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AEDT Standard Input File (ASIF) Reference Guide

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1 Introduction

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

This guide provides a description of the ASIF format for the ASIF schema version 1.2.15. 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 and the AEDT Supplemental 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 is organized similarly to a full ASIF, except that it contains a single type of data – the **content** attribute of the **AsifXML** element must specify the data type. The data types that can be imported via partial ASIF are listed below:

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

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

```
<AsifXml xmlns:AsifXml="http://www.faa.gov/ASIF"
           xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" version="1.2.15"
           content="ENTER_CONTENT_TYPE_HERE">

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

    <!*content type here*>

    ...

    </!*end content type*>

</AsifXml>
```

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

2.3 Sample ASIFs

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

Full study ASIF

- asif_emissions_study.xml
- asif_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 create an ASIF for a simple study:

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

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

Step 1: Create empty study file

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



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

```
<AsifXml version="1.2.15" content="study"
xmlns:AsifXml="http://www.faa.gov/ASIF"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">

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

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

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

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

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

</study>
</AsifXml>
```

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, KMDW airport is defined using user-specified runways.

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

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

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

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

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

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

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

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

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

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

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

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

Step 3: Create receptor set

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

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

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

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

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_Scenario</name>

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

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

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

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

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

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

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

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

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

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

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

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

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

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>04R_Dep</name>
```

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

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

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

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

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

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

    </subtrack>
</track>

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

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

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

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

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

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

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

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

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

Step 6: Create annualization

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

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

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

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

  </annualizationGroup>
</annualization>
```

Step 7: Full ASIF

The full study ASIF is as follows:

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

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```
<AsifXml version="1.2.15" content="study"
xmlns:AsifXml="http://www.faa.gov/ASIF"
xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

```
<bankAngle>true</bankAngle>

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

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

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

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

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

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

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

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

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

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

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

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

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

</subtrack>
</track>

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

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

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

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

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

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

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

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

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

</case>
```

```
</caseSet>

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

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

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

    </annualizationGroup>
</annualization>

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

3.2 Create an Emissions Dispersion Study

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

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

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

study included with AEDT installation; but it has been much simplified for illustrative purposes. Please note that both the aircraft operations and the non-aircraft operations in this study are defined using operational profiles. When running profile-based aircraft operations, the “Apply Delay & Sequencing Model on Taxi” modeling option must be selected, and operating configuration and taxi network must exist in the airport layout.

Step 1: Create empty study file

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



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

```
<?xml version="1.0" encoding="utf-8"?>
<AsifXml xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" version="1.2.15" content="study">
  <study>
    <name>PVD2004_small</name>
    <studyType>Dispersions</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 and tracks, the airport layout section can contain buildings, stationary sources of emissions (such as generators, training fires, or boilers), gates, terminals, taxiways, taxipaths, airport configurations, and operational profiles.

Step 2a: Define airport layout

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

```
<airportLayoutSet>
  <airportLayout>
    <name>Basel ine_PVD2004_layout</name>
    <airportCode type="ICAO">KPVD</airportCode>
    <startDate>2004-01-01</startDate>
    <elevation>55</elevation>      <!-- in feet -->
    <taxiInTime>7</taxiInTime>    <!-- in minutes -->
    <taxiOutTime>19</taxiOutTime> <!-- in minutes -->
    <latitude>41. 723999</latitude>
    <longitude>-71. 428221</longitude>
```

Step 2b: Define stationary sources

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

```
<stationarySourceSet>
  <stationarySource>
    <name>600kw Emergency Gen- Basel ine- KPVD- 2004</name>
    <pointStationarySource>
      <pointCoord>
        <latitude>41. 743248909695488</latitude>
        <longitude>- 71. 412168090784959</longitude>
      </pointCoord>
      <baseElevation>16. 764</baseElevation>    <!-- in meters -->
      <relativeHeight>12. 192</relativeHeight>    <!-- in meters -->
      <gasVelocity>15</gasVelocity>            <!-- in meters/sec -->
      <stackDiameter>0. 100584</stackDiameter> <!-- in meters -->
      <temperature>400</temperature>          <!-- in Fahrenheit -->
    </pointStationarySource>
    <categoryGenerator>
      <typeCode>2</typeCode>
      <powerRatingHorsepower>1340</powerRatingHorsepower>
      <CO_EF>3. 03</CO_EF>
      <TOC_EF>1. 14</TOC_EF>
      <NOx_EF>14</NOx_EF>
      <SOx_EF>0. 93</SOx_EF>
      <PM10_EF>0. 998</PM10_EF>
      <pollutionControlFactorTOC>0</pollutionControlFactorTOC>
      <pollutionControlFactorC0>0</pollutionControlFactorC0>
      <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. For dispersion modeling, gates are modeled in AERMOD as either volume or area sources. A single-point gate (a pair of X/Y coordinates) is modeled as a volume source; while a polygon gate is modeled as an area source.

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

```
<gateSet>
  <gate>
    <name>AC</name>
    <elevation>16. 76</elevation>           <!-- in meters -->
    <relativeHeight>1. 499616</relativeHeight> <!-- in meters -->
    <sigmaY>0. 1</sigmaY>
    <sigmaZ>0. 1</sigmaZ>
    <polygonCoords>
      <vertex>
        <latitude>41. 745139410943032</latitude>
        <longitude>- 71. 410155909148983</longitude>
      </vertex>
      <vertex>
        <latitude>41. 74454094786433</latitude>
```

```
<longitude>-71.4088479272253</longitude>
</vertex>
<vertex>
    <latitude>41.739914698711225</latitude>
    <longitude>-71.412700204036113</longitude>
</vertex>
<vertex>
    <latitude>41.740535077085347</latitude>
    <longitude>-71.414048427664284</longitude>
</vertex>
<vertex>
    <latitude>41.742143089180551</latitude>
    <longitude>-71.4130440975597</longitude>
</vertex>
<vertex>
    <latitude>41.741863092089559</latitude>
    <longitude>-71.412435917483549</longitude>
</vertex>
<vertex>
    <latitude>41.743155491944563</latitude>
    <longitude>-71.411380309779929</longitude>
</vertex>
<vertex>
    <latitude>41.74350128931475</latitude>
    <longitude>-71.411515795803126</longitude>
</vertex>
</polygonCoords>
</gate>
</gateSet>
```

Step 2d: Define taxiways

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

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

```
<taxiswaySet>
    <taxisway>
        <name>A2 to 3</name>
        <displacement>22.86</displacement> <!-- in meters -->
        <taxisNodeSet>
            <taxisNode>
                <latitude>41.747442309926434</latitude>
                <longitude>-71.399033659570691</longitude>
                <elevation>16.76</elevation> <!-- in meters -->
                <speed>17</speed> <!-- in mph -->
            </taxisNode>
            <taxisNode>
                <latitude>41.746840990624833</latitude>
                <longitude>-71.397780701750833</longitude>
                <elevation>16.76</elevation>
                <speed>17</speed>
            </taxisNode>
        </taxisNodeSet>
    </taxisway>
</taxiswaySet>
```

```
</taxi NodeSet>
</taxi way>

<taxi way>
<name>AC in out 1 to 2</name>
<di spersi onWi dth>22. 86</di spersi onWi dth>
<taxi NodeSet>
<taxi Node>
<latitude>41. 742510604805076</latitude>
<longitude>-71. 411486739128023</longitude>
<elevation>16. 76</elevation>
<speed>17</speed>
</taxi Node>
<taxi Node>
<latitude>41. 742008226242724</latitude>
<longitude>-71. 410307016216962</longitude>
<elevation>16. 76</elevation>
<speed>17</speed>
</taxi Node>
</taxi NodeSet>
</taxi way>

. . . . .

</taxi waySet>
```

Step 2e: Define runways

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

```
<runwaySet>
<runway>
<length>7069</length> <!-- in feet -->
<width>150</width> <!-- in feet -->
<runwayEnd>
<name>05</name>
<latitude>41. 73040290796537</latitude>
<longitude>-71. 411541169743472</longitude>
<elevation>54. 986876640419943</elevation> <!-- in feet -->
<gate>3</gate>
</runwayEnd>
<runwayEnd>
<name>23</name>
<latitude>41. 746840990624833</latitude>
<longitude>-71. 397780701750833</longitude>
<elevation>54. 986876640419943</elevation>
<gate>3</gate>
</runwayEnd>
</runway>

<runway>
<length>5961</length>
<width>150</width>
<runwayEnd>
<name>16</name>
```

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```
<latitude>41. 748017908874452</latitude>
<longitude>-71. 4087003031238</longitude>
<elevation>54. 986876640419943</elevation>
<glideSlope>3</glideSlope>
</runwayEnd>
<runwayEnd>
<name>34</name>
<latitude>41. 735182619491127</latitude>
<longitude>-71. 395155630736014</longitude>
<elevation>54. 986876640419943</elevation>
<glideSlope>3</glideSlope>
</runwayEnd>
</runway>
</runwaySet>
```

Step 2f: Assemble taxipaths

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

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

```
<taxi pathSet>
  <taxi path>
    <gateName>AC</gateName>
    <runwayName>05</runwayName>
    <direction>Outbound</direction>
    <taxi wayName>AC inout 1 to 2</taxi wayName>
    <taxi wayName>T3 to 4</taxi wayName>
    <taxi wayName>T4 to 5</taxi wayName>
    <taxi wayName>T5 to 6</taxi wayName>
    <taxi wayName>E1 to 2</taxi wayName>
    <taxi wayName>S2 to 3</taxi wayName>
    <taxi wayName>S3 to 4</taxi wayName>
  </taxi path>

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

  .....
</taxi pathSet>
```

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). This sample ASIF contains a total of 12 tracks consisting of arrival, departure, and touch & go tracks for each of the four runway ends. Only the first three tracks are shown here for brevity.

```
<trackSet>
  <track>
    <name>05_D_FixedWing</name>
    <optype>D</optype>
    <wingtype>F</wingtype>
    <airport type="ICAO">KPVD</airport>
    <runway>05</runway>
    <subtrack>
      <id>0</id>
      <dispersonWeight>1</dispersonWeight>
      <trackNodes>
        <trackNode>
          <latitude>41. 73040290796537</latitude>
          <longitude>-71. 411541169743472</longitude>
        </trackNode>
        <trackNode>
          <latitude>41. 746840990624833</latitude>
          <longitude>-71. 397780701750833</longitude>
        </trackNode>
        <trackNode>
          <latitude>43. 137117876102565</latitude>
          <longitude>-70. 202867639935235</longitude>
        </trackNode>
      </trackNodes>
    </subtrack>
  </track>

  <track>
    <name>23_D_FixedWing</name>
    <optype>D</optype>
    <wingtype>F</wingtype>
    <airport type="ICAO">KPVD</airport>
    <runway>23</runway>
    <subtrack>
      <id>0</id>
      <dispersonWeight>1</dispersonWeight>
      <trackNodes>
        <trackNode>
          <latitude>41. 746840990624833</latitude>
          <longitude>-71. 397780701750833</longitude>
        </trackNode>
        <trackNode>
          <latitude>41. 73040290796537</latitude>
          <longitude>-71. 411541169743472</longitude>
        </trackNode>
        <trackNode>
          <latitude>40. 32809642691705</latitude>
          <longitude>-72. 555207007763542</longitude>
        </trackNode>
      </trackNodes>
    </subtrack>
  </track>
```

```
</trackNodes>
</subtrack>
</track>

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

Step 2h: Define airport operating configurations

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

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

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

```
<arri val Percentage>0. 8</arri val Percentage>
<departurePercentage>1. 32</departurePercentage>
<tgoPercentage>0</tgoPercentage>
</runwayAssigment>
<runwayAssigment>
<aircraftSize>S</aircraftSize>
<runway>23</runway>
<arri val Percentage>50. 74</arri val Percentage>
<departurePercentage>52. 33</departurePercentage>
<tgoPercentage>50</tgoPercentage>
</runwayAssigment>
<runwayAssigment>
<aircraftSize>S</aircraftSize>
<runway>34</runway>
<arri val Percentage>13. 04</arri val Percentage>
<departurePercentage>8. 06</departurePercentage>
<tgoPercentage>15</tgoPercentage>
</runwayAssigment>
<runwayAssigment>
<aircraftSize>S</aircraftSize>
<runway>05</runway>
<arri val Percentage>35. 42</arri val Percentage>
<departurePercentage>38. 29</departurePercentage>
<tgoPercentage>35</tgoPercentage>
</runwayAssigment>
<runwayAssigment>
<aircraftSize>L</aircraftSize>
<runway>16</runway>
<arri val Percentage>0. 8</arri val Percentage>
<departurePercentage>1. 32</departurePercentage>
<tgoPercentage>0</tgoPercentage>
</runwayAssigment>
<runwayAssigment>
<aircraftSize>L</aircraftSize>
<runway>23</runway>
<arri val Percentage>50. 74</arri val Percentage>
<departurePercentage>52. 33</departurePercentage>
<tgoPercentage>50</tgoPercentage>
</runwayAssigment>
<runwayAssigment>
<aircraftSize>L</aircraftSize>
<runway>34</runway>
<arri val Percentage>13. 04</arri val Percentage>
<departurePercentage>8. 06</departurePercentage>
<tgoPercentage>15</tgoPercentage>
</runwayAssigment>
<runwayAssigment>
<aircraftSize>L</aircraftSize>
<runway>05</runway>
<arri val Percentage>35. 42</arri val Percentage>
<departurePercentage>38. 29</departurePercentage>
<tgoPercentage>35</tgoPercentage>
</runwayAssigment>
<runwayAssigment>
<aircraftSize>H</aircraftSize>
<runway>16</runway>
<arri val Percentage>0. 8</arri val Percentage>
```

```
<departurePercentage>1. 32</departurePercentage>
<tgoPercentage>0</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
  <aircraftSize>H</aircraftSize>
  <runway>23</runway>
  <arrivalPercentage>50. 74</arrivalPercentage>
  <departurePercentage>52. 33</departurePercentage>
  <tgoPercentage>50</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
  <aircraftSize>H</aircraftSize>
  <runway>34</runway>
  <arrivalPercentage>13. 04</arrivalPercentage>
  <departurePercentage>8. 06</departurePercentage>
  <tgoPercentage>15</tgoPercentage>
</runwayAssignment>
<runwayAssignment>
  <aircraftSize>H</aircraftSize>
  <runway>05</runway>
  <arrivalPercentage>35. 42</arrivalPercentage>
  <departurePercentage>38. 29</departurePercentage>
  <tgoPercentage>35</tgoPercentage>
</runwayAssignment>
</runwayAssignmentSet>
</airportConfig>
</airportConfigSet>
```

Step 2i: Define operational profiles

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

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

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

```
<quarterHourlyProfileSet>
<quarterHourlyProfile>
  <profileName>Aircraft-Baseline-KPVD</profileName>
  <temporalFactor startHour="0" startMinutes="0">0. 1092</temporalFactor>
  <temporalFactor startHour="0" startMinutes="15">0. 0712</temporalFactor>
  <temporalFactor startHour="0" startMinutes="30">0. 0452</temporalFactor>
  <temporalFactor startHour="0" startMinutes="45">0. 0274</temporalFactor>
  <temporalFactor startHour="1" startMinutes="0">0. 0226</temporalFactor>
  <temporalFactor startHour="1" startMinutes="15">0. 0144</temporalFactor>
  <temporalFactor startHour="1" startMinutes="30">0. 0135</temporalFactor>
  <temporalFactor startHour="1" startMinutes="45">0. 0087</temporalFactor>
```

```
.....  
</quarterHourlyProfile>  
</quarterHourlyProfileSet>  
  
<dailyProfileSet>  
<dailyProfile>  
<profileName>Aircraft - Basel ine- KPVD</profileName>  
<temporalFactorSunday>0. 8889</temporalFactorSunday>  
<temporalFactorMonday>0. 9354</temporalFactorMonday>  
<temporalFactorTuesday>0. 9565</temporalFactorTuesday>  
<temporalFactorWednesday>0. 9494</temporalFactorWednesday>  
<temporalFactorThursday>1</temporalFactorThursday>  
<temporalFactorFriday>0. 9494</temporalFactorFriday>  
<temporalFactorSaturday>0. 8103</temporalFactorSaturday>  
</dailyProfile>  
</dailyProfileSet>  
  
<monthlyProfileSet>  
<monthlyProfile>  
<profileName>Aircraft - Basel ine- KPVD</profileName>  
<temporalFactorJanuary>0. 6097</temporalFactorJanuary>  
<temporalFactorFebruary>0. 768</temporalFactorFebruary>  
<temporalFactorMarch>0. 7468</temporalFactorMarch>  
<temporalFactorApril>0. 6508</temporalFactorApril>  
<temporalFactorMay>0. 7803</temporalFactorMay>  
<temporalFactorJune>0. 9452</temporalFactorJune>  
<temporalFactorJuly>0. 9967</temporalFactorJuly>  
<temporalFactorAugust>1</temporalFactorAugust>  
<temporalFactorSeptember>0. 963</temporalFactorSeptember>  
<temporalFactorOctober>0. 9657</temporalFactorOctober>  
<temporalFactorNovember>0. 8889</temporalFactorNovember>  
<temporalFactorDecember>0. 8374</temporalFactorDecember>  
</monthlyProfile>  
</monthlyProfileSet>  
  
<activityProfileSet>  
<activityProfile name="ActivityProfile-Basel ine- KPVD- 0- 0- 0">  
<quarterHourlyProfile>Aircraft - Basel ine- KPVD</quarterHourlyProfile>  
<dailyProfile>Aircraft - Basel ine- KPVD</dailyProfile>  
<monthlyProfile>Aircraft - Basel ine- KPVD</monthlyProfile>  
</activityProfile>  
</activityProfileSet>
```

Step 3: Define receptor set

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

```
<receptorSet>
  <name>CartesianReceptors-Basel ine-KPVD</name>
  <pointReceptor>
    <name>01</name>
    <latitude>41. 755692229957511</latitude>
    <longitude>-71. 401734634031868</longitude>
    <elevation>54. 986876640419943</elevation>      <!-- in feet -->
    <receptorHeight>5. 099999999999993</receptorHeight>  <!-- in feet -->
  </pointReceptor>

  <pointReceptor>
    <name>05</name>
    <latitude>41. 757757081502177</latitude>
    <longitude>-71. 387029661597552</longitude>
    <elevation>54. 986876640419943</elevation>
    <receptorHeight>5. 099999999999993</receptorHeight>
  </pointReceptor>

  <pointReceptor>
    <name>11</name>
    <latitude>41. 729547105591479</latitude>
    <longitude>-71. 399671869272</longitude>
    <elevation>54. 986876640419943</elevation>
    <receptorHeight>5. 099999999999993</receptorHeight>
  </pointReceptor>

  <pointReceptor>
    <name>17</name>
    <latitude>41. 727308139168834</latitude>
    <longitude>-71. 418091960358765</longitude>
    <elevation>54. 986876640419943</elevation>
    <receptorHeight>5. 099999999999993</receptorHeight>
  </pointReceptor>
</receptorSet>
```

Step 4: Define scenario and case hierarchy

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

Step 4a: Define scenario properties

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

```
<scenario>
  <name>2004-Basel ine</name>
  <startTime>2004-01-01T00: 00: 00</startTime>
  <duration>8784</duration> <!-- in hours -->
  <taxiModel>Sequencing</taxiModel>
  <timeInModeBasis>Performance</timeInModeBasis>
  <acftPerfModel>SAE1845</acftPerfModel>
  <bankAngle>false</bankAngle>
```

```
<sul furConversi onRate>0. 005</sul furConversi onRate>
<descri ption> for year 2004</descri ption>
<scenari oAi rportLayoutSet>
  <scenari oAi rportLayout>
    <ai rportLayoutName>Basel i ne_PVD2004_l ayout</ai rportLayoutName>
    <mi xi ngHei ght>2226</mi xi ngHei ght> <!-- in feet -->
    <useHourlyMetData>true</useHourlyMetData>
    <averageTemperature>50. 4</averageTemperature> <!-- in Fahrenheit -->
    <dai lyHi ghTemperature>69. 35</dai lyHi ghTemperature> <!-- in Fahrenheit -->
    <dai lyLowTemperature>48. 65</dai lyLowTemperature> <!-- in Fahrenheit -->
    <pressure>29. 92</pressure> <!-- in inches of Hg -->
    <pressureMSL>29. 92</pressureMSL> <!-- in inches of Hg -->
    <humidt y>60</humidt y> <!-- in percentage -->
    <windSpeed>8</windSpeed> <!-- in knots -->
    <windDirection>0</windDirection> <!-- in degrees -->
    <ceiling>99999. 99</ceiling> <!-- in feet -->
    <visi bility>50</visi bility> <!-- in miles -->
  </scenari oAi rportLayout>
</scenari oAi rportLayoutSet>
```

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). The second case contains aircraft operations and GSEs assigned to those aircraft.

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

```
<caseSet>
  <case>
    <caseId>-1623425151</caseId>
    <name>2004_Basel i ne_NonAi rcraft</name>
    <startTi me>2004- 01- 01T00: 00: 00</startTi me>
    <duration>8784</duration>
    <stationarySource0perationSet>
      <stationarySource0peration>
        <refName>600kw Emergency Gen-Basel i ne-KPVD- 2004</refName>
        <emissionsUsage>
          <yearlyVal ue>500</yearlyVal ue>
          <activityProfile>ActivityProfile-Basel i ne-KPVD- 0- 0- 0</activityProfile>
        </emissionsUsage>
      </stationarySource0peration>
    </stationarySource0perationSet>
  </case>
```

Step 4c: Define the case for aircraft operations

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

```
<case>
  <caseId>466140608</caseId>
  <name>2004_Basel i ne_Operati ons</name>
  <startTi me>2004- 01- 01T00: 00: 00</startTi me>
  <duration>8784</duration>
  <operation>
```

```
<id>D_1</id>
<aircraftType>
  <airframeModel>Airbus A319-100 Series</airframeModel>
  <engineCode>3CM028</engineCode>
  <apuName>APU GTCP 36-300 (80HP)</apuName>
  <groundSupportEquipmentList00operationSet>
    <groundSupportEquipmentList00operation>
      <gseID>8</gseID>
      <fuelType>Diesel</fuelType>
      <horsepower>88</horsepower>
      <loadFactor>0.8</loadFactor>
      <departureOpTime>3.9</departureOpTime> <!-- in minutes -->
    </groundSupportEquipmentList00operation>
    <groundSupportEquipmentList00operation>
      <gseID>13</gseID>
      <fuelType>Gasoline</fuelType>
      <horsepower>107</horsepower>
      <loadFactor>0.55</loadFactor>
      <departureOpTime>8</departureOpTime>
      <arrivalOpTime>8</arrivalOpTime>
    </groundSupportEquipmentList00operation>
    <groundSupportEquipmentList00operation>
      <gseID>14</gseID>
      <fuelType>Gasoline</fuelType>
      <horsepower>107</horsepower>
      <loadFactor>0.5</loadFactor>
      <departureOpTime>11</departureOpTime>
      <arrivalOpTime>12</arrivalOpTime>
    </groundSupportEquipmentList00operation>
    <groundSupportEquipmentList00operation>
      <gseID>17</gseID>
      <fuelType>Diesel</fuelType>
      <horsepower>210</horsepower>
      <loadFactor>0.53</loadFactor>
      <departureOpTime>9.7</departureOpTime>
    </groundSupportEquipmentList00operation>
    <groundSupportEquipmentList00operation>
      <gseID>29</gseID>
      <fuelType>Diesel</fuelType>
      <horsepower>175</horsepower>
      <loadFactor>0.25</loadFactor>
      <departureOpTime>14</departureOpTime>
    </groundSupportEquipmentList00operation>
    <groundSupportEquipmentList00operation>
      <gseID>36</gseID>
      <fuelType>Diesel</fuelType>
      <horsepower>56</horsepower>
      <loadFactor>0.25</loadFactor>
      <arrivalOpTime>2.1</arrivalOpTime>
    </groundSupportEquipmentList00operation>
    <groundSupportEquipmentList00operation>
      <gseID>41</gseID>
      <fuelType>Diesel</fuelType>
      <horsepower>235</horsepower>
      <loadFactor>0.2</loadFactor>
      <departureOpTime>8</departureOpTime>
      <arrivalOpTime>7</arrivalOpTime>
    </groundSupportEquipmentList00operation>
  </groundSupportEquipmentList00operationSet>
</aircraftType>
```

```
</groundSupportEquipmentLT00operation>
</groundSupportEquipmentLT00operationSet>
</aircraftType>
<numOperations>366</numOperations>
<opType>D</opType>
<departureAirport type="ICAO">KPVD</departureAirport>
<departureGate>AC</departureGate>
<departureApuTime>3. 5</departureApuTime> <!-- in minutes -->
<taxiOutDuration>10. 72</taxiOutDuration> <!-- in minutes -->
<taxiInDuration>6. 24</taxiInDuration> <!-- in minutes -->
<activityProfile>ActivityProfile-Baseline-KPVD-0-0-0</activityProfile>
<actypeWeight>146100</actypeWeight> <!-- in pounds -->
<fuelSulfurContent>0. 00068</fuelSulfurContent>
</operation>

<operation>
<id>A_1</id>
<aircraftType>
<airframeModel>Airbus A319-100 Series</airframeModel>
<engineCode>3CMD28</engineCode>
<apuName>APU GTCP 36-300 (80HP)</apuName>
<groundSupportEquipmentLT00operationSet>
<groundSupportEquipmentLT00operation>
<gseID>8</gseID>
<fuelType>Diesel</fuelType>
<horsepower>88</horsepower>
<loadFactor>0. 8</loadFactor>
<departureOpTime>3. 9</departureOpTime>
</groundSupportEquipmentLT00operation>
<groundSupportEquipmentLT00operation>
<gseID>13</gseID>
<fuelType>Gasoline</fuelType>
<horsepower>107</horsepower>
<loadFactor>0. 55</loadFactor>
<departureOpTime>8</departureOpTime>
<arrivalOpTime>8</arrivalOpTime>
</groundSupportEquipmentLT00operation>
<groundSupportEquipmentLT00operation>
<gseID>14</gseID>
<fuelType>Gasoline</fuelType>
<horsepower>107</horsepower>
<loadFactor>0. 5</loadFactor>
<departureOpTime>11</departureOpTime>
<arrivalOpTime>12</arrivalOpTime>
</groundSupportEquipmentLT00operation>
<groundSupportEquipmentLT00operation>
<gseID>17</gseID>
<fuelType>Diesel</fuelType>
<horsepower>210</horsepower>
<loadFactor>0. 53</loadFactor>
<departureOpTime>9. 7</departureOpTime>
</groundSupportEquipmentLT00operation>
<groundSupportEquipmentLT00operation>
<gseID>29</gseID>
<fuelType>Diesel</fuelType>
<horsepower>175</horsepower>
<loadFactor>0. 25</loadFactor>
```

```
<departureOpTime>14</departureOpTime>
</groundSupportEquipmentLT00operation>
<groundSupportEquipmentLT00operation>
  <gseID>36</gseID>
  <fuelType>Diesel</fuelType>
  <horsepower>56</horsepower>
  <loadFactor>0.25</loadFactor>
  <arrivalOpTime>2.1</arrivalOpTime>
</groundSupportEquipmentLT00operation>
<groundSupportEquipmentLT00operation>
  <gseID>41</gseID>
  <fuelType>Diesel</fuelType>
  <horsepower>235</horsepower>
  <loadFactor>0.2</loadFactor>
  <departureOpTime>8</departureOpTime>
  <arrivalOpTime>7</arrivalOpTime>
</groundSupportEquipmentLT00operation>
</groundSupportEquipmentLT00operationset>
</aircraftType>
<numOperations>366</numOperations>
<opType>A</opType>
<arrivalAirport type="ICAO">KPVD</arrivalAirport>
<arrivalGate>AC</arrivalGate>
<arrivalApuTime>3.5</arrivalApuTime>
<taxiOutDuration>10.72</taxiOutDuration>
<taxiInDuration>6.24</taxiInDuration>
<activityProfile>ActivityProfile-Baselaine-KPVD-0-0-0</activityProfile>
<actypeWeight>137800</actypeWeight>
<fuelSulfurContent>0.00068</fuelSulfurContent>
</operation>
</case>
</caseSet>
```

Step 5: Full ASIF

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

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

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

3.3 Create a User-Defined Aircraft with Custom ANP Flight Profiles

AEDT supports creating a new user-defined aircraft in the *Equipment* tab, but it does not support adding/editing ANP flight profiles of the new aircraft in the user interface. This section explains how to add custom ANP flight profiles to a new aircraft by using ASIF.

Follow the steps below to create a user-defined aircraft with custom ANP flight profiles:

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

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

Step 2: Export the new aircraft then delete it

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

Step 3: Open and edit the exported ASIF

1. Open the exported ASIF.
2. Under the <anpProfileSet>, copy and paste one of the existing <profile> sections.
3. Modify the new <profile> section by editing the profile properties. Refer to the AEDT User Guide for details on how to define procedural profiles for civil airplanes and helicopters.
4. Add additional profiles as needed.
5. Save the ASIF.

Step 4: Import the ASIF

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



AEDT 3b currently does not support defining BADA 4 profiles in ASIF; however user-defined BADA 4 profiles for a new aircraft can be created in the AEDT user interface. Note that when an aircraft with user-defined BADA 4 profiles is exported to ASIF, BADA 4 profiles data are not included in the ASIF.

4 ASIF Design Consideration

4.1 Airport Layout and Runways

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

For AEDT 3a, the AEDT Airport Database has been updated with the latest runway data.

- In the AEDT User Interface, if an existing airport that has extended runways or renamed runways is added, multiple airport layouts will be listed for that airport with different effective - expiration date ranges.
- In the ASIF, if an existing airport that has extended runways or renamed runways is specified but runway data is not provided, then AEDT will copy all the runways (both expired and the latest) from the Airport database into a single airport layout.

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

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

The following screenshot shows the single airport layout for KATL airport which lists the runway ends 09L and 27R twice; and lists the runways 09L-27R twice.

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

Layout: KATL_layout			
Effective date: 1/1/1900		Taxi-in time: 0 minutes 0 seconds	
Expiration date: 6/6/2079		Taxi-out time: 0 minutes 0 seconds	
Ground Elements			Tracks
Drag a column header and drop it here to group by that column			
Choose Columns	Type	ID	Name
	+ Runway end	72254	08L
	+ Runway end	84857	26R
	+ Runway end	72255	08R
	+ Runway end	84858	26L
	+ Runway end	72256	09L
	+ Runway end	84859	27R
	+ Runway end	72257	09R
	+ Runway end	84860	27L
	+ Runway end	72258	10
	+ Runway end	84861	28
	+ HeliPad	72259	H1
	+ Runway end	121432	27R
	+ Runway end	122606	09L
	+ Runway	36926	08L - 26R
	+ Runway	36927	08R - 26L
	+ Runway	36928	09L - 27R
	+ Runway	36929	09R - 27L
	+ Runway	36930	10 - 28
	+ Runway	36931	H1
	+ Runway	67816	27R - 09L

20 of 20 item(s) shown. 0 item(s) selected.

4.2 Event Consolidation

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

4.3 Control Codes

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

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

In the ASIF schema, an altitude control is assigned to a *trackNode* by providing the control altitude as *trackNode/altitude*, and the control code as *trackNode/altitude/control*. Likewise, a speed control is

defined by providing *trackNode/speed*, and the control code as *trackNode/speed/control*. Note that no control is defined if any of the following are true:

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

Furthermore, AEDT will ignore the following controls:

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

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

AEDT computes performance to the following extents:

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

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

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

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

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

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

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

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

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

Default GSEs for Airbus A319-100 Series – Departure Operation

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

To specify individual GSEs for the aircraft operation, use the *groundSupportEquipmentLT00operationSet*, as follows:

