string
used by	element **badaConfig/phase**
facets	Kind Value Annotation pattern InitialClimb|IC|Takeoff|TO|Approach|AP|Landing|LD|Cruise|CR

simpleType **badaWakeType**

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

simpleType **directionType**

type	restriction of **xs:string**
properties	base xs:string
used by	element **taxipath/direction**
facets	Kind Value Annotation pattern A|Arrival|D|Departure|I|Inbound|O|Outbound
annotation	documentation Supports the direction type of a taxi path. Direction type can be either arrival, departure, inbound, or outbound.

simpleType **doubleExclusive0Inclusive10**

type	restriction of **xs:double**
properties	base xs:double
used by	element **pointStationarySource/stackDiameter**
facets	Kind Value Annotation maxInclusive 10 minExclusive 0
annotation	documentation A double value in the range (0,10).

simpleType **doubleExclusive10**

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

simpleType **doubleExclusive100**

type	restriction of **xs:double**
properties	base xs:double
used by	elements **taxiway/dispersionWidth** **categorySandSaltPile/fastestMileOfWind** **categorySandSaltPile/frictionVelocity** **categoryBoilerHeater/fuelAshContent** **categoryBoilerHeater/fuelSulfurContent** **categoryGenerator/fuelSulfurContent** **airportConfig/maxWindSpeed** **categoryFuelTank/verticalTank/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/verticalTank/averageSolutionLevel** **categoryBoilerHeater/fuelCalciumSulfurRatio** **categorySandSaltPile/massDisturbedPerDisturbance** **categoryFuelTank/verticalTank/maximumSolutionLevel** **categoryFuelTank/tankDiameter** **categoryFuelTank/verticalTank/tankHeight** **categoryFuelTank/horizontalTank/tankLength** **categoryAircraftEngine/timePercentPower100** **categoryAircraftEngine/timePercentPower30** **categoryAircraftEngine/timePercentPower7** **categoryAircraftEngine/timePercentPower85**
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation A double value in the range [0,1000).

simpleType **doubleExclusive10000**

type	restriction of **xs:double**
properties	base xs:double
used by	element **categorySandSaltPile/erodedSurfaceArea**
facets	Kind Value Annotation minInclusive 0 maxExclusive 10000
annotation	documentation A double value in the range [0,10000).

simpleType **doubleExclusive2000**

type	restriction of **xs:double**
properties	base xs:double
used by	elements **categoryDeicingArea/ethyleneGlycolDensity** **categoryDeicingArea/propyleneGlycolDensity** **categorySolventDegreaser/solutionDensity**
facets	Kind Value Annotation minInclusive 0 maxExclusive 2000
annotation	documentation A double value in the range [0,2000).

simpleType **doubleExclusiveRange100**

type	restriction of **xs:double**
properties	base xs:double
used by	elements **categorySandSaltPile/moistureContent** **categorySandSaltPile/surfaceRoughness**
facets	Kind Value Annotation minExclusive 0 maxExclusive 100
annotation	documentation A double value in the range (0,100).

simpleType **doubleInclusive1**

type	restriction of **xs:double**
properties	base xs:double
used by	elements **userGroundSupportEquipment/defaultLoadFactor** **groundSupportEquipmentGateAssignment/fractionAssigned** **categoryBoilerHeater/pm25ToPm10Ratio** **categoryGenerator/pm25ToPm10Ratio** **categoryIncinerator/pm25ToPm10Ratio** **categoryOther/pm25ToPm10Ratio** **categorySandSaltPile/surfaceWindSpeedFraction**
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation A double value in the range [0,1].

simpleType **doubleInclusive100**

type	restriction of **xs:double**
properties	base xs:double
used by	elements **runwayAssignment/arrivalPercentage** **runwayAssignment/departurePercentage** **categoryBoilerHeater/pollutionControlFactorCO** **categoryGenerator/pollutionControlFactorCO** **categoryIncinerator/pollutionControlFactorCO** **categoryOther/pollutionControlFactorCO** **categoryBoilerHeater/pollutionControlFactorHC** **categoryOther/pollutionControlFactorHC** **categoryBoilerHeater/pollutionControlFactorNOx** **categoryGenerator/pollutionControlFactorNOx** **categoryIncinerator/pollutionControlFactorNOx** **categoryOther/pollutionControlFactorNOx** **categoryBoilerHeater/pollutionControlFactorPM10** **categoryGenerator/pollutionControlFactorPM10** **categoryIncinerator/pollutionControlFactorPM10** **categoryOther/pollutionControlFactorPM10** **categoryBoilerHeater/pollutionControlFactorSOx** **categoryGenerator/pollutionControlFactorSOx** **categoryIncinerator/pollutionControlFactorSOx** **categoryOther/pollutionControlFactorSOx** **categoryBoilerHeater/pollutionControlFactorTNMOC** **categoryBoilerHeater/pollutionControlFactorTOC** **categoryGenerator/pollutionControlFactorTOC** **categoryBoilerHeater/pollutionControlFactorVOC** **categoryGenerator/pollutionControlFactorVOC** **categoryIncinerator/pollutionControlFactorVOC** **categorySurfaceCoatingPainting/pollutionControlFactorVOC** **pointStationarySource/releaseHeight** **areaStationarySource/releaseHeight** **volumeStationarySource/releaseHeight** **runwayAssignment/tgoPercentage**
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation A double value in the range [0,100].

simpleType **doubleInclusive1000**

type	restriction of **xs:double**
properties	base xs:double
used by	elements **categoryBoilerHeater/ashTermPm10** **categoryGenerator/CO_EF** **categoryBoilerHeater/CO_EI** **categoryOther/CO_EI** **categoryGenerator/CO_EI** **categoryIncinerator/CO_EI** **categoryBoilerHeater/constantTermPm10** **categoryBoilerHeater/constantTermSOx** **categoryGenerator/NOx_EF** **categoryBoilerHeater/NOx_EI** **categoryIncinerator/NOx_EI** **categoryGenerator/NOx_EI** **categoryOther/NOx_EI** **categoryGenerator/PM10_EF** **categoryGenerator/PM10_EI** **categoryIncinerator/PM10_EI** **categoryOther/PM10_EI** **categoryGenerator/SOx_EF** **categoryGenerator/SOx_EI** **categoryIncinerator/SOx_EI** **categoryOther/SOx_EI** **categoryBoilerHeater/sulfurTermPm10** **categoryBoilerHeater/sulfurTermSOx** **categoryBoilerHeater/THC_EI** **categoryOther/THC_EI** **categoryBoilerHeater/TNMOC_EI** **categoryGenerator/TOC_EF** **categoryBoilerHeater/TOC_EI** **categoryBoilerHeater/VOC_EI** **categoryGenerator/VOC_EI** **categoryIncinerator/VOC_EI** **categorySurfaceCoatingPainting/VOC_EI** **categoryDeicingArea/VOC_EI**
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation A double value in the range [0,1000].

simpleType **doubleInclusive10000**

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

simpleType **doubleInclusive2000**

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

simpleType **doubleInclusive24**

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

simpleType **doubleInclusive4000**

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

simpleType **doubleInclusiveRange0to600**

type	restriction of **xs:double**
properties	base xs:double
used by	element **pointStationarySource/temperature**
facets	Kind Value Annotation minInclusive 0 maxInclusive 600
annotation	documentation A double value in the range [0,600].

simpleType **doubleInclusiveRange1to30**

type	restriction of **xs:double**
properties	base xs:double
used by	element **pointStationarySource/gasVelocity**
facets	Kind Value Annotation minInclusive 1 maxInclusive 30
annotation	documentation A double value in the range [1,30].

simpleType **doubleMin0**

type	restriction of **xs:double**
properties	base xs:double
used by	elements **quarterHourlyProfile/temporalFactor** **monthlyProfile/temporalFactorApril** **monthlyProfile/temporalFactorAugust** **monthlyProfile/temporalFactorDecember** **monthlyProfile/temporalFactorFebruary** **dailyProfile/temporalFactorFriday** **monthlyProfile/temporalFactorJanuary** **monthlyProfile/temporalFactorJuly** **monthlyProfile/temporalFactorJune** **monthlyProfile/temporalFactorMarch** **monthlyProfile/temporalFactorMay** **dailyProfile/temporalFactorMonday**

	monthlyProfile/temporalFactorNovember **monthlyProfile/temporalFactorOctober** **dailyProfile/temporalFactorSaturday** **monthlyProfile/temporalFactorSeptember** **dailyProfile/temporalFactorSunday** **dailyProfile/temporalFactorThursday** **dailyProfile/temporalFactorTuesday** **dailyProfile/temporalFactorWednesday**
facets	Kind Value Annotation minInclusive 0
annotation	documentation A double value with a lower inclusive bound of 0.