```
<operation>
  <i d>D_1</i d>
  <aircraftType>
    <airframeModel>Airbus A319-100 Series</airframeModel>
    <engineCode>3CM028</engineCode>
    <apuName>APU GTCP 36-300 (80HP)</apuName>
    <groundSupportEquipmentLT00operationSet>
      <groundSupportEquipmentLT00operation>
        <gseID>8</gseID>
        <fuelType>Diesel</fuelType>
        <horsepower>88</horsepower>
        <loadFactor>0.8</loadFactor>
        <departureOpTime>3.9</departureOpTime>
      </groundSupportEquipmentLT00operation>
      <groundSupportEquipmentLT00operation>
        <gseID>13</gseID>
        <fuelType>Gasoline</fuelType>
        <horsepower>107</horsepower>
        <loadFactor>0.55</loadFactor>
        <departureOpTime>8</departureOpTime>
        <arrivalOpTime>8</arrivalOpTime>
      </groundSupportEquipmentLT00operation>
      <groundSupportEquipmentLT00operation>
        <gseID>14</gseID>
        <fuelType>Gasoline</fuelType>
        <horsepower>107</horsepower>
        <loadFactor>0.5</loadFactor>
        <departureOpTime>11</departureOpTime>
        <arrivalOpTime>12</arrivalOpTime>
      </groundSupportEquipmentLT00operation>
      <groundSupportEquipmentLT00operation>
        <gseID>17</gseID>
        <fuelType>Diesel</fuelType>
        <horsepower>210</horsepower>
        <loadFactor>0.53</loadFactor>
        <departureOpTime>9.7</departureOpTime>
      </groundSupportEquipmentLT00operation>
      <groundSupportEquipmentLT00operation>
        <gseID>29</gseID>
        <fuelType>Diesel</fuelType>
        <horsepower>175</horsepower>
        <loadFactor>0.25</loadFactor>
        <departureOpTime>14</departureOpTime>
      </groundSupportEquipmentLT00operation>
      <groundSupportEquipmentLT00operation>
        <gseID>36</gseID>
        <fuelType>Diesel</fuelType>
        <horsepower>56</horsepower>
        <loadFactor>0.25</loadFactor>
        <arrivalOpTime>2.1</arrivalOpTime>
      </groundSupportEquipmentLT00operation>
    </groundSupportEquipmentLT00operationSet>
  </aircraftType>
</operation>
```

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

5 ASIF Schema Documentation

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

Schema ASIFMerge.xsd

schema location: [ASIFMerge.xsd](#)

attributeFormDefault: **unqualified**

elementFormDefault: **qualified**

Elements

[activityProfile](#)

[activityProfileSet](#)

[airportCapacity](#)

[airportConfig](#)

[airportConfigSet](#)

[airportLayoutSet](#)

[airportWeather](#)

[airportWeatherStation](#)

[annualization](#)

[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](#)

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[dailyProfileSet](#)

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[emissionsUsage](#)

[engineModeEmissionFactors](#)

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[gateSet](#)

[grid](#)

[groundSupportEquipmentGateAssignment](#)

[groundSupportEquipmentGateAssignmentSet](#)

[groundSupportEquipmentTOOOperation](#)

[groundSupportEquipmentTOOOperationSet](#)

[groundSupportEquipmentPopulationOperation](#)

[groundSupportEquipmentPopulationOperationSet](#)

[monthlyProfile](#)

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[pointReceptor](#)

[pointStationarySource](#)

[polarGrid](#)

[polarReceptor](#)

[quarterHourlyProfile](#)

[quarterHourlyProfileSet](#)

Groups

[airportActivityGroup](#)

[annualizationGroupCase](#)

[coord2DGroup](#)

[latlonCoordGroup](#)

[nodeIdGroup](#)

[oneOrThreeCoords2DGroupSet](#)

[receptorGroup](#)

[utmCoordGroup](#)

Complex types

[aircraft](#)

[aircraftEngine](#)

[aircraftEngineMod](#)

[aircraftType](#)

[airframe](#)

[airport](#)

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[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](#)

[anpNoiseld](#)

[anpNpdNoiseType](#)

[anpNpdOpMode](#)

[anpOwnerType](#)

[anpSizeCode](#)

[apuName](#)

[badaAirplaneId](#)

[badaPhaseType](#)

[badaWakeType](#)

[directionType](#)

[doubleExclusive0Inclusive10](#)

[doubleExclusive10](#)

[doubleExclusive100](#)

[doubleExclusive1000](#)

[doubleExclusive10000](#)

[doubleExclusive2000](#)

[doubleExclusiveRange100](#)

[doubleInclusive1](#)

[doubleInclusive100](#)

[doubleInclusive1000](#)

[doubleInclusive10000](#)

[doubleInclusive24](#)

[doubleInclusive4000](#)

[floatExclusive10](#)

[floatExclusive100](#)

[floatExclusive1000](#)

[floatExclusive10000](#)

[floatExclusive2000](#)

[floatInclusive1](#)

[floatInclusive100](#)

[floatInclusive1000](#)

[floatInclusive10000](#)

[floatInclusive24](#)

[floatInclusive4000](#)

[floatInclusiveRange1to30](#)

[floatInclusiveRange32to600](#)

[fuelType](#)

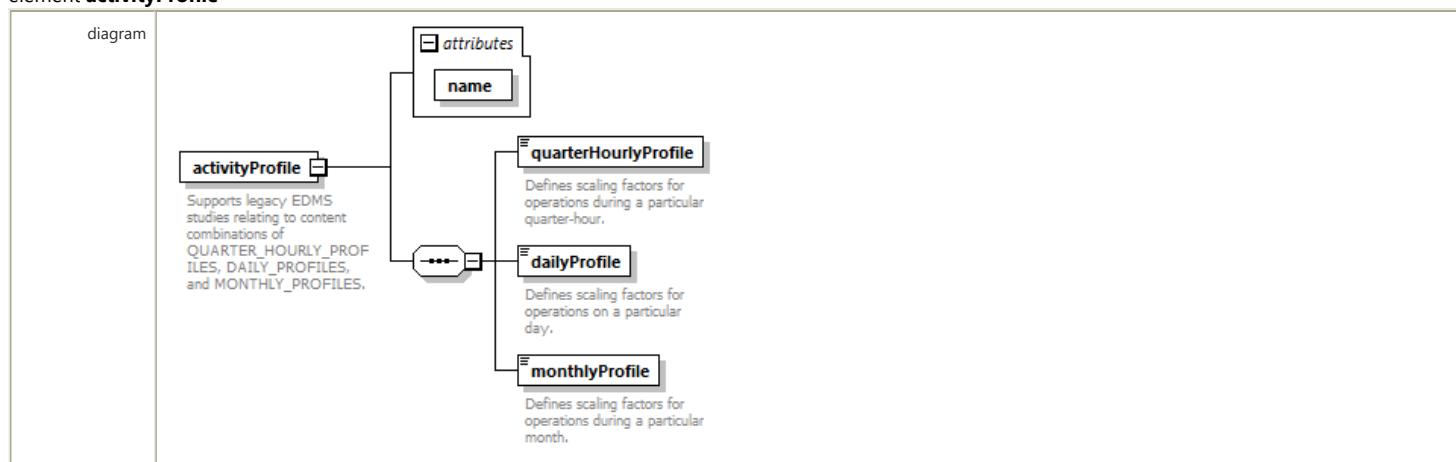
[groundVehicleType](#)

[int0to23](#)

[int0to360](#)

receptorSet	int0to5
recordCode	int0to87
roadway	int1to13
roadwayOperation	int1to15
roadwayOperationSet	int1to2
roadwaySet	int1to25
runway	int1to4
runwayAssignment	int1to5
runwayAssignmentSet	int1to8
runwaySet	int1to93
scenario	int5to65
scenarioAirportLayoutSet	int6to13
sensorNode	int89to148
sensorPath	latitudeDMSType
stationarySource	longitudeDMSType
stationarySourceOperation	nodeControlType
stationarySourceOperationSet	opType
stationarySourceSet	originSourceType
study	profileType
subtrack	quarterHourMinutes
taxiNode	string1
taxiNodeSet	string10
taxipath	string100
taxipathSet	string11
taxiTime	string12
taxiway	string14
taxiwaySet	string15
track	string16
trackNode	string2
trackNodes	string20
trackOpSet	string200
trackref	string25
trackSet	string255
trackVector	string3
trackVectors	string30
userDefinedAirportSet	string32
userGroundSupportEquipment	string4
userGroundSupportEquipmentSet	string40
vehicleEmissionFactors	string42
volumeStationarySource	string5
weatherData	string50
windRose	string6
windRoseData	string64
windRoseStation	string66
	string7
	string8
	string9
	studyType
	taxiModelType
	timeInModeBasisType
	trackType
	trainingFireFuelType
	vectorTrackType
	wingType
	yesNoType

element activityProfile



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

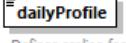
attribute activityProfile/@name

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

element activityProfile/quarterHourlyProfile

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

element activityProfile/dailyProfile

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

element activityProfile/monthlyProfile

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

element activityProfileSet

diagram	<p>The diagram shows the element <code>activityProfileSet</code> with an attribute <code>dummy</code>. The attribute <code>dummy</code> has a multiplicity of <code>0..∞</code> and points to the element <code>activityProfile</code>.</p> <p><code>activityProfileSet</code>: Supports the definition and use of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES variation of operations.</p> <p><code>activityProfile</code>: Supports legacy EDMS studies relating to content combinations of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES.</p>												
properties	content complex												
children	activityProfile												
used by	element operationalProfileSet complexType airportLayoutType												
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td><u>dummy</u></td> <td><code>xs:int</code></td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	<u>dummy</u>	<code>xs:int</code>	optional			
Name	Type	Use	Default	Fixed	Annotation								
<u>dummy</u>	<code>xs:int</code>	optional											
annotation	<p>documentation</p> <p>Supports the definition and use of QUARTER_HOURLY_PROFILES, DAILY_PROFILES, and MONTHLY_PROFILES variation of operations.</p>												

attribute activityProfileSet/@dummy

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

element airportCapacity

diagram	<p>The diagram shows the element <code>airportCapacity</code> with an attribute <code>dummy</code>. The attribute <code>dummy</code> has a multiplicity of <code>0..3</code> and points to the element <code>capacityPoint</code>.</p> <p><code>airportCapacity</code>: Supports legacy EDMS studies relating to content contained in the RUNWAY_CONFIGURATIONS table. This element supports the definition of airport capacities based on various points within an airport.</p> <p><code>capacityPoint</code>: Supports legacy EDMS studies relating to content contained in the RUNWAY_CONFIGURATIONS table. This element supports the definition of airport capacities based on various points within an airport.</p>												
properties	content complex												
children	capacityPoint												
used by	element airportConfig complexTypes airportLayoutType scenarioAirportLayoutType												
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td><u>dummy</u></td> <td><code>xs:int</code></td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	<u>dummy</u>	<code>xs:int</code>	optional			
Name	Type	Use	Default	Fixed	Annotation								
<u>dummy</u>	<code>xs:int</code>	optional											
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to content contained in the RUNWAY_CONFIGURATIONS table. This element supports the definition of airport capacities based on various points within an airport.</p>												

attribute airportCapacity/@dummy

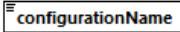
type	<code>xs:int</code>
properties	use optional

element airportConfig

diagram	
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	<p>configurationName</p> <p>Runway configuration name.</p> <p>useDistribution</p> <p>Flag to use a distribution for the configuration.</p> <p>weight</p> <p>Runway configuration weight factor.</p> <p>startWindAngle</p> <p>Start wind angle. Valid values: 0.00 to 359.00, (degrees)</p> <p>endWindAngle</p> <p>End wind angle. Valid values: 0.00 to 359.00, (degrees)</p> <p>minWindSpeed</p> <p>Minimum wind speed. Valid values: 0.00 to 100.00, (kts)</p> <p>maxWindSpeed</p> <p>Maximum wind speed. Valid values: 0.00 to 100.00, (kts)</p> <p>startHour</p> <p>Start hour. Valid values: 0.00 to 23.00.</p> <p>endHour</p> <p>End hour. Valid values: 0.00 to 23.00.</p> <p>minCeiling</p> <p>Minimum ceiling. Valid values: 0.00 to 100000.00, (ft)</p> <p>maxCeiling</p> <p>Maximum ceiling. Valid values: 0.00 to 100000.00, (ft)</p> <p>minVisibility</p> <p>Minimum visibility. Valid values: 0.00 to 100.00, (mi)</p> <p>maxVisibility</p> <p>Maximum visibility. Valid values: 0.00 to 100.00, (mi)</p> <p>minTemperature</p> <p>Minimum temperature. Valid values: -100.00 to 150.00, (°F)</p> <p>maxTemperature</p> <p>Maximum temperature. Valid values: -100.00 to 150.00, (°F)</p> <p>airportCapacity</p> <p>Airport runway capacity points.</p> <p>runwayAssignmentSet</p> <p>The runway assignments.</p>
properties	content complex
children	configurationName useDistribution weight startWindAngle endWindAngle minWindSpeed maxWindSpeed startHour endHour minCeiling maxCeiling minVisibility maxVisibility minTemperature maxTemperature airportCapacity runwayAssignmentSet
used by	element airportConfigSet
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to content contained in the RUNWAY_CONFIGURATIONS table. This element supports the definition of airports and their runway configurations for a given scenario layout. Airports operate under different configurations (the pattern of aircraft arrivals and departures on specific runways) over the course of a year depending on the weather, capacity, and noise abatement issues.</p>

element **airportConfig/configurationName**

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

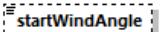
element **airportConfig/useDistribution**

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.

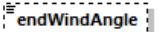
element **airportConfig/weight**

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

element **airportConfig/startHour**

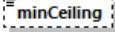
diagram	 <p>Start hour. Valid values: 0.00 to 23.00.</p>
type	doubleInclusive24
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 24
annotation	documentation Start hour. Valid values: 0.00 to 23.00.

element **airportConfig/endHour**

diagram	 <p>End hour. Valid values: 0.00 to 23.00.</p>
type	doubleInclusive24
properties	minOcc 0 maxOcc 1 content simple

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

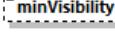
element **airportConfig/minCeiling**

diagram	 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)

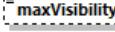
element **airportConfig/maxCeiling**

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)

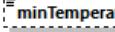
element **airportConfig/minVisibility**

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

element **airportConfigSet**

diagram	<p>Contains one or more airportConfig elements.</p> <p>Supports legacy EDMS studies relating to content contained in the RUNWAY_CONFIGURATIONS table. This element supports the definition of airports and their runway configurations for a given scenario layout. Airports operate under different configurations (the pattern of aircraft arrivals and departures on specific runways) over the course of a year depending on the weather, capacity, and noise abatement issues.</p>
properties	content complex
children	airportConfig
used by	complexTypes airportLayoutType scenarioAirportLayoutType
annotation	documentation Contains one or more airportConfig elements.

element **airportLayoutSet**

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

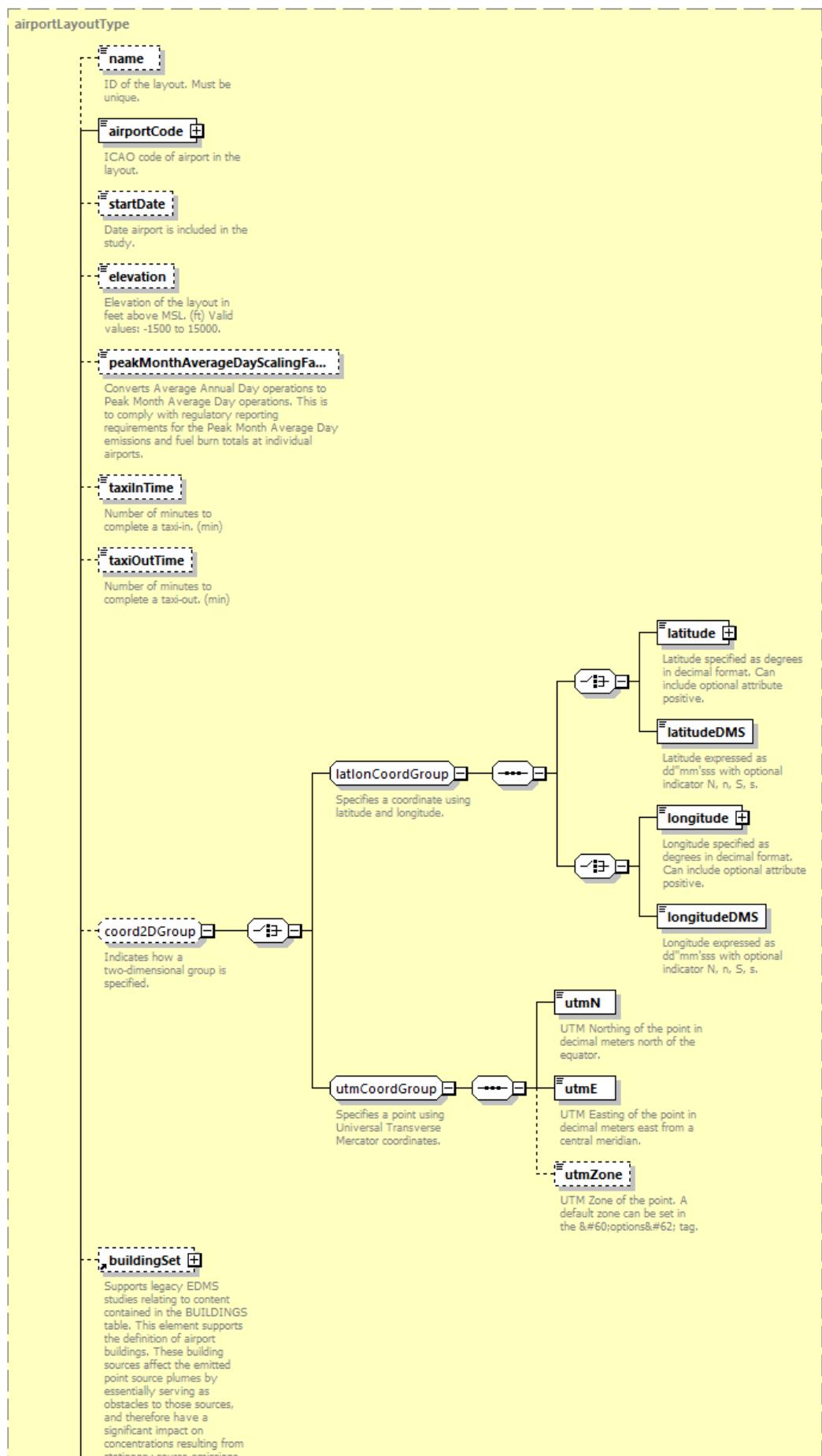
attribute **airportLayoutSet/@dummy**

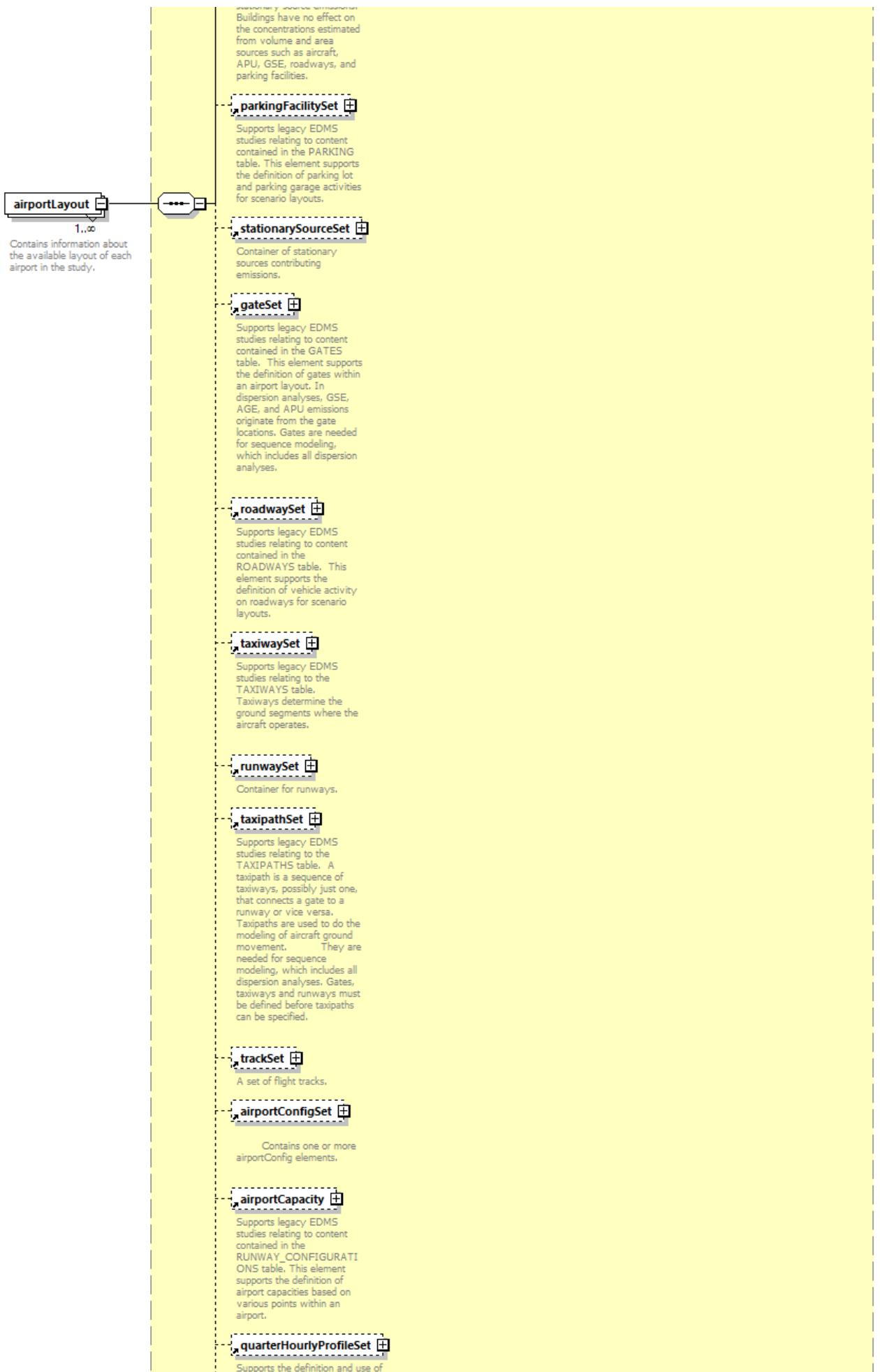
type	xs:int
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properties	use optional
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element airportLayoutSet/airportLayout

diagram







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

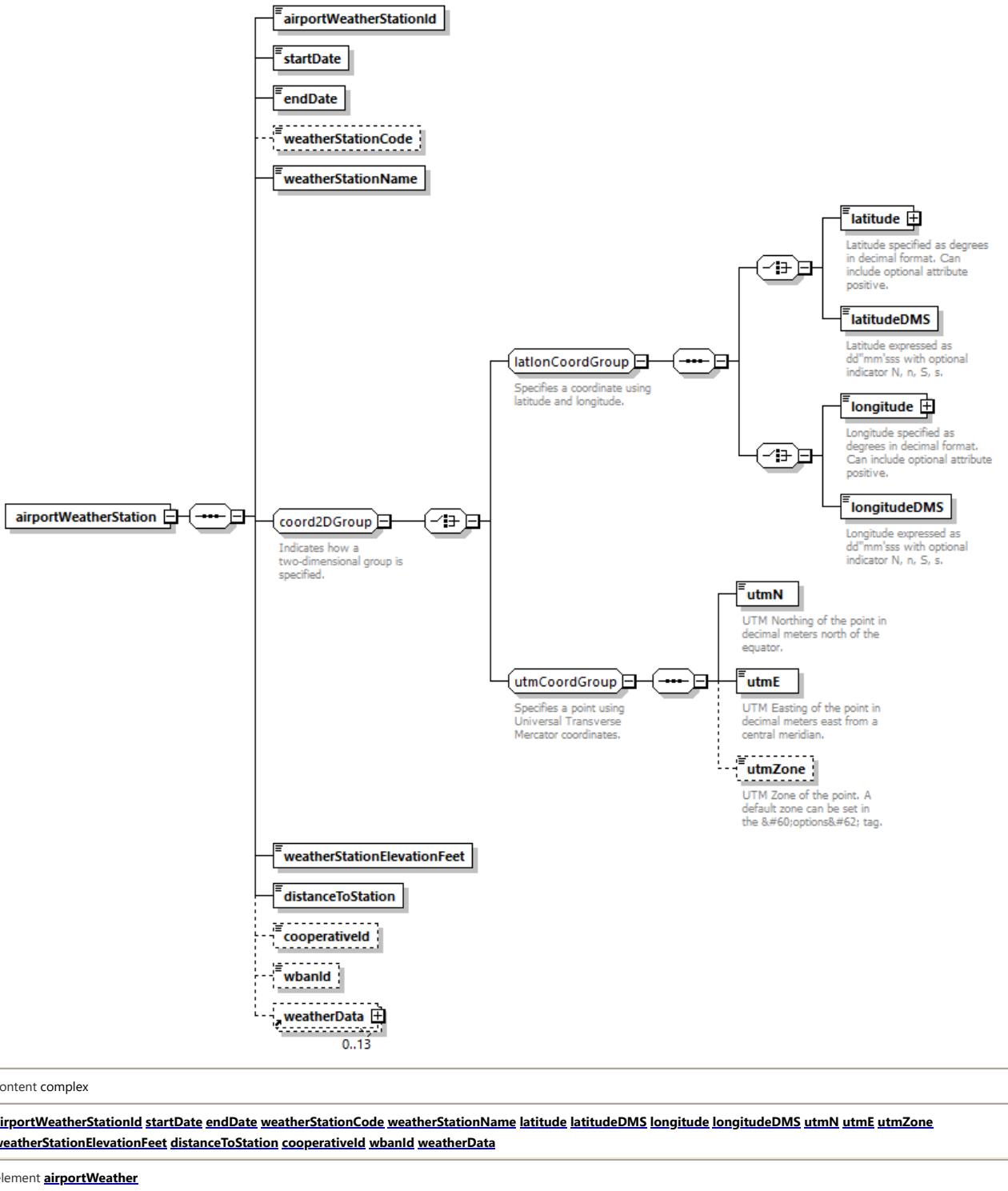
diagram	<pre> classDiagram class airportWeather class airportWeatherStationId class airportWeatherStation airportWeather "1" -- "*" airportWeatherStationId airportWeather "1" -- "*" airportWeatherStation </pre>
properties	content complex
children	airportWeatherStationId airportWeatherStation
used by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

element **airportWeather/airportWeatherStationId**

diagram	
type	xs:int
properties	content simple

element **airportWeatherStation**

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



element `airportWeatherStation/airportWeatherStationId`

diagram	
type	<code>xs:int</code>
properties	content simple

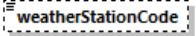
element `airportWeatherStation/startDate`

diagram	
type	<code>xs:date</code>
properties	content simple

element airportWeatherStation/endDate

diagram	
type	xs:date
properties	content simple

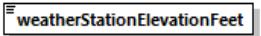
element airportWeatherStation/weatherStationCode

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

element airportWeatherStation/weatherStationName

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

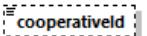
element airportWeatherStation/weatherStationElevationFeet

diagram	
type	xs:int
properties	content simple

element airportWeatherStation/distanceToStation

diagram	
type	xs:double
properties	content simple

element airportWeatherStation/cooperativeld

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

element airportWeatherStation/wbanId

diagram	
type	string5
properties	minOcc 0 maxOcc 1

	content simple
facets	Kind Value Annotation minLength 0 maxLength 5

element annualization

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

element annualization/name

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

element annualizationCase

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

element annualizationCase/name

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

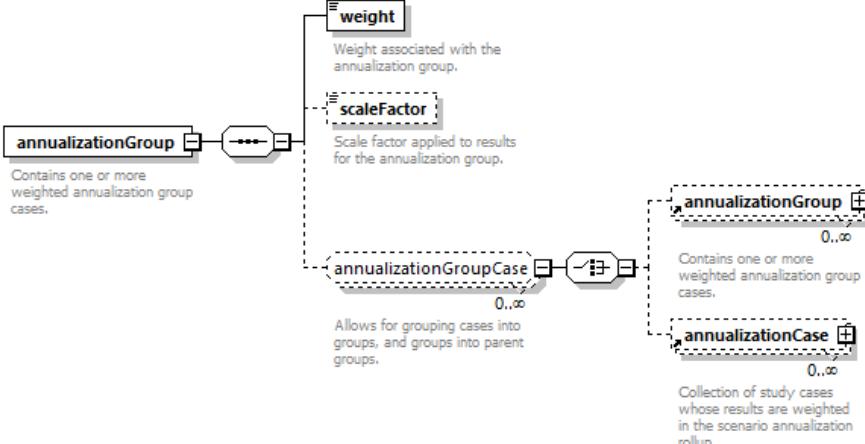
element annualizationCase/weight

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

element annualizationCase/scaleFactor

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

element annualizationGroup

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

element areaStationarySource

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

element areaStationarySource/baseElevation

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

element areaStationarySource/releaseHeight

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

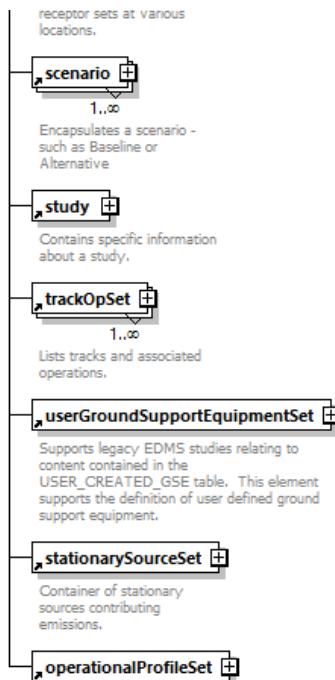
	maxInclusive 100
annotation	documentation Height at which emissions are released into the atmosphere. Valid values: 0 to 100 (m)

element areaStationarySource/sigmaZ

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

element AsifXml

diagram	
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properties	content complex																		
children	options airportLayoutSet annualization boundary case fleet operation runup receptorSet scenario study trackOpSet userGroundSupportEquipmentSet stationarySourceSet operationalProfileSet																		
attributes	<table> <tr> <td>Name</td> <td>Type</td> <td>Use</td> <td>Default</td> <td>Fixed</td> <td>Annotation documentation</td> </tr> <tr> <td>version</td> <td>string16</td> <td>optional</td> <td></td> <td></td> <td>Study version. Used for revision control of a study.</td> </tr> <tr> <td>content</td> <td>derived by: xs:string</td> <td>required</td> <td></td> <td></td> <td></td> </tr> </table>	Name	Type	Use	Default	Fixed	Annotation documentation	version	string16	optional			Study version. Used for revision control of a study.	content	derived by: xs:string	required			
Name	Type	Use	Default	Fixed	Annotation documentation														
version	string16	optional			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

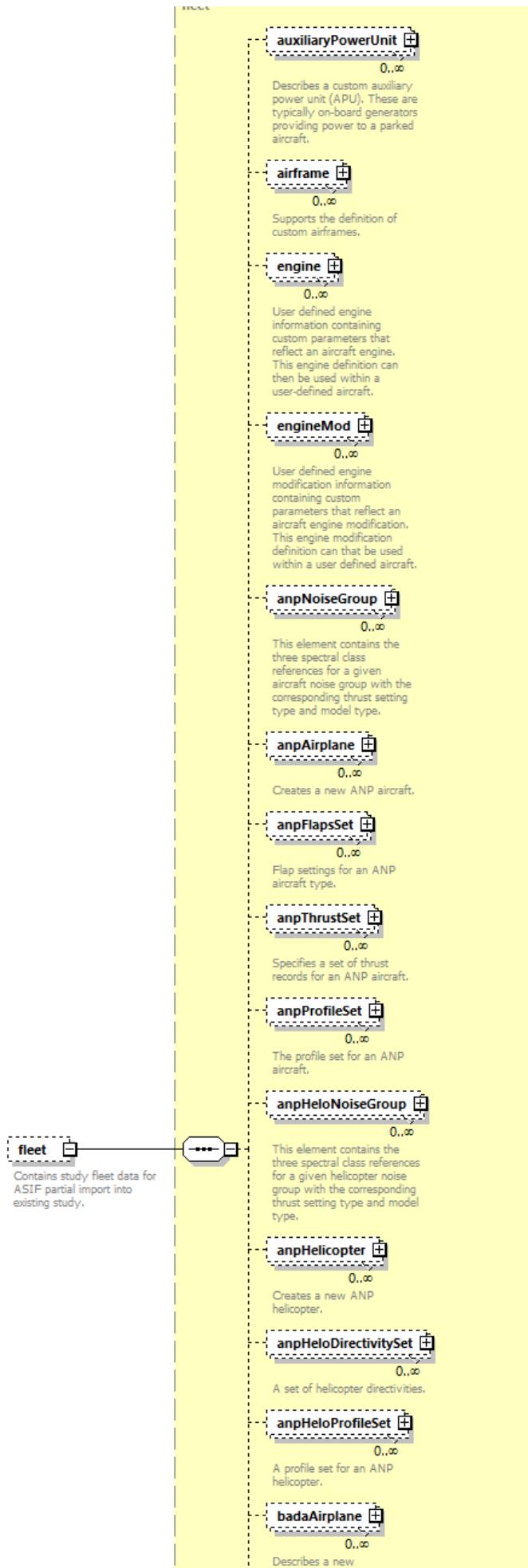
type	string16									
properties	use optional									
facets	<table> <tr> <td>Kind</td> <td>Value</td> <td>Annotation</td> </tr> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>16</td> <td></td> </tr> </table>	Kind	Value	Annotation	minLength	0		maxLength	16	
Kind	Value	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	<table> <tr> <td>Kind</td> <td>Value</td> <td>Annotation</td> </tr> <tr> <td>enumeration</td> <td>airportLayoutSet</td> <td></td> </tr> <tr> <td>enumeration</td> <td>annualization</td> <td></td> </tr> <tr> <td>enumeration</td> <td>case</td> <td></td> </tr> <tr> <td>enumeration</td> <td>fleet</td> <td></td> </tr> <tr> <td>enumeration</td> <td>receptorSets</td> <td></td> </tr> <tr> <td>enumeration</td> <td>scenario</td> <td></td> </tr> <tr> <td>enumeration</td> <td>study</td> <td></td> </tr> <tr> <td>enumeration</td> <td>boundary</td> <td></td> </tr> <tr> <td>enumeration</td> <td>trackOpSet</td> <td></td> </tr> <tr> <td>enumeration</td> <td>runup</td> <td></td> </tr> <tr> <td>enumeration</td> <td>userGroundSupportEquipmentSet</td> <td></td> </tr> <tr> <td>enumeration</td> <td>stationarySourceSet</td> <td></td> </tr> <tr> <td>enumeration</td> <td>operationalProfileSet</td> <td></td> </tr> </table>	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	
Kind	Value	Annotation																																									
enumeration	airportLayoutSet																																										
enumeration	annualization																																										
enumeration	case																																										
enumeration	fleet																																										
enumeration	receptorSets																																										
enumeration	scenario																																										
enumeration	study																																										
enumeration	boundary																																										
enumeration	trackOpSet																																										
enumeration	runup																																										
enumeration	userGroundSupportEquipmentSet																																										
enumeration	stationarySourceSet																																										
enumeration	operationalProfileSet																																										

element AsifXml/fleet

diagram	
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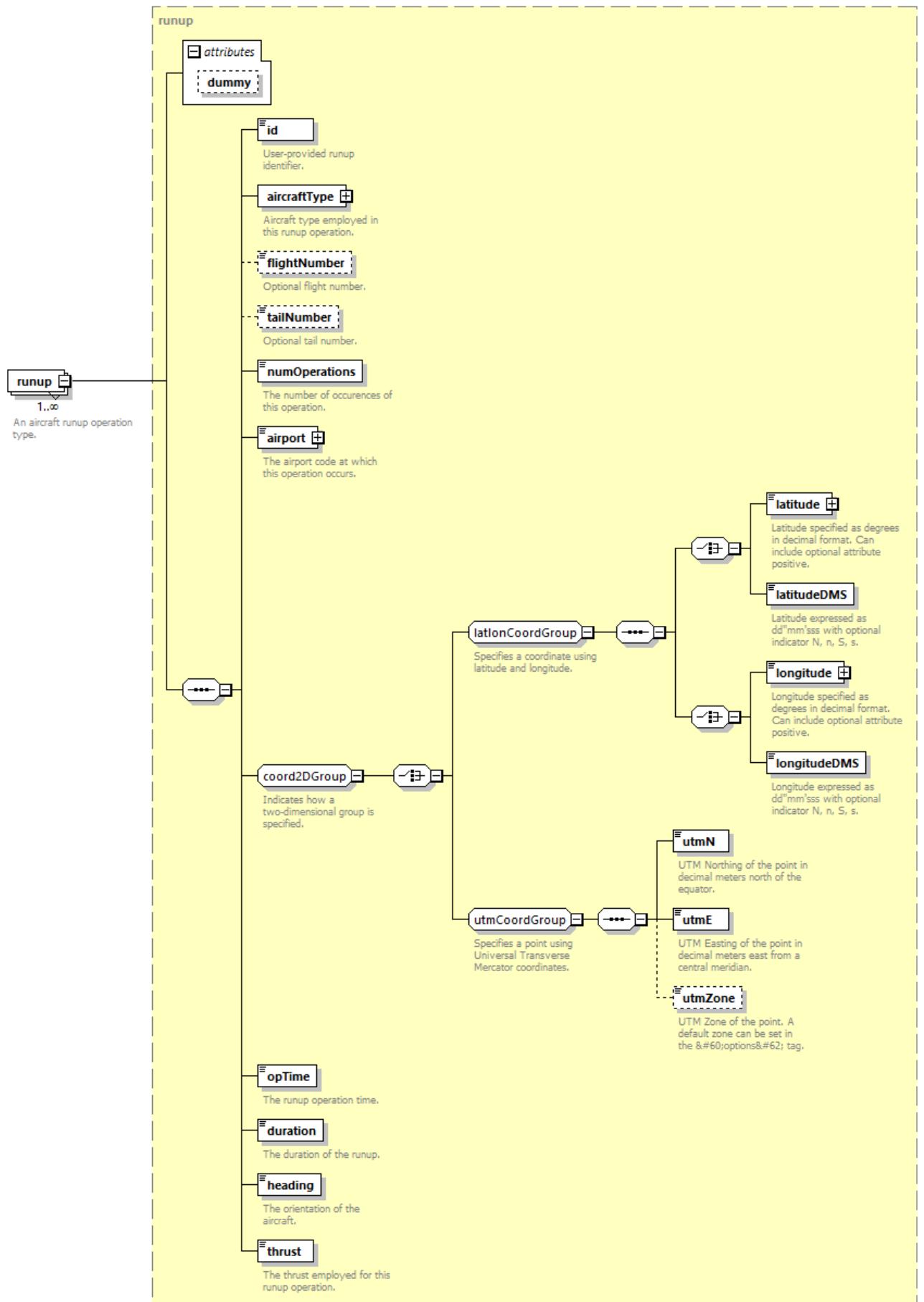




type	fleet
properties	minOcc 0 maxOcc 1 content complex
children	auxiliaryPowerUnit airframe engine engineMod anpNoiseGroup anpAirplane anpFlapsSet anpThrustSet anpProfileSet anpHeloNoiseGroup anpHelicopter anpHeloDirectivitySet anpHeloProfileSet badaAirplane badaAltitudeDistributionSet badaDefaultAltitudeDistributionSet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

element **AsifXml/runup**

diagram	
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type	runup
properties	minOcc 1 maxOcc unbounded

	content complex
children	id aircraftType flightNumber tailNumber numOperations airport latitude longitudeDMS 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	<p>The diagram illustrates the structure of the backbone element. It consists of three main components: backbone, dispersionWeight, and backboneNodes. The backbone component is connected to the dispersionWeight component via a dashed line, indicating they are part of the same entity. The backbone component is also connected to the backboneNodes component via a dashed line. A callout box provides documentation for each component: backbone represents the centerline of a set of dispersed tracks; dispersionWeight describes dispersion weights for subtracks; and backboneNodes describes the set of 3D nodes for the backbone.</p>
properties	content complex
children	dispersionWeight backboneNodes
used by	element track
annotation	documentation Represents the centerline of a set of dispersed tracks.

element **backboneNode**

diagram	<p>The diagram illustrates the structure of the backboneNode element. It consists of three main components: backboneNode, trackNode, and halfwidth. The backboneNode component is connected to the trackNode component via a dashed line. The backboneNode component is also connected to the halfwidth component via a dashed line. A callout box provides documentation for each component: backboneNode is a 3D node part of a backbone; trackNode is a flight track node; and halfwidth is the halfwidth in nautical miles (nmi).</p>
properties	content complex
children	trackNode halfwidth
used by	element backboneNodes
annotation	documentation A 3D node that is part of a backbone.

element **backboneNode/halfwidth**

diagram	<p>The diagram illustrates the structure of the backboneNode/halfwidth element. It consists of a single component, halfwidth. A callout box provides documentation for this component: it is the halfwidth in nautical miles (nmi).</p>
type	xs:double
properties	content simple
annotation	documentation Halfwidth in nautical miles. (nmi)

element **backboneNodes**

diagram	<p>The diagram illustrates the structure of the backboneNodes element. It consists of two main components: backboneNodes and backboneNode. The backboneNodes component is connected to the backboneNode component via a dashed line. A callout box provides documentation for each component: backboneNodes is the set of 3D nodes for the backbone; and backboneNode is a 3D node that is part of a backbone. A note indicates that the cardinality for backboneNode is 1..∞.</p>
properties	content complex
children	backboneNode

used by	element backbone
annotation	documentation The set of 3D nodes for the backbone.

element **boilerHeaterTypeCode**

diagram	<pre> graph LR boundary[boundary] --> attributes[attributes] attributes --> dummy[dummy] dummy --> polygon[polygon] </pre> <p>An integer value for the Boiler/Heater type represented. This value comes from the SUBCATEGORY_ID column of the STN_CATEGORY table in the AEDT FLEET database. Valid values: 1 to 37, 50 to 75, 80 to 93.</p>
type	union of (restriction of xs:integer , restriction of xs:integer , restriction of xs:integer)
properties	content simple
used by	element categoryBoilerHeater
annotation	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	<pre> graph LR boundary[boundary] --> attributes[attributes] attributes --> dummy[dummy] dummy --> polygon[polygon] </pre> <p>Specifies the boundaries of a study or other element contained within a study. When a study boundary is specified, all flight paths resulting from departure, arrival, and overflight operations are calculated to and/or from the study boundary.</p>												
properties	content complex												
children	polygon												
used by	elements AsifXml study .												
attributes	<table> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> <tr> <td><u>dummy</u></td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </table>	Name	Type	Use	Default	Fixed	Annotation	<u>dummy</u>	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
<u>dummy</u>	xs:int	optional											
annotation	documentation 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	<pre> graph LR boundary[polygon] --> attributes[polygon2DType] attributes --> dummy[dummy] dummy --> vertex[vertex] </pre> <p>Set of coordinates defining the boundary.</p> <p>A list of vertices defining the polygon.</p>
type	polygon2DType
properties	minOcc 1 maxOcc unbounded content complex
children	dummy vertex

annotation	documentation Set of coordinates defining the boundary.
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element building

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

element building/name

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

element building/elevation

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

element building/height

diagram	

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

element **building/releaseHeight**

diagram	<p>The diagram illustrates the structure of the buildingSet element. It consists of four main components: buildingSet, attributes, dummy, and building. The buildingSet element has a relationship with the attributes element. The attributes element contains the dummy element. The building element is associated with the dummy element, indicated by a multiplicity of 1..∞.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Height at which emissions are released into the atmosphere. Valid values 0 to 100 (m)

element **buildingSet**

diagram	<p>The diagram illustrates the structure of the buildingSet element. It consists of four main components: buildingSet, attributes, dummy, and building. The buildingSet element has a relationship with the attributes element. The attributes element contains the dummy element. The building element is associated with the dummy element, indicated by a multiplicity of 1..∞.</p>												
properties	content complex												
children	building												
used by	complexType airportLayoutType												
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td><u>dummy</u></td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	<u>dummy</u>	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
<u>dummy</u>	xs:int	optional											
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to content contained in the BUILDINGS table. This element supports the definition of airport buildings. These building sources affect the emitted point source plumes by essentially serving as obstacles to those sources, and therefore have a significant impact on concentrations resulting from stationary source emissions. Buildings have no effect on the concentrations estimated from volume and area sources such as aircraft, APU, GSE, roadways, and parking facilities.</p>												

attribute **buildingSet/@dummy**

type	xs:int
properties	use optional

element **capacityPoint**

diagram	
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	<p>capacityPoint</p> <p>Supports legacy EDMS studies relating to content contained in the RUNWAY_CONFIGURATIONS table. This element supports the definition of airport capacities based on various points within an airport.</p>
properties	content complex
children	arrivalsPerHour departuresPerHour
used by	element airportCapacity
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to content contained in the RUNWAY_CONFIGURATIONS table. This element supports the definition of airport capacities based on various points within an airport.</p>

element capacityPoint/arrivalsPerHour

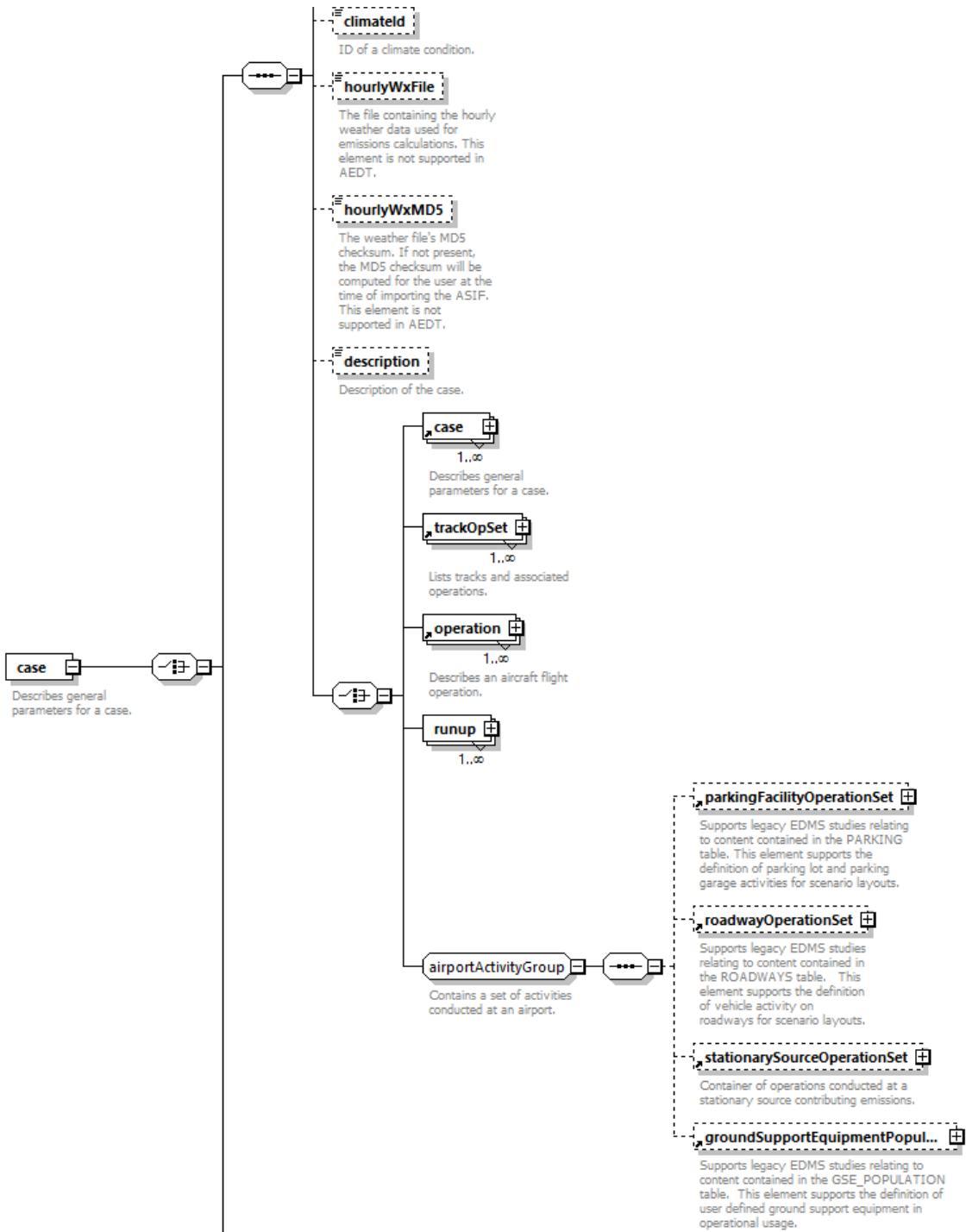
diagram	<p>arrivalsPerHour</p> <p>Number of arrivals per hour. Valid values: 0.00 to 400.00. (operations per hour)</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>Number of arrivals per hour. Valid values: 0.00 to 400.00. (operations per hour)</p>

element capacityPoint/departuresPerHour

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

element case

diagram	<p>caseld</p> <p>Case ID.</p> <p>name</p> <p>The name of the case (must be unique within the scenario).</p> <p>source</p> <p>startTime</p> <p>Case's start time. If not defined, the value specified in the scenario element will be used. Must match the value for startTime for the scenario. Accepts dateTime string.</p> <p>duration</p> <p>Case's duration. If not defined, the value specified in the scenario element will be used. Must match the value for duration for the scenario. For AEDT this is restricted to 24 hours (1 day). All cases within a scenario must have the same duration as the scenario. (hr).</p>
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properties	content complex
children	caseId name source startTime duration climateId hourlyWxFile hourlyWxMD5 description case trackOpSet operation runup parkingFacilityOperationSet roadwayOperationSet stationarySourceOperationSet groundSupportEquipmentPopulationOperationSet reference
used by	elements AsifXml case caseSet
annotation	documentation Describes general parameters for a case.

element **case/caseId**

diagram	 caselid 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).
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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.

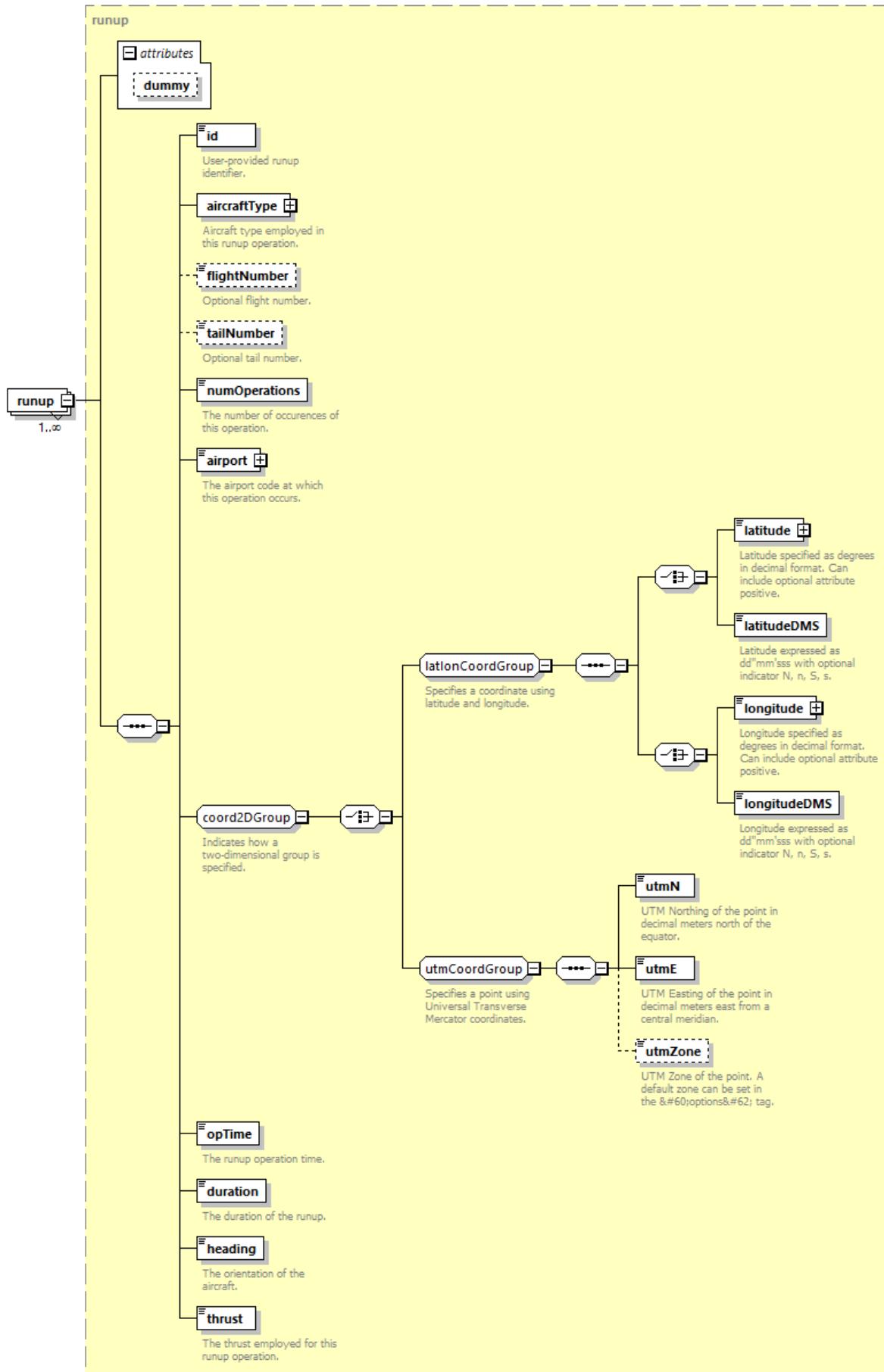
element case/description

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/runup**

diagram	
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type	<code>runup</code>
properties	<p>minOcc 1 maxOcc unbounded</p>

	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 <u>dummy</u> xs:int optional

element case/reference

diagram	<p>The diagram illustrates the relationship between a reference element and a refScenario element. A reference element is connected to a refScenario element via a dashed line. The refScenario element is described as "Scenario under which an existing case appears". The refCase element is described as "Existing case that appears under the refScenario".</p>
properties	content complex
children	refScenario refCase
annotation	documentation Refers to a case by its scenario name and case name. Conditions required: a) all airport layouts in the referenced scenario must be assigned to the target scenario, and b) the referenced case must have a unique name in the new scenario.

element case/reference/refScenario

diagram	<p>The diagram shows a single refScenario element, which is described as "Scenario under which an existing case appears".</p>
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Scenario under which an existing case appears.

element case/reference/refCase

diagram	<p>The diagram shows a single refCase element, which is described as "Existing case that appears under the refScenario".</p>
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Existing case that appears under the refScenario.

element caseSet

diagram	<p>The diagram illustrates the relationship between a caseSet element and a case element. A caseSet element is connected to a case element via a dashed line. The caseSet element has attributes and a value named dummy. The case element is described as "Describes general parameters for a case" and has a multiplicity of 1..oo.</p>
properties	content complex
children	case
used by	element scenario

attributes	Name dummy Type xs:int Use optional Default Fixed Annotation
annotation	documentation Placeholder for one or more cases.

attribute **caseSet/@dummy**

type	xs:int
properties	use optional

element **categoryAircraftEngine**

diagram	<p>The diagram illustrates the structure of the categoryAircraftEngine element. It is a class with several associations. One association leads to engineCode. Another association leads to timePercentPower7, which has a detailed description: "Time at which engine is operating at 7% (taxi) power. Valid values: 0 to 1000. (min)". A third association leads to timePercentPower30, with the description: "Time at which engine is operating at 30% (approach) power. Valid values: 0 to 1000. (min)". A fourth association leads to timePercentPower85, with the description: "Time at which engine is operating at 85% (climbout) power. Valid values: 0 to 1000. (min)". A fifth association leads to timePercentPower100, with the description: "Time at which engine is operating at 100% (takeoff) power. Valid values: 0 to 1000. (min)".</p>