simpleType **emissionsSourceType**

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

simpleType **emissionsUnitsType**

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

simpleType **engineCode**

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

simpleType **engineModCode**

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

simpleType **engineModel**

type	restriction of **xs:string**

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

simpleType **engineType**

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

simpleType **floatExclusive0Inclusive10**

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

simpleType **floatExclusive10**

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

simpleType **floatExclusive100**

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

simpleType **floatExclusive1000**

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

simpleType **floatExclusive10000**

type	restriction of **xs:float**
properties	base xs:float

facets	Kind Value Annotation minInclusive 0 maxExclusive 10000
annotation	documentation A real number in the range [0,10,000).

simpleType **floatExclusive2000**

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

simpleType **floatExclusiveRange100**

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

simpleType **floatInclusive1**

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

simpleType **floatInclusive100**

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

simpleType **floatInclusive1000**

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

simpleType **floatInclusive10000**

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

	maxInclusive 10000
annotation	documentation A real number in the range [0,10,000].

simpleType **floatInclusive2000**

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

simpleType **floatInclusive24**

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

simpleType **floatInclusive4000**

type	restriction of **xs:float**
properties	base xs:float
facets	Kind Value Annotation minInclusive 0 maxInclusive 4000
annotation	documentation A real number in the range [0,4,000].

simpleType **floatInclusiveRange1to30**

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

simpleType **floatInclusiveRange32to600**

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

simpleType **fuelType**

type	restriction of **xs:string**
properties	base xs:string
used by	elements **parkingFacilityOperation/fuelType** **roadwayOperation/fuelType** **groundSupportEquipmentPopulationOperation/fuelType** **groundSupportEquipmentLTOOperation/fuelType**
facets	Kind Value Annotation

	pattern G|Gasoline|D|Diesel|C|Compressed Natural Gas|L|Liquefied Petroleum Gas|E|Electric
annotation	documentation Supports legacy EDMS studies relating to content that contains different types of fuel use. Fuel types can be based on either gasoline, diesel, compressed natural gas, liquid propane gas, or electric based.

simpleType **groundVehicleType**

type	restriction of **xs:string**
properties	base xs:string
used by	elements **parkingFacilityOperation/vehicleType** **roadwayOperation/vehicleType**
facets	Kind Value Annotation pattern 0|Default Fleet Mix|1|Passenger Cars|2|Light Trucks 1|3|Light Trucks 2|4|Light Trucks 3|5|Light Trucks 4|6|Class 2b Heavy Trucks|7|Class 3 Heavy Trucks|8|Class 4 Heavy Trucks|9|Class 5 Heavy Trucks|10|Class 6 Heavy Trucks|11|Class 7 Heavy Trucks|12|Class 8a Heavy Trucks|13|Class 8b Heavy Trucks|14|School Busses|15|Transit and Urban Busses|16|Motorcycle
annotation	documentation Supports legacy EDMS studies relating to the use of ground vehicles.Ground vehicle types can range from fleet mixes, passanger cars, and various light or heavy trucks.

simpleType **int0to23**

type	restriction of **xs:int**
properties	base xs:int
used by	attribute **quarterHourlyProfile/temporalFactor/@startHour**
facets	Kind Value Annotation minInclusive 0 maxInclusive 23
annotation	documentation An integer in the range [0,23].

simpleType **int0to360**

type	restriction of **xs:int**
properties	base xs:int
used by	elements **airportConfig/endWindAngle** **airportConfig/startWindAngle** **scenarioAirportLayoutType/windDirection**
facets	Kind Value Annotation minInclusive 0 maxExclusive 360
annotation	documentation An integer in the range [0,360].

simpleType **int0to5**

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

simpleType **int0to87**

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

simpleType **int1to13**

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

simpleType **int1to15**

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

simpleType **int1to2**

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

simpleType **int1to25**

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

simpleType **int1to4**

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

simpleType **int1to5**

type	restriction of **xs:int**
properties	base xs:int
used by	elements **categorySandSaltPile/typeCode** **categoryTrainingFire/typeCode**

facets	Kind Value Annotation minInclusive 1 maxInclusive 5
annotation	documentation An integer in the range [1,5].

simpleType **int1to8**

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

simpleType **int1to93**

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

simpleType **int5to65**

type	restriction of **xs:int**
properties	base xs:int
used by	element **roadwayOperation/speed**
facets	Kind Value Annotation minInclusive 5 maxInclusive 65
annotation	documentation An integer in the range [5,65].

simpleType **int6to13**

type	restriction of **xs:int**
properties	base xs:int
used by	element **categoryFuelTank/reidVaporPressure**
facets	Kind Value Annotation minInclusive 6 maxInclusive 13
annotation	documentation An integer in the range [6,13].

simpleType **int89to148**

type	restriction of **xs:int**
properties	base xs:int
facets	Kind Value Annotation minInclusive 89 maxInclusive 148
annotation	documentation An integer in the range [89,148].

simpleType **latitudeDMSType**

type	restriction of **xs:string**
properties	base xs:string
used by	element **latlonCoordGroup/latitudeDMS**
facets	Kind Value Annotation pattern [0-9]{2}[\-|:|"][0-9]{2}[\-|:|'][0-9]{2}(.[0-9]{3})?[N|n|S|s]
annotation	documentation Latitude expressed as dd"mm'sss with optional indicator N, n, S, s. (degrees)

simpleType **longitudeDMSType**

type	restriction of **xs:string**
properties	base xs:string
used by	element **latlonCoordGroup/longitudeDMS**
facets	Kind Value Annotation pattern [0-9]?[0-9]{2}[\-|:|"][0-9]{2}[\-|:|'][0-9]{2}(.[0-9]{3})?[E|e|W|w]
annotation	documentation Longitude expressed as dd"mm'sss with optional indicator N, n, S, s. (degrees)

simpleType **nodeControlType**

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

simpleType **opType**

type	restriction of **xs:string**
properties	base xs:string
used by	elements **track/optype** **operation/opType** **trackref/optype**
facets	Kind Value Annotation pattern A|Arrival|D|Departure|V|Overflight|F|Circuit|T|TouchAndGo|R|Runup|W|RunwayToRunway|L|LTO|LandingTakoff|X|Taxi
annotation	documentation Type of operation.

simpleType **originSourceType**

type	restriction of **xs:string**
properties	base xs:string
used by	elements **polarGrid/originSource** **polarReceptor/originSource**
facets	Kind Value Annotation pattern Gate|Parking Facility|Roadway|Runway|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	**string8**
properties	base string8
used by	elements **profiles/arrivalProfile** **operation/badaProfile** **profiles/departureProfile** **operation/saeProfile**
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation An aircraft's flight profile.

simpleType **quarterHourMinutes**

type	restriction of **xs:int**
properties	base xs:int
used by	attribute **quarterHourlyProfile/temporalFactor/@startMinutes**
facets	Kind Value Annotation enumeration 0 enumeration 15 enumeration 30 enumeration 45
annotation	documentation Either 0, 15, 30, or 45.

simpleType **string1**

type	restriction of **xs:string**
properties	base xs:string
used by	elements **operation/arrivalStageLength** **operation/departureStageLength** **airframe/designationCode** **airframe/engineLocation** **airframe/engineType** **anpTsfcCoefficients/mode** **anpNoiseGroup/modelType** **anpHelicopter/modelType** **anpHeloProfile/operationType** **anpHeloProcedureStep/operationType** **anpFlaps/operationType** **anpProfile/operationType** **anpHeloDirectivity/opMode** **anpProfilePoint/opMode** **anpHeloProfile/profileStageLength** **anpHeloProcedureStep/profileStageLength** **anpProfile/profileStageLength** **airframe/sizeCode** **operation/stageLength** **anpHeloProcedureStep/stepType** **anpProcedureStep/stepType** **anpNoiseGroup/thrustSetType** **anpThrustGeneral/thrustType** **anpThrustJet/thrustType** **anpThrustProp/thrustType** **anpProcedureStep/thrustType** **airframe/usageCode**
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation A string up to one character long.

simpleType **string10**

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

simpleType **string100**

type	restriction of **xs:string**
properties	base xs:string
used by	elements **operation/activityProfile** **airportConfig/configurationName** **activityProfile/dailyProfile** **aircraftEngine/manufacturer** **activityProfile/monthlyProfile** **airport/name** **quarterHourlyProfile/profileName** **dailyProfile/profileName** **monthlyProfile/profileName** **activityProfile/quarterHourlyProfile** **aircraftEngine/source** **airport/zone** attribute **activityProfile/@name**
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation A string up to 100 characters long.