properties	content complex
children	engineCode timePercentPower7 timePercentPower30 timePercentPower85 timePercentPower100
used by	element stationarySource
annotation	documentation Describes a category for the time an aircraft engine is at various power levels.

element **categoryAircraftEngine/engineCode**

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

element **categoryAircraftEngine/timePercentPower7**

diagram	<p>The diagram shows the timePercentPower7 element as a simple class.</p>
type	doubleExclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation Time at which engine is operating at 7% (taxi) power. Valid values: 0 to 1000. (min)

element **categoryAircraftEngine/timePercentPower30**

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

element **categoryAircraftEngine/timePercentPower85**

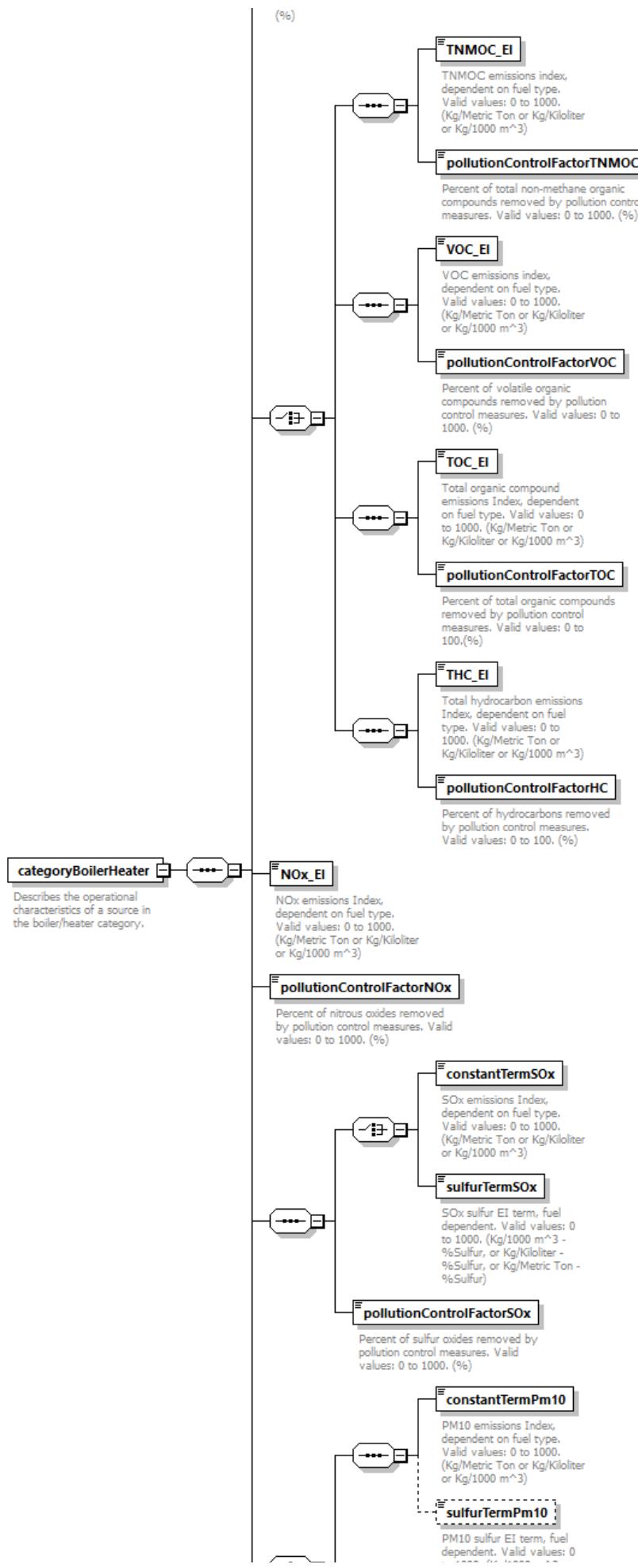
diagram	<p>Time at which engine is operating at 85% (climbout) power. Valid values: 0 to 1000. (min)</p>
type	doubleExclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxExclusive 1000
annotation	documentation Time at which engine is operating at 85% (climbout)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

element **categoryAircraftEngine/timePercentPower100**

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

element **categoryBoilerHeater**

diagram	<p>An integer value for the Boiler/Heater type represented. This value comes from the SUBCATEGORY_ID column of the STN_CATEGORY table in the AEDT FLEET database. Valid values: 1 to 37, 50 to 75, 80 to 93.</p> <p>CO emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)</p> <p>Percent of carbon monoxide removed by pollution control measures. Valid values: 0 to 1000.</p>
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	<p>The diagram illustrates the relationships between several environmental parameters. At the top, a dashed box labeled "ashTermPm10" contains the text: "PM10 ash term. Valid values: 0 to 1000. (Kg/Metric Ton - %Ash)". Below it, a dashed box labeled "fuelAshContent" contains the text: "Percent of fuel that is ash. Valid values: 0 to 1000. (%)".</p> <p>On the left, a dashed box labeled "pollutionControlFactorPM10" contains the text: "Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 1000. (%)".</p> <p>Below "pollutionControlFactorPM10", another dashed box labeled "pm25ToPm10Ratio" contains the text: "PM 2.5 to PM 10 ratio. Valid values: 0 to 1000. (dimensionless)".</p> <p>Further down, a dashed box labeled "fuelCalciumSulfurRatio" contains the text: "Ratio of calcium to sulfur within the fuel. Valid values: 0 to 1000. (dimensionless)".</p> <p>At the bottom, a dashed box labeled "fuelSulfurContent" contains the text: "Percent of fuel that is sulfur. Valid values 0 to 1000. (%)".</p>
properties	content complex
children	boilerHeaterTypeCode CO_EI pollutionControlFactorCO TNMOC_EI pollutionControlFactorTNMOC VOC_EI pollutionControlFactorVOC TOC_EI pollutionControlFactorTOC THC_EI pollutionControlFactorHC NOx_EI pollutionControlFactorNOx constantTermSOx sulfurTermSOx pollutionControlFactorSOx constantTermPm10 sulfurTermPm10 ashTermPm10 fuelAshContent pollutionControlFactorPM10 pm25ToPm10Ratio fuelCalciumSulfurRatio fuelSulfurContent
used by	element stationarySource
annotation	<p>documentation</p> <p>Describes the operational characteristics of a source in the boiler/heater category.</p>

element categoryBoilerHeater/CO_EI

diagram	<p>The diagram shows a single element box labeled "CO_EI".</p>
	<p>CO emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)</p>
type	doubleInclusive1000
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	CO emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)

element categoryBoilerHeater/pollutionControlFactorCO

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

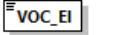
element **categoryBoilerHeater/TNMOC_EI**

diagram	 <p>TNMOC emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)</p>
type	<u>doubleInclusive1000</u>
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	 <p>Percent of total non-methane organic compounds removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
type	<u>doubleInclusive100</u>
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	 <p>VOC emissions index, dependent on fuel type. Valid values: 0 to 1000. (Kg/Metric Ton or Kg/Kiloliter or Kg/1000 m^3)</p>
type	<u>doubleInclusive1000</u>
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	 <p>Percent of volatile organic compounds removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
type	<u>doubleInclusive100</u>
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	<u>doubleInclusive1000</u>
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	<u>doubleInclusive100</u>
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	<u>doubleInclusive1000</u>
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	<u>doubleInclusive100</u>
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of hydrocarbons removed by pollution control measures. Valid values: 0 to 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	<u>doubleInclusive1000</u>
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	<u>doubleInclusive100</u>
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of nitrous oxides removed by pollution control measures. Valid values: 0 to 1000. (%)

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	<u>doubleInclusive1000</u>
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)

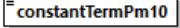
element **categoryBoilerHeater/sulfurTermSOx**

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	<u>doubleInclusive1000</u>
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation

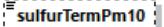
element categoryBoilerHeater/pollutionControlFactorSOx

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

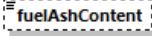
diagram	 sulfurTermPm10 PM10 sulfur EI term, fuel dependent. Valid values: 0 to 1000. (Kg/1000 m^3 - %Sulfur, or Kg/Kiloliter - %Sulfur, or Kg/Metric Ton - %Sulfur)
type	doubleInclusive1000
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation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

element categoryBoilerHeater/ashTermPm10

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

annotation	documentation PM10 ash term. Valid values: 0 to 1000.(Kg/Metric Ton - %Ash)
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element **categoryBoilerHeater/fuelAshContent**

diagram	 <p>Percent of fuel that is ash. Valid values: 0 to 1000. (%)</p>
type	<u>doubleExclusive100</u>
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. (%)

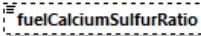
element **categoryBoilerHeater/pollutionControlFactorPM10**

diagram	 <p>Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
type	<u>doubleInclusive100</u>
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	 <p>PM 2.5 to PM 10 ratio. Valid values: 0 to 1000. (dimensionless)</p>
type	<u>doubleInclusive1</u>
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	 <p>Ratio of calcium to sulfur within the fuel. Valid values: 0 to 1000. (dimensionless)</p>
type	<u>doubleExclusive1000</u>
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	<p>fuelSulfurContent Percent of fuel that is sulfur. Valid values 0 to 1000. (%)</p>
type	doubleExclusive100
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation Percent of fuel that is sulfur. Valid values 0 to 1000. (%)

element categoryDeicingArea

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

element categoryDeicingArea/typeCode

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

element categoryDeicingArea/VOC_EI

diagram	<p>VOC_EI VOC emissions index, fuel type dependent. Valid values: 0 to 1000, (Kg/Metric Ton or Kg/Kiloliter)</p>
type	doubleInclusive1000

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

element **categoryDeicingArea/ethyleneGlycolDensity**

diagram	ethyleneGlycolDensity Ethylene glycol solution density. Valid values: 0 to 1000. (g/L)
type	<u>doubleExclusive2000</u>
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	<u>doubleExclusive2000</u>
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	<u>doubleExclusive100</u>
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	
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	<pre> classDiagram categoryFuelTank "Describes the operational characteristics of a source in the fuel tank category." typeCode "Describes this category." tankDiameter "Diameter of tank. Valid values: 0 to 1000. (m)" horizontalTank "Describes a horizontal tank." verticalTank "Describes a vertical tank." reidVaporPressure "Reid vapor pressure. Valid values: 0 to 1000. (PSI)" categoryFuelTank < -- typeCode categoryFuelTank < -- tankDiameter tankDiameter < -- horizontalTank tankDiameter < -- verticalTank tankDiameter < -- reidVaporPressure </pre>
properties	content complex
children	typeCode tankDiameter horizontalTank verticalTank reidVaporPressure
used by	element stationarySource
annotation	<p>documentation</p> <p>Describes the operational characteristics of a source in the fuel tank category.</p>

element categoryFuelTank/typeCode

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

element categoryFuelTank/tankDiameter

diagram	<p>tankDiameter Diameter of tank. Valid values: 0 to 1000. (m)</p>						
type	doubleExclusive1000						
properties	content simple default 0						
facets	<table> <tr> <td>Kind</td> <td>Value Annotation</td> </tr> <tr> <td>minInclusive</td> <td>0</td> </tr> <tr> <td>maxExclusive</td> <td>1000</td> </tr> </table>	Kind	Value Annotation	minInclusive	0	maxExclusive	1000
Kind	Value Annotation						
minInclusive	0						
maxExclusive	1000						
annotation	<p>documentation</p> <p>Diameter of tank. Valid values: 0 to 1000. (m)</p>						

element categoryFuelTank/horizontalTank

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

element categoryFuelTank/horizontalTank/tankLength

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

element categoryFuelTank/verticalTank

diagram	<pre> graph LR verticalTank[verticalTank] --> maxSolLevel[maximumSolutionLevel] verticalTank --> tankHeight[tankHeight] verticalTank --> meanWindSpeed[meanWindSpeed] </pre>
properties	content complex
children	maximumSolutionLevel tankHeight averageSolutionLevel meanWindSpeed
annotation	documentation Describes a vertical tank.

element categoryFuelTank/verticalTank/maximumSolutionLevel

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

element categoryFuelTank/verticalTank/tankHeight

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

element **categoryFuelTank/verticalTank/averageSolutionLevel**

diagram	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**

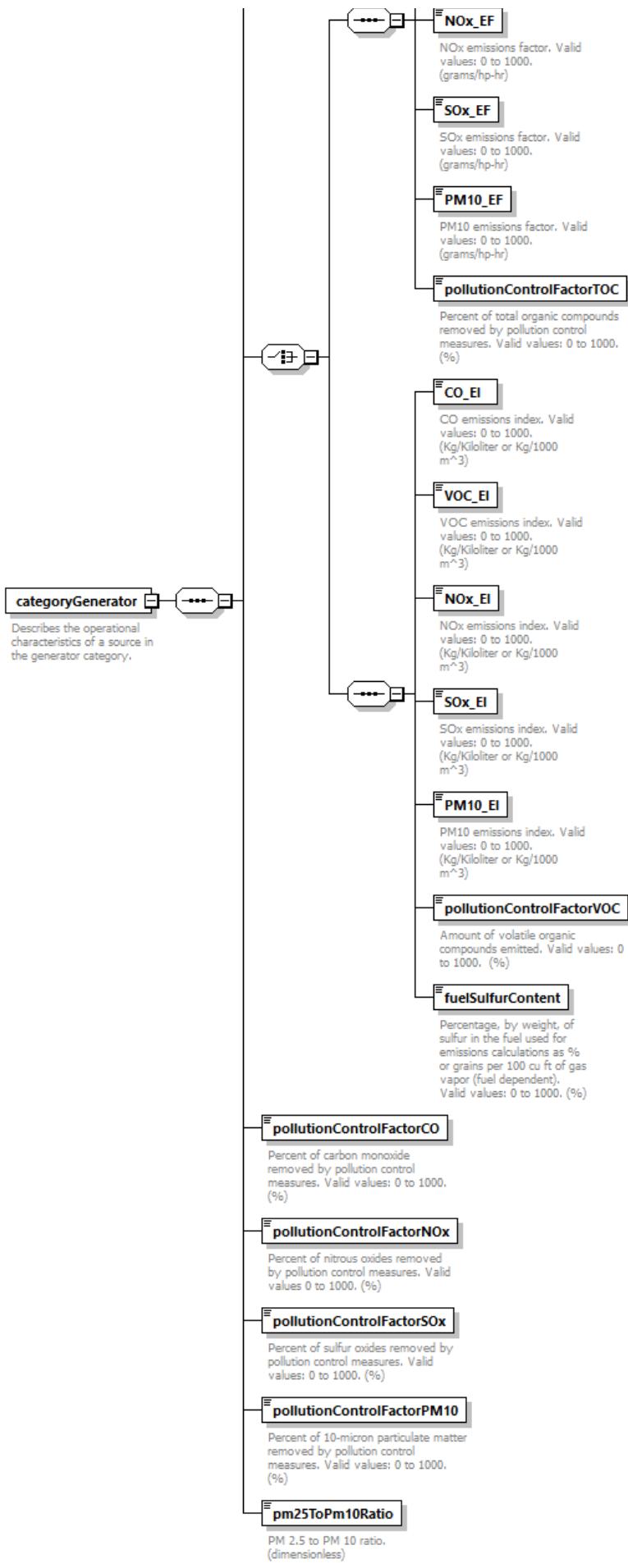
diagram	meanWindSpeed Average wind speed at the tank. Valid values: 0 to 1000. (m/s)
type	doubleExclusive100
properties	minOcc 0 maxOcc 1 content simple default 5
facets	Kind Value Annotation minInclusive 0 maxExclusive 100
annotation	documentation Average wind speed at the tank. Valid values: 0 to 1000. (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)
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properties	content complex
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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	<u>doubleInclusive1000</u>
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation NOx emissions factor. Valid values: 0 to 1000. (grams/hp-hr)

element **categoryGenerator/SOx_EF**

diagram	 SOx_EF SOx emissions factor. Valid values: 0 to 1000. (grams/hp-hr)
type	<u>doubleInclusive1000</u>
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 1000
annotation	documentation 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	<u>doubleInclusive1000</u>
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	<u>doubleInclusive100</u>
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)

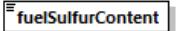
element **categoryGenerator/PM10_EI**

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

element **categoryGenerator/pollutionControlFactorSOx**

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

element **categoryGenerator/pollutionControlFactorPM10**

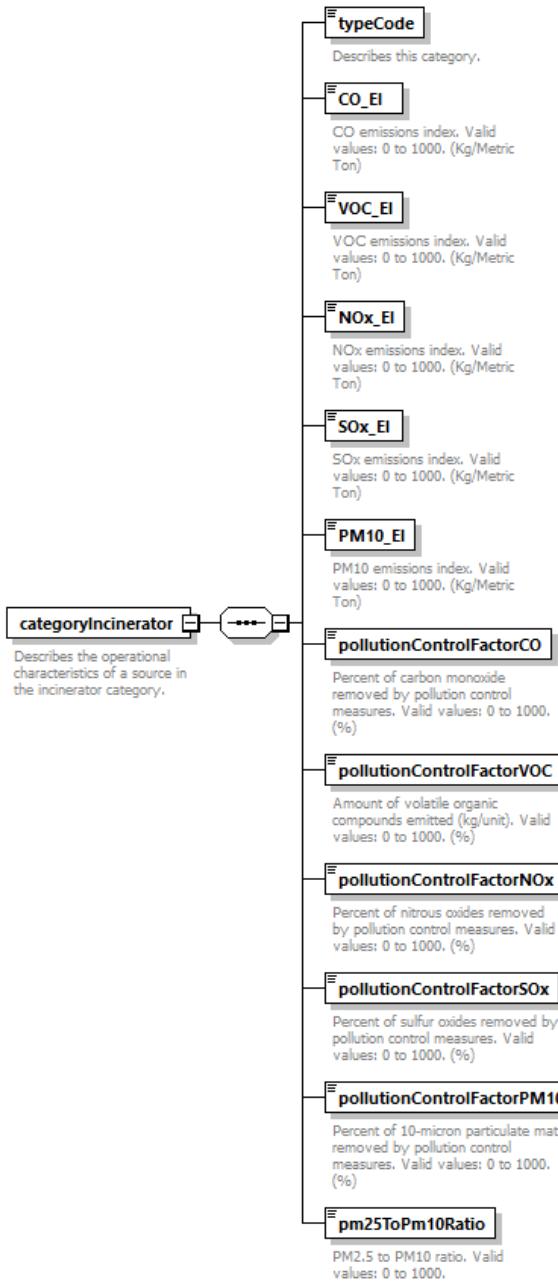
diagram	 <p>Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation Percent of 10-micron particulate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

element **categoryGenerator/pm25ToPm10Ratio**

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

element **categoryIncinerator**

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

element categoryIncinerator/typeCode

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

element **categoryIncinerator/CO_EI**

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

element **categoryIncinerator/VOC_EI**

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

element **categoryIncinerator/NOx_EI**

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

element **categoryIncinerator/SOx_EI**

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

element **categoryIncinerator/PM10_EI**

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

element categoryIncinerator/pollutionControlFactorCO

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

element categoryIncinerator/pollutionControlFactorVOC

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

element categoryIncinerator/pollutionControlFactorNOx

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

element categoryIncinerator/pollutionControlFactorSOx

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

element categoryIncinerator/pollutionControlFactorPM10

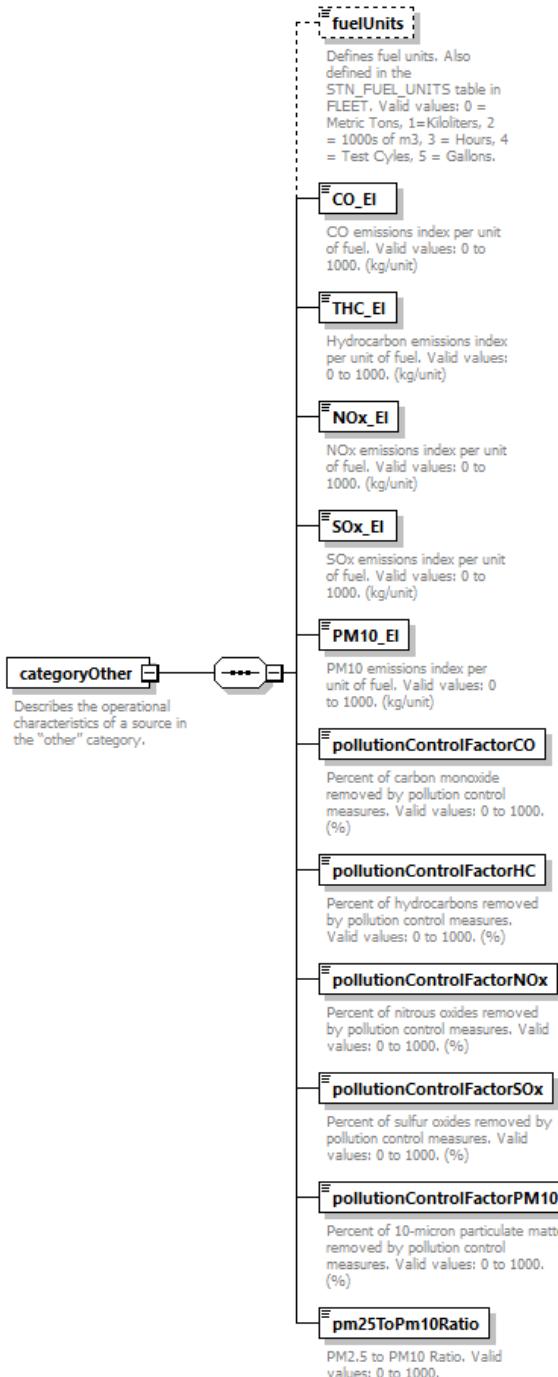
diagram	<p>pollutionControlFactorPM10</p> <p>Percent of 10-micron particulate matter removed by pollution control measures. Valid values: 0 to 1000. (%)</p>
type	doubleInclusive100
properties	content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 100
annotation	documentation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

element categoryIncinerator/pm25ToPm10Ratio

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

element categoryOther

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

element **categoryOther/fuelUnits**

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

properties	minOcc 0 maxOcc 1 content simple default 0
facets	Kind Value Annotation minInclusive 0 maxInclusive 5
annotation	documentation Defines fuel units. Also defined in the STN_FUEL_UNITS table in FLEET. Valid values: 0 = Metric Tons, 1=Kiloliters, 2 = 1000s of m3, 3 = Hours, 4 = Test Cycles, 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 recordCode An integer value for a category to use as the basis of a new stationary source operation. This value comes from the CATEGORY_REC_ID column in the STN_CATEGORY table in the AEDT FLEET database. Valid values: 0 to 87, 89 to 148.
properties	content complex
children	recordCode

used by	element stationarySource
annotation	documentation An integer value for a category to use as the basis of a new stationary source operation. This value comes from the CATEGORY_REC_ID column in the STN_CATEGORY table in the AEDT FLEET database.

element [categorySandSaltPile](#)

diagram	<pre> graph LR CSP[categorySandSaltPile] --- typeCode CSP --- SWSF[surfaceWindSpeedFraction] CSP --- SR[surfaceRoughness] CSP --- FV[frictionVelocity] CSP --- FMW[fastestMileOfWind] CSP --- MW[meanWindSpeed] CSP --- MC[moistureContent] CSP --- MD[massDisturbedPerDisturbance] CSP --- ESA[erodedSurfaceArea] </pre> <p>The diagram illustrates the structure of the <code>categorySandSaltPile</code> element. It is a complex type containing a mandatory <code>categorySandSaltPile</code> element and eight attributes. The attributes are:</p> <ul style="list-style-type: none"> <code>typeCode</code>: Describes this category. <code>surfaceWindSpeedFraction</code>: Surface wind speed fraction. Valid values: 0 to 1000. (unitless) <code>surfaceRoughness</code>: The surface roughness of the pile. Valid values: 0 to 1000. (cm) <code>frictionVelocity</code>: Friction velocity. Valid values: 0 to 1000. (m/s) <code>fastestMileOfWind</code>: Fastest mile of wind. Valid values: 0 to 1000. (m/s) <code>meanWindSpeed</code>: Average wind speed at sand or salt pile. Valid values: 0 to 1000. (m/s) <code>moistureContent</code>: Percentage of sand or salt pile that is moisture. Valid values: 0 to 1000. (%) <code>massDisturbedPerDisturbance</code>: The mass disturbed per disturbance. Valid values: 0 to 1000. (Metric Tons) <code>erodedSurfaceArea</code>: Eroded surface area of pile. Valid values: 0 to 1000. (meters²)
properties	content complex
children	typeCode surfaceWindSpeedFraction surfaceRoughness frictionVelocity fastestMileOfWind meanWindSpeed moistureContent massDisturbedPerDisturbance erodedSurfaceArea
used by	element stationarySource
annotation	documentation Describes the emissions characteristics of a source in the sand or salt pile category.

element [categorySandSaltPile/typeCode](#)

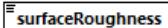
diagram	<pre> graph LR T[] --- typeCode </pre> <p>The diagram illustrates the structure of the <code>categorySandSaltPile/typeCode</code> element. It is a simple type containing a single attribute, <code>typeCode</code>, which is described as follows:</p> <ul style="list-style-type: none"> <code>typeCode</code>: Describes this category.
type	int1to5
properties	content simple
facets	Kind Value Annotation minInclusive 1 maxInclusive 5
annotation	documentation Describes this category.

element [categorySandSaltPile/surfaceWindSpeedFraction](#)

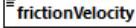
diagram	<pre> graph LR SWSF[] --- surfaceWindSpeedFraction </pre> <p>The diagram illustrates the structure of the <code>categorySandSaltPile/surfaceWindSpeedFraction</code> element. It is a simple type containing a single attribute, <code>surfaceWindSpeedFraction</code>, which is described as follows:</p> <ul style="list-style-type: none"> <code>surfaceWindSpeedFraction</code>: Surface wind speed fraction. Valid values: 0 to 1000. (unitless)
type	doubleInclusive1

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

element **categorySandSaltPile/surfaceRoughness**

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

element **categorySandSaltPile/frictionVelocity**

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

element **categorySandSaltPile/fastestMileOfWind**

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

element **categorySandSaltPile/meanWindSpeed**

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

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

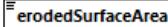
element **categorySandSaltPile/moistureContent**

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

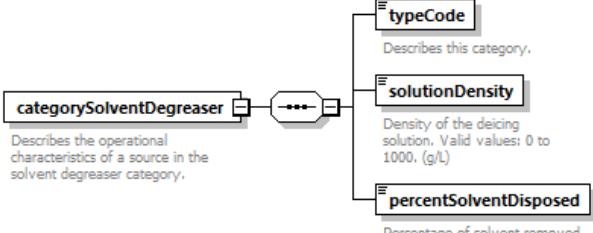
element **categorySandSaltPile/massDisturbedPerDisturbance**

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

element **categorySandSaltPile/erodedSurfaceArea**

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

element **categorySolventDegreaser**

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

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

element **categorySolventDegreaser/typeCode**

diagram	<p>typeCode Describes this category.</p>						
type	int1to13						
properties	content simple						
facets	<table> <tr> <td>Kind</td> <td>Value Annotation</td> </tr> <tr> <td>minInclusive</td> <td>1</td> </tr> <tr> <td>maxInclusive</td> <td>13</td> </tr> </table>	Kind	Value Annotation	minInclusive	1	maxInclusive	13
Kind	Value Annotation						
minInclusive	1						
maxInclusive	13						
annotation	documentation Describes this category.						

element **categorySolventDegreaser/solutionDensity**

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

element **categorySolventDegreaser/percentSolventDisposed**

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

element **categorySurfaceCoatingPainting**

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

element **categorySurfaceCoatingPainting/typeCode**

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

element **categorySurfaceCoatingPainting/VOC_EI**

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

element **categorySurfaceCoatingPainting/pollutionControlFactorVOC**

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

element **categoryTrainingFire**

diagram	
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	<pre> classDiagram class categoryTrainingFire { <<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.>> } class typeCode { <<Describes this category.>> } class CO { <<Amount of carbon monoxide emitted. Valid values: 0 to 3000. (g/gal)>> } class VOC { <<Amount of volatile organic compounds emitted. Valid values: 0 to 100. (g/gal)>> } class NOx { <<Amount of nitrous oxides emitted. Valid values: 0 to 100. (g/gal)>> } class SOx { <<Amount of sulfur oxides emitted. Valid values: 0 to 10. (g/gal)>> } class PM10 { <<Amount of 10-micron particulate matter emitted. Valid values: 0 to 1000. (g/gal)>> } categoryTrainingFire "1" -- "*" typeCode : typeCode categoryTrainingFire "1" -- "*" CO : CO categoryTrainingFire "1" -- "*" VOC : VOC categoryTrainingFire "1" -- "*" NOx : NOx categoryTrainingFire "1" -- "*" SOx : SOx categoryTrainingFire "1" -- "*" PM10 : PM10 </pre>
properties	content complex
children	typeCode CO VOC NOx SOx PM10
used by	element stationarySource
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to content contained in the TRAINING_FIRES table. This element supports the definition of training fires for scenario layouts. Training fire data are used in both emissions and dispersion analyses.</p>

element **categoryTrainingFire/typeCode**

diagram	<pre> classDiagram class typeCode { <<Describes this category.>> } </pre>									
type	int1to5									
properties	content simple									
facets	<table> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> <tr> <td>minInclusive</td> <td>1</td> <td></td> </tr> <tr> <td>maxInclusive</td> <td>5</td> <td></td> </tr> </table>	Kind	Value	Annotation	minInclusive	1		maxInclusive	5	
Kind	Value	Annotation								
minInclusive	1									
maxInclusive	5									
annotation	<p>documentation</p> <p>Describes this category.</p>									

element **categoryTrainingFire/CO**

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

element **categoryTrainingFire/VOC**

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

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

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

element **categoryTrainingFire/SOx**

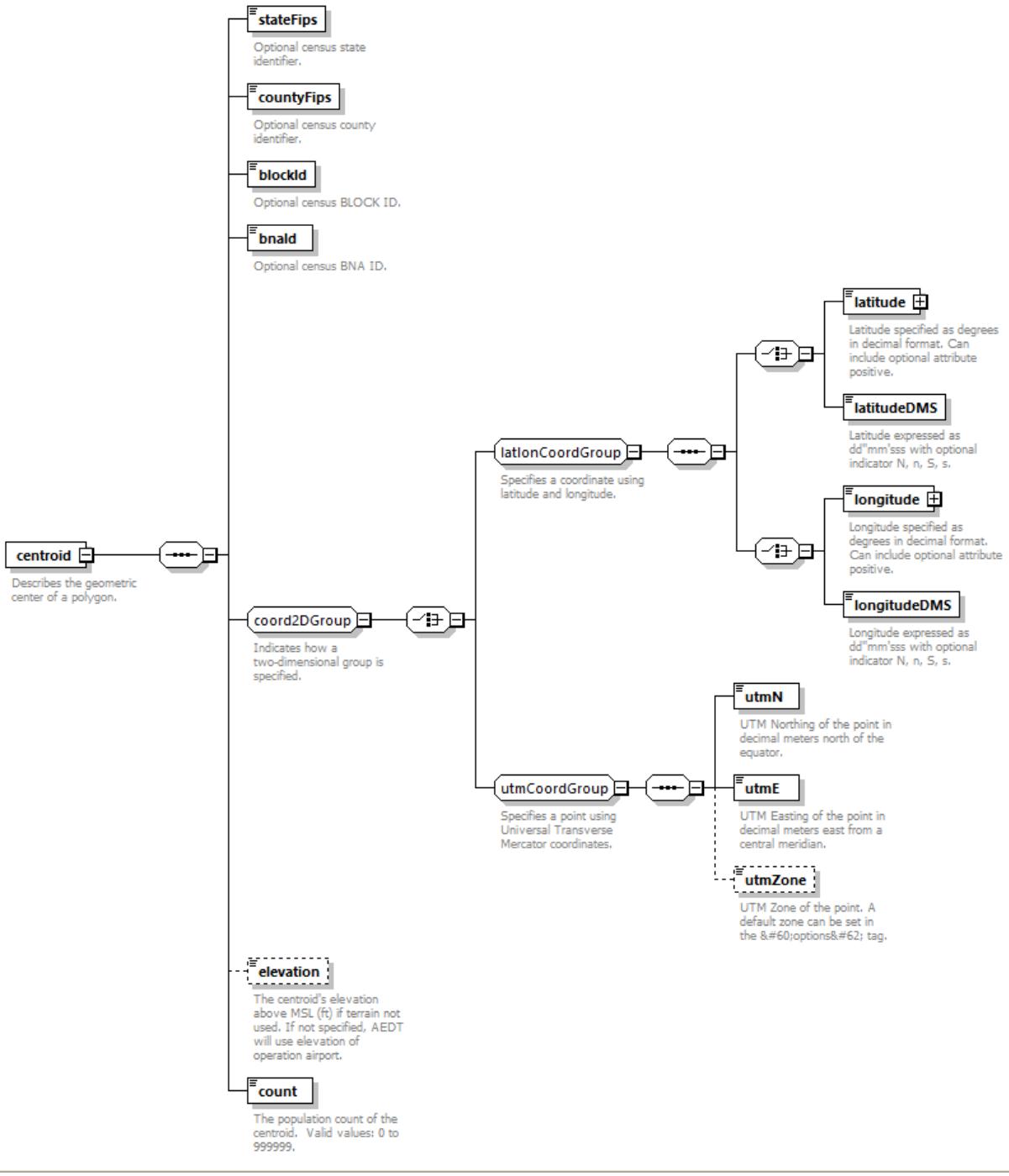
diagram	 SOx Amount of sulfur oxides emitted. Valid values: 0 to 10. (g/gal)
type	xs:double
properties	content simple
annotation	documentation Amount of sulfur oxides emitted. Valid values: 0 to 10. (g/gal)

element **categoryTrainingFire/PM10**

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

element **centroid**

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

element centroid/countyFips

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

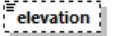
element centroid/blockId

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

element centroid/bnald

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

element centroid/elevation

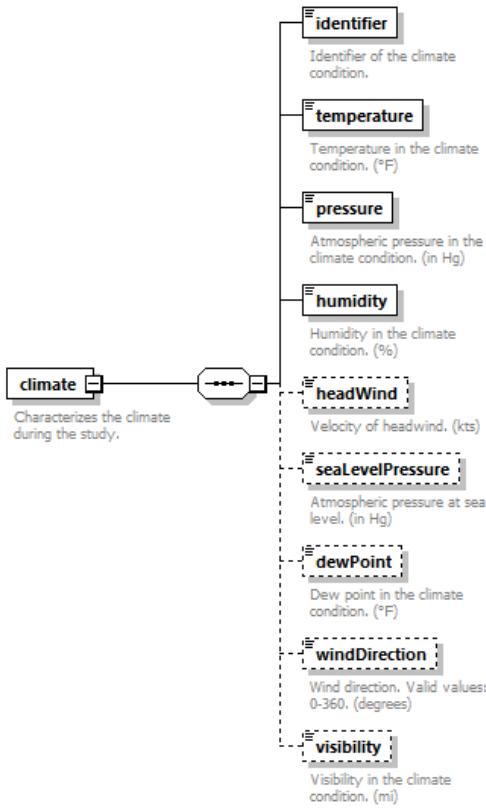
diagram	 elevation The centroid's elevation above MSL (ft) if terrain not used. If not specified, AEDT will use elevation of operation airport.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The centroid's elevation above MSL (ft) if terrain not used. If not specified,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

element centroid/count

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

element climate

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

element `climate/identifier`

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

element `climate/temperature`

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

element `climate/pressure`

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

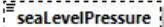
element **climate/humidity**

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

element **climate/headWind**

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

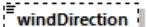
element **climate/seaLevelPressure**

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

element **climate/dewPoint**

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

element **climate/windDirection**

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

element **climate/visibility**

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

element **dailyProfile**

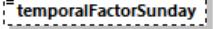
diagram	
properties	content complex
children	profileName temporalFactorSunday temporalFactorMonday temporalFactorTuesday temporalFactorWednesday temporalFactorThursday temporalFactorFriday temporalFactorSaturday
used by	element dailyProfileSet
annotation	documentation Supports legacy EDMS studies relating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

element **dailyProfile/profileName**

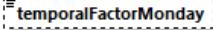
diagram	
type	string100
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation

Name of profile.

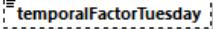
element **dailyProfile/temporalFactorSunday**

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

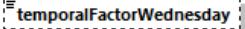
element **dailyProfile/temporalFactorMonday**

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

element **dailyProfile/temporalFactorTuesday**

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

element **dailyProfile/temporalFactorWednesday**

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

element **dailyProfile/temporalFactorThursday**

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

element dailyProfile/temporalFactorFriday

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

element dailyProfile/temporalFactorSaturday

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

element dailyProfileSet

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

annotation	documentation Supports the definition and use of DAILY_PROFILES for the daily variation of operations.
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attribute **dailyProfileSet/@dummy**

type	xs:int
properties	use optional

element **dispersionWeight**

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

element **dispersionWeight/dispersionWeight1**

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

element **dispersionWeight/dispersionWeight3**

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

element **dispersionWeight/dispersionWeight5**

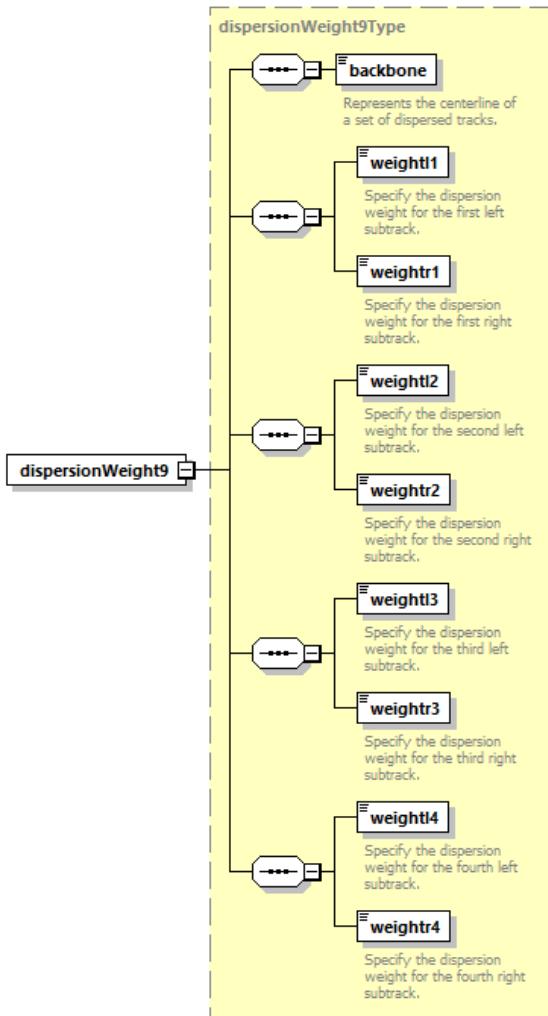
diagram	<pre> classDiagram class dispersionWeight5Type { backbone weightl1 weightr1 weightl2 weightr2 } dispersionWeight5Type < -- dispersionWeight5 </pre>
type	dispersionWeight5Type
properties	content complex
children	backbone weightl1 weightr1 weightl2 weightr2

element dispersionWeight/dispersionWeight7

diagram	<pre> classDiagram class dispersionWeight7Type { backbone weightl1 weightr1 weightl2 weightr2 weightl3 weightr3 } dispersionWeight7Type < -- dispersionWeight7 </pre>
type	dispersionWeight7Type
properties	content complex
children	backbone weightl1 weightr1 weightl2 weightr2 weightl3 weightr3

element dispersionWeight/dispersionWeight9

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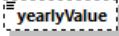
type	dispersionWeight9Type
properties	content complex
children	backbone weightl1 weightr1 weightl2 weightr2 weightl3 weightr3 weightl4 weightr4

element `emissionsUsage`

diagram	<pre> classDiagram class emissionsUsage { yearlyValue hourlyValue byPeakQuarterHour activityProfile } emissionsUsage < -- activityProfile </pre> <p>The diagram illustrates the structure of the <code>emissionsUsage</code> element. It is a complex type (<code>activityProfile</code>) containing the following components:</p> <ul style="list-style-type: none"> yearlyValue: Annualized amount of emissions. hourlyValue: Hourly amount of emissions. byPeakQuarterHour: Indicates if the hourly value is the peak hourly value. activityProfile: An activity profile type (e.g. reference to one of hourlyProfile, dailyProfile or weeklyProfile).
properties	content complex
children	yearlyValue hourlyValue byPeakQuarterHour activityProfile
used by	elements parkingFacilityOperation roadwayOperation stationarySourceOperation
annotation	documentation Describes the amount of emissions for a given activity profile.

element `emissionsUsage/yearlyValue`

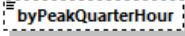
diagram	
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	 <p>Annualized amount of emissions.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Annualized amount of emissions.

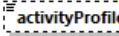
element **emissionsUsage/hourlyValue**

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

element **emissionsUsage/byPeakQuarterHour**

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

element **emissionsUsage/activityProfile**

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

element **engineModeEmissionFactors**

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

element **engineModeEmissionFactors/time**

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

element **engineModeEmissionFactors/fuel**

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

element **engineModeEmissionFactors/CO**

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

element **engineModeEmissionFactors/HC**

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

element **engineModeEmissionFactors/NOx**

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

element **engineModeEmissionFactors/PM**

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

element **engineModeEmissionFactors/SN**

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

element **gate**

diagram	<pre> graph LR gate[gate] --> oneOrThreeCoords2DGroupSet[oneOrThreeCoords2DGroupSet] oneOrThreeCoords2DGroupSet --> pointCoord[pointCoord] oneOrThreeCoords2DGroupSet --> polygonCoords[polygonCoords] </pre> <p>gate Supports legacy EDMS studies relating to content contained in the GATES table. This element supports the definition of gates within an airport layout. In dispersion analyses, GSE, AGE, and APU emissions originate from the gate locations. Gates are needed for sequence modeling, which includes all dispersion analyses.</p> <p>name Identifying name of gate.</p> <p>elevation Gate's elevation above mean sea level in meters. Valid values: -500 to 5000. (m)</p> <p>releaseHeight Height above ground level at which emissions are released into the atmosphere. Valid values: Variable, by airport. (m)</p> <p>sigmaY Horizontal dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: Variable, by airport. (m)</p> <p>sigmaZ Vertical dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: Variable, by airport. (m)</p> <p>oneOrThreeCoords2DGroupSet Type of coordinate specifying the area.</p> <p>pointCoord Choice of a single point coordinate.</p> <p>polygonCoords Choice of a 2D polygon.</p>
properties	content complex
children	name elevation releaseHeight sigmaY sigmaZ pointCoord polygonCoords
used by	element gateSet
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to content contained in the GATES table. This element supports the definition of gates within an airport layout. In dispersion analyses, GSE, AGE, and APU emissions originate from the gate locations. Gates are needed for sequence modeling, which includes all dispersion analyses.</p>

element **gate/name**

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

element **gate/elevation**

diagram	<pre> graph LR elevation[elevation] </pre>						
type	xs:double						
properties	<table> <tr> <td>minOcc</td> <td>0</td> </tr> <tr> <td>maxOcc</td> <td>1</td> </tr> <tr> <td>content</td> <td>simple</td> </tr> </table>	minOcc	0	maxOcc	1	content	simple
minOcc	0						
maxOcc	1						
content	simple						
annotation	documentation						

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

element **gate/releaseHeight**

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

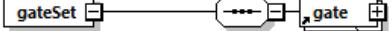
element **gate/sigmaY**

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

element **gate/sigmaZ**

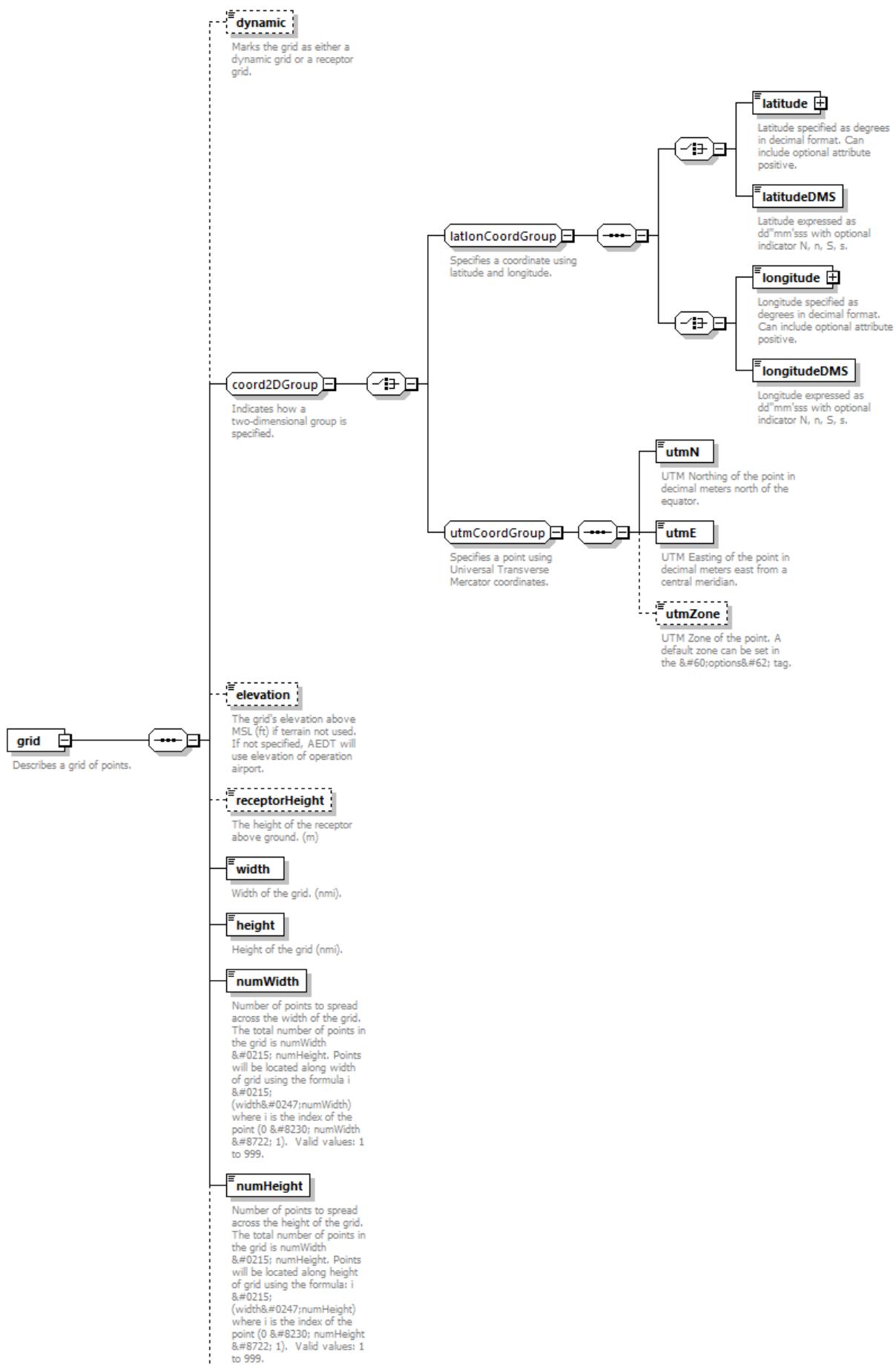
diagram	 sigmaZ Vertical dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: Variable, by airport. (m)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Vertical dispersion parameter. For additional information, see the EDMS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

element **gateSet**

diagram	 gateSet  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,

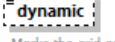
element grid

diagram



	 xrOffset The X-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 yrOffset
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).

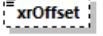
element grid/numWidth

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.

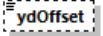
element grid/numHeight

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

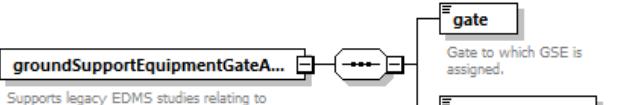
diagram	 xrOffset The X-offset of the receptor grid in nautical miles.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation The X-offset of the receptor grid in nautical miles.

element grid/ydOffset

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

element **groundSupportEquipmentGateAssignment**

diagram	 <p><code>groundSupportEquipmentGateAssignment</code></p> <p>Supports legacy EDMS studies relating to content contained in the <code>USER_CREATED_GSE</code> table. This element supports the definition of user defined ground support equipment.</p>
properties	content complex
children	gate fractionAssigned
used by	element groundSupportEquipmentGateAssignmentSet
annotation	documentation Supports legacy EDMS studies relating to content contained in the <code>USER_CREATED_GSE</code> table. This element supports the definition of user defined ground support equipment.

element **groundSupportEquipmentGateAssignment/gate**

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

element **groundSupportEquipmentGateAssignment/fractionAssigned**

diagram	 <p><code>fractionAssigned</code></p> <p>Fraction of GSE assigned to this gate. Must sum to 1.0 for all gate assignments for the GSE. Valid values: 0.0 to 1.0.</p>
type	<code>doubleInclusive1</code>
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	
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	<p>groundSupportEquipmentGateAssignmentSet</p> <p>Supports legacy EDMS studies relating to content contained in the GSE_POPULATION_GATE_ASSIGNMENTS table. This element supports the definition of gate to ground support equipment assignments.</p> <p>groundSupportEquipmentGateAssignment</p> <p>Supports legacy EDMS studies relating to content contained in the USER_CREATED_GSE table. This element supports the definition of user defined ground support equipment.</p>												
properties	content complex												
children	groundSupportEquipmentGateAssignment												
used by	element groundSupportEquipmentPopulationOperation												
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td><u>dummy</u></td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	<u>dummy</u>	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
<u>dummy</u>	xs:int	optional											
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to content contained in the GSE_POPULATION_GATE_ASSIGNMENTS table. This element supports the definition of gate to ground support equipment assignments.</p>												

attribute **groundSupportEquipmentGateAssignmentSet/@dummy**

type	xs:int
properties	use optional

element **groundSupportEquipmentLTOOperation**

diagram	<p>groundSupportEquipmentLTOOperation</p> <p>Describes operation of GSE operation.</p> <ul style="list-style-type: none"> gselID: The GSE ID. fuelType horsepower: GSE horsepower in bore hp. Valid values: 0.00 to 10000.00. (hp) loadFactor: Load factor of GSE (will be empty for APU). Valid values: 0.00 to 100.00. manufactureYear: The manufacture year and age of the equipment, if not using system defaults. Valid values: 1940 to 2050. (Latest valid year will the year of the study.) departureOpTime: The number of minutes used for a departure aircraft operation. Valid values: 0.00 to 480.00. (min) arrivalOpTime: The number of minutes used for an arrival aircraft operation. Valid values: 0.00 to 480.00. (min)
properties	content complex
children	gselID fuelType horsepower loadFactor manufactureYear departureOpTime arrivalOpTime
used by	element groundSupportEquipmentLTOOperationSet
annotation	<p>documentation</p> <p>Describes operation of GSE operation.</p>

element **groundSupportEquipmentLTOOperation/gselID**

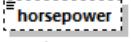
diagram	<p>gselID</p> <p>The GSE ID.</p>
type	xs:int

properties	content simple
annotation	documentation The GSE ID.

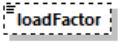
element **groundSupportEquipmentLTOOperation/fuelType**

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

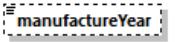
element **groundSupportEquipmentLTOOperation/horsepower**

diagram	
	GSE horsepower in bore hp. Valid values: 0.00 to 10000.00. (hp)
type	<u>xs:double</u>
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation GSE horsepower in bore hp. Valid values: 0.00 to 10000.00. (hp)

element **groundSupportEquipmentLTOOperation/loadFactor**

diagram	
	Load factor of GSE (will be empty for APU). Valid values: 0.00 to 100.00.
type	<u>xs:double</u>
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Load factor of GSE (will be empty for APU). Valid values: 0.00 to 100.00.

element **groundSupportEquipmentLTOOperation/manufactureYear**

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

element **groundSupportEquipmentLTOOperation/departureOpTime**

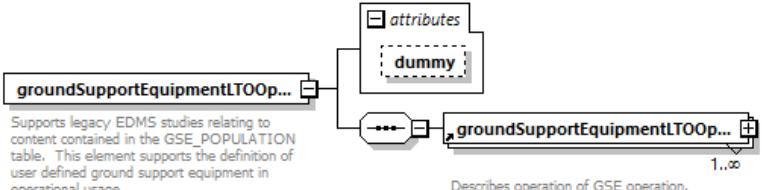
diagram	
	The number of minutes used for a departure aircraft operation. Valid values: 0.00 to 480.00. (min)
type	<u>xs:double</u>
properties	minOcc 0 maxOcc 1

	content simple
annotation	documentation The number of minutes used for a departure aircraft operation. Valid values: 0.00 to 480.00. (min)

element **groundSupportEquipmentLTOOperation/arrivalOpTime**

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

element **groundSupportEquipmentLTOOperationSet**

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

attribute **groundSupportEquipmentLTOOperationSet/@dummy**

type	xs:int
properties	use optional

element **groundSupportEquipmentPopulationOperation**

diagram	
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	<pre> classDiagram class groundSupportEquipmentPopulationOperation { gseID fuelType gseType numUnits annualOpTime pkQtrHourOpTime activityProfile horsepower loadFactor useNonRoad manufactureYear } class groundSupportEquipmentPopulationOperation { <<groundSupportEquipmentPopulationOperation>> } groundSupportEquipmentPopulationOperation "1" --> "1" gseID groundSupportEquipmentPopulationOperation "1" --> "1" fuelType groundSupportEquipmentPopulationOperation "1" --> "1" gseType groundSupportEquipmentPopulationOperation "1" --> "1" numUnits groundSupportEquipmentPopulationOperation "1" --> "1" annualOpTime groundSupportEquipmentPopulationOperation "1" --> "1" pkQtrHourOpTime groundSupportEquipmentPopulationOperation "1" --> "1" activityProfile groundSupportEquipmentPopulationOperation "1" --> "1" horsepower groundSupportEquipmentPopulationOperation "1" --> "1" loadFactor groundSupportEquipmentPopulationOperation "1" --> "1" useNonRoad groundSupportEquipmentPopulationOperation "1" --> "1" manufactureYear groundSupportEquipmentPopulationOperation "*" --> "1" groundSupportEquipmentGateAssignmentSet </pre> <p>groundSupportEquipmentPopulationOperation</p> <p>Supports legacy EDMS studies relating to content contained in the GSE_POPULATION table. This element supports the definition of user defined ground support equipment in operational usage.</p> <p>Fuel type for a specific piece of GSE.</p> <p>The GSE ID.</p> <p>The type of GSE.</p> <p>GSE number of units. Valid values: 0 to 10000.</p> <p>Operation time, yearly. Valid values: 0 to 8784, (hr)</p> <p>Peak quarter hour operation time. Valid values: 0 to 15, (min/hr)</p> <p>Activity profile: (quarterly, daily, monthly).</p> <p>Horsepower is in hp units. Valid values: 0 to 10000, (hp)</p> <p>Load factor of GSE. (Will be empty for APU.) Valid values: 0 to 100.</p> <p>User non-road version flag.</p> <p>The manufacture year and age of the equipment, if not using system defaults. Valid values: 1940 to 2050. (Latest valid date will be the year of the study.)</p> <p>Supports legacy EDMS studies relating to content contained in the GSE_POPULATION_GATE_ASSIGNMENTS table. This element supports the definition of gate to ground support equipment assignments.</p>
properties	content complex
children	gseID fuelType gseType numUnits annualOpTime pkQtrHourOpTime activityProfile horsepower loadFactor useNonRoad manufactureYear groundSupportEquipmentGateAssignmentSet
used by	element groundSupportEquipmentPopulationOperationSet
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to content contained in the GSE_POPULATION table. This element supports the definition of user defined ground support equipment in operational usage.</p>

element **groundSupportEquipmentPopulationOperation/gseID**

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

element **groundSupportEquipmentPopulationOperation/fuelType**

diagram	
type	<code>fuelType</code>

properties	content simple				
facets	<table> <tr> <td>Kind</td> <td>Value</td> </tr> <tr> <td>pattern G Gasoline D Diesel C Compressed Natural Gas L Liquefied Petroleum Gas E Electric</td> <td>Annotation</td> </tr> </table>	Kind	Value	pattern G Gasoline D Diesel C Compressed Natural Gas L Liquefied Petroleum Gas E Electric	Annotation
Kind	Value				
pattern G Gasoline D Diesel C Compressed Natural Gas L Liquefied Petroleum Gas E Electric	Annotation				

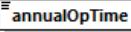
element **groundSupportEquipmentPopulationOperation/gseType**

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

element **groundSupportEquipmentPopulationOperation/numUnits**

diagram	 <p>GSE number of units. Valid values: 0 to 10000.</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>GSE number of units. Valid values: 0 to 10000.</p>

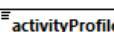
element **groundSupportEquipmentPopulationOperation/annualOpTime**

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

element **groundSupportEquipmentPopulationOperation/pkQtrHourOpTime**

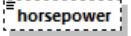
diagram	 <p>Peak quarter hour operation time. Valid values: 0 to 15. (min/hr)</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>Peak quarter hour operation time. Valid values: 0 to 15. (min/hr)</p>

element **groundSupportEquipmentPopulationOperation/activityProfile**

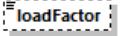
diagram	 <p>Activity profile; (quarterly, daily, monthly).</p>						
type	string40						
properties	content simple						
used by	element activityProfileSet						
facets	<table> <tr> <td>Kind</td> <td>Value</td> </tr> <tr> <td>minLength</td> <td>0</td> </tr> <tr> <td>maxLength</td> <td>40</td> </tr> </table>	Kind	Value	minLength	0	maxLength	40
Kind	Value						
minLength	0						
maxLength	40						
annotation	<p>documentation</p> <p>Activity profile; (quarterly, daily, monthly).</p>						

element **groundSupportEquipmentPopulationOperation/horsepower**

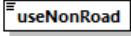
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diagram	 horsepower Horsepower is in hp units. Valid values: 0 to 10000. (hp)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Horsepower is in hp units. Valid values: 0 to 10000. (hp)

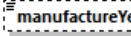
element **groundSupportEquipmentPopulationOperation/loadFactor**

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	 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.	 dummy	 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		

attributes	Name dummy	Type xs:int	Use optional	Default	Fixed	Annotation
annotation	documentation					Supports legacy EDMS studies relating to content contained in the GSE_POPULATION table. This element supports the definition of user defined ground support equipment in operational usage.

attribute **groundSupportEquipmentPopulationOperationSet/@dummy**

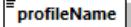
type	xs:int
properties	use optional

element **monthlyProfile**

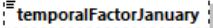
diagram	<p>monthlyProfile</p> <p>Supports legacy EDMS studies relating to content contained in the MONTHLY_PROFILES. This element supports the definition of temporal factors on a monthly operational basis.</p> <ul style="list-style-type: none"> profileName Name of profile. temporalFactorJanuary Factor applied to activity for operations during January. Valid values: 0.0000 to 1.0000. temporalFactorFebruary Factor applied to activity for operations during February. Valid values: 0.0000 to 1.0000. temporalFactorMarch Factor applied to activity for operations during March. Valid values: 0.0000 to 1.0000. temporalFactorApril Factor applied to activity for operations during April. Valid values: 0.0000 to 1.0000. temporalFactorMay Factor applied to activity for operations during May. Valid values: 0.0000 to 1.0000. temporalFactorJune Factor applied to activity for operations during June. Valid values: 0.0000 to 1.0000. temporalFactorJuly Factor applied to activity for operations during July. Valid values: 0.0000 to 1.0000. temporalFactorAugust Factor applied to activity for operations during August. Valid values: 0.0000 to 1.0000. temporalFactorSeptember Factor applied to activity for operations during September. Valid values: 0.0000 to 1.0000. temporalFactorOctober Factor applied to activity for operations during October. Valid values: 0.0000 to 1.0000. temporalFactorNovember Factor applied to activity for operations during November. Valid values: 0.0000 to 1.0000. temporalFactorDecember Factor applied to activity for operations during December. Valid values: 0.0000 to 1.0000.
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.

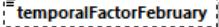
element [monthlyProfile/profileName](#)

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

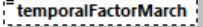
element [monthlyProfile/temporalFactorJanuary](#)

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

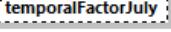
element monthlyProfile/temporalFactorMay

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

element monthlyProfile/temporalFactorJune

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

element monthlyProfile/temporalFactorJuly

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

element monthlyProfile/temporalFactorAugust

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

element monthlyProfile/temporalFactorSeptember

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

element monthlyProfile/temporalFactorOctober

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

element monthlyProfile/temporalFactorNovember

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

element monthlyProfile/temporalFactorDecember

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

element monthlyProfileSet

diagram	 <p>monthlyProfileSet</p> <p>Supports the definition and use of MONTHLY_PROFILES for the monthly variation of operations.</p> <p>monthlyProfile</p> <p>Supports legacy EDMS studies relating to content contained in the MONTHLY_PROFILES. This element supports the definition of temporal factors on a monthly operational basis.</p>												
properties	content complex												
children	monthlyProfile												
used by	element operationalProfileSet												
	complexType airportLayoutType												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>dummy</td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	dummy	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
dummy	xs:int	optional											
annotation	documentation												
	Supports the definition and use of MONTHLY_PROFILES for the monthly variation of operations.												

attribute **monthlyProfileSet/@dummy**

type	xs:int
properties	use optional

element **operation**

Element	Description
diagram	<p>id</p> <p>User specified identifier for the operation. One purpose served by this field is to allow the user to tie the AEDT AirOperations back to some original data source by setting the id field to an identifying identifier from the original data source. Another purpose is to set each ID to a project-specific value for each AirOperation. The ID field is used in several AEDT lists and reports that print out the AirOperations. In addition, the Impact Evaluation dialog uses the ID as its main method of distinguishing AirOperations when allowing the user to pick and choose operations to be moved to alternative flight tracks. If, however, the user has no outside data sources that need to be tied to the AEDT AirOperations, or if each AirOperation is identical in the sense that no specific AirOperation is more valuable than another or that there will be no intent to distinguish one AirOperation over another, then the</p>

suggested approach is to just set the UserID field to unique number or set of characters. This will allow the user to distinguish the AirOperations if the need ever arises. Nevertheless, one can leave all the id fields empty or non-unique set of ids; however, in doing so, the user will be forced to use other identifying fields of the AirOperation if they should ever want to distinguish between AirOperations.

aircraftType

Type of aircraft in the flight.

cruiseAltitude

Override aircraft cruise altitude for this operation. (ft)

numOperations

Number of operations comprising this operation.

opType

carrier

Carrier flying the flight. Not fully supported in AEDT.

flightNumber

Flight number. Not fully supported in AEDT.

tailNumber

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

userType

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

userParam

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

departureAirport

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

departureRunway

Airport's departure runway ID. Required if the operation is used with a <flight> or a <trackOpSet> modeling departures, circuits, runups, or touch-and-goes.

departureGate

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

departureApuTime

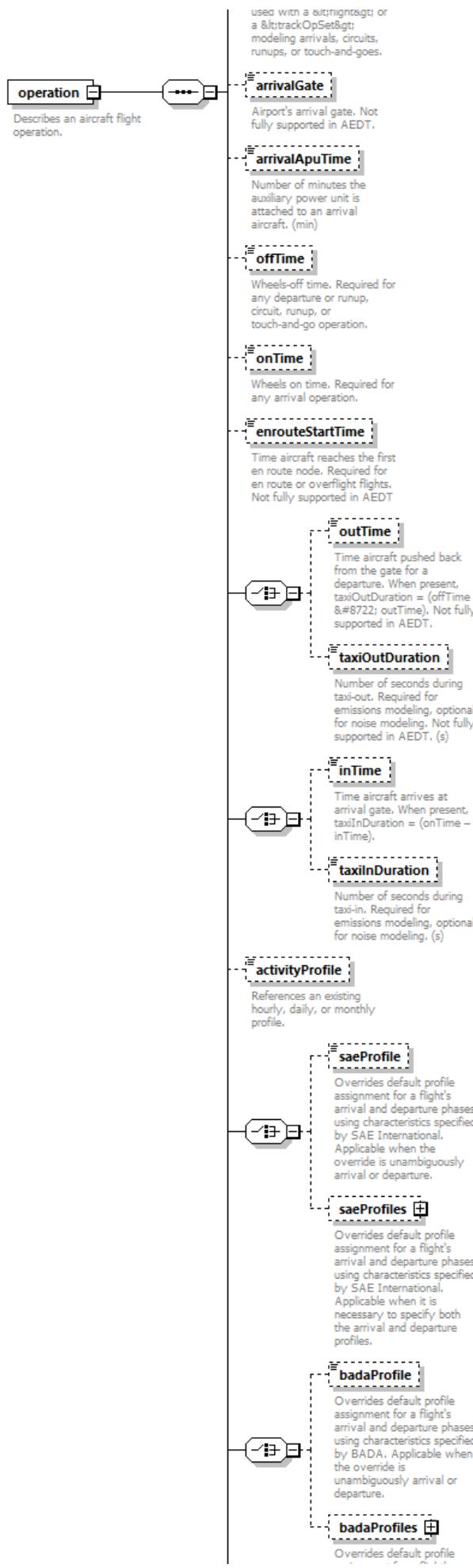
Number of minutes the auxiliary power unit is attached to a departing aircraft. (min)

arrivalAirport

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

arrivalRunway

Airport's arrival runway ID. Required if the operation is used with a <flight> or <operation> element.



	<p>assignment for a flight's arrival and departure phases using characteristics specified by BADA. Applicable when it is necessary to specify both the arrival and departure profiles.</p> <pre> classDiagram class operation { stageLength actypeWeight departureStageLength arrivalStageLength glideSlope fuelSulfurContent } class flightLeg { 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 } operation < -- flightLeg </pre>
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	<p>documentation</p> <p>Describes an aircraft flight operation.</p>

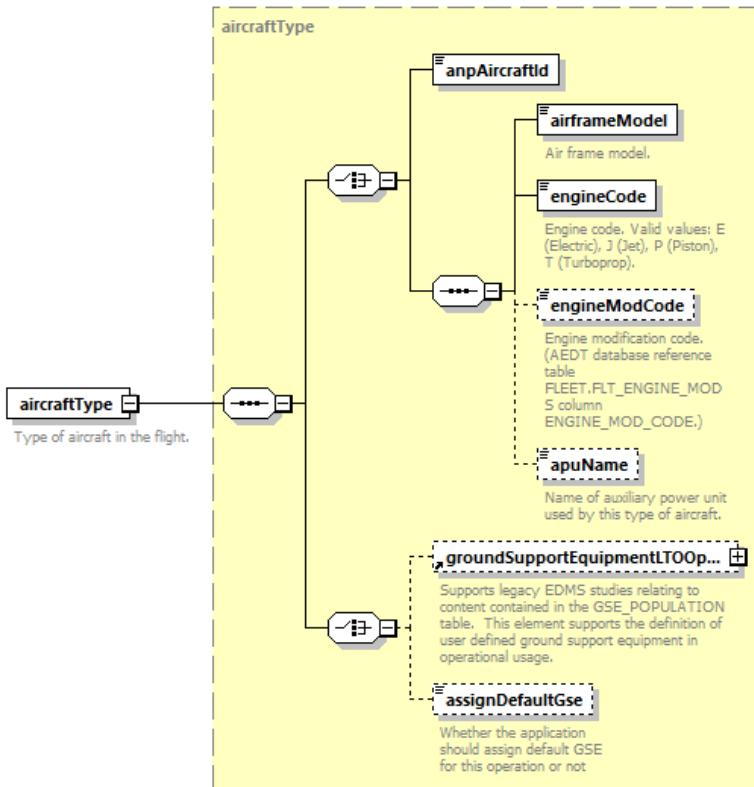
element **operation/id**

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

element **operation/aircraftType**

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

element `operation/cruiseAltitude`

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

element `operation/numOperations`

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

element `operation/opType`

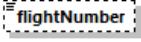
diagram	
type	<code>opType</code>
properties	minOcc 0 maxOcc 1

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

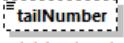
element **operation/carrier**

diagram	 carrier 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.

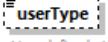
element **operation/flightNumber**

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**

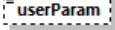
diagram	 tailNumber Flight's tail number. Not fully supported in AEDT.
type	string8
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation Flight's tail number. Not fully supported in AEDT.

element **operation/userType**

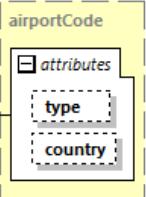
diagram	 userType User-defined aircraft type. Cannot be an aircraftType. Not fully supported in AEDT.
type	string12
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 12

annotation	documentation User-defined aircraft type. Cannot be an aircraftType. Not fully supported in AEDT.
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element **operation/userParam**

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

element **operation/departureAirport**

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

element **operation/departureRunway**

diagram	 <p>Airport's departure runway ID. Required if the operation is used with a &lt;flight&gt; or a &lt;trackOpSet&gt; modeling departures, circuits, runups, or touch-and-goes.</p>
type	string8
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation Airport's 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 <small>Airport's departure gate. Not fully supported in AEDT.</small>
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 <small>Number of minutes the auxiliary power unit is attached to a departing aircraft. (min)</small>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Number of minutes the auxiliary power unit is attached to a departing aircraft. (min)

element operation/arrivalAirport

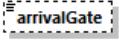
diagram	arrivalAirport <small>Arrival airport's ICAO code. Required if the operation is used with a <flight> or <operation> element. Also required if used with a <trackOpSet> modeling arrivals, circuits, runups, or touch-and-goes.</small>																		
type	airportCode																		
properties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

element operation/arrivalRunway

diagram	arrivalRunway <small>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.</small>
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)

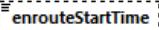
element **operation/offTime**

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.

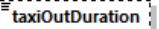
element **operation/enrouteStartTime**

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

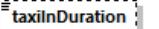
element **operation/taxiOutDuration**

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

element **operation/saeProfile**

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

element **operation/saeProfiles**

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

element **operation/badaProfile**

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

element **operation/badaProfiles**

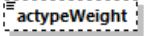
diagram	<p>badaProfiles Overrides default profile assignment for a flight's arrival and departure phases using characteristics specified by BADA. Applicable when it is necessary to specify both the arrival and departure profiles.</p>
type	profiles
properties	minOcc 0 maxOcc 1 content complex
children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

element **operation/stageLength**

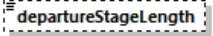
diagram	<p>stageLength Overrides default departure and arrival stage length values. Applicable when the override is unambiguously arrival or departure. If operation type is Arrival, then AEDT will always use 1 for stage length.</p>
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind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

element **operation/actypeWeight**

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

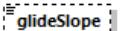
element **operation/departureStageLength**

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

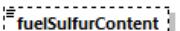
element **operation/arrivalStageLength**

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

element **operation/glideSlope**

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

element **operation/fuelSulfurContent**

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

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

element operationalProfileSet

diagram	<pre> graph TD OP[operationalProfileSet] --- QHP[quarterHourlyProfileSet] OP --- DHP[dailyProfileSet] OP --- MP[monthlyProfileSet] OP --- AP[activityProfileSet] </pre> <p>The diagram illustrates the structure of an operationalProfileSet. It is a main element represented by a rectangle with a connector on the left. Four dashed boxes represent its children: quarterHourlyProfileSet, dailyProfileSet, monthlyProfileSet, and activityProfileSet. Each child box contains a brief description of its purpose.</p>
properties	content complex
children	quarterHourlyProfileSet dailyProfileSet monthlyProfileSet activityProfileSet
used by	element AsifXml

element operations

diagram	<pre> graph TD OPS[operations] --- ATTR[attributes] OPS --- DUMMY[dummy] OPS --- OPS[operation] OPS -.-> DUMMY OPS -.-> OPS </pre> <p>The diagram shows the structure of the operations element. It has attributes (represented by a dashed box) and a list of operations (represented by a dashed box). The operations list contains a single operation element, which is described as a flight operation.</p>												
properties	content complex												
children	operation												
used by	element trackOpSet												
attributes	<table> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> <tr> <td><u>dummy</u></td> <td><u>xs:int</u></td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </table>	Name	Type	Use	Default	Fixed	Annotation	<u>dummy</u>	<u>xs:int</u>	optional			
Name	Type	Use	Default	Fixed	Annotation								
<u>dummy</u>	<u>xs:int</u>	optional											
annotation	documentation Contains a list of aircraft flight operations.												

attribute operations/@dummy

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

element options

diagram	<pre> graph TD OPTS[options] --- UTD[utmZoneDefault] </pre> <p>The diagram shows the structure of the options element. It contains a single child element, utmZoneDefault, which is described as the default UTM zone number.</p>
properties	content complex
children	utmZoneDefault

used by	element AsifXml
annotation	documentation Contains default option values applied to the study.

element **options/utmZoneDefault**

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

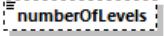
element **parkingFacility**

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

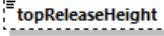
element **parkingFacility/name**

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

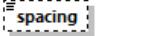
element **parkingFacility/numberOfLevels**

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

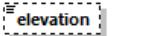
element **parkingFacility/topReleaseHeight**

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

element **parkingFacility/spacing**

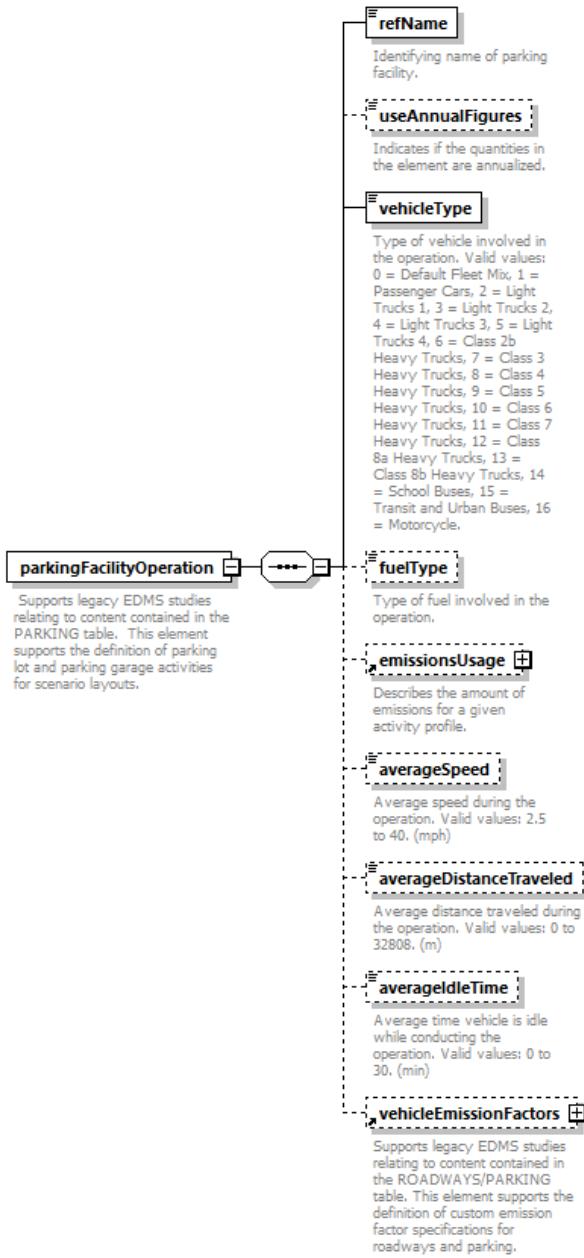
diagram	 spacing Distance between two parking spaces. (m)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Distance between two parking spaces. (m)

element **parkingFacility/elevation**

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

element **parkingFacilityOperation**

diagram	
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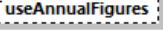


properties	content complex
children	refName useAnnualFigures vehicleType fuelType emissionsUsage averageSpeed averageDistanceTraveled averageIdleTime vehicleEmissionFactors
used by	element parkingFacilityOperationSet
annotation	documentation Supports legacy EDMS studies relating to content contained 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 pattern 0 Default Fleet Mix 1 Passenger Cars 2 Light Trucks 1 3 Light Trucks 2 4 Light Trucks 3 5 Light Trucks 4 6 Class 2b Heavy Trucks 7 Class 3 Heavy Trucks 8 Class 4 Heavy Trucks 9 Class 5 Heavy Trucks 10 Class 6 Heavy Trucks 11 Class 7 Heavy Trucks 12 Class 8a Heavy Trucks 13 Class 8b Heavy Trucks 14 School Buses 15 Transit and Urban Buses 16 Motorcycle
annotation	documentation Type of vehicle involved in the operation. Valid values: 0 = Default Fleet Mix, 1 = Passenger Cars, 2 = Light Trucks 1, 3 = Light Trucks 2, 4 = Light Trucks 3, 5 = Light Trucks 4, 6 = Class 2b Heavy Trucks, 7 = Class 3 Heavy Trucks, 8 = Class 4 Heavy Trucks, 9 = Class 5 Heavy Trucks, 10 = Class 6 Heavy Trucks, 11 = Class 7 Heavy Trucks, 12 = Class 8a Heavy Trucks, 13 = Class 8b Heavy Trucks, 14 = School Buses, 15 = Transit and Urban Buses, 16 = Motorcycle.

element parkingFacilityOperation/fuelType

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

element parkingFacilityOperation/averageSpeed

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

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

element parkingFacilityOperation/averageDistanceTraveled

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

element parkingFacilityOperation/averageIdleTime

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

element parkingFacilityOperationSet

diagram	<p>parkingFacilityOperationSet Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage activities for scenario layouts.</p> <p>attributes</p> <ul style="list-style-type: none"> dummy <p>parkingFacilityOperation Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage activities for scenario layouts.</p>												
properties	content complex												
children	parkingFacilityOperation												
used by	group airportActivityGroup												
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td><u>dummy</u></td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	<u>dummy</u>	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
<u>dummy</u>	xs:int	optional											
annotation	documentation Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage activities for scenario layouts.												

attribute parkingFacilityOperationSet/@dummy

type	xs:int
properties	use optional

element parkingFacilitySet

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

attribute **parkingFacilitySet/@dummy**

type	xs:int
properties	use optional

element **pointReceptor**

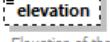
diagram	<p>pointReceptor</p> <p>Element specification for a point receptor.</p> <p>name</p> <p>coord2DGroup</p> <p>Indicates how a two-dimensional group is specified.</p> <p>latitude</p> <p>Latitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>latitudeDMS</p> <p>Latitude expressed as dd°mm'ss with optional indicator N, n, S, s.</p> <p>longitude</p> <p>Longitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>longitudeDMS</p> <p>Longitude expressed as dd°mm'ss with optional indicator N, n, S, s.</p> <p>utmN</p> <p>UTM Northing of the point in decimal meters north of the equator.</p> <p>utmE</p> <p>UTM Easting of the point in decimal meters east from a central meridian.</p> <p>utmZone</p> <p>UTM Zone of the point. A default zone can be set in the &#60;options&#62; tag.</p> <p>elevation</p> <p>Elevation of the receptor above MSL (ft.)</p> <p>receptorHeight</p> <p>Height of the receptor above ground (ft.)</p>
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	
type	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255

element **pointReceptor/elevation**

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

element **pointReceptor/receptorHeight**

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

element **pointStationarySource**

diagram	
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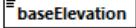
	<pre> graph TD PS[pointStationarySource] --> PC[pointCoord] PS --> BE[baseElevation] PS --> RH[releaseHeight] PS --> GV[gasVelocity] PS --> SD[stackDiameter] PS --> T[temperature] PS --> AAT[aboveAmbientTemperature] </pre> <p>pointStationarySource</p> <p>Specifies the point in space occupied by a stationary source of emissions.</p> <p>pointCoord Type of 2-D coordinates specifying the point.</p> <p>baseElevation Elevation of point. Valid values: -500 to 5000. (m)</p> <p>releaseHeight Height above ground level at which emissions are released into the atmosphere. Valid values 0 to 100 (m)</p> <p>gasVelocity Velocity at which gas escapes from the source. Valid values: 1 to 30. (m/s)</p> <p>stackDiameter Diameter of stack where gas escapes from the source. Valid values: 0.1 to 50 (m)</p> <p>temperature Temperature at point. Valid values: 0 to 600. (°F)</p> <p>aboveAmbientTemperature Indicates if temperature is absolute (False) or if temperature is relative to current ambient temperature (True).</p>
properties	content complex
children	pointCoord baseElevation releaseHeight gasVelocity stackDiameter temperature aboveAmbientTemperature