simpleType **string11**

type	restriction of **xs:string**
properties	base xs:string
used by	elements **windRoseStation/calmCriteria** **windRoseStation/endDayMonth** **windRoseStation/userString**
facets	Kind Value Annotation

	minLength 0 maxLength 11

simpleType **string12**

type	restriction of **xs:string**
properties	base xs:string
used by	elements **badaProfile/aircraftVersion windRoseStation/beginDayMonth badaProfile/engine operation/userType**
facets	Kind Value Annotation minLength 0 maxLength 12
annotation	documentation A string up to 12 characters long.

simpleType **string14**

type	restriction of **xs:string**
properties	base xs:string
used by	element **windRoseData/directionRange**
facets	Kind Value Annotation minLength 0 maxLength 14

simpleType **string15**

type	restriction of **xs:string**
properties	base xs:string
used by	elements **badaProfile/companyName airport/faaId**
facets	Kind Value Annotation minLength 0 maxLength 15
annotation	documentation A string up to 15 characters long.

simpleType **string16**

type	restriction of **xs:string**
properties	base xs:string
used by	elements **nodeIdGroup/description operation/flightNumber runup/flightNumber case/hourlyWxMD5 operation/id runup/id nodeIdGroup/id operation/userParam** attribute **AsifXml/@version**
facets	Kind Value Annotation minLength 0 maxLength 16
annotation	documentation A string up to 16 characters long.

simpleType **string2**

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

simpleType **string20**

type	restriction of **xs:string**

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

simpleType **string200**

type	restriction of **xs:string**
properties	base xs:string
used by	element **aircraftEngine/notes**
facets	Kind Value Annotation minLength 0 maxLength 200
annotation	documentation A string up to 200 characters long.

simpleType **string25**

type	restriction of **xs:string**
properties	base xs:string
used by	elements **aircraftEngine/emissionsEngineModel** **aircraftType/engineCode** **airport/facilityType** **aircraftEngine/performanceEngineModel** **airportWeatherStation/weatherStationName**
facets	Kind Value Annotation minLength 0 maxLength 25
annotation	documentation A string up to 25 characters long.

simpleType **string255**

type	restriction of **xs:string**
properties	base xs:string
used by	elements **trackref/airportLayoutName** **scenarioAirportLayoutType/airportLayoutName** **study/description** **scenario/description** **case/description** **aircraft/description** **aircraftEngineMod/description** **anpHelicopter/description** **anpAirplane/description** **categoryAircraftEngine/engineCode** **case/hourlyWxFile** **badaAirplane/mfgDescription** **building/name** **receptorSet/name** **pointReceptor/name** **study/name** **scenario/name** **case/name** **annualization/name** **annualizationCase/name** **airportLayoutType/name** **badaThrust/notes** **case/reference/refCase** **case/reference/refScenario** **sensorNode/source** **study/terrainFiles**
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation A string up to 255 characters long.

simpleType **string3**

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

simpleType **string30**

type	restriction of **xs:string**

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

simpleType **string32**

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

simpleType **string4**

type	restriction of **xs:string**
properties	base xs:string
used by	element **operation/carrier** complexType **airportCode**
facets	Kind Value Annotation minLength 0 maxLength 4
annotation	documentation A string up to four characters long.

simpleType **string40**

type	restriction of **xs:string**
properties	base xs:string
used by	elements **groundSupportEquipmentPopulationOperation/activityProfile** **emissionsUsage/activityProfile** **operation/arrivalGate** **operation/departureGate** **taxipath/gateName** **userGroundSupportEquipment/gseName** **gate/name** **stationarySource/name** **parkingFacility/name** **roadway/name** **polarGrid/originName** **polarReceptor/originName** **stationarySourceOperation/refName** **parkingFacilityOperation/refName** **roadwayOperation/refName**
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation A string up to 40 characters long.