used by	element stationarySource
annotation	<p>documentation</p> <p>Specifies the point in space occupied by a stationary source of emissions.</p>

element **pointStationarySource/pointCoord**

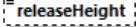
diagram	<pre> graph TD PC[pointCoord] --> C2DType[coord2DType] C2DType --> LCG[latlonCoordGroup] C2DType --> UTMGroup[utmCoordGroup] </pre> <p>pointCoord Type of 2-D coordinates specifying the point.</p> <p>coord2DType</p> <p>latlonCoordGroup Specifies a coordinate using latitude and longitude.</p> <p>latitude Latitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>latitudeDMS Latitude expressed as dd°mm'sss with optional indicator N, n, S, s.</p> <p>longitude Longitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>longitudeDMS Longitude expressed as dd°mm'sss with optional indicator N, n, S, s.</p> <p>utmCoordGroup Specifies a point using Universal Transverse Mercator coordinates.</p> <p>utmN UTM Northing of the point in decimal meters north of the equator.</p> <p>utmE UTM Easting of the point in decimal meters east from a central meridian.</p> <p>utmZone UTM Zone of the point. A default zone can be set in the &#60;options&#62; tag.</p>
type	coord2DType

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

element **pointStationarySource/baseElevation**

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

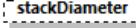
element **pointStationarySource/releaseHeight**

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

element **pointStationarySource/gasVelocity**

diagram	 gasVelocity Velocity at which gas escapes from the source. 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 which gas escapes from the source. Valid values: 1 to 30. (m/s)

element **pointStationarySource/stackDiameter**

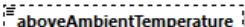
diagram	 stackDiameter Diameter of stack where gas escapes from the source. Valid values: 0.1 to 50 (m)
type	doubleExclusive0Inclusive10
properties	minOcc 0 maxOcc 1 content simple default 0.1
facets	Kind Value Annotation

	maxInclusive 10 minExclusive 0
annotation	documentation Diameter of stack where gas escapes from the source. Valid values: 0.1 to 50 (m)

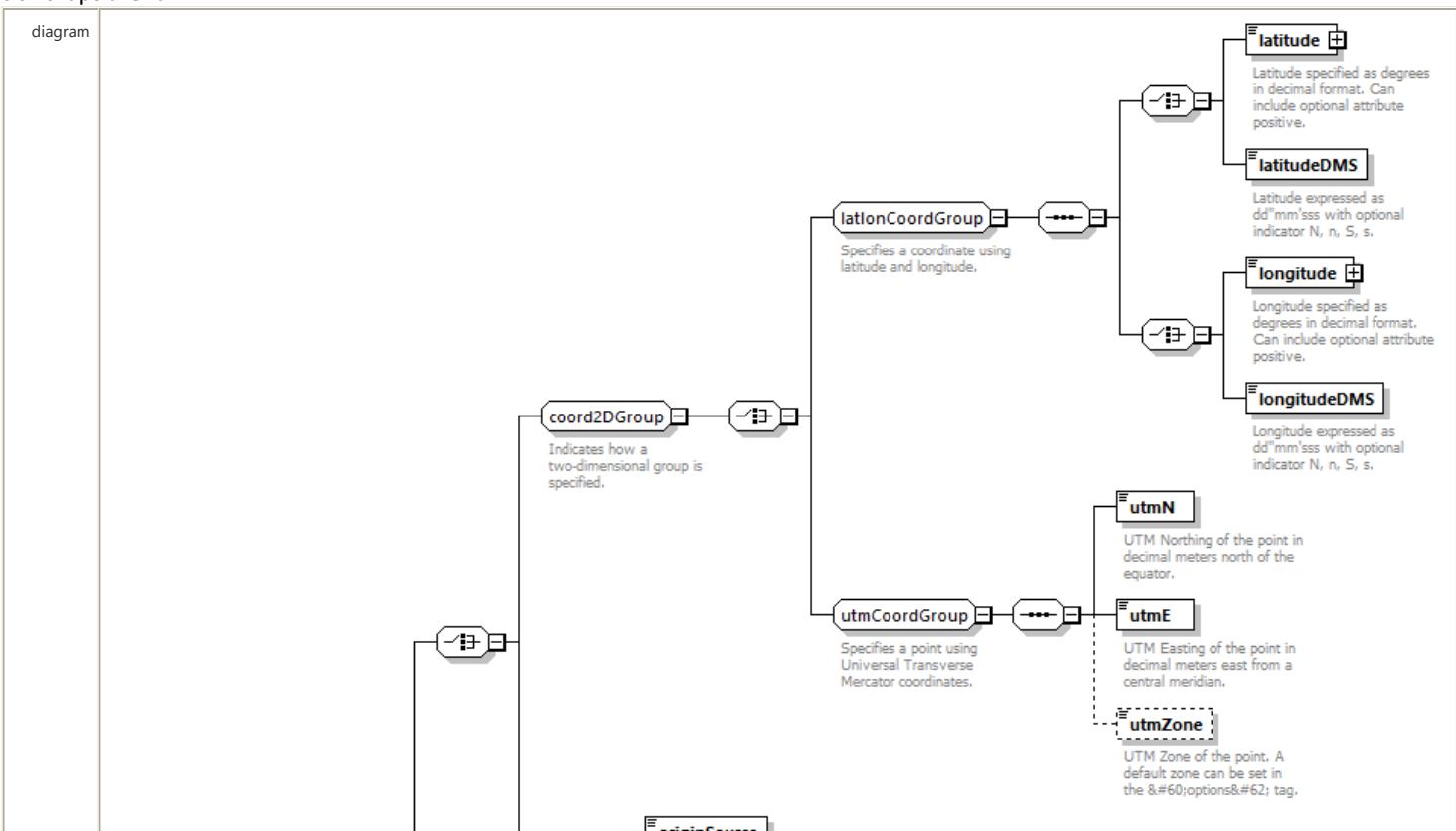
element pointStationarySource/temperature

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

element pointStationarySource/aboveAmbientTemperature

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

element polarGrid



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

element **polarGrid/originSource**

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

element **polarGrid/originName**

diagram	
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	 <p>Refers to an existing gate, parking facility, roadway, runway, stationary source, taxiway, or training fire.</p>
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	 <p>Altitude of point (meters).</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Altitude of point (meters).

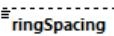
element polarGrid/height

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

element polarGrid/ringStart

diagram	 <p>Initial radius of first ring from center point.</p>
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	 <p>Spacing between rings starting from the first ring. Valid values: 0 to 1000.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 1
annotation	documentation Spacing between rings starting from the first ring. Valid values: 0 to 1000.

element polarGrid/ringCount

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

element polarGrid/vectorStart

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

element polarGrid/vectorSpacing

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

element polarGrid/vectorCount

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

element polarGrid/xrOffset

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

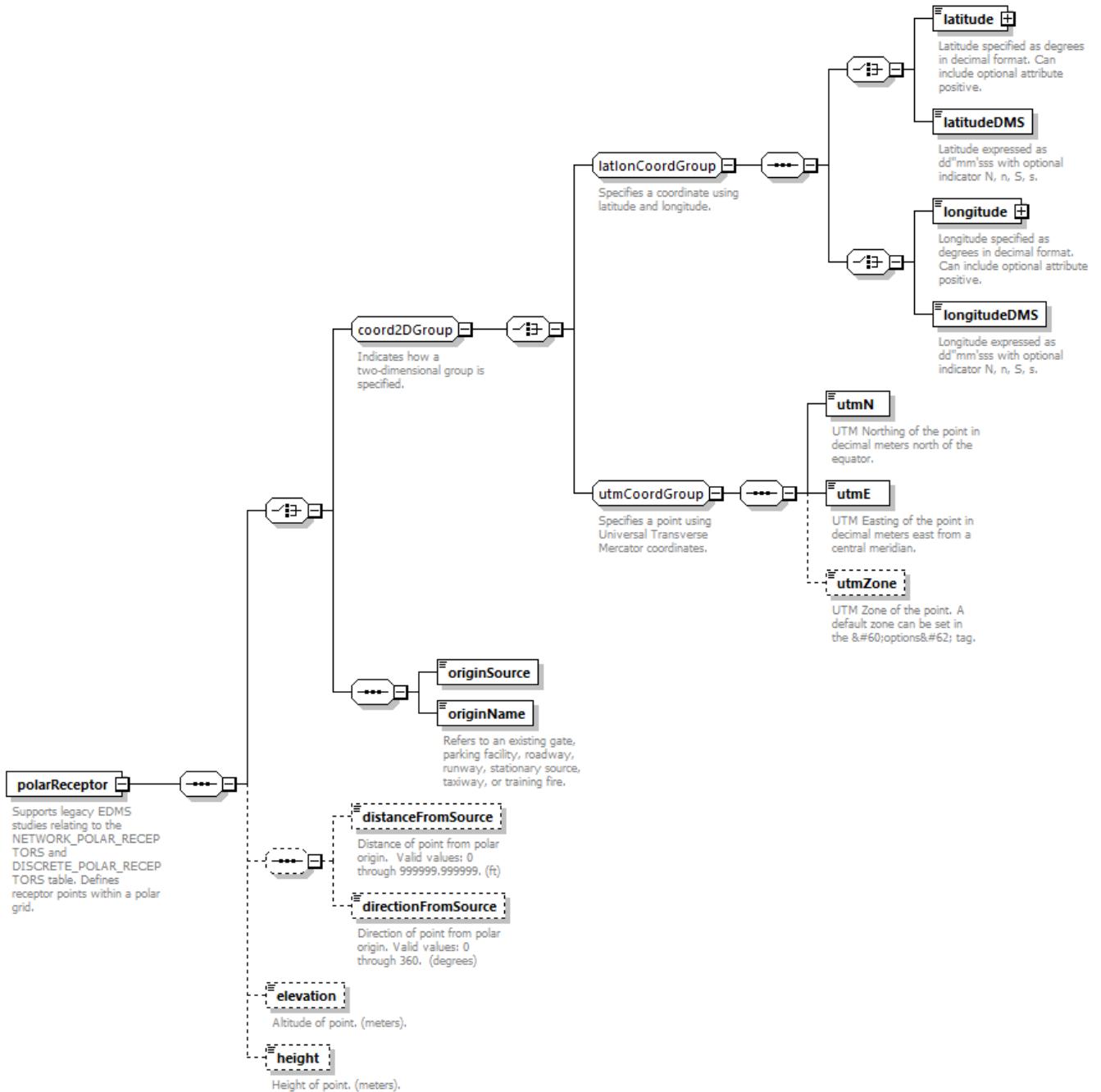
	maxOcc 1 content simple default 0
annotation	documentation The X-offset of the receptor grid in nautical miles.

element polarGrid/ydOffset

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

element polarReceptor

diagram	
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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_RECEP TORS and DISCRETE_POLAR_RECEP TORS table. Defines receptor points within a polar grid.

element **polarReceptor/originSource**

diagram							
type	originSourceType						
properties	content simple						
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>pattern</td> <td>Gate Parking Facility Roadway Runway Stationary Source Taxiway Training Fire</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	pattern	Gate Parking Facility Roadway Runway Stationary Source Taxiway Training Fire	
Kind	Value	Annotation					
pattern	Gate Parking Facility Roadway Runway Stationary Source Taxiway Training Fire						

element **polarReceptor/originName**

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

element polarReceptor/distanceFromSource

diagram	<p>distanceFromSource</p> <p>Distance of point from polar origin. Valid values: 0 through 999999.999999. (ft)</p>
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	<p>directionFromSource</p> <p>Direction of point from polar origin. Valid values: 0 through 360. (degrees)</p>
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	<p>elevation</p> <p>Altitude of point. (meters).</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Altitude of point. (meters).

element polarReceptor/height

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

element quarterHourlyProfile

diagram	<pre> classDiagram quarterHourlyProfile { profileName temporalFactor } profileName "Name of profile." temporalFactor "Factor applied to activity for operations during the indicated quarter hour. Valid values: 0.0000 to 1.0000." quarterHourlyProfile < -- quarterHourlyProfileSet </pre> <p>Supports legacy EDMS studies relating to content contained in the QUARTER_HOURLY_PROFILES. This element supports the definition of temporal factors on a quarter-hourly operational basis.</p>
properties	content complex
children	profileName temporalFactor
used by	element quarterHourlyProfileSet
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to content contained in the QUARTER_HOURLY_PROFILES. This element supports the definition of temporal factors on a quarter-hourly operational basis.</p>

element quarterHourlyProfile/profileName

diagram	<pre> attributeDiagram profileName profileName "Name of profile." </pre>									
type	string100									
properties	content simple									
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>100</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	minLength	0		maxLength	100	
Kind	Value	Annotation								
minLength	0									
maxLength	100									
annotation	<p>documentation</p> <p>Name of profile.</p>									

element quarterHourlyProfile/temporalFactor

diagram	<pre> classDiagram temporalFactor { attributes startHour startMinutes } attributes " " startHour "The starting hour as an integer between 0 and 23." startMinutes "The starting quarter-hourly minute value as either 0, 15, 30, or 45." 0..∞ temporalFactor < -- doubleMin0 </pre> <p>Factor applied to activity for operations during the indicated quarter hour. Valid values: 0.0000 to 1.0000.</p>																		
type	extension of doubleMin0																		
properties	<p>minOcc 0</p> <p>maxOcc unbounded</p> <p>content complex</p>																		
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>minInclusive</td> <td>0</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	minInclusive	0													
Kind	Value	Annotation																	
minInclusive	0																		
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>startHour</td> <td>int0to23</td> <td>required</td> <td></td> <td></td> <td>documentation The starting hour as an integer between 0 and 23.</td> </tr> <tr> <td>startMinutes</td> <td>quarterHourMinutes</td> <td>required</td> <td></td> <td></td> <td>documentation The starting quarter-hourly minute value as either 0, 15, 30, or 45.</td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	startHour	int0to23	required			documentation The starting hour as an integer between 0 and 23.	startMinutes	quarterHourMinutes	required			documentation The starting quarter-hourly minute value as either 0, 15, 30, or 45.
Name	Type	Use	Default	Fixed	Annotation														
startHour	int0to23	required			documentation The starting hour as an integer between 0 and 23.														
startMinutes	quarterHourMinutes	required			documentation The starting quarter-hourly minute value as either 0, 15, 30, or 45.														
annotation	<p>documentation</p> <p>Factor applied to activity for operations during the indicated quarter hour. Valid values: 0.0000 to 1.0000.</p>																		

attribute quarterHourlyProfile/temporalFactor/@startHour

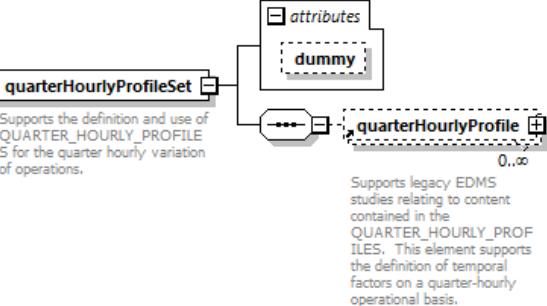
type	int0to23			
properties	use required			
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> </table>	Kind	Value	Annotation
Kind	Value	Annotation		

	minInclusive 0 maxInclusive 23
annotation	documentation The starting hour as an integer between 0 and 23.

attribute **quarterHourlyProfile/temporalFactor/@startMinutes**

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

element **quarterHourlyProfileSet**

diagram	 <p>Supports the definition and use of QUARTER_HOURLY_PROFILE S for the quarter hourly variation of operations.</p> <p>Supports legacy EDMS studies relating to content contained in the QUARTER_HOURLY_PROFILE S. This element supports the definition of temporal factors on a quarter-hourly operational basis.</p>
properties	content complex
children	quarterHourlyProfile
used by	element operationalProfileSet complexType airportLayoutType
attributes	Name Type Use Default Fixed Annotation <u>dummy</u> xs:int optional
annotation	documentation Supports the definition and use of QUARTER_HOURLY_PROFILES for the quarter hourly variation of operations.

attribute **quarterHourlyProfileSet/@dummy**

type	xs:int
properties	use optional

element **receptorSet**

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

element receptorSet/name

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

element recordCode

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

element roadway

diagram	<p>name Identifying name for the roadway.</p> <p>width Roadway's width. Valid values: 1 to 99. (m)</p> <p>coordinates + Set of three-dimensional coordinates describing the roadway.</p>
properties	content complex
children	name width coordinates
used by	element roadwaySet
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle geometry on roadways for scenario layouts.</p>

element roadway/name

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

element roadway/width

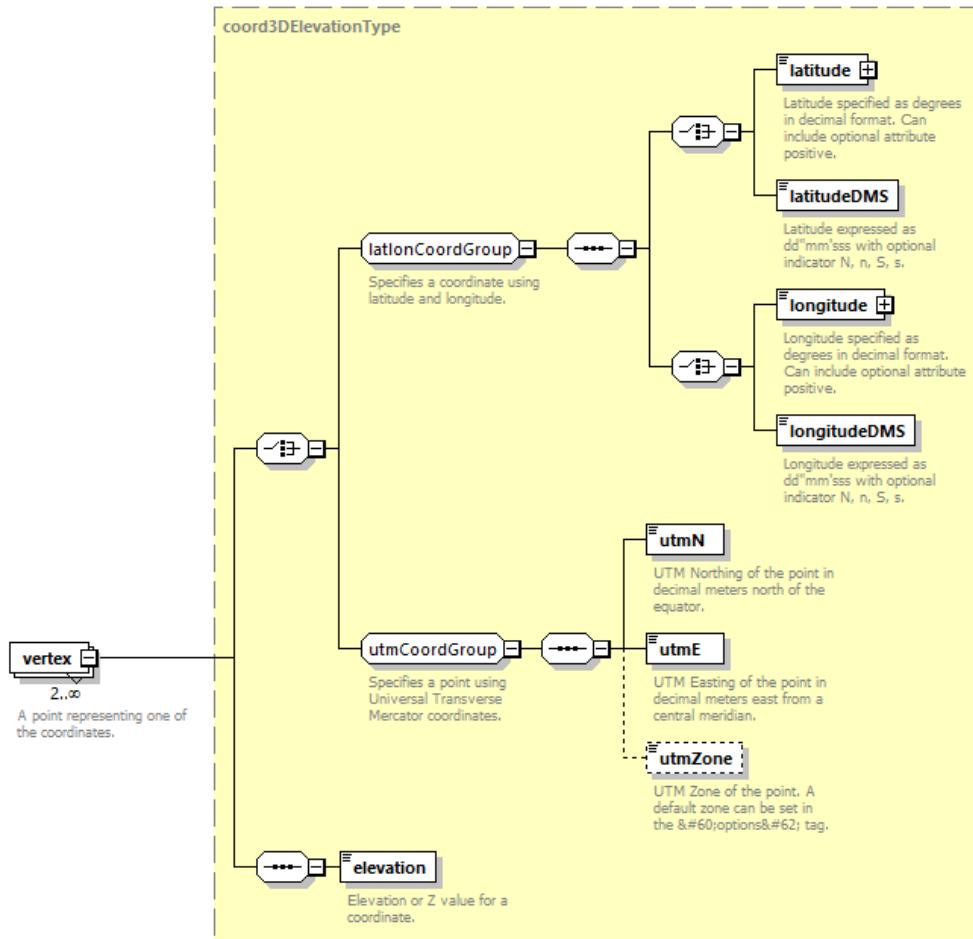
diagram	<p>width Roadway's width. Valid values: 1 to 99. (m)</p>
type	xs:double
properties	<p>minOcc 0 maxOcc 1 content simple default 0</p>
annotation	<p>documentation</p> <p>Roadway's width. Valid values: 1 to 99. (m)</p>

element roadway/coordinates

diagram	<p>coordinates Set of three-dimensional coordinates describing the roadway.</p> <p>vertex + A point representing one of the coordinates.</p> <p>2,∞</p>
properties	<p>minOcc 0 maxOcc 1 content complex</p>
children	vertex
annotation	<p>documentation</p> <p>Set of three-dimensional coordinates describing the roadway.</p>

element roadway/coordinates/vertex

diagram	
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	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	
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	<pre> classDiagram class roadwayOperation { refName useAnnualFigures vehicleType fuelType emissionsUsage vehicleEmissionFactors speed roundTripDistance } refName "Identifying name of roadway operation." useAnnualFigures "Indicates if the quantities in the element are annualized." vehicleType "Type of vehicle involved in the operation. Valid values (the numeral corresponds to the text value; either are valid): 0 = Default Fleet Mix, 1 = Passenger Cars, 2 = Light Trucks 1, 3 = Light Trucks 2, 4 = Light Trucks 3, 5 = Light Trucks 4, 6 = Class 2b Heavy Trucks, 7 = Class 3 Heavy Trucks, 8 = Class 4 Heavy Trucks, 9 = Class 5 Heavy Trucks, 10 = Class 6 Heavy Trucks, 11 = Class 7 Heavy Trucks, 12 = Class 8a Heavy Trucks, 13 = Class 8b Heavy Trucks, 14 = School Buses, 15 = Transit and Urban Buses, 16 = Motorcycle." fuelType "Type of fuel involved in the operation. Valid values: G = gasoline, D = diesel." emissionsUsage "Describes the amount of emissions for a given activity profile." vehicleEmissionFactors "Supports legacy EDMS studies relating to content contained in the ROADWAYS/PARKING table. This element supports the definition of custom emission factor specifications for roadways and parking." speed "Speed during the operation. Valid values: 5 to 65, (mph)." roundTripDistance "Round trip vehicle distance, (mi)." </pre>
properties	content complex
children	refName useAnnualFigures vehicleType fuelType emissionsUsage vehicleEmissionFactors speed roundTripDistance
used by	element roadwayOperationSet
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle activity on roadways for scenario layouts.</p>

element [roadwayOperation/refName](#)

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

element [roadwayOperation/useAnnualFigures](#)

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

element **roadwayOperation/vehicleType**

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

element **roadwayOperation/fuelType**

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

element **roadwayOperation/speed**

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

annotation	documentation Speed during the operation. Valid values: 5 to 65. (mph)
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element **roadwayOperation/roundTripDistance**

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

element **roadwayOperationSet**

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

attribute **roadwayOperationSet/@dummy**

type	xs:int
properties	use optional

element **roadwaySet**

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

	<u>dummy</u>	xs:int	optional
annotation	documentation	Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle activity on roadways for scenario layouts.	

attribute **roadwaySet/@dummy**

type	xs:int
properties	use optional

element **runway**

diagram	<pre> classDiagram class runway class length class width class runwayEnd runway < -- length runway < -- width runway --> runwayEnd : 1..2 </pre> <p>Describes dimensions of a runway.</p>
properties	content complex
children	length width runwayEnd
used by	element runwaySet
annotation	documentation Describes dimensions of a runway.

element **runway/length**

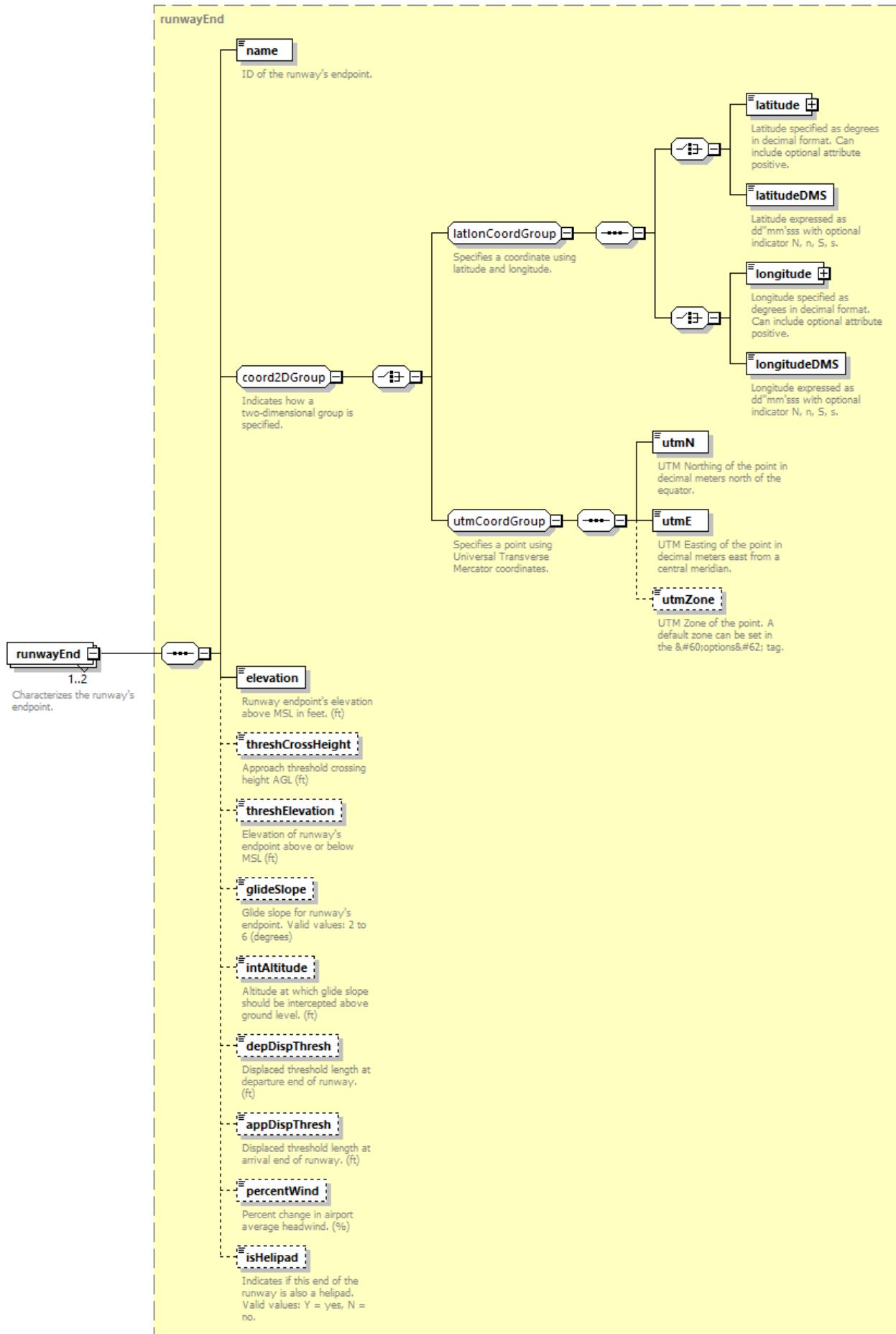
diagram	<pre> classDiagram class length </pre> <p>Length of runway. Valid values: nonnegative. (ft)</p>
type	xs:short
properties	content simple
annotation	documentation Length of runway. Valid values: nonnegative. (ft)

element **runway/width**

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

element **runway/runwayEnd**

diagram	
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type	runwayEnd
------	---------------------------

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

element **runwayAssignment**

diagram	<pre> classDiagram class runwayAssignment { <<Defines a assignment of operations to runways, by aircraft size.>> } class aircraftSize class runway { <<Name of the runway.>> } class arrivalPercentage { <<Percentage of arrivals of the given aircraft size using this runway. Valid values: 0 to 100.(&%)>> } class departurePercentage { <<Percentage of departures of the given aircraft size using this runway. Valid values: 0 to 100.(&%)>> } class tgoPercentage { <<Percentage of touch and gos of the given aircraft size using this runway. Valid values: 0 to 100.(&%)>> } runwayAssignment "1" -- "1" aircraftSize : runwayAssignment "1" -- "1" runway : runwayAssignment "1" -- "1" arrivalPercentage : runwayAssignment "1" -- "1" departurePercentage : runwayAssignment "1" -- "1" tgoPercentage : </pre>
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	<pre> classDiagram class aircraftSize { <<>> } aircraftSize "1" -- "1" aircraftSize : </pre>
type	AircraftSizeType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation enumeration S enumeration L enumeration H

element **runwayAssignment/runway**

diagram	<pre> classDiagram class runway { <<Name of the runway.>> } runway "1" -- "1" runway : </pre>
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	
---------	--

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

element **runwayAssignment/departurePercentage**

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

element **runwayAssignment/tgoPercentage**

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

element **runwayAssignmentSet**

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

element **runwaySet**

--	--

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

element scenario

diagram	<p>Encapsulates a scenario - such as Baseline or Alternative</p> <p>scenario</p> <p>name</p> <p>Description of scenario.</p> <p>startTime</p> <p>Start time of scenario. Accepts dateTime string.</p> <p>duration</p> <p>Scenario's duration (hr).</p> <p>taxiModel</p> <p>Taxi model for scenario.</p> <p>timeInModeBasis</p> <p>actPerfModel</p> <p>Aircraft performance model.</p> <p>bankAngle</p> <p>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.</p> <p>altitudeCutoff</p> <p>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)</p> <p>sulfurConversionRate</p> <p>Portion of sulfur in the fuel that, when combusted, becomes sulfuric acid used for emissions calculations. (%)</p> <p>fuelSulfurContent</p> <p>Percentage, by weight, of sulfur in the fuel used for emissions calculations. Default Values: 0.0006 (0.06%) (%)</p> <p>description</p> <p>A description of the scenario.</p> <p>scenarioAirportLayoutSet</p> <p>Contains a set of airport layout types.</p> <p>caseSet</p> <p>Placeholder for one or more cases.</p> <p>annualization</p> <p>0..∞</p> <p>Contains annualizations for ASIF partial import into an existing study.</p>
properties	content complex

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

element **scenario/name**

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

element **scenario/startTime**

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

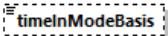
element **scenario/duration**

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

element **scenario/taxiModel**

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

element **scenario/timeInModeBasis**

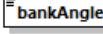
diagram	 timeInModeBasis
type	timeInModeBasisType
properties	minOcc 0 maxOcc 1 content simple default ICAO

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

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

element **scenario/bankAngle**

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

element **scenario/altitudeCutoff**

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

element **scenario/sulfurConversionRate**

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

element **scenario/fuelSulfurContent**

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

element scenario/description

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

element scenarioAirportLayoutSet

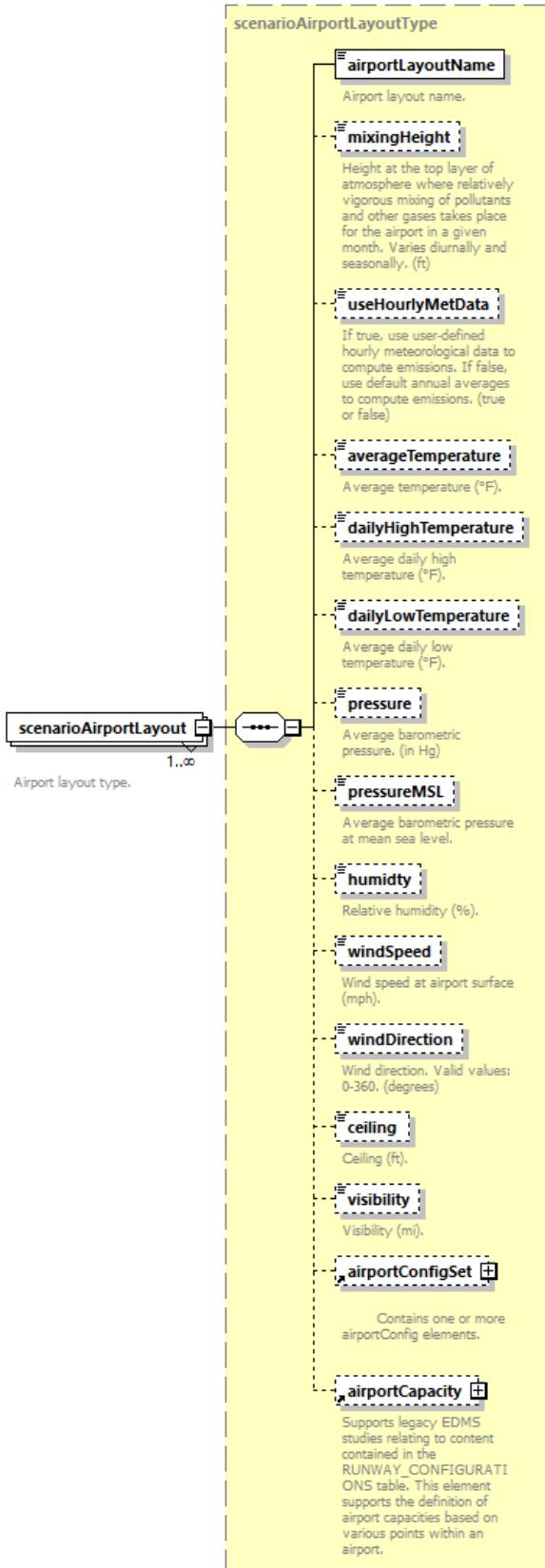
diagram	<p>scenarioAirportLayoutSet</p> <p>Contains a set of airport layout types.</p> <p>scenarioAirportLayout</p> <p>1..∞</p> <p>Airport layout type.</p>
properties	content complex
children	scenarioAirportLayout
used by	element scenario
attributes	Name Type Use Default Fixed Annotation <u>dummy</u>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

attribute scenarioAirportLayoutSet/@dummy

type	xs:int
properties	use optional

element scenarioAirportLayoutSet/scenarioAirportLayout

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

element sensorNode

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

element sensorNode/lat

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

element sensorNode/long

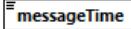
diagram	
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>Longitude for this location (decimal degrees).</p>

element sensorNode/altitude

diagram	
type	xs:double
properties	content simple

annotation	documentation Altitude at this location (ft)
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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	<p>Describes a flight path based on radar data.</p> <p>1..∞ Describes a single node of a radar flight path.</p>
properties	content complex
children	sensorNode
used by	element trackOpSet
annotation	<p>documentation</p> <p>Describes a flight path based on radar data.</p>

element stationarySource

diagram	<p>name Identifying name of the stationary source.</p> <p>pointStationarySource Specifies the point in space occupied by a stationary source of emissions.</p> <p>areaStationarySource Specifies the area in space occupied by a stationary source of emissions.</p> <p>volumeStationarySource Specifies the volume in space occupied by a stationary source of emissions.</p> <p>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.</p> <p>categoryBoilerHeater Describes the operational characteristics of a source in the boiler/heater category.</p> <p>categoryGenerator Describes the operational characteristics of a source in the generator category.</p> <p>categoryIncinerator Describes the operational characteristics of a source in the incinerator category.</p> <p>categoryAircraftEngine Describes a category for the time an aircraft engine is at various power levels.</p> <p>categoryFuelTank Describes the operational characteristics of a source in the fuel tank category.</p> <p>categorySurfaceCoatingPainting Describes the operational characteristics of a source in the surface coating or painting category.</p> <p>categoryDeicingArea Describes the operational characteristics of a source in the deicing area category.</p> <p>categorySolventDegreaser</p>
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	<p>Describes the operational characteristics of a source in the solvent degreaser category.</p> <p>categorySandSaltPile </p> <p>Describes the emissions characteristics of a source in the sand or salt pile category.</p> <p>categoryTrainingFire </p> <p>Supports legacy EDMS studies relating to content contained in the TRAINING_FIRES table. This element supports the definition of training fires for scenario layouts. Training fire data are used in both emissions and dispersion analyses.</p> <p>categoryOther </p> <p>Describes the operational characteristics of a source in the "other" category.</p>
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	<p>name</p> <p>Identifying name of the stationary source.</p>
type	string40
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 40
annotation	documentation Identifying name of the stationary source.

element **stationarySourceOperation**

diagram	<p>stationarySourceOperation</p> <p>Defines an operation at a stationary source that generates emissions.</p> <p>refName Identifier of the operation.</p> <p>elevation</p> <p>pointCoord </p> <p>emissionsUsage Describes the amount of emissions for a given activity profile.</p>
properties	content complex
children	refName elevation pointCoord emissionsUsage
used by	element stationarySourceOperationSet
annotation	documentation Defines an operation at a stationary source that generates emissions.

element **stationarySourceOperation/refName**

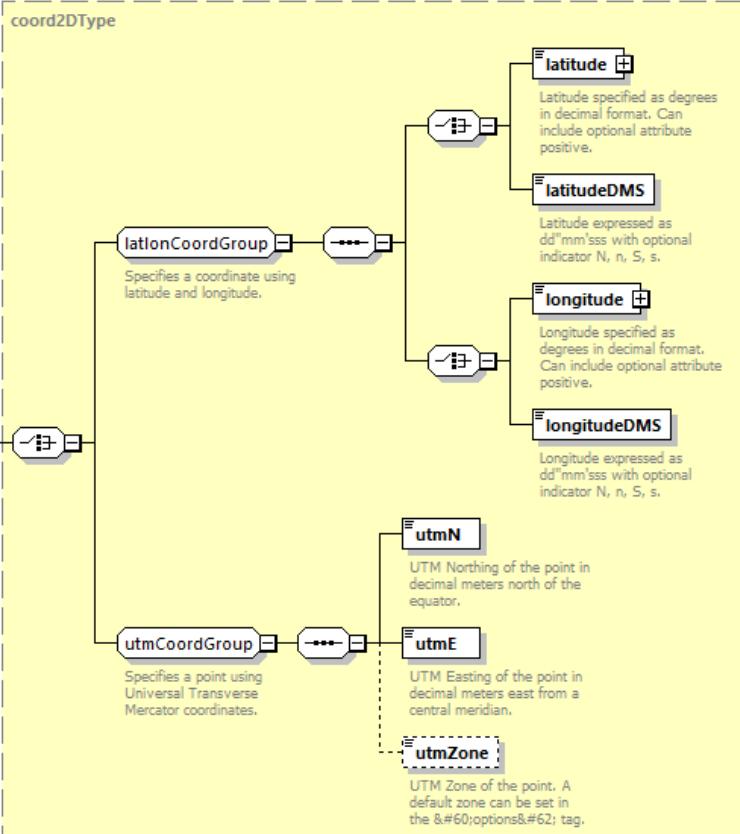
diagram	<p>refName</p> <p>Identifier of the operation.</p>

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

element **stationarySourceOperation/elevation**

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

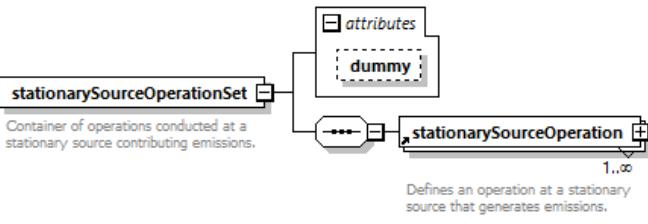
element **stationarySourceOperation/pointCoord**

diagram	
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type [coord2DType](#)

properties	minOcc 0 maxOcc 1 content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone

element **stationarySourceOperationSet**

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

attribute **stationarySourceOperationSet/@dummy**

type	xs:int
properties	use optional

element **stationarySourceSet**

diagram	<pre> classDiagram class stationarySourceSet { <<Container of stationary sources contributing emissions.>> } class stationarySource { <<Specifies a stationary source.>> } stationarySourceSet "1..oo" *--> stationarySource : dummy </pre>												
properties	content complex												
children	stationarySource												
used by	element AsifXml complexType airportLayoutType												
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td><u>dummy</u></td> <td>xs:int</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	<u>dummy</u>	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
<u>dummy</u>	xs:int	optional											
annotation	<p>documentation</p> <p>Container of stationary sources contributing emissions.</p>												

attribute **stationarySourceSet/@dummy**

type	xs:int
properties	use optional

element **study**

diagram	
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	<pre> classDiagram class study { name studyType emissionsUnits description boundary climate userDefinedAirportSet airportLayoutSet terrainFiles receptorSet fleet userGroundSupportEquipmentSet scenario } study "1" --> "1" study : study </pre>
properties	content complex
children	name studyType emissionsUnits description boundary climate userDefinedAirportSet airportLayoutSet terrainFiles receptorSet fleet userGroundSupportEquipmentSet scenario
used by	element AsifXml
annotation	<p>documentation</p> <p>Contains specific information about a study.</p>

element **study/name**

diagram					
type	string255				
properties	content simple				
facets	<table> <tr> <td>Kind</td> <td>Value Annotation</td> </tr> <tr> <td>minLength</td> <td>0</td> </tr> </table>	Kind	Value Annotation	minLength	0
Kind	Value Annotation				
minLength	0				

	maxLength 255
annotation	documentation Name of the study.

element **study/studyType**

diagram																
type	studyType															
properties	content simple															
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>enumeration</td> <td>Emissions</td> <td></td> </tr> <tr> <td>enumeration</td> <td>Dispersion</td> <td></td> </tr> <tr> <td>enumeration</td> <td>Noise and Emissions</td> <td></td> </tr> <tr> <td>enumeration</td> <td>Noise and Dispersion</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	enumeration	Emissions		enumeration	Dispersion		enumeration	Noise and Emissions		enumeration	Noise and Dispersion	
Kind	Value	Annotation														
enumeration	Emissions															
enumeration	Dispersion															
enumeration	Noise and Emissions															
enumeration	Noise and Dispersion															

element **study/emissionsUnits**

diagram																			
type	emissionsUnitsType																		
properties	content simple																		
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>enumeration</td> <td>MetricTonnes</td> <td></td> </tr> <tr> <td>enumeration</td> <td>Kilograms</td> <td></td> </tr> <tr> <td>enumeration</td> <td>Grams</td> <td></td> </tr> <tr> <td>enumeration</td> <td>ImperialTons</td> <td></td> </tr> <tr> <td>enumeration</td> <td>Pounds</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	enumeration	MetricTonnes		enumeration	Kilograms		enumeration	Grams		enumeration	ImperialTons		enumeration	Pounds	
Kind	Value	Annotation																	
enumeration	MetricTonnes																		
enumeration	Kilograms																		
enumeration	Grams																		
enumeration	ImperialTons																		
enumeration	Pounds																		

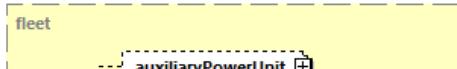
element **study/description**

diagram										
	Optional description of the study.									
type	string255									
properties	minOcc 0 maxOcc 1 content simple									
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>255</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	minLength	0		maxLength	255	
Kind	Value	Annotation								
minLength	0									
maxLength	255									
annotation	documentation Optional description of the study.									

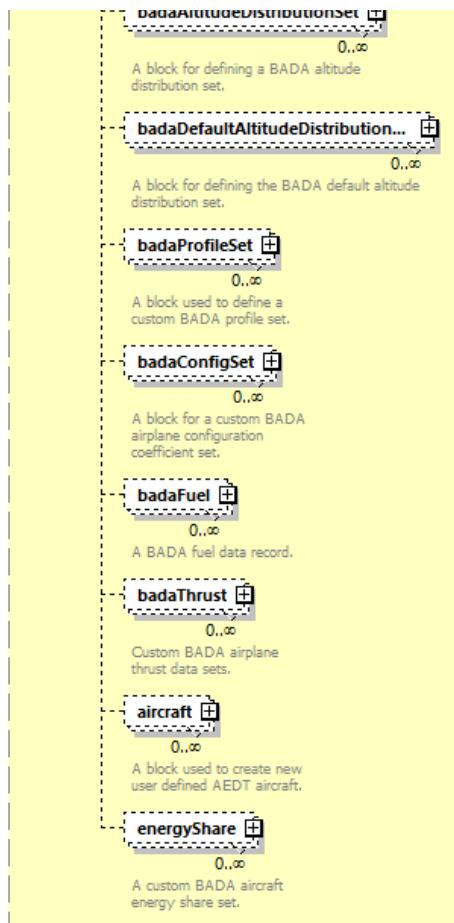
element **study/terrainFiles**

diagram										
	List of files containing descriptions of terrain.									
type	string255									
properties	minOcc 0 maxOcc 1 content simple									
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>255</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	minLength	0		maxLength	255	
Kind	Value	Annotation								
minLength	0									
maxLength	255									
annotation	documentation List of files containing descriptions of terrain.									

element **study/fleet**

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

element subtrack

diagram	<p>subtrack Intended to represent a dispersed child track of a parent track.</p> <p>id ID for a subtrack.</p> <p>dispersionWeight dispersion weight value; must be greater than one and less than or equal to 1.</p> <p>trackVectors A list of flight track vectors.</p> <p>trackNodes A set of flight track nodes</p>
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	
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	<p>id</p> <p>ID for a subtrack.</p>
type	xs:int
properties	content simple
annotation	documentation ID for a subtrack.

element subtrack/dispersionWeight

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

element taxiNode

diagram	<p>taxiNode</p> <p>Supports legacy EDMS studies relating to the TAXIWAYS table. Taxi nodes define the points for a given taxiway.</p> <p>coord2DGroup</p> <p>Indicates how a two-dimensional group is specified.</p> <p>latlonCoordGroup</p> <p>Specifies a coordinate using latitude and longitude.</p> <p>latitude</p> <p>Latitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>longitude</p> <p>Longitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>utmCoordGroup</p> <p>Specifies a point using Universal Transverse Mercator coordinates.</p> <p>utmN</p> <p>UTM Northing of the point in decimal meters north of the equator.</p> <p>utmE</p> <p>UTM Easting of the point in decimal meters east from a central meridian.</p> <p>utmZone</p> <p>UTM Zone of the point. A default zone can be set in the &#60;options&#62; tag.</p> <p>elevation</p> <p>Taxi node's elevation above MSL. Valid values: -500 to 5000. (m)</p> <p>speed</p> <p>Speed of aircraft at node. Valid values: 1.00 to 60.00. (mph)</p>
properties	content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation speed
used by	element taxiNodeSet
annotation	documentation Supports legacy EDMS studies relating to the TAXIWAYS table. Taxi nodes define the points for a given taxiway.

element taxiNode/elevation

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

element taxiNode/speed

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

element taxiNodeSet

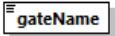
diagram	<p>taxiNodeSet</p> <p>Supports legacy EDMS studies relating to the TAXIWAYS table. Taxi nodes define the points for a given taxiway.</p> <p>taxiNode</p> <p>Supports legacy EDMS studies relating to the TAXIWAYS table. Taxi nodes define the points for a given taxiway.</p> <p>2..∞</p>
properties	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

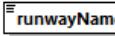
diagram	<p>taxipath</p> <p>Supports legacy EDMS studies relating to the TAXIPATHS table. A taxipath is a sequence of taxiways, possibly just one, that connects a gate to a runway or vice versa. Taxipaths are used to do the modeling of aircraft ground movement. They are needed for sequence modeling, which includes all dispersion analyses. Gates, taxiways and runways must be defined before taxipaths can be specified.</p> <p>gateName</p> <p>References an existing gate.</p> <p>runwayName</p> <p>References an existing runway.</p> <p>direction</p> <p>Direction of the taxipath. Valid values: Inbound or Outbound.</p> <p>taxiwayName</p> <p>References an existing taxiway.</p> <p>1..∞</p>
properties	content complex

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

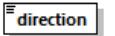
element **taxipath/gateName**

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

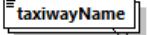
element **taxipath/runwayName**

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

element **taxipath/direction**

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

element **taxipath/taxiwayName**

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

element taxipathSet

diagram	<p>taxipathSet taxipath </p> <p>Supports legacy EDMS studies relating to the TAXIPATHS table. A taxipath is a sequence of taxiways, possibly just one, that connects a gate to a runway or vice versa. Taxipaths are used to do the modeling of aircraft ground movement. They are needed for sequence modeling, which includes all dispersion analyses. Gates, taxiways and runways must be defined before taxipaths can be specified.</p> <p>1..∞</p> <p>Supports legacy EDMS studies relating to the TAXIPATHS table. A taxipath is a sequence of taxiways, possibly just one, that connects a gate to a runway or vice versa. Taxipaths are used to do the modeling of aircraft ground movement. They are needed for sequence modeling, which includes all dispersion analyses. Gates, taxiways and runways must be defined before taxipaths can be specified.</p>
properties	content complex
children	taxipath
used by	complexType airportLayoutType
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to the TAXIPATHS table. A taxipath is a sequence of taxiways, possibly just one, that connects a gate to a runway or vice versa. Taxipaths are used to do the modeling of aircraft ground movement. They are needed for sequence modeling, which includes all dispersion analyses. Gates, taxiways and runways must be defined before taxipaths can be specified.</p>

element taxiTime

diagram	<p>taxiTime source taxiTime taxilin taxiTime taxiOut </p>
properties	content complex
children	source taxilin taxiOut
used by	complexType airport

element taxiTime/source

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

element taxiTime/taxilin

diagram	<p>taxilin</p>
type	xs:int
properties	minOcc 0 maxOcc 1 content simple

element taxiTime/taxiOut

diagram	<p>taxiOut</p>
type	xs:int
properties	minOcc 0

maxOcc 1
content simple

element **taxiway**

diagram	<pre> classDiagram class taxiway { name dispersionWidth taxiNodeSet } </pre> <p>Supports legacy EDMS studies relating to the TAXIWAYS table. Taxiways determine the ground segments where the aircraft operates.</p>
properties	content complex
children	name dispersionWidth taxiNodeSet
used by	element taxiwaySet
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to the TAXIWAYS table. Taxiways determine the ground segments where the aircraft operates.</p>

element **taxiway/name**

diagram	<pre> classDiagram class taxiway { <<name>> } </pre> <p>Identifying name for taxiway.</p>									
type	string20									
properties	content simple									
facets	<table> <tr> <td>Kind</td> <td>Value</td> <td>Annotation</td> </tr> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>20</td> <td></td> </tr> </table>	Kind	Value	Annotation	minLength	0		maxLength	20	
Kind	Value	Annotation								
minLength	0									
maxLength	20									
annotation	<p>documentation</p> <p>Identifying name for taxiway.</p>									

element **taxiway/dispersionWidth**

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

element **taxiwaySet**

diagram	<pre> sequenceDiagram participant TS as taxiwaySet participant T as taxiway TS->>T: activate T T->>TS: deactivate T </pre> <p>Supports legacy EDMS studies relating to the TAXIWAYS table. Taxiways determine the ground segments where the aircraft operates.</p>

properties	content complex
children	taxiway
used by	complexType airportLayoutType
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to the TAXIWAYS table. Taxiways determine the ground segments where the aircraft operates.</p>

element track

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

element track/name

diagram	<pre> classDiagram class track { <<A flight track that can be used for flight operations.>> } class name { <<The name of the track.>> } track --> name </pre>									
type	string64									
properties	<p>minOcc 0</p> <p>maxOcc 1</p> <p>content simple</p>									
facets	<table> <tr> <td>Kind</td> <td>Value</td> <td>Annotation</td> </tr> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>64</td> <td></td> </tr> </table>	Kind	Value	Annotation	minLength	0		maxLength	64	
Kind	Value	Annotation								
minLength	0									
maxLength	64									
annotation	<p>documentation</p> <p>The name of the track.</p>									

element track/optype

diagram	<pre> classDiagram class track { <<A flight track that can be used for flight operations.>> } class optype { <<Type of track. (A = arrival, D = departure, V = overflight, T = Touch and Go)>> } track --> optype </pre>
annotation	<p>documentation</p> <p>Type of track. (A = arrival, D = departure, V = overflight, T = Touch and Go)</p>

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

element **track/wingtype**

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

element **track/airport**

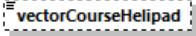
diagram	<p>The IATA airport code.</p>															
type	airportCode															
properties	minOcc 0 maxOcc 1 content complex															
facets	Kind Value Annotation minLength 0 maxLength 4															
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>type</td> <td>airportCodeType</td> <td>optional</td> <td>ANY</td> <td></td> </tr> <tr> <td>country</td> <td>string3</td> <td>optional</td> <td>ANY</td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Annotation	type	airportCodeType	optional	ANY		country	string3	optional	ANY	
Name	Type	Use	Default	Annotation												
type	airportCodeType	optional	ANY													
country	string3	optional	ANY													
annotation	documentation The IATA airport code.															

element **track/runway**

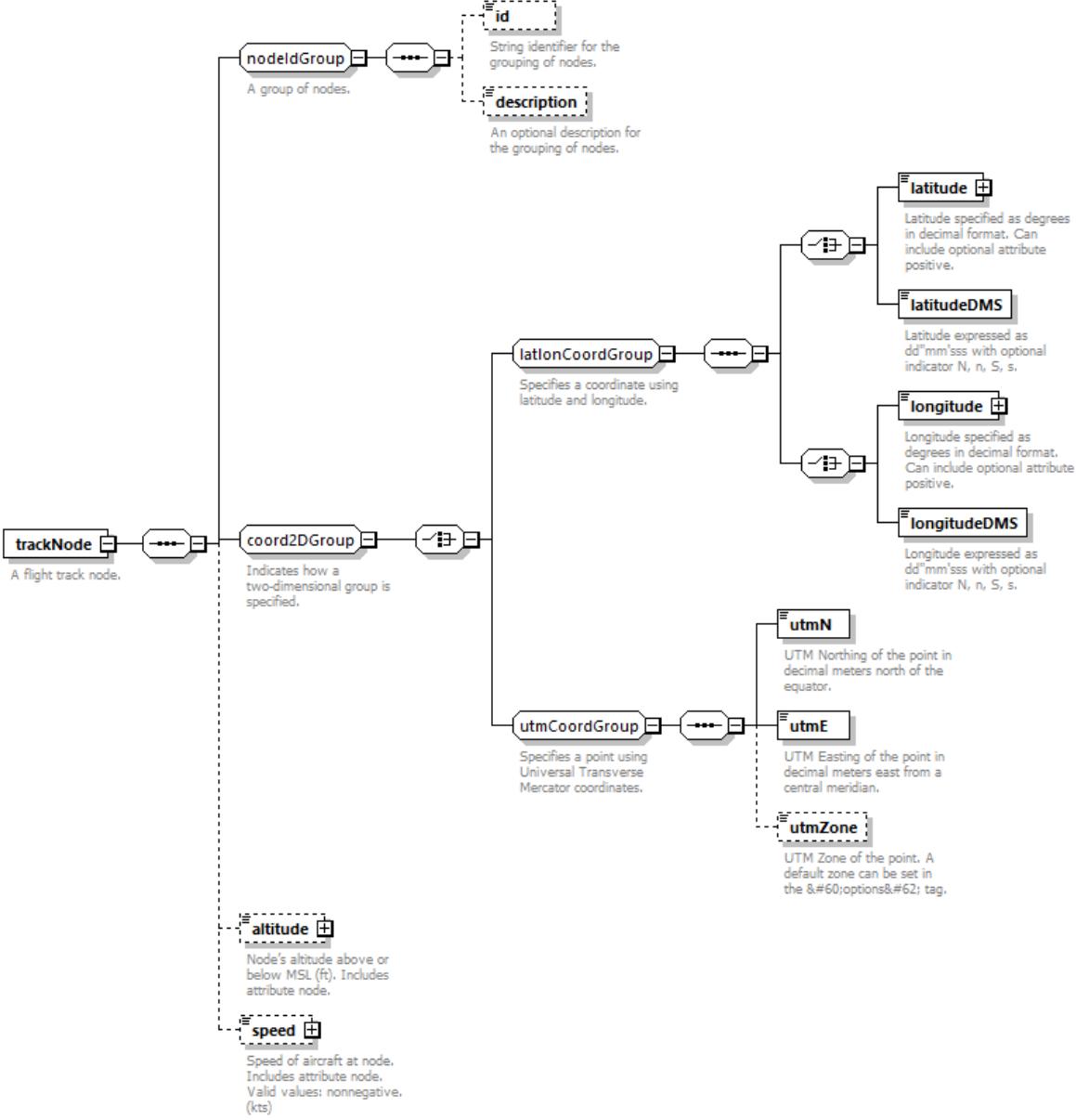
diagram	 <p>The name of the runway.</p>
type	string8
properties	minOcc 0 maxOcc 1 content simple
used by	element runwaySet
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation The name of the runway.

element **track/vectorCourseHeliPad**

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

attribute `trackNode/altitude/@control`

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

element `trackNode/speed`

diagram	<p>speed Speed of aircraft at node. Includes attribute node. Valid values: nonnegative. (kts)</p>												
type	extension of <code>xs:double</code>												
properties	minOcc 0 maxOcc 1 content complex												
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>control</td> <td>nodeControlType</td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	control	nodeControlType	optional			
Name	Type	Use	Default	Fixed	Annotation								
control	nodeControlType	optional											
annotation	documentation Speed of aircraft at node. Includes attribute node. Valid values: nonnegative. (kts)												

attribute `trackNode/speed/@control`

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

element `trackNodes`

diagram	<p>trackNodes A set of flight track nodes</p>
properties	content complex
children	trackNode
used by	element subtrack
annotation	documentation A set of flight track nodes

element `trackOpSet`

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

element **trackref**

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

element **trackref/airportLayoutName**

diagram	<pre> classDiagram airportLayoutName </pre> <p>airportLayoutName Airport layout associated with this track.</p>									
type	string255									
properties	content simple									
facets	<table border="1"> <tr> <td>Kind</td> <td>Value</td> <td>Annotation</td> </tr> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>255</td> <td></td> </tr> </table>	Kind	Value	Annotation	minLength	0		maxLength	255	
Kind	Value	Annotation								
minLength	0									
maxLength	255									
annotation	<p>documentation</p> <p>Airport layout associated with this track.</p>									

element **trackref/trackName**

diagram	<pre> classDiagram trackName </pre> <p>trackName Name of flight track.</p>									
type	string255									
properties	content simple									
facets	<table border="1"> <tr> <td>Kind</td> <td>Value</td> <td>Annotation</td> </tr> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>255</td> <td></td> </tr> </table>	Kind	Value	Annotation	minLength	0		maxLength	255	
Kind	Value	Annotation								
minLength	0									
maxLength	255									

annotation	documentation Name of flight track.
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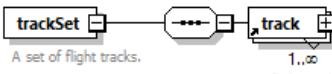
element **trackref/optype**

diagram							
type	trackType						
properties	content simple						
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>pattern</td> <td>A Arrival D Departure V Overflight T TouchAndGo X ArrivalHeliTaxi O DepartureHeliTaxi</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	pattern	A Arrival D Departure V Overflight T TouchAndGo X ArrivalHeliTaxi O DepartureHeliTaxi	
Kind	Value	Annotation					
pattern	A Arrival D Departure V Overflight T TouchAndGo X ArrivalHeliTaxi O DepartureHeliTaxi						

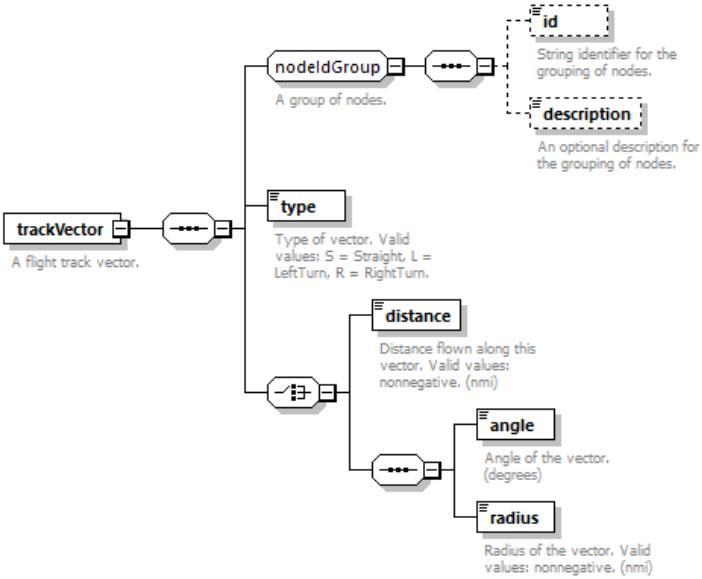
element **trackref/runway**

diagram	 Name of runway on the flight track.									
type	string8									
properties	<table> <tr> <td>minOcc</td> <td>0</td> </tr> <tr> <td>maxOcc</td> <td>1</td> </tr> <tr> <td>content</td> <td>simple</td> </tr> </table>	minOcc	0	maxOcc	1	content	simple			
minOcc	0									
maxOcc	1									
content	simple									
used by	element runwaySet									
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>8</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	minLength	0		maxLength	8	
Kind	Value	Annotation								
minLength	0									
maxLength	8									
annotation	documentation Name of runway on the flight track.									

element **trackSet**

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

element **trackVector**

diagram	 A flight track vector.
---------	---

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

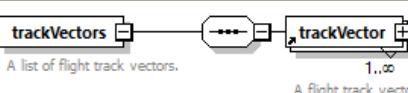
element [trackVector](#)/angle

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

element [trackVector](#)/radius

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

element [trackVectors](#)

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

A list of flight track vectors.

element userDefinedAirportSet

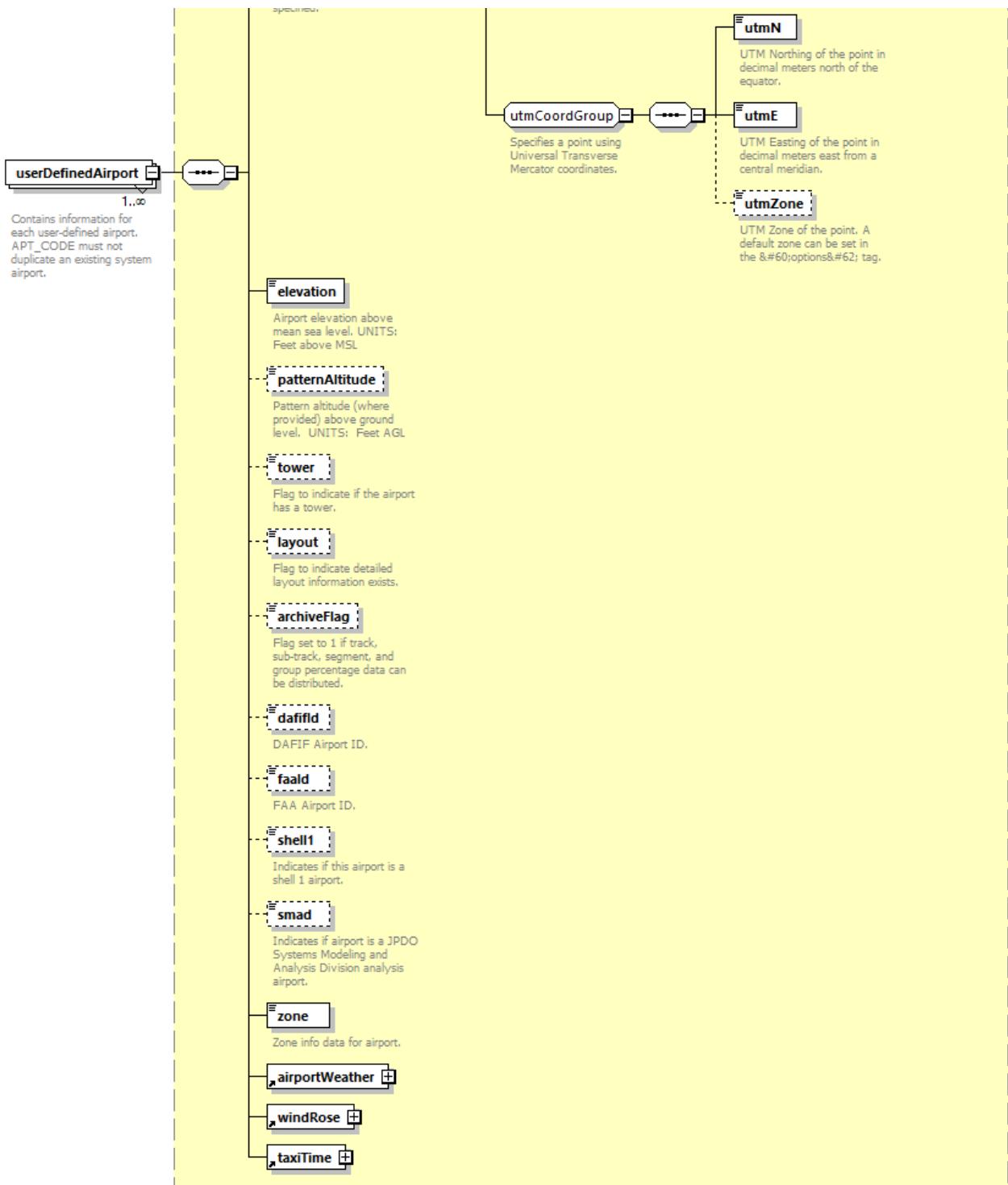
diagram	<pre> classDiagram class userDefinedAirportSet { <<Contains user-defined airports.>> attribute dummy } class userDefinedAirport { <<Contains information for each user-defined airport. APT_CODE must not duplicate an existing system airport.>> } userDefinedAirportSet "1..∞" --> userDefinedAirport userDefinedAirport <<1..∞>> </pre>												
properties	content complex												
children	userDefinedAirport												
used by	element study .												
attributes	<table> <tr> <th>Name</th><th>Type</th><th>Use</th><th>Default</th><th>Fixed</th><th>Annotation</th></tr> <tr> <td><u>dummy</u></td><td>xs:int</td><td>optional</td><td></td><td></td><td></td></tr> </table>	Name	Type	Use	Default	Fixed	Annotation	<u>dummy</u>	xs:int	optional			
Name	Type	Use	Default	Fixed	Annotation								
<u>dummy</u>	xs:int	optional											
annotation	<p>documentation</p> <p>Contains user-defined airports.</p>												

attribute userDefinedAirportSet/@dummy

type	xs:int
properties	use optional

element userDefinedAirportSet/userDefinedAirport

diagram	<pre> classDiagram class userDefinedAirportSet { <<Contains user-defined airports.>> attribute dummy } class userDefinedAirport { <<Contains information for each user-defined airport. APT_CODE must not duplicate an existing system airport.>> attribute airportCode attribute effDate attribute expDate attribute name attribute state attribute facilityType attribute cityName attribute latitude attribute longitude attribute lationCoordGroup attribute coord2DGroup } userDefinedAirportSet "1..∞" --> userDefinedAirport userDefinedAirport <<1..∞>> </pre>
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type	airport
properties	minOcc 1 maxOcc unbounded content complex
children	airportCode effDate expDate name state facilityType cityName latitude longitudeDMS longitude longitudeDMS utmN utmE utmZone elevation patternAltitude tower layout archiveFlag dafifId faalId shell1 smad zone airportWeather windRose taxiTime
annotation	documentation Contains information for each user-defined airport. APT_CODE must not duplicate an existing system airport.

element **userGroundSupportEquipment**

diagram	
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	<pre> classDiagram class userGroundSupportEquipment { gselID gseName defaultLoadFactor defaultHorsepower defaultOpTimeDepartures defaultOpTimeArrivals defaultAnnualOpTime userEmissionFactors } userGroundSupportEquipment < -- userGroundSupportEquipmentSet userGroundSupportEquipment < -- userGroundSupportEquipmentList </pre> <p>userGroundSupportEquipment</p> <p>Supports legacy EDMS studies relating to content contained in the USER_CREATED_GSE table. This element supports the definition of user defined ground support equipment.</p> <p>gselID User GSE ID (used as identifier (System GSE ID) in AIRCRAFT_GSE_ASSIGNMENTS, GSE_POPULATION, GSE_POPULATION_GATE_ASSIGNMENTS).</p> <p>gseName Custom GSE name.</p> <p>defaultLoadFactor GSE default load factor. Valid values: 0 to 100. (%)</p> <p>defaultHorsepower GSE default horsepower. Valid values: 0 to 10000. (hp)</p> <p>defaultOpTimeDepartures GSE default operation time departures. Valid values: 0 to 1000. (min/LTO)</p> <p>defaultOpTimeArrivals GSE default operation time arrivals. Valid values: 0 to 1000. (min/LTO)</p> <p>defaultAnnualOpTime GSE default operation time annual. Valid values: 0 to 8784. (min/LTO)</p> <p>userEmissionFactors + Describes user-defined fuel emission factors.</p>
properties	content complex
children	gselID gseName defaultLoadFactor defaultHorsepower defaultOpTimeDepartures defaultOpTimeArrivals defaultAnnualOpTime userEmissionFactors
used by	element userGroundSupportEquipmentSet
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to content contained in the USER_CREATED_GSE table. This element supports the definition of user defined ground support equipment.</p>

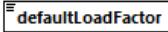
element **userGroundSupportEquipment/gselID**

diagram	<p>gselID User GSE ID (used as identifier (System GSE ID) in AIRCRAFT_GSE_ASSIGNMENTS, GSE_POPULATION, GSE_POPULATION_GATE_ASSIGNMENTS).</p>
type	xs:int
properties	content simple
annotation	<p>documentation</p> <p>User GSE ID (used as identifier (System GSE ID) in AIRCRAFT_GSE_ASSIGNMENTS, GSE_POPULATION, GSE_POPULATION_GATE_ASSIGNMENTS).</p>

element **userGroundSupportEquipment/gseName**

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

element **userGroundSupportEquipment/defaultLoadFactor**

diagram	 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. (%)

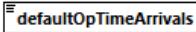
element **userGroundSupportEquipment/defaultHorsepower**

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

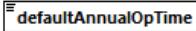
element **userGroundSupportEquipment/defaultOpTimeDepartures**

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

element **userGroundSupportEquipment/userEmissionFactors**

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

element **userGroundSupportEquipment/userEmissionFactors/emissionFactorsDiesel**

diagram	<p>emissionFactorSet</p> <ul style="list-style-type: none"> CO Amount of carbon monoxide emitted. Valid values: 0 to 3000. (kg/unit) HC Amount of hydrocarbons emitted. Valid values: 0 to 100. (kg/unit) NOx Amount of nitrous oxides emitted. Valid values: 0 to 100. (kg/unit) SOx Amount of sulfur oxides emitted. Valid values: 0 to 10. (kg/unit) PM10 Amount of 10-micron particulate matter emitted. Valid values: 0 to 1000. (kg/unit) <p>emissionFactorsDiesel</p> <p>User-defined fuel emission factor for diesel.</p>
type	emissionFactorSet
properties	<p>minOcc 0</p> <p>maxOcc 1</p> <p>content complex</p>
children	CO HC NOx SOx PM10
annotation	<p>documentation</p> <p>User-defined fuel emission factor for diesel.</p>

element **userGroundSupportEquipment/userEmissionFactors/emissionFactorsGas**

diagram	
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	<p>emissionFactorSet</p> <pre> graph TD emissionFactorSet[emissionFactorSet] --- CO[CO] emissionFactorSet --- HC[HC] emissionFactorSet --- NOx[NOx] emissionFactorSet --- SOx[SOx] emissionFactorSet --- PM10[PM10] emissionFactorsGas[emissionFactorsGas] --- emissionFactorSet </pre> <p>User-defined fuel emission factor for gasoline.</p>
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	<p>emissionFactorSet</p> <pre> graph TD emissionFactorSet[emissionFactorSet] --- CO[CO] emissionFactorSet --- HC[HC] emissionFactorSet --- NOx[NOx] emissionFactorSet --- SOx[SOx] emissionFactorsCNG[emissionFactorsCNG] --- emissionFactorSet </pre> <p>User-defined fuel emission factor for compressed natural gas.</p>
type	emissionFactorSet
properties	minOcc 0 maxOcc 1 content complex
children	CO HC NOx SOx PM10
annotation	documentation User-defined fuel emission factor for compressed natural gas.

element userGroundSupportEquipment/userEmissionFactors/emissionFactorsLPG

diagram	
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	<pre> classDiagram class emissionFactorSet { <<User-defined fuel emission factor for liquefied petroleum gas.>> <<emissionFactorsLPG>> <<CO>> <<HC>> <<NOx>> <<SOx>> <<PM10>> } class emissionFactorsLPG { <<User-defined fuel emission factor for liquefied petroleum gas.>> } CO < -- emissionFactorSet HC < -- emissionFactorSet NOx < -- emissionFactorSet SOx < -- emissionFactorSet PM10 < -- emissionFactorSet emissionFactorsLPG --> CO emissionFactorsLPG --> HC emissionFactorsLPG --> NOx emissionFactorsLPG --> SOx emissionFactorsLPG --> PM10 </pre>
type	emissionFactorSet
properties	minOcc 0 maxOcc 1 content complex
children	CO HC NOx SOx PM10
annotation	documentation User-defined fuel emission factor for liquefied petroleum gas.

element userGroundSupportEquipmentSet

diagram	<pre> classDiagram class userGroundSupportEquipmentSet { <<Supports legacy EDMS studies relating to content contained in the USER_CREATED_GSE table. This element supports the definition of user defined ground support equipment.>> <<userGroundSupportEquipment>> <<attributes>> <<dummy>> } class userGroundSupportEquipment { <<Supports legacy EDMS studies relating to content contained in the USER_CREATED_GSE table. This element supports the definition of user defined ground support equipment.>> } userGroundSupportEquipmentSet < -- userGroundSupportEquipment attributes < -- dummy userGroundSupportEquipmentSet --> userGroundSupportEquipment userGroundSupportEquipmentSet --> attributes </pre>
properties	content complex
children	userGroundSupportEquipment
used by	elements AsifXml study .
attributes	Name Type Use Default Fixed Annotation <u>dummy</u> xs:int optional
annotation	documentation Supports legacy EDMS studies relating to content contained in the USER_CREATED_GSE table. This element supports the definition of user defined ground support equipment.

attribute userGroundSupportEquipmentSet/@dummy

type	xs:int
properties	use optional

element vehicleEmissionFactors

diagram	
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	<pre> classDiagram class vehicleEmissionFactors { <<Supports legacy EDMS studies relating to content contained in the ROADWAYS/PARKING table. This element supports the definition of custom emission factor specifications for roadways and parking.>> CO NMHC VOC THC TOG NOx SOx PM_10 PM_2_5 Benzene MTBE Butadiene Formaldehyde Acetaldehyde Acrolein } </pre>
properties	content complex
children	CO NMHC VOC THC TOG NOx SOx PM-10 PM-2.5 Benzene MTBE Butadiene Formaldehyde Acetaldehyde Acrolein
used by	elements parkingFacilityOperation roadwayOperation
annotation	<p>documentation</p> <p>Supports legacy EDMS studies relating to content contained in the ROADWAYS/PARKING table. This element supports the definition of custom emission factor specifications for roadways and parking.</p>

element **vehicleEmissionFactors/CO**

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

element vehicleEmissionFactors/NMHC

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

element vehicleEmissionFactors/VOC

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

element vehicleEmissionFactors/THC

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

element vehicleEmissionFactors/TOG

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

element vehicleEmissionFactors/NOx

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

element vehicleEmissionFactors/SOx

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

element vehicleEmissionFactors/PM-10

diagram	 Amount of 10-micron particulate matter emitted. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of 10-micron particulate matter emitted. (grams/vehicle-mile)

element vehicleEmissionFactors/PM-2.5

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

element vehicleEmissionFactors/Benzene

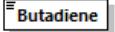
diagram	 Amount of benzene emitted. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of benzene emitted. (grams/vehicle-mile)

element vehicleEmissionFactors/MTBE

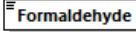
diagram	 Amount of methyl tertiary butyl ether emitted. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of methyl tertiary butyl ether emitted. (grams/vehicle-mile)

element vehicleEmissionFactors/Butadiene

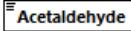
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diagram	 Butadiene Amount of butadiene emitted. (grams/vehicle-mile)
type	xs:double
properties	content simple
annotation	documentation Amount of butadiene emitted. (grams/vehicle-mile)

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)

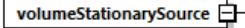
element vehicleEmissionFactors/Acetaldehyde

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	 volumeStationarySource <p>Specifies the volume in space occupied by a stationary source of emissions.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> pointCoord  Type of 2D coordinates specifying the volume. <div style="margin-top: 10px;"> baseElevation Height of volume. (m) </div> <div style="margin-top: 10px;"> releaseHeight  Height at which emissions are released into the atmosphere. Valid values 0 to 100 (m) </div> <div style="margin-top: 10px;"> sigmaZ Vertical dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: 0.1 to 100.0. (m) </div> <div style="margin-top: 10px;"> sigmaY Horizontal dispersion parameter. For additional information, see the EDMS Application Manual. Valid values: 0.1 to 100.0. (m) </div> </div>
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	<pre> classDiagram coord2DType < -- pointCoord coord2DType < -- lationCoordGroup coord2DType < -- utmCoordGroup lationCoordGroup < -- latitude lationCoordGroup < -- latitudeDMS longitude < -- longitude longitude < -- longitudeDMS utmCoordGroup < -- utmN utmCoordGroup < -- utmE utmCoordGroup < -- utmZone </pre> <p>The diagram illustrates the structure of the <code>coord2DType</code> element. It is defined as a type of 2D coordinates specifying the volume. It can be represented using either latitude and longitude or Universal Transverse Mercator (UTM) coordinates. The <code>pointCoord</code> element is the base type. The <code>latlonCoordGroup</code> and <code>utmCoordGroup</code> are both used to specify a coordinate. The <code>latlonCoordGroup</code> leads to <code>latitude</code> and <code>longitude</code>, which can be specified in decimal degrees or degrees, minutes, and seconds (DMS). The <code>utmCoordGroup</code> leads to <code>utmN</code> (Northing), <code>utmE</code> (Easting), and <code>utmZone</code>.</p>
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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	<pre> baseElevation </pre> <p>The diagram shows the <code>baseElevation</code> element as a simple content element, representing the height of the volume in meters.</p>
type	<code>xs:double</code>
properties	content simple
annotation	documentation Height of volume. (m)

element [volumeStationarySource/releaseHeight](#)

diagram	<pre> releaseHeight </pre> <p>The diagram shows the <code>releaseHeight</code> element as a simple content element, representing the height at which emissions are released into the atmosphere. A note specifies that valid values range from 0 to 100 meters.</p>
type	<code>doubleInclusive100</code>
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

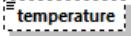
	diagram	 weatherData month temperature seaLevelPressure stationPressure dewPoint relativeHumidity windSpeed meanTemperature
	properties	content complex
	children	month temperature seaLevelPressure stationPressure dewPoint relativeHumidity windSpeed meanTemperature
	used by	element airportWeatherStation

element weatherData/month

	diagram	 month
	type	string3
	properties	content simple
	facets	Kind Value Annotation

	minLength 0 maxLength 3
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element **weatherData/temperature**

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

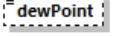
element **weatherData/seaLevelPressure**

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

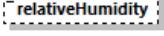
element **weatherData/stationPressure**

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

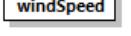
element **weatherData/dewPoint**

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

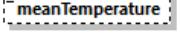
element **weatherData/relativeHumidity**

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

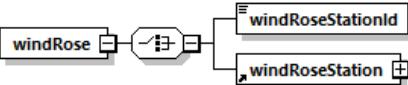
element **weatherData/windSpeed**

diagram	 windSpeed
type	xs:decimal
properties	content simple

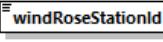
element **weatherData/meanTemperature**

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

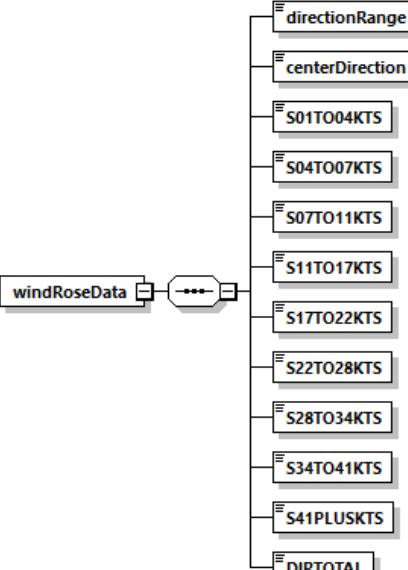
element **windRose**

diagram	
properties	content complex
children	windRoseStationId windRoseStation
used by	complexType airport

element **windRose/windRoseStationId**

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

element **windRoseData**

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

element **windRoseData/directionRange**

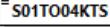
diagram	
type	string14
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 14

element **windRoseData/centerDirection**

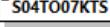
diagram	
type	xs:int

properties content simple

element **windRoseData/S01TO04KTS**

diagram	 S01TO04KTS
type	xs:int
properties	content simple

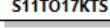
element **windRoseData/S04TO07KTS**

diagram	 S04TO07KTS
type	xs:int
properties	content simple

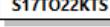
element **windRoseData/S07TO11KTS**

diagram	 S07TO11KTS
type	xs:int
properties	content simple

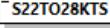
element **windRoseData/S11TO17KTS**

diagram	 S11TO17KTS
type	xs:int
properties	content simple

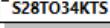
element **windRoseData/S17TO22KTS**

diagram	 S17TO22KTS
type	xs:int
properties	content simple

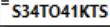
element **windRoseData/S22TO28KTS**

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

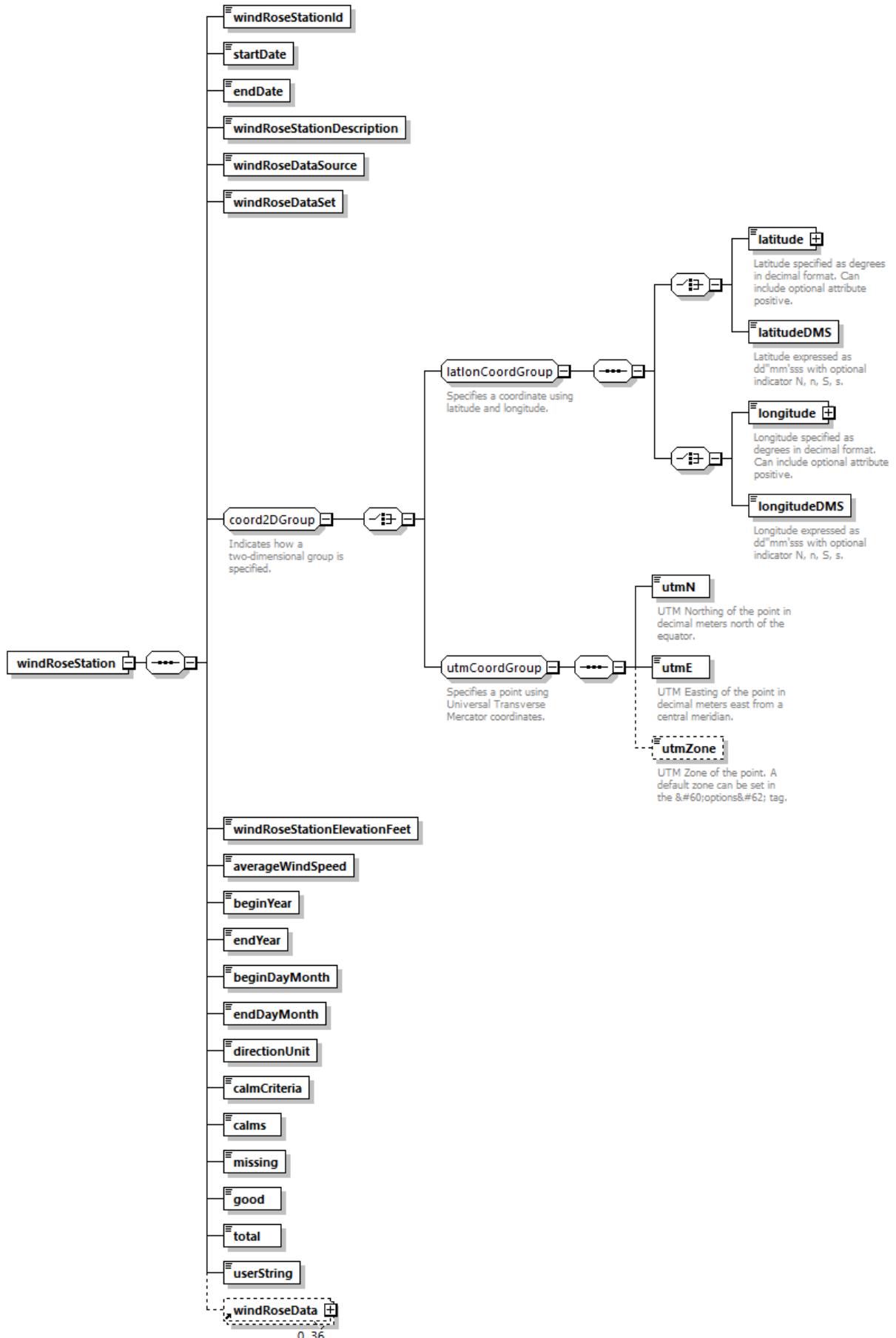
type	xs:int
properties	content simple

element **windRoseData/DIRTOTAL**

diagram	
type	xs:int
properties	content simple

element **windRoseStation**

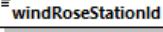
diagram	
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properties	content complex
children	windRoseStationId startDate endDate windRoseStationDescription windRoseDataSource windRoseDataSet latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone windRoseStationElevationFeet averageWindSpeed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

	userString windRoseData
used by	element windRose

element **windRoseStation/windRoseStationId**

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

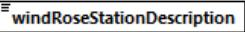
element **windRoseStation/startDate**

diagram	 startDate
type	xs:date
properties	content simple

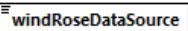
element **windRoseStation/endDate**

diagram	 endDate
type	xs:date
properties	content simple

element **windRoseStation/windRoseStationDescription**

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

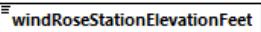
element **windRoseStation/windRoseDataSource**

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

element **windRoseStation/windRoseDataSet**

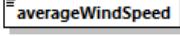
diagram	 windRoseDataSet
type	string66
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 66

element **windRoseStation/windRoseStationElevationFeet**

diagram	 windRoseStationElevationFeet
type	xs:int

properties	content simple
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element **windRoseStation/averageWindSpeed**

diagram	
type	xs:double
properties	content simple

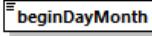
element **windRoseStation/beginYear**

diagram	
type	xs:int
properties	content simple

element **windRoseStation/endYear**

diagram	
type	xs:int
properties	content simple

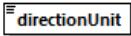
element **windRoseStation/beginDayMonth**

diagram	
type	string12
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 12

element **windRoseStation/endDayMonth**

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

element **windRoseStation/directionUnit**

diagram	
type	string9
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 9

element **windRoseStation/calmCriteria**

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

maxLength 11

element windRoseStation/calms

diagram	
type	xs:int
properties	content simple

element windRoseStation/missing

diagram	
type	xs:int
properties	content simple

element windRoseStation/good

diagram	
type	xs:int
properties	content simple

element windRoseStation/total

diagram	
type	xs:int
properties	content simple

element windRoseStation/userString

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

group airportActivityGroup

diagram	<p>airportActivityGroup Contains a set of activities conducted at an airport.</p> <p>parkingFacilityOperationSet Supports legacy EDMS studies relating to content contained in the PARKING table. This element supports the definition of parking lot and parking garage activities for scenario layouts.</p> <p>roadwayOperationSet Supports legacy EDMS studies relating to content contained in the ROADWAYS table. This element supports the definition of vehicle activity on roadways for scenario layouts.</p> <p>stationarySourceOperationSet Container of operations conducted at a stationary source contributing emissions.</p> <p>groundSupportEquipmentPopul... Supports legacy EDMS studies relating to content contained in the GSE_POPULATION table. This element supports the definition of user defined ground support equipment in operational usage.</p>
children	parkingFacilityOperationSet roadwayOperationSet stationarySourceOperationSet groundSupportEquipmentPopulationOperationSet
used by	element case

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

group annualizationGroupCase

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

group coord2DGroup

diagram	<p>coord2DGroup Indicates how a two-dimensional group is specified.</p> <p>latlonCoordGroup Specifies a coordinate using latitude and longitude.</p> <p>latitude Latitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>latitudeDMS Latitude expressed as dd°mm'ss with optional indicator N, n, S, s.</p> <p>longitude Longitude specified as degrees in decimal format. Can include optional attribute positive.</p> <p>longitudeDMS Longitude expressed as dd°mm'ss with optional indicator N, n, S, s.</p> <p>utmCoordGroup Specifies a point using Universal Transverse Mercator coordinates.</p> <p>utmN UTM Northing of the point in decimal meters north of the equator.</p> <p>utmE UTM Easting of the point in decimal meters east from a central meridian.</p> <p>utmZone UTM Zone of the point. A default zone can be set in the &#60;options&#62; tag.</p>
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	
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	<pre> classDiagram latlonCoordGroup < -- latitude latlonCoordGroup < -- longitude latitude < -- positive longitude < -- positive latitude < -- units </pre> <p>latlonCoordGroup specifies a coordinate using latitude and longitude.</p>
children	latitude latitudeDMS longitude longitudeDMS
used by	complexType coord2DType group coord2DGroup
annotation	documentation Specifies a coordinate using latitude and longitude.

element **latlonCoordGroup/latitude**