simpleType **string42**

type	restriction of **xs:string**
properties	base xs:string
used by	element **windRoseStation/windRoseStationDescription**
facets	Kind Value Annotation minLength 0 maxLength 42

simpleType **string5**

type	restriction of **xs:string**
properties	base xs:string
used by	elements **airportWeatherStation/wbanId** **airportWeatherStation/weatherStationCode** **windRose/windRoseStationId** **windRoseStation/windRoseStationId**
facets	Kind Value Annotation minLength 0 maxLength 5

simpleType **string50**

type	restriction of **xs:string**
properties	base xs:string
used by	elements **aircraftType/airframeModel** **airport/cityName** **aircraftEngine/combustor** **airport/state** **aircraftEngine/tfmtFlag**
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation A string up to 50 characters long.

simpleType **string6**

type	restriction of **xs:string**
properties	base xs:string
used by	elements **centroid/bnaId** **airportWeatherStation/cooperativeId** **taxiTime/source**
facets	Kind Value Annotation minLength 0 maxLength 6
annotation	documentation A string up to six characters long.

simpleType **string64**

type	restriction of **xs:string**
properties	base xs:string
used by	elements **track/name** **trackref/trackName**
facets	Kind Value Annotation minLength 0 maxLength 64
annotation	documentation A string up to 64 characters long.

simpleType **string66**

type	restriction of **xs:string**
properties	base xs:string
used by	element **windRoseStation/windRoseDataSet**
facets	Kind Value Annotation minLength 0 maxLength 66

simpleType **string7**

type	restriction of **xs:string**
properties	base xs:string
used by	element **airport/dafifId**
facets	Kind Value Annotation minLength 0 maxLength 7

simpleType **string8**

type	restriction of **xs:string**
properties	base xs:string
used by	elements **operation/arrivalRunway** **case/climateId** **operation/departureRunway** **climate/identifier** **runwayEnd/name** **anpHeloProfile/profileGroupId** **anpHeloProcedureStep/profileGroupId** **anpProfile/profileGroupId** **track/runway** **runwayAssignment/runway** **trackref/runway** **taxipath/runwayName** **operation/tailNumber** **runup/tailNumber** simpleType **profileType**

facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation A string up to eight characters long.

simpleType **string9**

type	restriction of **xs:string**
properties	base xs:string
used by	element **windRoseStation/directionUnit**
facets	Kind Value Annotation minLength 0 maxLength 9

simpleType **studyType**

type	restriction of **xs:string**
properties	base xs:string
used by	element **study/studyType**
facets	Kind Value Annotation enumeration Emissions enumeration Dispersion enumeration Noise and Emissions enumeration Noise and Dispersion
annotation	documentation Type of study. NOTE: AEDT only supports the Noise and Emissions value.

simpleType **taxiModelType**

type	restriction of **xs:string**
properties	base xs:string
used by	element **scenario/taxiModel**
facets	Kind Value Annotation enumeration UserSpecified enumeration Delayed enumeration Sequencing
annotation	documentation Type of taxi modeling.

simpleType **timeInModeBasisType**

type	restriction of **xs:string**
properties	base xs:string
used by	element **scenario/timeInModeBasis**
facets	Kind Value Annotation enumeration Performance enumeration ICAO
annotation	documentation Time in mode can either be based on ICAO or performance.

simpleType **trainingFireFuelType**

type	restriction of **xs:string**
properties	base xs:string
facets	Kind Value Annotation pattern JP-4|JP-5|JP-8|Propane|Tekflame
annotation	documentation Supports legacy EDMS studies relating to training fire content. Training fire fuel types can be either JP-4, JP-5, JP-8, propane, or tekflame.

simpleType **vectorTrackType**

type	restriction of **xs:string**
properties	base xs:string
used by	element **trackVector/type**
facets	Kind Value Annotation pattern S|Straight|L|LeftTurn|R|RightTurn
annotation	documentation Type of vector.

simpleType **wingType**

type	restriction of **xs:string**
properties	base xs:string
used by	element **track/wingtype**
facets	Kind Value Annotation pattern F|FixedWing|R|RotaryWing
annotation	documentation Type of wing. If not specified, AEDT attempts to determine the wing type based on the optype.

simpleType **yesNoType**

type	restriction of **xs:string**
properties	base xs:string
used by	elements **anpHelicopter/hasWheels** **anpAirplane/thrustRestore** **anpHeloProfile/useDirectivity** **anpHeloProfile/useTrack**
facets	Kind Value Annotation pattern Yes|Y|No|N
annotation	documentation Simple element allowing for either a choice of "yes" or "no".

XML Schema documentation generated by **XMLSpy** Schema Editor **http://www.altova.com/xmlspy**