diagram	<pre> classDiagram latitude < -- positive </pre> <p>Latitude specified as degrees in decimal format. Can include optional attribute positive.</p>												
type	latitudeDecimalType												
properties	content complex												
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>positive</td> <td>xs:string</td> <td>optional</td> <td>N</td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	positive	xs:string	optional	N		
Name	Type	Use	Default	Fixed	Annotation								
positive	xs:string	optional	N										
annotation	documentation Latitude specified as degrees in decimal format. Can include optional attribute positive.												

element **latlonCoordGroup/latitudeDMS**

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

element **latlonCoordGroup/longitude**

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

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

element **latlonCoordGroup/longitudeDMS**

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

group **nodeIdGroup**

diagram	
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	<p>oneOrThreeCoords2DGroupSet [] → [] → pointCoord [] Choice of a single point coordinate. polygonCoords [] Choice of a 2D polygon.</p>
children	pointCoord polygonCoords
used by	elements areaStationarySource building gate parkingFacility
annotation	<p>documentation</p> <p>Type of coordinate specifying the area.</p>

element **oneOrThreeCoords2DGroupSet/pointCoord**

diagram	<p>coord2DType</p> <p>pointCoord [] Choice of a single point coordinate.</p> <p>latlonCoordGroup [] → [] → latitude [] Latitude specified as degrees in decimal format. Can include optional attribute positive. latitudeDMS [] Latitude expressed as dd° mm' ss with optional indicator N, n, S, s.</p> <p>latlonCoordGroup [] → [] → longitude [] Longitude specified as degrees in decimal format. Can include optional attribute positive. longitudeDMS [] Longitude expressed as dd° mm' ss with optional indicator N, n, S, s.</p> <p>utmCoordGroup [] → [] → utmN [] UTM Northing of the point in decimal meters north of the equator. utmE [] UTM Easting of the point in decimal meters east from a central meridian. utmZone [] UTM Zone of the point. A default zone can be set in the &#60;options&#62; tag.</p>
type	coord2DType
properties	content complex
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone
annotation	<p>documentation</p> <p>Choice of a single point coordinate.</p>

element **oneOrThreeCoords2DGroupSet/polygonCoords**

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

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

group receptorGroup

diagram	<pre> classDiagram receptorGroup < -- receptor receptorGroup --> centroid receptorGroup --> pointReceptor receptorGroup --> grid receptorGroup --> polarReceptor </pre> <p>The diagram illustrates the structure of a receptor group. It starts with a general element 'receptor' (represented by a rounded rectangle with a minus sign). A dashed line with an arrow points from 'receptor' to 'receptorGroup' (represented by a rounded rectangle with a plus sign). From 'receptorGroup', four dashed lines with arrows point to specific receptor types: 'centroid' (with a plus sign), 'pointReceptor' (with a plus sign), 'grid' (with a plus sign), and 'polarReceptor' (with a plus sign). Each receptor type has a detailed description below it.</p>
children	centroid pointReceptor grid polarReceptor polarGrid
used by	element receptorSet
annotation	documentation Description of a receptor group.

group utmCoordGroup

diagram	<pre> classDiagram utmCoordGroup < -- point utmCoordGroup --> utmN utmCoordGroup --> utmE utmCoordGroup --> utmZone </pre> <p>The diagram illustrates the structure of a UTM coordinate group. It starts with a general element 'point' (represented by a rounded rectangle with a minus sign). A dashed line with an arrow points from 'point' to 'utmCoordGroup' (represented by a rounded rectangle with a plus sign). From 'utmCoordGroup', three dashed lines with arrows point to specific coordinate components: 'utmN' (with a plus sign), 'utmE' (with a plus sign), and 'utmZone' (with a plus sign). Each component has a detailed description below it.</p>
children	utmN utmE utmZone
used by	complexType coord2DType group coord2DGroup
annotation	documentation Specifies a point using Universal Transverse Mercator coordinates.

element utmCoordGroup/utmN

diagram	<pre> classDiagram utmN < -- double </pre> <p>The diagram illustrates the structure of a UTM Northing component. It starts with a general element 'double' (represented by a rounded rectangle with a plus sign). A dashed line with an arrow points from 'double' to 'utmN' (with a plus sign). 'utmN' has a detailed description below it.</p>
type	xs:double
properties	content simple
annotation	documentation

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

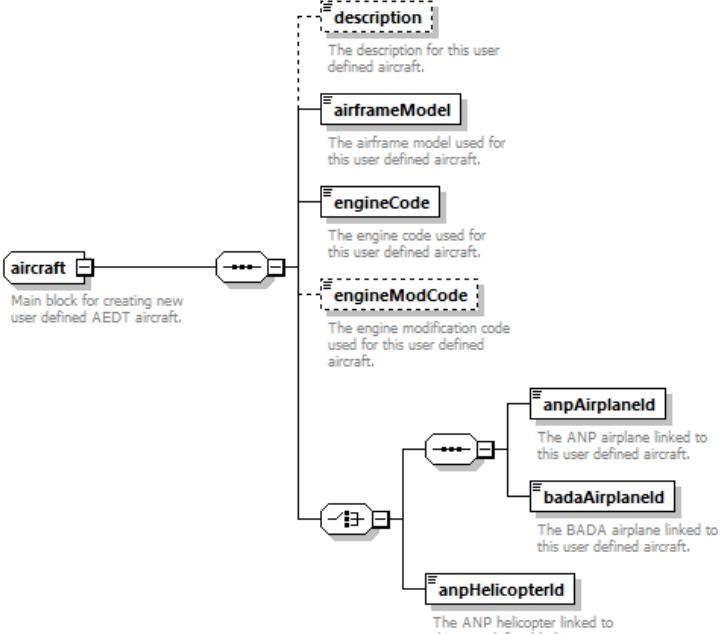
element **utmCoordGroup/utmE**

diagram	 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.

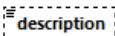
element **utmCoordGroup/utmZone**

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	 <p>Main block for creating new user defined AEDT aircraft.</p>
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.

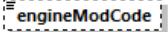
element **aircraft/airframeModel**

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	anpHelicopterId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The ANP helicopter linked to this user defined helicopter.

complexType **aircraftEngine**

diagram	
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	<p>code Unique ICAO UID.</p> <p>model Engine model.</p> <p>engineType Engine type. Valid values: J (jet), T (turboprop), P (piston).</p> <p>notes Free-text notes for the engine.</p> <p>emissionsEngineModel ICAO emissions model for the engine.</p> <p>performanceEngineModel ICAO performance model for the engine.</p> <p>manufacturer Engine manufacturer.</p> <p>combustor Combustor used on engine.</p> <p>superseded ICAO UID of engine that supersedes the given engine.</p> <p>ratedEngineOut Rated engine output (in kN). Valid values: Nonnegative.</p> <p>source Source of engine data.</p> <p>bypassRatio Engine's bypass ratio. Valid values: Nonnegative.</p> <p>pressureRatio Engine's pressure ratio. Valid values: Nonnegative.</p> <p>tfmtFlag Turbo-fan or Mixed turn-fan flag. Valid values: TF (turbofan) or MTF (mixed turbofan).</p> <p>defaultSOx Sulfur oxides emitted (grams per kilogram of fuel). Valid values: Nonnegative.</p> <p>taxidleEmissionFactors Emission factor when aircraft is idling.</p> <p>takeOffEmissionFactors Emission factor when aircraft is taking off.</p> <p>climbEmissionFactors Emission factor when aircraft is climbing.</p> <p>approachEmissionFactors Emission factor when aircraft is on approach.</p>
children	code model engineType notes emissionsEngineModel performanceEngineModel manufacturer combustor superseded ratedEngineOut source bypassRatio pressureRatio tfmtFlag defaultSOx taxidleEmissionFactors takeOffEmissionFactors climbEmissionFactors approachEmissionFactors
used by	element fleet/engine
annotation	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	 Unique ICAO UID.
type	engineCode
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Unique ICAO UID.

element **aircraftEngine/model**

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

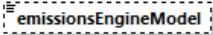
element **aircraftEngine/engineType**

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

element **aircraftEngine/notes**

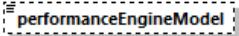
diagram	 Free-text notes for the engine.
type	string200
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 200
annotation	documentation Free-text notes for the engine.

element **aircraftEngine/emissionsEngineModel**

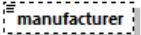
diagram	 ICAO emissions model for the engine.
type	string25
properties	minOcc 0

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

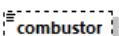
element aircraftEngine/performanceEngineModel

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

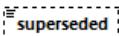
element aircraftEngine/manufacturer

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

element aircraftEngine/source

diagram	<p>Source of engine data.</p>
type	string100
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 100
annotation	documentation Source of engine data.

element aircraftEngine/bypassRatio

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

element aircraftEngine/pressureRatio

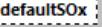
diagram	<p>Engine's pressure ratio. Valid values: Nonnegative.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Engine's pressure ratio. Valid values: Nonnegative.

element aircraftEngine/tfmtFlag

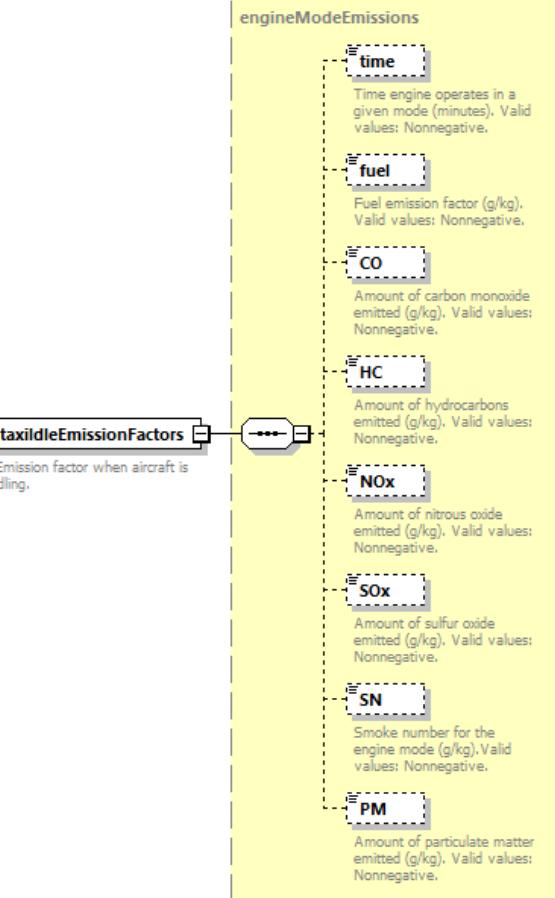
diagram	<p>Turbo-fan or Mixed turn-fan flag. Valid values: TF (turbofan) or MTF (mixed turbofan).</p>

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

element aircraftEngine/defaultSOx

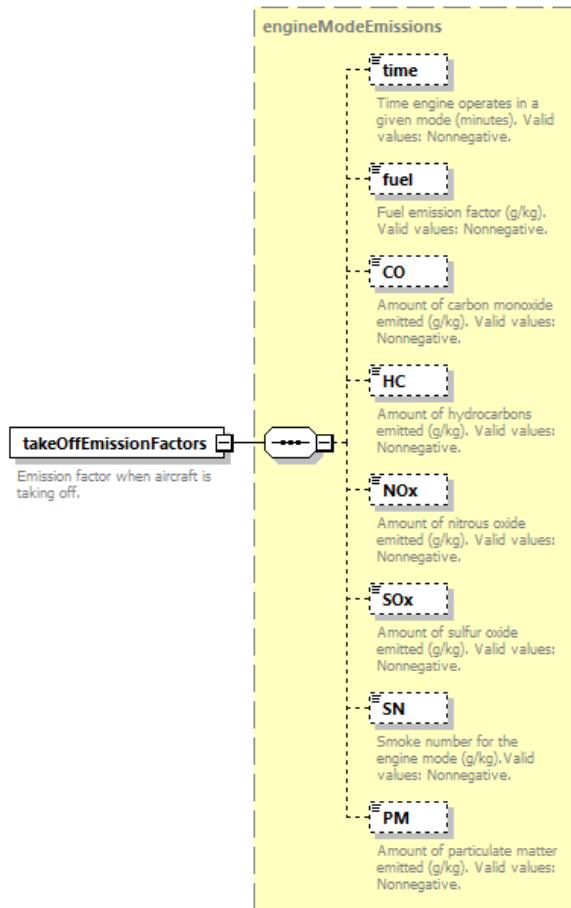
diagram	 <p>Sulfur oxides emitted (grams per kilogram of fuel). Valid values: Nonnegative.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Sulfur oxides emitted (grams per kilogram of fuel). Valid values: Nonnegative.

element aircraftEngine/taxiIdleEmissionFactors

diagram	 <p>taxidleEmissionFactors Emission factor when aircraft is idling.</p>
type	engineModeEmissions
properties	content complex
children	time fuel CO HC NOx SOx SN PM
annotation	documentation Emission factor when aircraft is idling.

element aircraftEngine/takeOffEmissionFactors

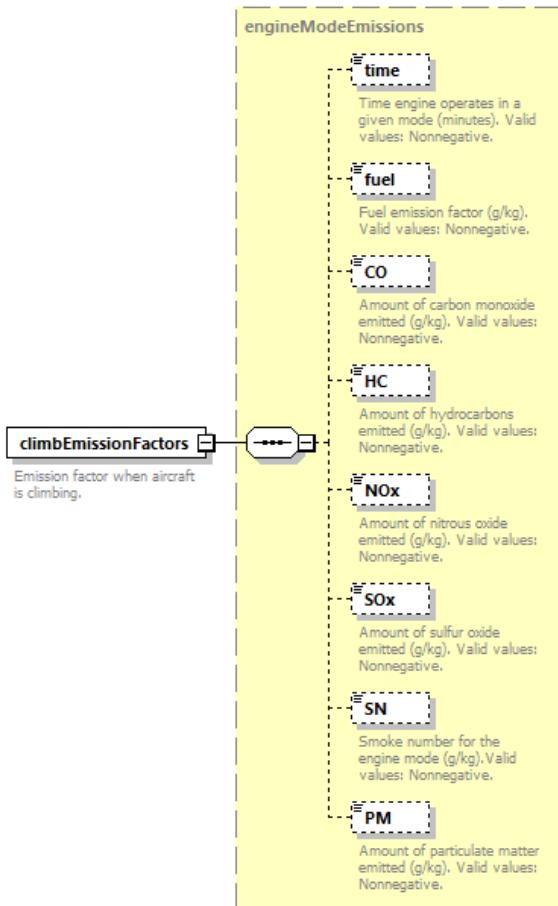
diagram

type [engineModeEmissions](#)

properties content complex

children [time](#) [fuel](#) [CO](#) [HC](#) [NOx](#) [SOx](#) [SN](#) [PM](#)annotation documentation
Emission factor when aircraft is taking off.**element aircraftEngine/climbEmissionFactors**

diagram



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

element **aircraftEngine/approachEmissionFactors**

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

complexType **aircraftEngineMod**

diagram	
children	code description
used by	element fleet/engineMod
annotation	<p>documentation</p> <p>User defined engine modification information containing custom parameters that reflect an aircraft engine modification. This engine modification definition can that be used within a user defined aircraft.</p>

element **aircraftEngineMod/code**

diagram										
type	engineModCode									
properties	content simple									
facets	<table border="1"> <tr> <td>Kind</td> <td>Value</td> <td>Annotation</td> </tr> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>50</td> <td></td> </tr> </table>	Kind	Value	Annotation	minLength	0		maxLength	50	
Kind	Value	Annotation								
minLength	0									
maxLength	50									

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

diagram	
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 gsePopulationSupport assignDefaultGse
used by	elements operation / aircraftType runup / aircraftType
annotation	documentation Characterizes an aircraft.

element **aircraftType/anpAircraftId**

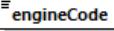
diagram	
type	anpAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255

element **aircraftType/airframeModel**

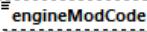
diagram	
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type	string50
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 50
annotation	documentation Air frame model.

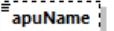
element aircraftType/engineCode

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

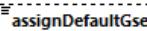
element aircraftType/engineModCode

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

element aircraftType/apuName

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

element aircraftType/assignDefaultGse

diagram	 <p>Whether the application should assign default GSE for this operation or not</p>
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple

	default false
annotation	documentation Whether the application should assign default GSE for this operation or not
complexType airframe	
diagram	<p>This element supports the definition of custom airframes.</p>
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	
type	airframeModel
properties	content simple

	<p>facets</p> <table> <thead> <tr> <th>Kind</th><th>Value</th><th>Annotation</th></tr> </thead> <tbody> <tr> <td>minLength</td><td>0</td><td></td></tr> <tr> <td>maxLength</td><td>255</td><td></td></tr> </tbody> </table>	Kind	Value	Annotation	minLength	0		maxLength	255	
Kind	Value	Annotation								
minLength	0									
maxLength	255									
annotation	documentation Unique description of airframe.									

element **airframe/engineCount**

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

element **airframe/engineLocation**

diagram	 engineLocation Position of engine on airframe. Valid values: F (Fuselage/Tail), W (Wing).
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Position of engine on airframe. Valid values: F (Fuselage/Tail), W (Wing).

element **airframe/designationCode**

diagram	 designationCode Type of aviation. Valid values: C (Civil), G (General Aviation), M (Military).
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of aviation. Valid values: C (Civil), G (General Aviation), M (Military).

element **airframe/maxRange**

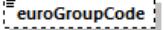
diagram	 maxRange Number of miles airframe can fly fully fueled. Valid values: Nonnegative.
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Number of miles airframe can fly fully fueled. Valid values: Nonnegative.

element **airframe/introYear**

diagram	 introYear Year airframe was introduced. Valid values: Nonnegative.

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

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

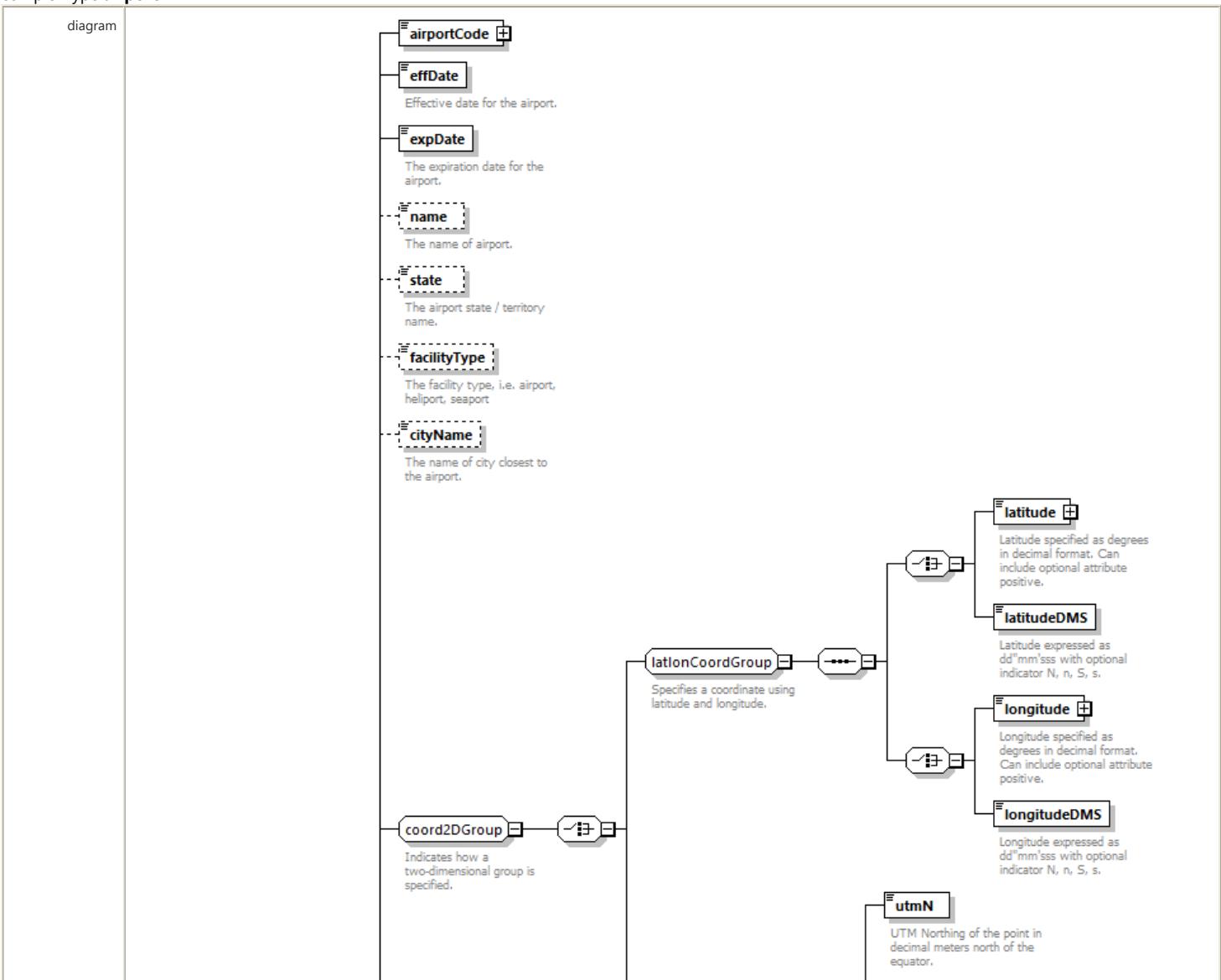
diagram	 engineType Type of engine on this airframe. Valid values: E (Electric), J (Jet), P (Piston), T (Turboprop).
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type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of engine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

element **airframe/auxiliaryPowerUnitId**

diagram	<p>auxiliaryPowerUnitId Identifier of an auxiliary power unit.</p>
type	apuName
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 30

complexType **airport**



	<p>airport Contains core airport information such as airport name, latitude/longitude, elevation, etc.</p> <p>elevation Airport elevation above mean sea level. UNITS: Feet above MSL</p> <p>patternAltitude Pattern altitude (where provided) above ground level. UNITS: Feet AGL</p> <p>tower Flag to indicate if the airport has a tower.</p> <p>layout Flag to indicate detailed layout information exists.</p> <p>archiveFlag Flag set to 1 if track, sub-track, segment, and group percentage data can be distributed.</p> <p>dafid DAIFIF Airport ID.</p> <p>faald FAA Airport ID.</p> <p>shell1 Indicates if this airport is a shell 1 airport.</p> <p>smad Indicates if airport is a JPDO Systems Modeling and Analysis Division analysis airport.</p> <p>zone Zone info data for airport.</p> <p>airportWeather</p> <p>windRose</p> <p>taxiTime</p>
children	airportCode effDate expDate name state facilityType cityName latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation patternAltitude tower layout archiveFlag dafid faald shell1 smad zone airportWeather windRose taxiTime
used by	element userDefinedAirportSet/userDefinedAirport
annotation	<p>documentation</p> <p>Contains core airport information such as airport name, latitude/longitude, elevation, etc.</p>

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 (where provided) above ground level. UNITS: Feet AGL

element **airport/tower**

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

element **airport/layout**

diagram	
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	 <p>Flag to indicate detailed layout information exists.</p>
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation Flag to indicate detailed layout information exists.

element **airport/archiveFlag**

diagram	 <p>Flag set to 1 if track, sub-track, segment, and group percentage data can be distributed.</p>
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	 <p>DAIFIF Airport ID.</p>
type	string7
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 7

element **airport/faald**

diagram	 <p>FAA Airport ID.</p>
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	 <p>Indicates if this airport is a shell 1 airport.</p>
type	xs:boolean
properties	minOcc 0

	maxOcc 1 content simple default false
annotation	documentation Indicates if this airport is a shell 1 airport.

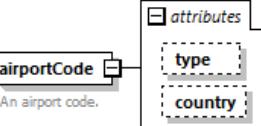
element **airport/smad**

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

complexType **airportCode**

diagram	 <p>An airport code.</p>																		
type	extension of string4																		
properties	base string4																		
used by	elements track/airport runup/airport airport/airportCode airportLayoutType/airportCode operation/arrivalAirport operation/departureAirport																		
facets	Kind Value Annotation minLength 0 maxLength 4																		
attributes	<table> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>type</td> <td>airportCodeType</td> <td>optional</td> <td>ANY</td> <td></td> <td></td> </tr> <tr> <td>country</td> <td>string3</td> <td>optional</td> <td>ANY</td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	type	airportCodeType	optional	ANY			country	string3	optional	ANY		
Name	Type	Use	Default	Fixed	Annotation														
type	airportCodeType	optional	ANY																
country	string3	optional	ANY																
annotation	documentation An airport code.																		

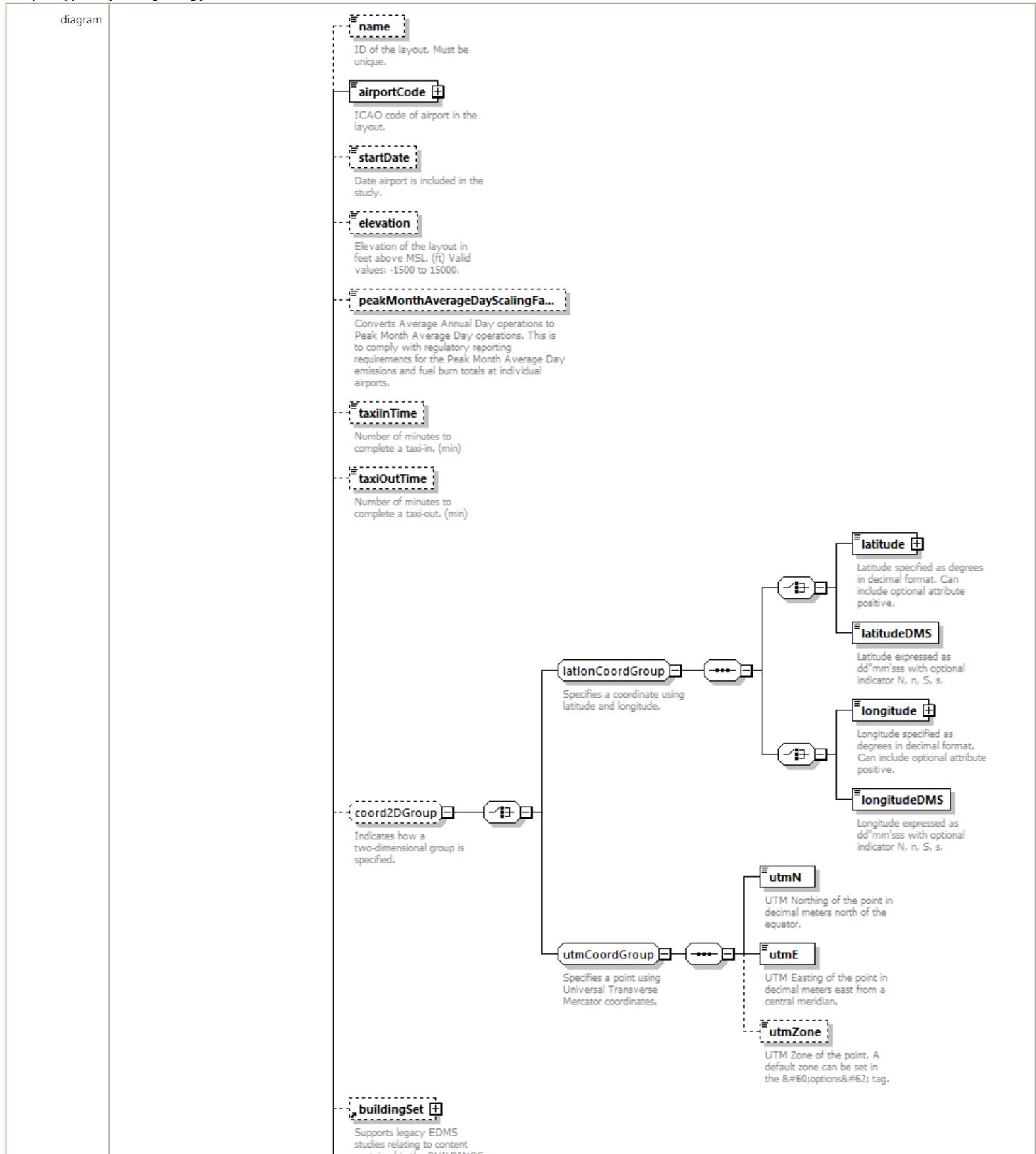
attribute **airportCode/@type**

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

attribute **airportCode/@country**

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

complexType **airportLayoutType**





	<p>RUNWAY_CONFIGURATIONS table. This element supports the definition of airport capacities based on various points within an airport.</p> <ul style="list-style-type: none"> quarterHourlyProfileSet dailyProfileSet monthlyProfileSet activityProfileSet
children	name airportCode startDate elevation peakMonthAverageDayScalingFactor taxiInTime taxiOutTime latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone buildingSet parkingFacilitySet stationarySourceSet gateSet roadwaySet taxiwaySet runwaySet taxipathSet trackSet airportConfigSet airportCapacity quarterHourlyProfileSet dailyProfileSet monthlyProfileSet activityProfileSet
used by	element airportLayoutSet/airportLayout
annotation	<p>documentation</p> <p>Fields defining an airport and its layout.</p>

element **airportLayoutType/name**

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

element **airportLayoutType/airportCode**

diagram													
type	airportCode												
properties	content complex												
facets	<table border="0"> <tr> <td>Kind</td> <td>Value Annotation</td> </tr> <tr> <td>minLength</td> <td>0</td> </tr> <tr> <td>maxLength</td> <td>4</td> </tr> </table>	Kind	Value Annotation	minLength	0	maxLength	4						
Kind	Value Annotation												
minLength	0												
maxLength	4												
attributes	<table border="0"> <tr> <td>Name</td> <td>Type</td> <td>Use</td> <td>Default</td> <td>Fixed</td> <td>Annotation</td> </tr> <tr> <td>type</td> <td>airportCodeType</td> <td>optional</td> <td>ANY</td> <td></td> <td></td> </tr> </table>	Name	Type	Use	Default	Fixed	Annotation	type	airportCodeType	optional	ANY		
Name	Type	Use	Default	Fixed	Annotation								
type	airportCodeType	optional	ANY										

	<u>country</u>	string3	optional	ANY
annotation	documentation	I	CAO code of airport in the layout.	

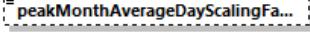
element **airportLayoutType/startDate**

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.

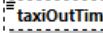
element **airportLayoutType/peakMonthAverageDayScalingFactor**

diagram	 peakMonthAverageDayScalingFa... Converts Average Annual Day operations to Peak Month Average Day operations. This is to comply with regulatory reporting requirements for the Peak Month Average Day emissions and fuel burn totals at individual airports.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 1.0
annotation	documentation Converts Average Annual Day operations to Peak Month Average Day operations. This is to comply with regulatory reporting requirements for the Peak Month Average Day emissions and fuel burn totals at individual airports.

element **airportLayoutType/taxiInTime**

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

element **airportLayoutType/taxiOutTime**

diagram	 taxiOutTime Number of minutes to complete a taxi-out. (min)
type	xs:double

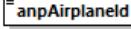
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Number of minutes to complete a taxi-out. (min)

complexType **anpAirplane**

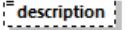
diagram	<pre> classDiagram class anpAirplane { anpAirplaneId description sizeCode owner engineTypeCode numberEngines maxGrossWeightTakeoff maxGrossWeightLand maxDsStop depThrustCoeffType thrustStatic thrustRestore noiseld noiseCategory minBurn } anpAirplane "Creates a new ANP airplane." </pre>
children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

Creates a new ANP airplane.

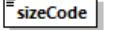
element **anpAirplane/anpAirplaneId**

diagram	 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.

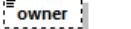
element **anpAirplane/description**

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

element anpAirplane/numberEngines

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

element anpAirplane/maxGrossWeightTakeoff

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

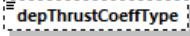
element anpAirplane/maxGrossWeightLand

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

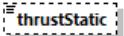
element anpAirplane/maxDsStop

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

element anpAirplane/depThrustCoeffType

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

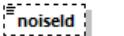
element anpAirplane/thrustStatic

diagram	 thrustStatic Static rated thrust or 100% thrust (lb, min =0, max = 200000).
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Static rated thrust or 100% thrust (lb, min =0, max = 200000).

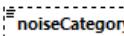
element anpAirplane/thrustRestore

diagram	 thrustRestore Flag indicating aircraft has automated thrust restoration system.
type	yesNoType
properties	content simple default N
facets	Kind Value Annotation pattern Yes Y No N
annotation	documentation Flag indicating aircraft has automated thrust restoration system.

element anpAirplane/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	<p>minBurn Minimum fuel burn rate. (kg/sec)</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Minimum fuel burn rate. (kg/sec)

complexType anpFlaps

diagram	<pre> graph LR anpFlaps[anpFlaps] --- flapId[flapId] flapId --- operationType[operationType] flapId --- coeffR[coeff R] flapId --- coeffCD[coeff CD] flapId --- coeffB[coeff B] </pre> <p>The diagram illustrates the structure of the anpFlaps complex type. It starts with a anpFlaps element, which has a dashed line connecting to a flapId element. From flapId, three more elements branch out: operationType, coeff R, and coeff CD. coeff R and coeff CD are grouped together by a dashed line, indicating they are part of the same profile. coeff B is also connected to flapId via a dashed line.</p> <p>flapId: Flap-setting identifier.</p> <p>operationType: Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&amp;Go), F (CircuitFlt), V (OverFlt)</p> <p>coeff R: The drag-over-lift ratio. Valid values: 0.0 to 1.34,</p> <p>coeff CD: The takeoff and landing calibrated airspeed coefficient. Valid values: 0.0 to 1.34. (KNOTS/LB^{1/2})</p> <p>coeff B: The takeoff distance coefficient. Valid values: empty or 0.0 to 1.34. (FEET/LB).</p>
children	flapId operationType coeff R coeff CD coeff B
used by	element anpFlapsSet/flaps
annotation	documentation Flaps data element.

element anpFlaps/flapId

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

element anpFlaps/operationType

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

properties	content simple						
facets	<table> <tr> <td>Kind</td> <td>Value Annotation</td> </tr> <tr> <td>minLength</td> <td>0</td> </tr> <tr> <td>maxLength</td> <td>1</td> </tr> </table>	Kind	Value Annotation	minLength	0	maxLength	1
Kind	Value Annotation						
minLength	0						
maxLength	1						
annotation	<p>documentation</p> <p>Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&amp;Go), F (CircuitFlt), V (OverFlt)</p>						

element anpFlaps/coeff_R

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

element anpFlaps/coeff_CD

diagram	<p>coeff_CD</p> <p>The takeoff and landing calibrated airspeed coefficient. Valid values: 0.0 to 1.34. (KNOTS/LB^{1/2}).</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	<p>documentation</p> <p>The takeoff and landing calibrated airspeed coefficient. Valid values: 0.0 to 1.34. (KNOTS/LB^{1/2}).</p>

element anpFlaps/coeff_B

diagram	<p>coeff_B</p> <p>The takeoff distance coefficient. Valid values: empty or 0.0 to 1.34. (FEET/LB).</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	<p>documentation</p> <p>The takeoff distance coefficient. Valid values: empty or 0.0 to 1.34. (FEET/LB).</p>

complexType anpFlapsSet

diagram	<p>anpFlapsSet</p> <p>Flap settings set for an ANP aircraft type.</p> <p>anpAirplaneld</p> <p>Airplane's ANP ID.</p> <p>flaps</p> <p>1..∞</p>
children	anpAirplaneld flaps
used by	element fleet/anpFlapsSet
annotation	<p>documentation</p> <p>Flap settings set for an ANP aircraft type.</p>

element anpFlapsSet/anpAirplaneld

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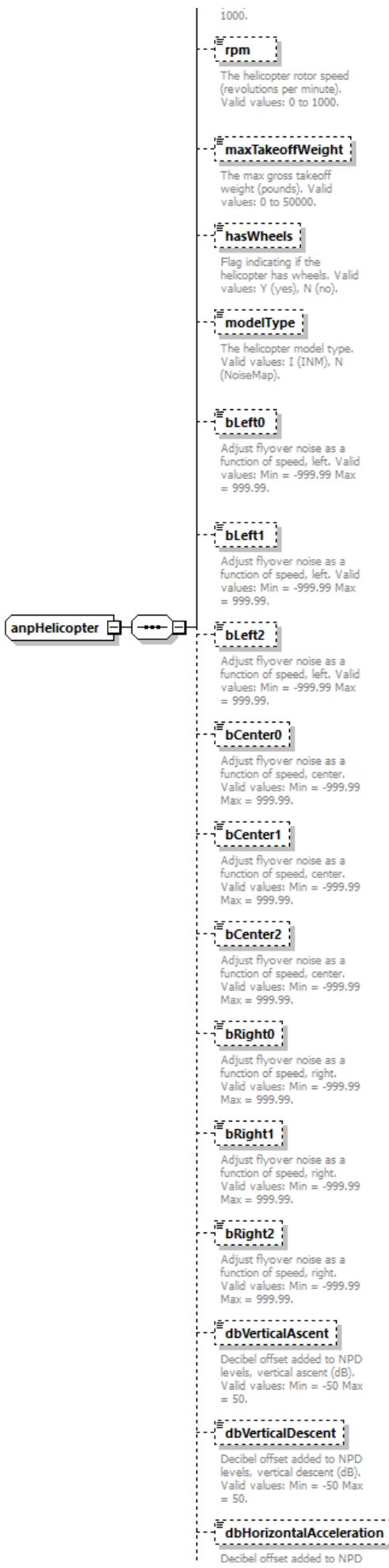
type	anpAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's ANP ID.

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	
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	<p>levels, depart horizontal acceleration (dB). Valid values: Min = -50 Max = 50.</p> <p>dbClimbAcceleration</p> <p>Decibel offset added to NPD levels, depart with climbing acceleration (dB). Valid values: Min = -50 Max = 50.</p> <p>dbHorizontalDeceleration</p> <p>Decibel offset added to NPD levels, approach with horizontal deceleration (dB). Valid values: Min = -50 Max = 50.</p> <p>dbDescendDeceleration</p> <p>Decibel offset added to NPD levels, approach with descending deceleration (dB). Valid values: Min = -50 Max = 50.</p>
children	anpHelicopterId noiseld directivityId description owner engineTypeCode numberRotors diameter rpm maxTakeoffWeight hasWheels modelType bLeft0 bLeft1 bLeft2 bCenter0 bCenter1 bCenter2 bRight0 bRight1 bRight2 dbVerticalAscent dbVerticalDescent dbHorizontalAcceleration dbClimbAcceleration dbHorizontalDeceleration dbDescendDeceleration
used by	element fleet / anpHelicopter

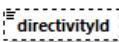
element [anpHelicopter](#)/[anpHelicopterId](#)

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

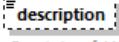
element [anpHelicopter](#)/[noiseld](#)

diagram	 noiseld ID of a Noise Group.
type	anpHeloNoiseld
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation ID of a Noise Group.

element [anpHelicopter](#)/[directivityId](#)

diagram	 directivityId Noise directivity ID for ANP helicopter.
type	anpHeloDirectivityId
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 12
annotation	documentation Noise directivity ID for ANP helicopter.

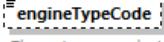
element **anpHelicopter**/description

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

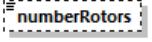
element **anpHelicopter**/owner

diagram	 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	
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	<p>diameter</p> <p>The helicopter diameter (feet). Valid values: 0 to 1000.</p>
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	<p>rpm</p> <p>The helicopter rotor speed (revolutions per minute). Valid values: 0 to 1000.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The helicopter rotor speed (revolutions per minute). Valid values: 0 to 1000.

element anpHelicopter/maxTakeoffWeight

diagram	<p>maxTakeoffWeight</p> <p>The max gross takeoff weight (pounds). Valid values: 0 to 50000.</p>
type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation The max gross takeoff weight (pounds). Valid values: 0 to 50000.

element anpHelicopter/hasWheels

diagram	<p>hasWheels</p> <p>Flag indicating if the helicopter has wheels. Valid values: Y (yes), N (no).</p>
type	yesNoType
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation pattern Yes Y No N
annotation	documentation Flag indicating if the helicopter has wheels. Valid values: Y (yes), N (no).

element anpHelicopter/modelType

diagram	<p>modelType</p> <p>The helicopter model type. Valid values: I (INM), N (NoiseMap).</p>
type	string1
properties	minOcc 0 maxOcc 1 content simple

	<p>facets</p> <table border="0"> <tr><td>Kind</td><td>Value</td></tr> <tr><td>minLength</td><td>0</td></tr> <tr><td>maxLength</td><td>1</td></tr> </table>	Kind	Value	minLength	0	maxLength	1
Kind	Value						
minLength	0						
maxLength	1						
annotation	<p>documentation</p> <p>The helicopter model type. Valid values: I (INM), N (NoiseMap).</p>						

element **anpHelicopter/bLeft0**

diagram	 <p>bLeft0</p> <p>Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	<p>documentation</p> <p>Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.</p>

element **anpHelicopter/bLeft1**

diagram	 <p>bLeft1</p> <p>Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	<p>documentation</p> <p>Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.</p>

element **anpHelicopter/bLeft2**

diagram	 <p>bLeft2</p> <p>Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	<p>documentation</p> <p>Adjust flyover noise as a function of speed, left. Valid values: Min = -999.99 Max = 999.99.</p>

element **anpHelicopter/bCenter0**

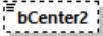
diagram	 <p>bCenter0</p> <p>Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	<p>documentation</p> <p>Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99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

element **anpHelicopter/bCenter1**

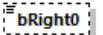
diagram	
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	 <p>bCenter1</p> <p>Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function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

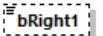
element anpHelicopter/bCenter2

diagram	 <p>bCenter2</p> <p>Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, center. Valid values: Min = -999.99 Max = 999.99.

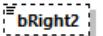
element anpHelicopter/bRight0

diagram	 <p>bRight0</p> <p>Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.

element anpHelicopter/bRight1

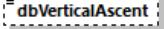
diagram	 <p>bRight1</p> <p>Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.

element anpHelicopter/bRight2

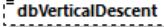
diagram	 <p>bRight2</p> <p>Adjust flyover noise as a function of speed, right. Valid values: Min = -999.99 Max = 999.99.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation

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

element anpHelicopter/dbVerticalAscent

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

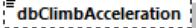
element anpHelicopter/dbVerticalDescent

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

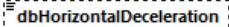
element anpHelicopter/dbHorizontalAcceleration

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

element anpHelicopter/dbClimbAcceleration

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

element anpHelicopter/dbHorizontalDeceleration

diagram	 dbHorizontalDeceleration Decibel offset added to NPD levels, approach with horizontal deceleration (dB). Valid values: Min = -50 Max = 50.
type	xs:double

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

element **anpHelicopter/dbDescendDeceleration**

diagram	 dbDescendDeceleration	<p>Decibel offset added to NPD levels, approach with descending deceleration (dB).</p>
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.	

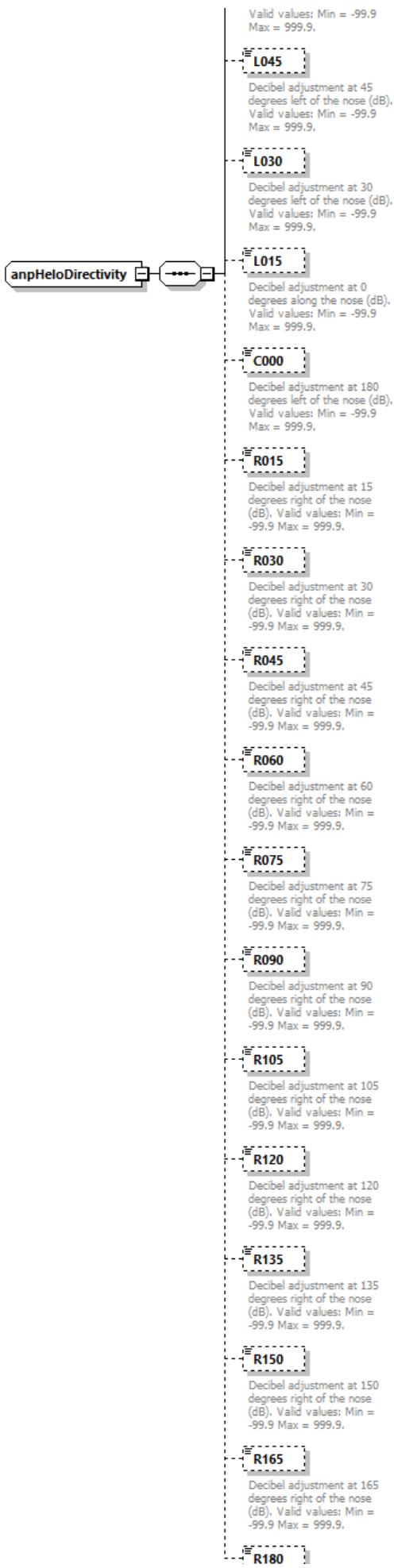
complexType anpHelloDirectivity

diagram

```
graph TD; groundType[groundType] --- opMode[opMode]; groundType --- L180[L180]; groundType --- L165[L165]; groundType --- L150[L150]; groundType --- L135[L135]; groundType --- L120[L120]; groundType --- L105[L105]; groundType --- L090[L090]; groundType --- L075[L075]; groundType --- L060[L060]
```

The diagram illustrates a hierarchical configuration of ground settings. At the top level is **groundType**, which defines the type of ground resistivity (H, S, F, N). Below it is **opMode**, specifying operational modes (A, D). The remaining settings are decibel adjustments at various angles from the nose: **L180** (180 degrees left), **L165** (165 degrees left), **L150** (150 degrees left), **L135** (135 degrees left), **L120** (120 degrees left), **L105** (105 degrees left), **L090** (90 degrees left), **L075** (75 degrees left), and **L060** (60 degrees left). Each setting includes its description and valid value range (Min = -99.9, Max = 999.9).

- **groundType**
 - Type of ground resistivity.
Valid values: H (hard), S (soft), F (felsic), 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).



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

element [anpHeloDirectivity/groundType](#)

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

element [anpHeloDirectivity/opMode](#)

diagram	 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	 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	 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](#)

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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	
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	<p>R060</p> <p>Decibel adjustment at 60 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 60 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R075**

diagram	<p>R075</p> <p>Decibel adjustment at 75 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 75 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R090**

diagram	<p>R090</p> <p>Decibel adjustment at 90 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 90 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R105**

diagram	<p>R105</p> <p>Decibel adjustment at 105 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel adjustment at 105 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.

element **anpHeloDirectivity/R120**

diagram	<p>R120</p> <p>Decibel adjustment at 120 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation

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

element anpHeloDirectivity/R135

diagram	 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.

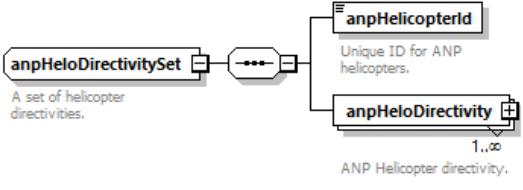
element anpHeloDirectivity/R165

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

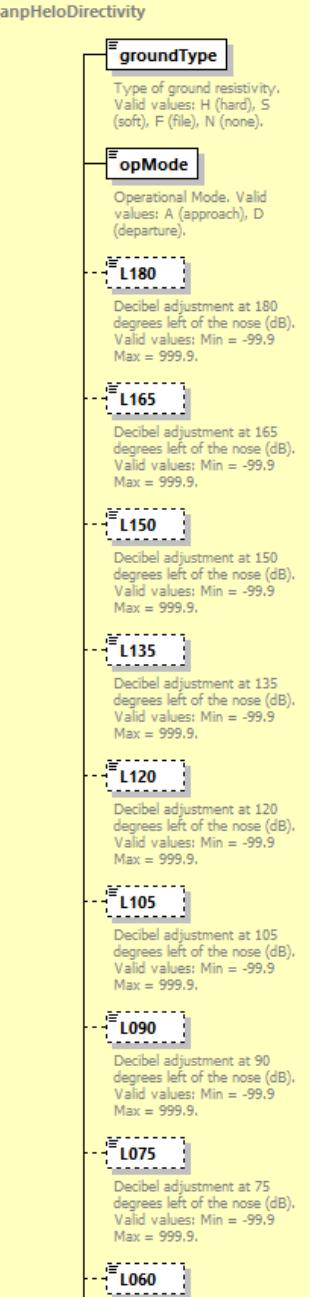
diagram	 anpHeloDirectivitySet A set of helicopter directivities. anpHeloDirectivityId Unique ID for ANP helicopters. anpHeloDirectivity ANP Helicopter directivity. 1..∞
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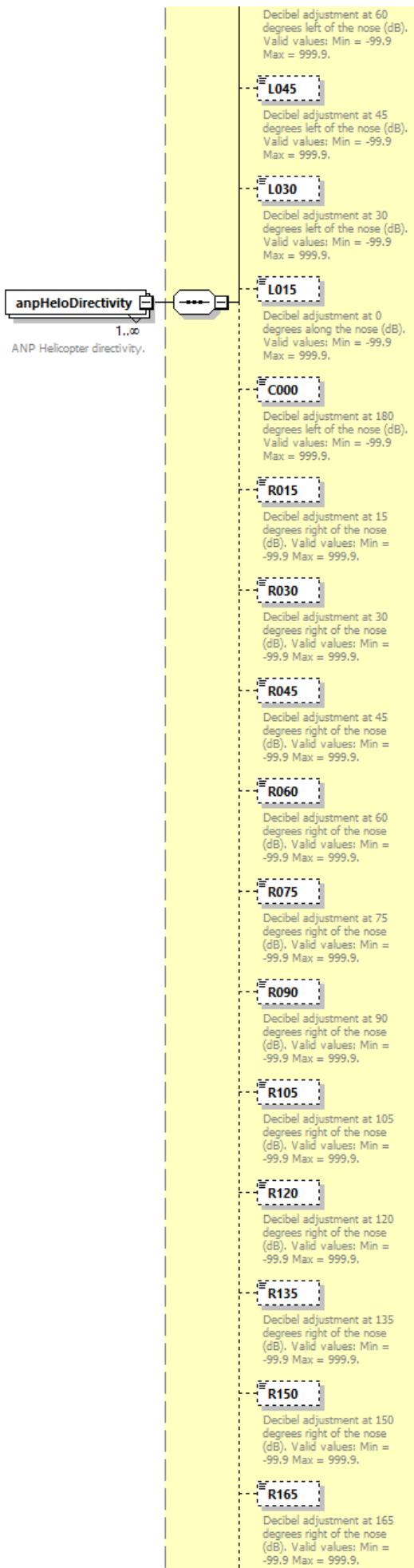
children	anpHelicopterId anpHeloDirectivity
used by	element fleet/anpHeloDirectivitySet
annotation	documentation A set of helicopter directivities.

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	 anpHeloDirectivity groundType Type of ground resistivity. Valid values: H (hard), S (soft), F (fie), 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.
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	<p>R180</p> <p>Decibel adjustment at 180 degrees right of the nose (dB). Valid values: Min = -99.9 Max = 999.9.</p>
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.

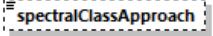
complexType **anpHeloNoiseGroup**

diagram	<pre> graph LR subgraph anpHeloNoiseGroup [anpHeloNoiseGroup] noiseId[noiseld] subgraph spectralClassApproach [spectralClassApproach] direction TB directionTB end subgraph spectralClassDeparture [spectralClassDeparture] direction TB directionTB end subgraph spectralClassFlyover [spectralClassFlyover] direction TB directionTB end speedApproach[speedApproach] noiseId --- spectralClassApproach noiseId --- spectralClassDeparture noiseId --- spectralClassFlyover noiseId --- speedApproach end </pre> <p>This element contains the three spectral class references for a given aircraft Noise group with the corresponding thrust setting type and model type.</p>
children	noiseld spectralClassApproach spectralClassDeparture spectralClassFlyover speedApproach speedDeparture speedFlyover npdCurves
used by	element fleet/anpHeloNoiseGroup
annotation	documentation This element contains the three spectral class references for a given aircraft Noise group with the corresponding thrust setting type and model type.

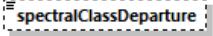
element **anpHeloNoiseGroup/noiseld**

diagram	<pre> graph LR subgraph anpHeloNoiseGroup [anpHeloNoiseGroup] noiseId[noiseld] end </pre>
type	anpHeloNoiseld
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation The noise group id.

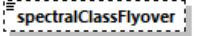
element **anpHeloNoiseGroup/spectralClassApproach**

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.

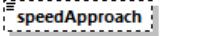
element anpHeloNoiseGroup/spectralClassDeparture

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.

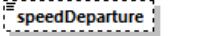
element anpHeloNoiseGroup/spectralClassFlyover

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

element **anpHeloNoiseGroup/npdCurves**

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

complexType **anpHeloNPDCurve**

diagram	
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	<p>noiseType Type of noise described by this curve. Valid values: S (SEL), M (LAMAX), E (EPNL), P (PNLTM).</p> <p>opMode Engine operation mode.</p> <p>sideType Operation side type. Valid values: L (left), C (center), R (right), S (static)</p> <p>L_200 Decibel level at 200 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p> <p>L_400 Decibel level at 400 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p> <p>L_630 Decibel level at 630 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p> <p>L_1000 Decibel level at 1000 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p> <p>L_2000 Decibel level at 2000 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p> <p>L_4000 Decibel level at 4000 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p> <p>L_6300 Decibel level at 6300 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p> <p>L_10000 Decibel level at 10000 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p> <p>L_16000 Decibel level at 16000 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p> <p>L_25000 Decibel level at 25000 feet AGL. Valid values: Min = -50.0 Max = 999.9.</p>
children	noiseType opMode sideType L_200 L_400 L_630 L_1000 L_2000 L_4000 L_6300 L_10000 L_16000 L_25000
used by	element anpHeloNPDCurves/npdCurve
annotation	<p>documentation</p> <p>The Noise Power Distance curve table for a specified noise ID, noise type, operation mode, and thrust setting.</p>

element **anpHeloNPDCurve/noiseType**

diagram	<p>noiseType Type of noise described by this curve. Valid values: S (SEL), M (LAMAX), E (EPNL), P (PNLTM).</p>
type	anPndNoiseType
properties	content simple
facets	Kind Value Annotation pattern S M E P

annotation	documentation Type of noise described by this curve. Valid values: S (SEL), M (LAMAX), E (EPNL), P (PNLTM).
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element **anpHeloNPDCurve/opMode**

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

element **anpHeloNPDCurve/sideType**

diagram	 sideType Operation side type. Valid values: L (left), C (center), R (right), S (static)
type	anpHeloSideType
properties	content simple
facets	Kind Value Annotation pattern Left Center C Right R Static S
annotation	documentation Operation side type. Valid values: L (left), C (center), R (right), S (static)

element **anpHeloNPDCurve/L_200**

diagram	 L_200 Decibel level at 200 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 200 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpHeloNPDCurve/L_400**

diagram	 L_400 Decibel level at 400 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 400 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpHeloNPDCurve/L_630**

diagram	 L_630 Decibel level at 630 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1

	content simple
annotation	documentation Decibel level at 630 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpHeloNPDCurve/L_1000**

diagram	 L_1000 Decibel level at 1000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 1000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpHeloNPDCurve/L_2000**

diagram	 L_2000 Decibel level at 2000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 2000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpHeloNPDCurve/L_4000**

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

element **anpHeloNPDCurve/L_6300**

diagram	 L_6300 Decibel level at 6300 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 6300 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element **anpHeloNPDCurve/L_10000**

diagram	 L_10000 Decibel level at 10000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple

annotation	documentation Decibel level at 10000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
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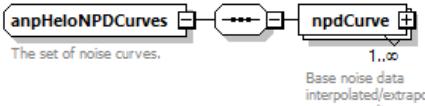
element **anpHeloNPDCurve/L_16000**

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

element **anpHeloNPDCurve/L_25000**

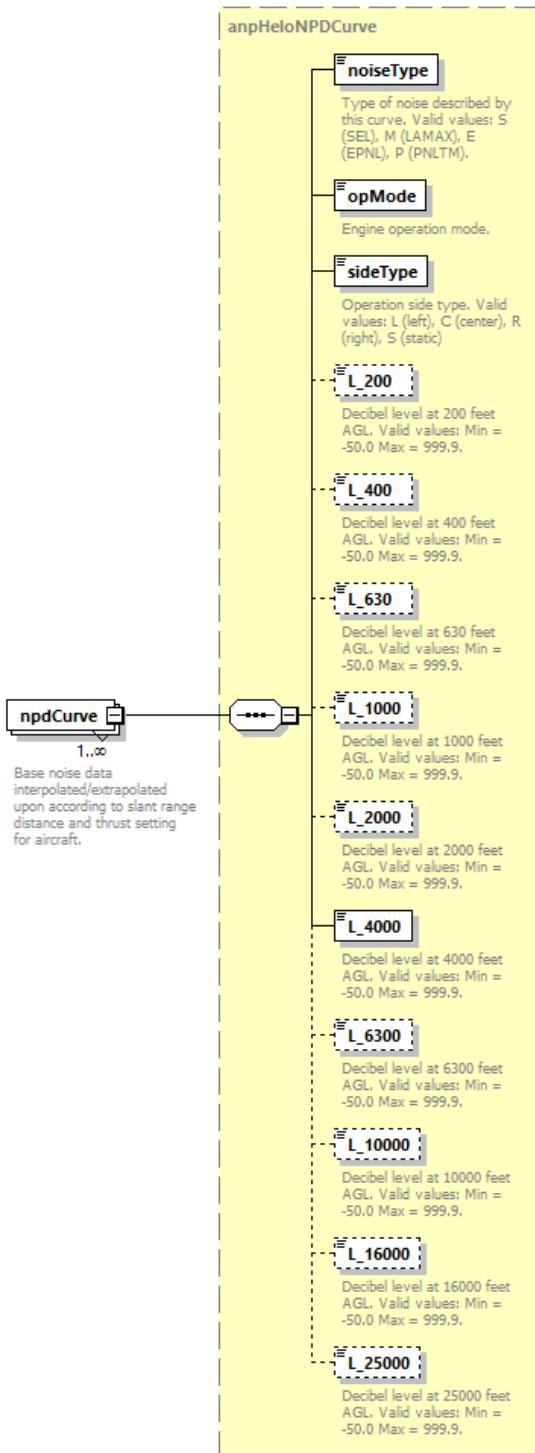
diagram	 Decibel level at 25000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Decibel level at 25000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

complexType **anpHeloNPDCurves**

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

element **anpHeloNPDCurves/npdCurve**

diagram	
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type	anpHeloNPDCurve
properties	minOcc 1 maxOcc unbounded content complex
children	noiseType opMode sideType L_200 L_400 L_630 L_1000 L_2000 L_4000 L_6300 L_10000 L_16000 L_25000
annotation	documentation Base noise data interpolated/extrapolated upon according to slant range distance and thrust setting for aircraft.

complexType `anpHeloProcedureStep`

diagram	
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	<pre> classDiagram class anpHeloProcedureStep { stepNum operationType profileGroupId profileStageLength stepType duration distance altitude speed } </pre> <p>Procedure data element.</p>
children	stepNum operationType profileGroupId profileStageLength stepType duration distance altitude speed
used by	element anpHeloProfile/step
annotation	documentation Procedure data element.

element **anpHeloProcedureStep/stepNum**

diagram	
type	xs:int
properties	content simple

annotation	documentation Step number of the procedure. Must be unique in a sequence.
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element anpHeloProcedureStep/operationType

diagram	<p>Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&amp;Go), F (CircuitFlt), V (OverFlt)</p>
type	string1
properties	content simple
facets	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 anpHeloProcedureStep/profileGroupId

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

element anpHeloProcedureStep/profileStageLength

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

element anpHeloProcedureStep/stepType

diagram	
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	<p>stepType</p> <p>Type of step. (A) Approach at constant speed, (D) Depart at constant speed, (L) Level flyover at constant speed, (G) Ground idle, (H) Flight idle, (I) Hover in ground effect, (J) Hover out of ground effect, (V) Vertical ascent in ground effect, (W) Vertical ascent out of ground effect, (Y) Vertical descent in ground effect, (Z) Vertical descent out of ground effect, (B) Approach with horizontal deceleration, (C) Approach with descending deceleration, (E) Depart with horizontal acceleration, (F) Depart with climbing acceleration, (X) Taxi at constant speed, (S) Start altitude at constant speed</p>
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	<p>documentation</p> <p>Type of step. (A) Approach at constant speed, (D) Depart at constant speed, (L) Level flyover at constant speed, (G) Ground idle, (H) Flight idle, (I) Hover in ground effect, (J) Hover out of ground effect, (V) Vertical ascent in ground effect, (W) Vertical ascent out of ground effect, (Y) Vertical descent in ground effect, (Z) Vertical descent out of ground effect, (B) Approach with horizontal deceleration, (C) Approach with descending deceleration, (E) Depart with horizontal acceleration, (F) Depart with climbing acceleration, (X) Taxi at constant speed, (S) Start altitude at constant speed</p>

element anpHeloProcedureStep/duration

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

element anpHeloProcedureStep/distance

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

element anpHeloProcedureStep/altitude

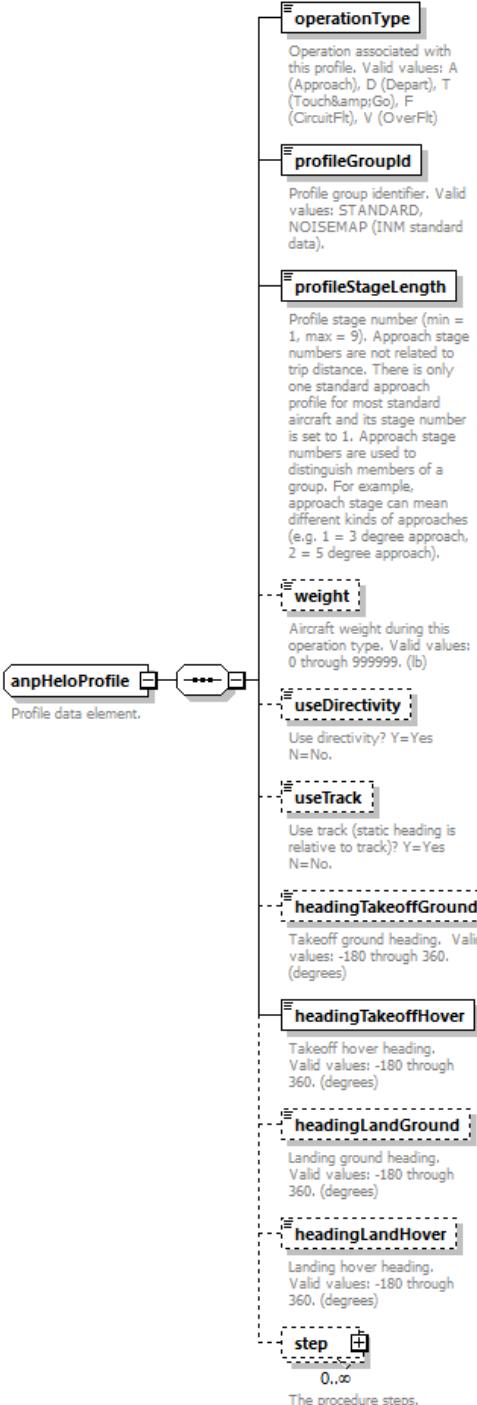
diagram	<p>altitude</p> <p>Altitude of aircraft (min = -9999, max = 60000, feet).</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation

Altitude of aircraft (min = -9999, max = 60000, feet).

element anpHeloProcedureStep/speed

diagram	 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	 <p>Profile data element.</p>
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children	operationType profileGroupId profileStageLength weight useDirective 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	string255
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).

element [anpHeloProfile/profileStageLength](#)

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

element **anpHeloProfile/useDirectivity**

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

element **anpHeloProfile/useTrack**

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

element **anpHeloProfile/headingTakeoffGround**

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

Takeoff hover heading. Valid values: -180 through 360. (degrees)

element **anpHeloProfile/headingLandGround**

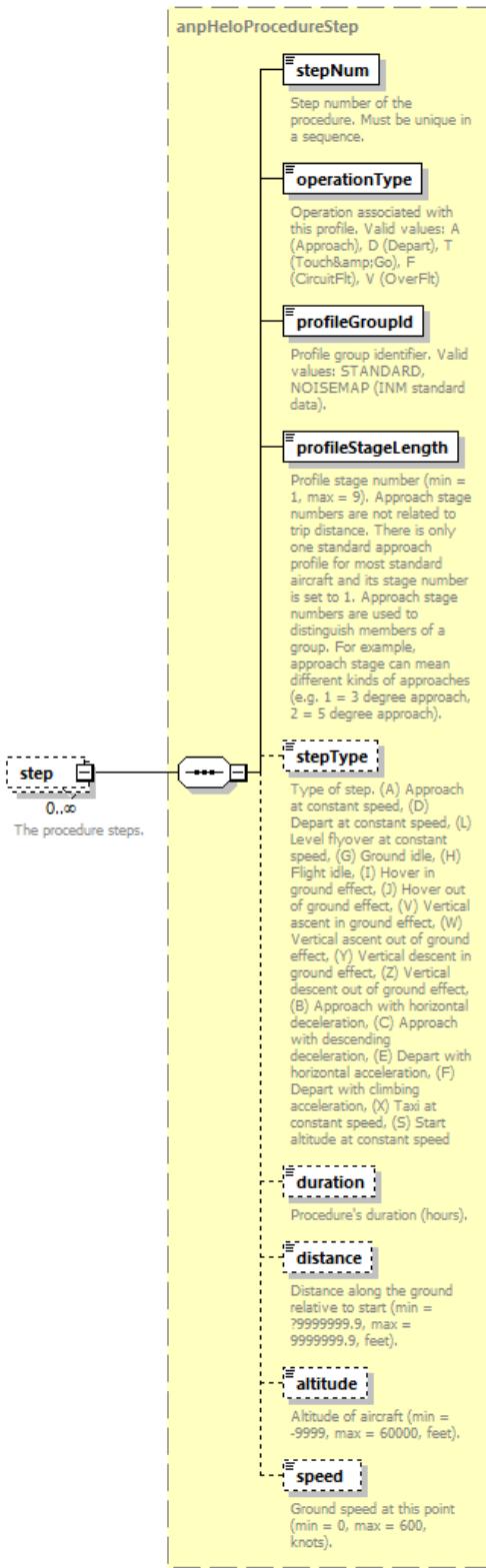
diagram	 headingLandGround Landing ground heading. Valid values: -180 through 360. (degrees)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Landing ground heading. Valid values: -180 through 360. (degrees)

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**

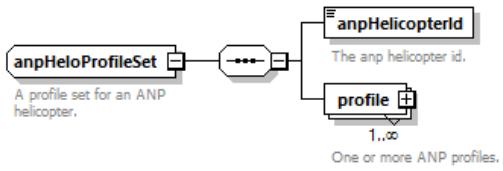
diagram	
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type	<code>anpHeloProcedureStep</code>
properties	minOcc 0 maxOcc unbounded content complex
children	<code>stepNum</code> <code>operationType</code> <code>profileGroupId</code> <code>profileStageLength</code> <code>stepType</code> <code>duration</code> <code>distance</code> <code>altitude</code> <code>speed</code>
annotation	documentation The procedure steps.

complexType `anpHeloProfileSet`

diagram	
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children [anpHelicopterId profile](#)

used by element [fleet/anpHeloProfileSet](#)

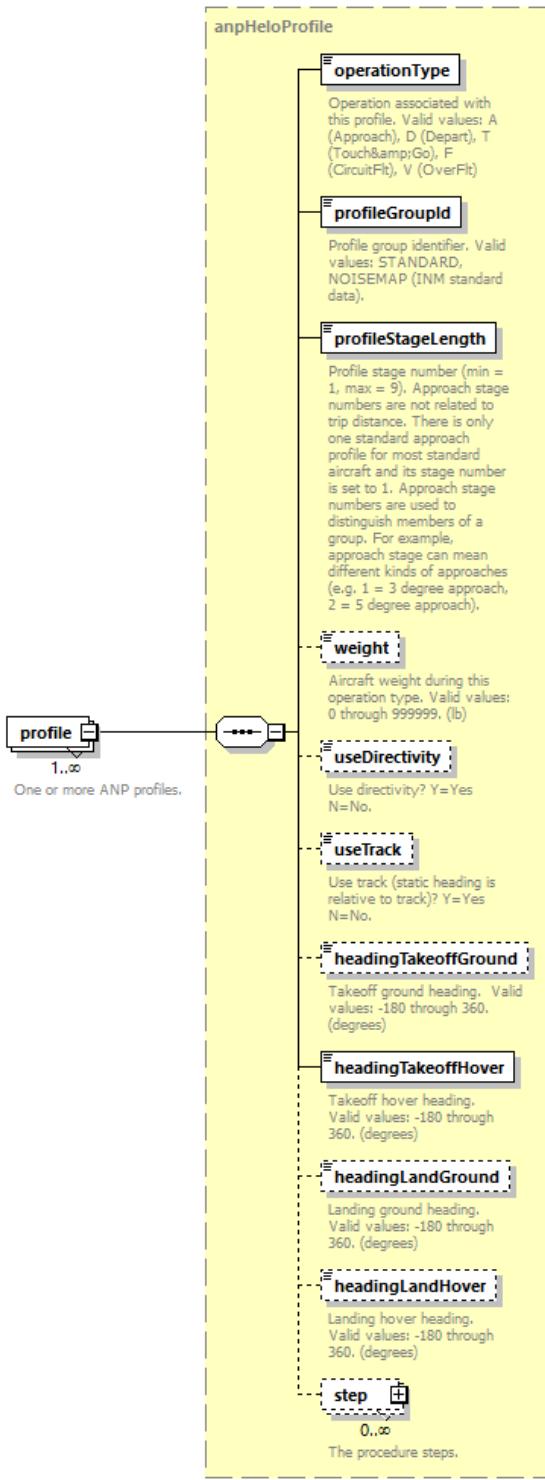
annotation documentation
A profile set for an ANP helicopter.

element anpHeloProfileSet/anpHelicopterId

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

element anpHeloProfileSet/profile

diagram	
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type	anpHeloProfile
properties	minOcc 1 maxOcc unbounded content complex
children	operationType profileGroupId profileStageLength weight useDirectivity useTrack headingTakeoffGround headingTakeoffHover headingLandGround headingLandHover step
annotation	documentation One or more ANP profiles.

complexType [anpNoiseGroup](#)

diagram	
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	<pre> classDiagram class anpNoiseGroup { <<This element contains the three spectral class references for a given aircraft Noise group with the corresponding thrust setting type and model type.>> } class noiseId class spectralClassApproach class spectralClassDeparture class spectralClassAfterburner class thrustSetType class modelType class npdCurves anpNoiseGroup --> noiseId : anpNoiseGroup --> spectralClassApproach : anpNoiseGroup --> spectralClassDeparture : anpNoiseGroup --> spectralClassAfterburner : anpNoiseGroup --> thrustSetType : anpNoiseGroup --> modelType : anpNoiseGroup --> npdCurves : </pre>
children	noiseId spectralClassApproach spectralClassDeparture spectralClassAfterburner thrustSetType modelType npdCurves
used by	element fleet/anpNoiseGroup
annotation	<p>documentation</p> <p>This element contains the three spectral class references for a given aircraft Noise group with the corresponding thrust setting type and model type.</p>

element anpNoiseGroup/noiseId

diagram							
	<p>Noise group's ID.</p>						
type	anpNoiseId						
properties	content simple						
facets	<table> <tr> <td>Kind</td> <td>Value Annotation</td> </tr> <tr> <td>minLength</td> <td>0</td> </tr> <tr> <td>maxLength</td> <td>255</td> </tr> </table>	Kind	Value Annotation	minLength	0	maxLength	255
Kind	Value Annotation						
minLength	0						
maxLength	255						
annotation	<p>documentation</p> <p>Noise group's ID.</p>						

element anpNoiseGroup/spectralClassApproach

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

element anpNoiseGroup/spectralClassDeparture

diagram			
	<p>Spectral class number for departure (min = 0, max = 999).</p>		
type	xs:short		
properties	<table> <tr> <td>minOcc</td> <td>0</td> </tr> </table>	minOcc	0
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	npdCurves The set of noise curves for ANP aircraft. <pre> graph LR npdCurves[anpNPDCurves] --- npdCurve[anpNPDCurves] npdCurve --- npdCurve style npdCurves fill:#ffffcc style npdCurve fill:#ffffcc </pre> <p>anpNPDCurves npdCurve 1..∞ Base noise data interpolated/extrapolated upon according to slant range distance and thrust setting for aircraft.</p>
type	anpNPDCurves
properties	content complex
children	npdCurve
annotation	documentation The set of noise curves for ANP aircraft.

complexType **anpNPDCurve**

diagram	<pre> graph LR anpNPDCurve[anpNPDCurve] --- noiseType anpNPDCurve --- opMode anpNPDCurve --- netThrustPerEngine anpNPDCurve --- L200[L_200] L200 --- L200[L_200] L200 --- L400[L_400] L200 --- L630[L_630] L200 --- L1000[L_1000] L200 --- L2000[L_2000] L200 --- L4000[L_4000] L200 --- L6300[L_6300] L200 --- L10000[L_10000] L200 --- L16000[L_16000] L200 --- L25000[L_25000] </pre> <p>The Noise Power Distance curve table for a specified noise ID, noise type, operation mode, and thrust setting.</p>
children	noiseType opMode netThrustPerEngine L_200 L_400 L_630 L_1000 L_2000 L_4000 L_6300 L_10000 L_16000 L_25000
used by	element anpNPDCurves/npdCurve
annotation	documentation The Noise Power Distance curve table for a specified noise ID, noise type, operation mode, and thrust setting.

element **anpNPDCurve/noiseType**

diagram	<pre> graph LR noiseType[noiseType] --- noiseType noiseType --- opMode noiseType --- netThrustPerEngine noiseType --- L200[L_200] L200 --- L200[L_200] L200 --- L400[L_400] L200 --- L630[L_630] L200 --- L1000[L_1000] L200 --- L2000[L_2000] L200 --- L4000[L_4000] L200 --- L6300[L_6300] L200 --- L10000[L_10000] L200 --- L16000[L_16000] L200 --- L25000[L_25000] </pre>
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.
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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**

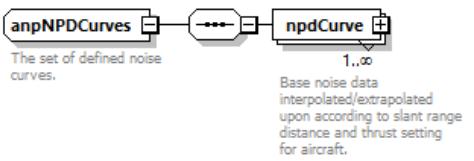
diagram	
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	 L_16000 Decibel level at 16000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type	xs:double
properties	content simple
annotation	documentation Decibel level at 16000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

element anpNPDCurve/L_25000

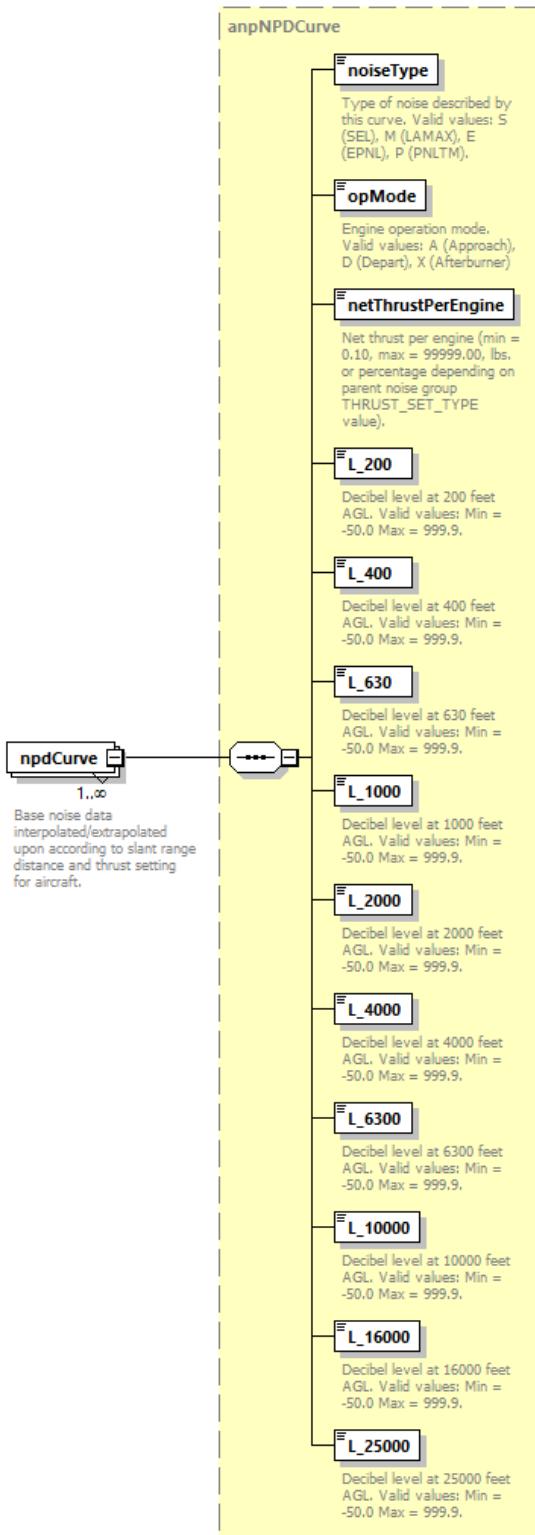
 L_25000 Decibel level at 25000 feet AGL. Valid values: Min = -50.0 Max = 999.9.
type xs:double
properties content simple
annotation documentation Decibel level at 25000 feet AGL. Valid values: Min = -50.0 Max = 999.9.

complexType anpNPDCurves

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

element anpNPDCurves/npdCurve

 npdCurve The set of defined noise curves.



type	anpNPDCurve
properties	minOcc 1 maxOcc unbounded content complex
children	noiseType opMode netThrustPerEngine L_200 L_400 L_630 L_1000 L_2000 L_4000 L_6300 L_10000 L_16000 L_25000
annotation	documentation Base noise data interpolated/extrapolated upon according to slant range distance and thrust setting for aircraft.

complexType **anpProcedureStep**

diagram	
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	<p>stepNum</p> <p>Step number of the procedure. Must be unique in a sequence.</p> <p>flapId</p> <p>Flap-setting identifier.</p> <p>stepType</p> <p>Type of step, (T) Takeoff, (C) Climb, (M) Cruise-Climb, (A) Accelerate, (P) Accel-Percent, (V) Level, (U) Level-Decel, (W) Level-Idle, (S) Level-Stretch, (D) Descend, (E) Descend-Decel, (F) Descend-Idle, (L) Land, (B) Decelerate</p> <p>thrustType</p> <p>Type of thrust, (T) MaxTakeoff, (C) MaxClimb, (N) MaxContinuous, (H) ReduceTakeoff, (Q) ReduceClimb, (S) MaxTakeoffHiTemp, (B) MaxClimbHiTemp, (M) MaxContinuousHiTemp, (G) ReduceClimbHiTemp, (P) ReduceClimbHiTemp, (I) IdleApproach, (J) IdleApproachHiTemp, (R) MinimumThrust, (K) UserCutback, (U) UserValue</p> <p>anpProcedureStep</p> <p>A single procedure step datum for the profile.</p>
children	stepNum flapId stepType thrustType param1 param2 param3
used by	element anpProcedureSteps/step
annotation	<p>documentation</p> <p>A single procedure step datum for the profile.</p>

element **anpProcedureStep/stepNum**

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

element **anpProcedureStep/flapId**

diagram	<p>flapId</p> <p>Flap-setting identifier.</p>									
type	anpFlapId									
properties	<p>minOcc 0</p> <p>maxOcc 1</p> <p>content simple</p>									
facets	<table> <tr> <td>Kind</td> <td>Value</td> <td>Annotation</td> </tr> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>6</td> <td></td> </tr> </table>	Kind	Value	Annotation	minLength	0		maxLength	6	
Kind	Value	Annotation								
minLength	0									
maxLength	6									
annotation	documentation									

Flap-setting identifier.

element anpProcedureStep/stepType

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

element anpProcedureStep/thrustType

diagram	 thrustType Type of thrust. (T) MaxTakeoff, (C) MaxClimb, (N) MaxContinuous, (H) ReduceTakeoff, (Q) ReduceClimb, (S) MaxTakeoffHiTemp, (B) MaxClimbHiTemp, (M) MaxContinuousHiTemp, (G) ReduceClimbHiTemp, (P) ReduceClimbHiTemp, (I) IdleApproach, (J) IdleApproachHiTemp, (R) MinimumThrust, (K) UserCutback, (U) UserValue
type	string1
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of thrust. (T) MaxTakeoff, (C) MaxClimb, (N) MaxContinuous, (H) ReduceTakeoff, (Q) ReduceClimb, (S) MaxTakeoffHiTemp, (B) MaxClimbHiTemp, (M) MaxContinuousHiTemp, (G) ReduceClimbHiTemp, (P) ReduceClimbHiTemp, (I) IdleApproach, (J) IdleApproachHiTemp, (R) MinimumThrust, (K) UserCutback, (U) UserValue

element anpProcedureStep/param1

diagram	 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	<p>documentation</p> <p>Parameter particular for this step type (min = 0, max = 600.0).</p>

element **anpProcedureStep/param3**

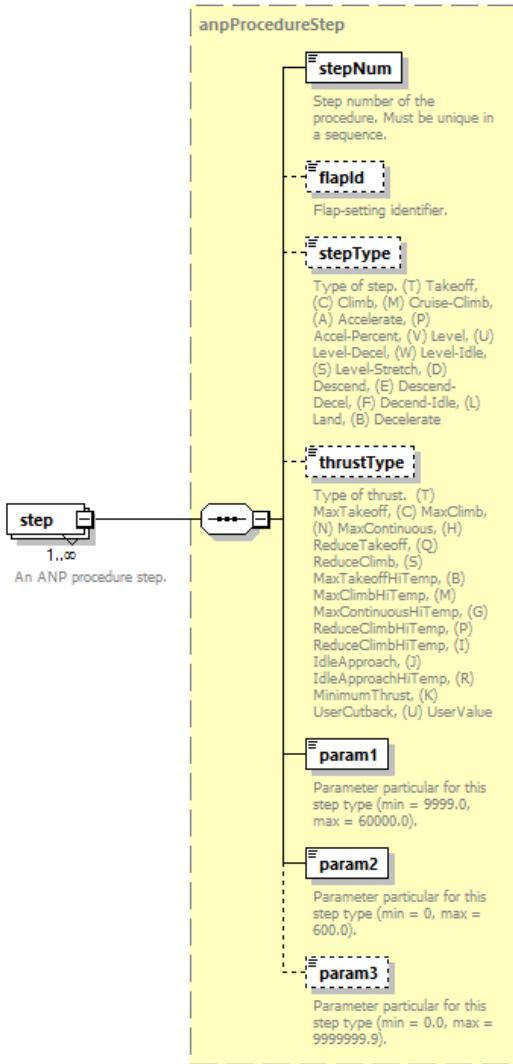
diagram	<p>param3</p> <p>Parameter particular for this step type (min = 0.0, max = 9999999.9).</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	<p>documentation</p> <p>Parameter particular for this step type (min = 0.0, max = 9999999.9).</p>

complexType **anpProcedureSteps**

diagram	<p>anpProcedureSteps → ... → step</p> <p>A set of procedure steps for the profile.</p> <p>1..∞</p> <p>An ANP procedure step.</p>
children	step
used by	element anpProfile/procedureSteps
annotation	<p>documentation</p> <p>A set of procedure steps for the profile.</p>

element **anpProcedureSteps/step**

diagram	
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type	anpProcedureStep
properties	minOcc 1 maxOcc unbounded content complex
children	stepNum flapId stepType thrustType param1 param2 param3
annotation	documentation An ANP procedure step.

complexType **anpProfile**

diagram	
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	<pre> classDiagram class anpProfile { <<Profile data element.>> } class operationType class profileGroupId class profileStageLength class weight class procedureSteps class profilePoints anpProfile "2" --> operationType anpProfile "2" --> profileGroupId anpProfile "2" --> profileStageLength anpProfile "2" --> weight anpProfile "2" --> procedureSteps anpProfile "2" --> profilePoints </pre> <p>anpProfile Profile data element.</p> <p>operationType Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&amp;Go), F (CircuitFlt), V (OverFlt)</p> <p>profileGroupId Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).</p> <p>profileStageLength Profile stage number (min = 1, max = 9). Approach stage numbers are not related to trip distance. There is only one standard approach profile for most standard aircraft and its stage number is set to 1. Approach stage numbers are used to distinguish members of a group. For example, approach stage can mean different kinds of approaches (e.g., 1 = 3 degree approach, 2 = 5 degree approach).</p> <p>weight Aircraft weight during this operation type (min = 0, max = 999999, lbs).</p> <p>procedureSteps Set of procedure steps associated with this profile.</p> <p>profilePoints Set of points associated with this profile.</p>
children	operationType profileGroupId profileStageLength weight procedureSteps profilePoints
used by	element anpProfileSet/profile
annotation	<p>documentation</p> <p>Profile data element.</p>

element anpProfile/operationType

diagram	<pre> classDiagram class operationType { <<Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&amp;Go), F (CircuitFlt), V (OverFlt)>> } operationType < -- string1 </pre>						
type	string1						
properties	content simple						
facets	<table> <tr> <td>Kind</td> <td>Value</td> </tr> <tr> <td>minLength</td> <td>0</td> </tr> <tr> <td>maxLength</td> <td>1</td> </tr> </table>	Kind	Value	minLength	0	maxLength	1
Kind	Value						
minLength	0						
maxLength	1						
annotation	<p>documentation</p> <p>Operation associated with this profile. Valid values: A (Approach), D (Depart), T (Touch&amp;Go), F (CircuitFlt), V (OverFlt)</p>						

element anpProfile/profileGroupId

diagram	<pre> classDiagram class profileGroupId { <<Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).>> } profileGroupId < -- string255 </pre>						
type	string255						
properties	content simple						
facets	<table> <tr> <td>Kind</td> <td>Value</td> </tr> <tr> <td>minLength</td> <td>0</td> </tr> <tr> <td>maxLength</td> <td>255</td> </tr> </table>	Kind	Value	minLength	0	maxLength	255
Kind	Value						
minLength	0						
maxLength	255						
annotation	<p>documentation</p> <p>Profile group identifier. Valid values: STANDARD, NOISEMAP (INM standard data).</p>						

element anpProfile/profileStageLength

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

element anpProfile/weight

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

element anpProfile/procedureSteps

diagram	<p>anpProcedureSteps</p> <p>Set of procedure steps associated with this profile.</p>
type	anProcedureSteps
properties	content complex
children	step
annotation	<p>documentation</p> <p>Set of procedure steps associated with this profile.</p>

element anpProfile/profilePoints

diagram	<p>anProfilePoints</p> <p>Set of points associated with this profile.</p>
type	anProfilePoints
properties	content complex
children	point
annotation	<p>documentation</p> <p>Set of points associated with this profile.</p>

complexType **anpProfilePoint**

diagram	<pre> classDiagram anpProfilePoint < -- anpProfilePoints/point anpProfilePoint --> pointNum : pointNum anpProfilePoint --> distance : distance anpProfilePoint --> altitude : altitude anpProfilePoint --> speed : speed anpProfilePoint --> thrustSet : thrustSet anpProfilePoint --> opMode : opMode </pre> <p>A single profile point data element.</p>
children	pointNum distance altitude speed thrustSet opMode
used by	element anpProfilePoints/point
annotation	<p>documentation</p> <p>A single profile point data element.</p>

element **anpProfilePoint/pointNum**

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

element **anpProfilePoint/distance**

diagram	<p>Distance along the ground relative to start (min = ?9999999.9, max = 9999999.9, feet).</p>
type	xs:double
properties	content simple
annotation	<p>documentation</p> <p>Distance along the ground relative to start (min = ?9999999.9, max = 9999999.9, feet).</p>

element **anpProfilePoint/altitude**

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

element **anpProfilePoint/speed**

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

element **anpProfilePoint/thrustSet**

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

element **anpProfilePoint/opMode**

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

complexType **anpProfilePoints**

diagram	 anpProfilePoints A set of point profile data. point <i>1..∞</i>
children	point
used by	element anpProfile/profilePoints
annotation	documentation A set of point profile data.

element **anpProfilePoints/point**

diagram	
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	<pre> graph LR point[point] --> pointNum[pointNum] point --> distance[distance] point --> altitude[altitude] point --> speed[speed] point --> thrustSet[thrustSet] point --> opMode[opMode] </pre> <p>point (minOcc 1, maxOcc unbounded)</p> <p>pointNum Point index number. Must be sequential and unique, starting at 1.</p> <p>distance Distance along the ground relative to start (min = -9999999.9, max = 9999999.9, feet).</p> <p>altitude Altitude of aircraft (min = -9999, max = 60000, feet).</p> <p>speed Ground speed at this point (min = 0, max = 600, knots).</p> <p>thrustSet Corrected net thrust per engine at this point (min = 0.1, max = 99999, lbs or % max thrust).</p> <p>opMode Operational mode. Valid values: A (Approach), D (Departure), X (Overflight).</p>
type	anpProfilePoint
properties	minOcc 1 maxOcc unbounded content complex
children	pointNum distance altitude speed thrustSet opMode

complexType anpProfileSet

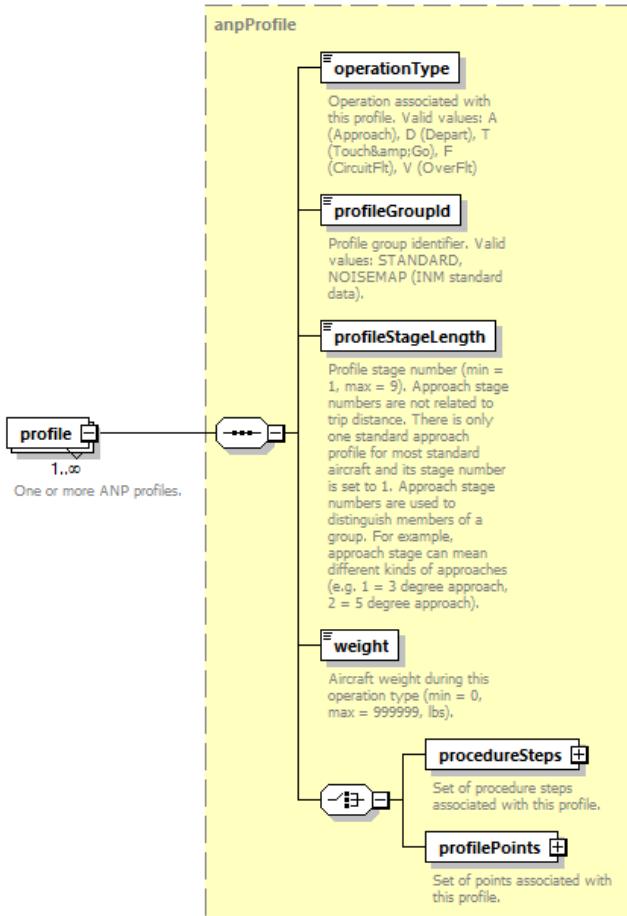
diagram	<pre> graph LR anpProfileSet[anpProfileSet] --> anpAirplaneld[anpAirplaneld] anpProfileSet --> profile[profile] </pre> <p>anpProfileSet (minOcc 1, maxOcc unbounded)</p> <p>anpAirplaneld Airplane's ANP ID.</p> <p>profile (minOcc 1, maxOcc unbounded)</p>
children	anpAirplaneld profile
used by	element fleet/anpProfileSet
annotation	documentation A profile set for an ANP airplane.

element anpProfileSet/anpAirplaneld

diagram	<pre> graph LR anpAirplaneld[anpAirplaneld] </pre> <p>anpAirplaneld Airplane's ANP ID.</p>
type	anpAirplaneld
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's ANP ID.

element anpProfileSet/profile

diagram	
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type	anpProfile
properties	minOcc 1 maxOcc unbounded content complex
children	operationType profileGroupId profileStageLength weight procedureSteps profilePoints
annotation	documentation One or more ANP profiles.

complexType **anpThrustGeneral**

diagram	
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	<pre> graph LR anpThrustGeneral[anpThrustGeneral] --- thrustType[thrustType] anpThrustGeneral --- coeff_E[coeff_E] anpThrustGeneral --- coeff_F[coeff_F] anpThrustGeneral --- coeff_GA[coeff_GA] anpThrustGeneral --- coeff_GB[coeff_GB] anpThrustGeneral --- coeff_H[coeff_H] anpThrustGeneral --- coeff_K1[coeff_K1] anpThrustGeneral --- coeff_K2[coeff_K2] </pre> <p>anpThrustGeneral General thrust data for an ANP aircraft.</p> <p>thrustType The type of generalized thrust-setting.</p> <p>coeff_E Corrected net thrust per engine coefficient. Valid values: -199999.9 through 99999.9. (lb).</p> <p>coeff_F Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F)</p> <p>coeff_GA Altitude adjustment coefficient at MSL. (lb/ft)</p> <p>coeff_GB Altitude-squared adjustment coefficient at MSL. (lb/ft^2)</p> <p>coeff_H Temperature adjustment coefficient. (lb°C)</p> <p>coeff_K1 EPR or N1/sqrt(theta) adjustment coefficient. (lb/EPR)</p> <p>coeff_K2 EPR- or N1/sqrt(theta)-squared adjustment coefficient. (lb/EPR2)</p>
children	thrustType coeff_E coeff_F coeff_GA coeff_GB coeff_H coeff_K1 coeff_K2
used by	element anpThrustSet/thrustGeneral
annotation	documentation General thrust data for an ANP aircraft.

element anpThrustGeneral/thrustType

diagram	<pre> graph LR thrustType[thrustType] </pre> <p>thrustType The type of generalized thrust-setting.</p>									
type	string1									
properties	content simple									
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>1</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	minLength	0		maxLength	1	
Kind	Value	Annotation								
minLength	0									
maxLength	1									
annotation	documentation The type of generalized thrust-setting.									

element anpThrustGeneral/coeff_E

diagram	<pre> graph LR coeff_E[coeff_E] </pre> <p>coeff_E Corrected net thrust per engine coefficient. Valid values: -199999.9 through 99999.9. (lb).</p>
type	xs:double
properties	content simple
annotation	documentation Corrected net thrust per engine coefficient. Valid values: -199999.9 through 99999.9. (lb).

element anpThrustGeneral/coeff_F

diagram	
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	 <p>Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F)</p>
type	xs:double
properties	content simple
annotation	documentation Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F)

element anpThrustGeneral/coeff_GA

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

element anpThrustGeneral/coeff_GB

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

element anpThrustGeneral/coeff_H

diagram	 <p>Temperature adjustment coefficient. (lb/°C)</p>
type	xs:double
properties	content simple
annotation	documentation Temperature adjustment coefficient. (lb/°C)

element anpThrustGeneral/coeff_K1

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

element anpThrustGeneral/coeff_K2

diagram	 <p>EPR- or N1/sqr(theta)-squared adjustment coefficient. (lb/EPR2)</p>
type	xs:double
properties	content simple

annotation	documentation EPR- or N1/sqrt(theta)-squared adjustment coefficient. (lb/EPR2)
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complexType **anpThrustJet**

diagram	<pre> classDiagram class anpThrustJet { <<Jet thrust data for an ANP aircraft.>> } class thrustType { <<Type of thrust. Primary key<>> <<UNITS: T = Max Takeoff, S = High Temp Takeoff, C = Max Climb, B = High Temp Climb, N = Max Continuous, M = High Temp Continuous<>> } class coeff_E { <<Corrected net thrust per engine coefficient. Valid values: 0.0 through 500000.0. (lb)>> } class coeff_F { <<Speed (TAS) adjustment coefficient. Valid values: -200.000000 through 1000.000000. (lb/knot TAS at sea level and 59°F)>> } class coeff_GA { <<Altitude adjustment coefficient at MSL. (lb/ft)>> } class coeff_GB { <<Altitude-squared adjustment coefficient at MSL. (lb/ft^2)>> } class coeff_H { <<Temperature adjustment coefficient. (lb/^C)>> } anpThrustJet < -- thrustType anpThrustJet < -- coeff_E anpThrustJet < -- coeff_F anpThrustJet < -- coeff_GA anpThrustJet < -- coeff_GB anpThrustJet < -- coeff_H </pre> <p>Jet thrust data for an ANP aircraft.</p>
children	thrustType coeff_E coeff_F coeff_GA coeff_GB coeff_H
used by	element anpThrustSet/thrustJet
annotation	documentation Jet thrust data for an ANP aircraft.

element **anpThrustJet/thrustType**

diagram	<pre> classDiagram class thrustType { <<Type of thrust. Primary key<>> <<UNITS: T = Max Takeoff, S = High Temp Takeoff, C = Max Climb, B = High Temp Climb, N = Max Continuous, M = High Temp Continuous<>> } </pre>
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of thrust. Primary key UNITS: T = Max Takeoff, S = High Temp Takeoff, C = Max Climb, B = High Temp Climb, N = Max Continuous, M = High Temp Continuous

element **anpThrustJet/coeff_E**

diagram	<pre> classDiagram class coeff_E { <<Corrected net thrust per engine coefficient. Valid values: 0.0 through 500000.0. (lb)>> } </pre>
type	xs:double
properties	content simple
annotation	documentation Corrected net thrust per engine coefficient. Valid values: 0.0 through 500000.0. (lb)

element **anpThrustJet/coeff_F**

diagram	
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	<p>coeff_F</p> <p>Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F)</p>
type	xs:double
properties	content simple
annotation	documentation Speed (TAS) adjustment coefficient. Valid values: -200.00000 through 1000.00000. (lb/knot TAS at sea level and 59°F)

element **anpThrustJet/coeff_GA**

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

element **anpThrustJet/coeff_GB**

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

element **anpThrustJet/coeff_H**

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

complexType **anpThrustProp**

diagram	<p>The diagram illustrates the structure of the anpThrustProp complex type. It starts with a box labeled anpThrustProp, which is connected via a sequence of three nodes (represented by ovals with three dots between them) to three separate boxes: thrustType, efficiency, and power. Each of these three boxes has its own detailed description below it.</p> <p>anpThrustProp</p> <p>Prop thrust data for an ANP aircraft.</p> <p>thrustType</p> <p>Type of thrust.</p> <p>efficiency</p> <p>The propeller efficiency ratio. Valid values: 0.50 to 1.00.</p> <p>power</p> <p>Net propulsive power per engine (HP). Valid values: 0 to 9999.9.</p>
children	thrustType efficiency power
used by	element anpThrustSet/thrustProp
annotation	documentation Prop thrust data for an ANP aircraft.

element **anpThrustProp/thrustType**

diagram	<p>thrustType</p> <p>Type of thrust.</p>
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type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Type of thrust.

element **anpThrustProp/efficiency**

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

element **anpThrustProp/power**

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

complexType **anpThrustSet**

diagram	<p>anpThrustSet specifies a set of thrust records for an ANP airplane. It has associations with anpAirplaneld, thrustGeneral, thrustJet, thrustProp, and tsfcCoefficients.</p>
children	anpAirplaneld thrustGeneral thrustJet thrustProp tsfcCoefficients
used by	element fleet/anpThrustSet
annotation	documentation Specifies a set of thrust records for an ANP airplane.

element **anpThrustSet/anpAirplaneld**

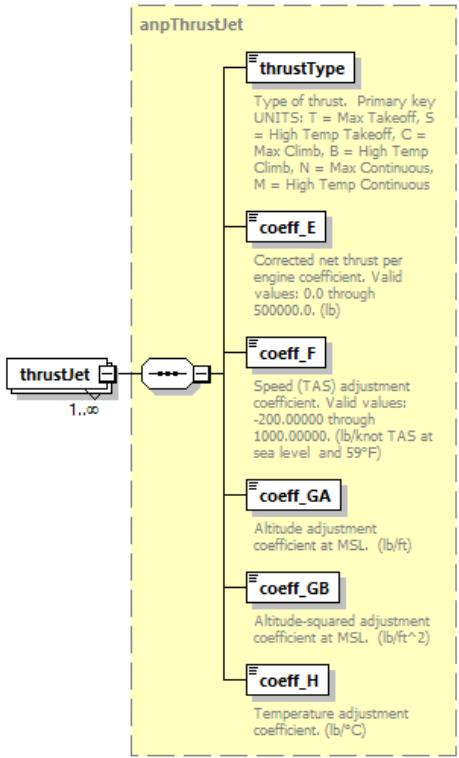
diagram	anpAirplaneld Airplane's ANP ID.
type	anpAirplaneld
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's ANP ID.

element **anpThrustSet/thrustGeneral**

diagram	<pre> classDiagram class anpThrustGeneral { thrustType coeff_E coeff_F coeff_GA coeff_GB coeff_H coeff_K1 coeff_K2 } anpThrustGeneral "0..∞" -- "0..∞" : thrustGeneral </pre>
type	anpThrustGeneral
properties	minOcc 0 maxOcc unbounded content complex
children	thrustType coeff_E coeff_F coeff_GA coeff_GB coeff_H coeff_K1 coeff_K2

element **anpThrustSet/thrustJet**

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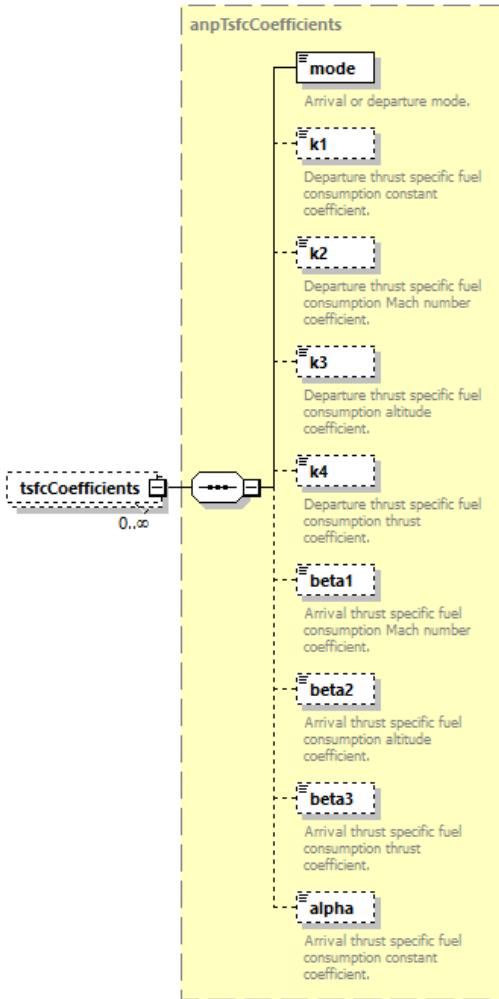
	type	anpThrustJet
properties	minOcc 1 maxOcc unbounded content complex	
children	thrustType coeff_E coeff_F coeff_GA coeff_GB coeff_H	

element `anpThrustSet/thrustProp`

diagram	<pre> classDiagram class anpThrustProp { <<thrustType>> <<efficiency>> <<power>> } class thrustProp { <<1..>> } thrustProp "1..>" anpThrustProp </pre> <p>The diagram shows the <code>anpThrustProp</code> class with a primary key <code>thrustType</code>. It also contains two other properties: <code>efficiency</code> and <code>power</code>. The <code>thrustType</code> property is described as the type of thrust. The <code>efficiency</code> property is described as the propeller efficiency ratio, valid values: 0.50 to 1.00. The <code>power</code> property is described as the net propulsive power per engine (HP), valid values: 0 to 9999.9.</p>
type	anpThrustProp
properties	minOcc 1 maxOcc unbounded content complex
children	thrustType efficiency power

element `anpThrustSet/tsfcCoefficients`

diagram	
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type	anpTsfcCoefficients
properties	minOcc 0 maxOcc unbounded content complex
children	mode k1 k2 k3 k4 beta1 beta2 beta3 alpha

complexType `anpTsfcCoefficients`

diagram

	<p>mode Arrival or departure mode.</p> <p>k1 Departure thrust specific fuel consumption constant coefficient.</p> <p>k2 Departure thrust specific fuel consumption Mach number coefficient.</p> <p>k3 Departure thrust specific fuel consumption altitude coefficient.</p> <p>k4 Departure thrust specific fuel consumption thrust coefficient.</p> <p>beta1 Arrival thrust specific fuel consumption Mach number coefficient.</p> <p>beta2 Arrival thrust specific fuel consumption altitude coefficient.</p> <p>beta3 Arrival thrust specific fuel consumption thrust coefficient.</p> <p>alpha Arrival thrust specific fuel consumption constant coefficient.</p> <p>anpTsfcCoefficients TSFC coefficient data for an ANP aircraft.</p>
children	mode k1 k2 k3 k4 beta1 beta2 beta3 alpha
used by	element anpThrustSet/tsfcCoefficients
annotation	documentation TSFC coefficient data for an ANP aircraft.

element **anpTsfcCoefficients/mode**

diagram	<p>mode Arrival or departure mode.</p>
type	string1
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 1
annotation	documentation Arrival or departure mode.

element **anpTsfcCoefficients/k1**

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

element anpTsfcCoefficients/k2

diagram	 k2 Departure thrust specific fuel consumption Mach number coefficient.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Departure thrust specific fuel consumption Mach number coefficient.

element anpTsfcCoefficients/k3

diagram	 k3 Departure thrust specific fuel consumption altitude coefficient.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Departure thrust specific fuel consumption altitude coefficient.

element anpTsfcCoefficients/k4

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

element anpTsfcCoefficients/beta1

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

element anpTsfcCoefficients/beta2

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

Arrival thrust specific fuel consumption altitude coefficient.

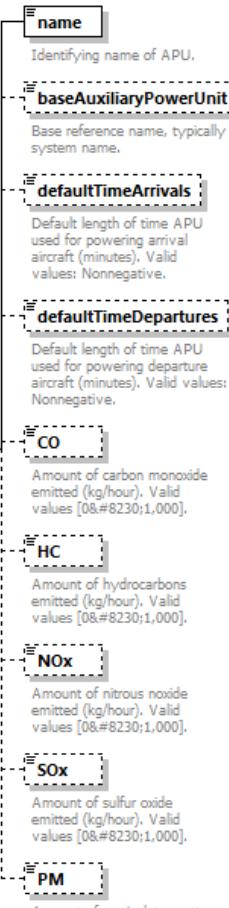
element **anpTsfcCoefficients/beta3**

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

element **anpTsfcCoefficients/alpha**

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

complexType **auxiliaryPowerUnit**

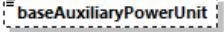
diagram	 auxiliaryPowerUnit <p>This element supports the definition of custom auxiliary power units. These are most often on-board generators that provide electrical power to the aircraft while its engines are shut down.</p>  <ul style="list-style-type: none"> name: Identifying name of APU. baseAuxiliaryPowerUnit: Base reference name, typically a system name. defaultTimeArrivals: Default length of time APU used for powering arrival aircraft (minutes). Valid values: Nonnegative. defaultTimeDepartures: Default length of time APU used for powering departure aircraft (minutes). Valid values: Nonnegative. CO: Amount of carbon monoxide emitted (kg/hour). Valid values [0..#8230;1,000]. HC: Amount of hydrocarbons emitted (kg/hour). Valid values [0..#8230;1,000]. NOx: Amount of nitrous oxide emitted (kg/hour). Valid values [0..#8230;1,000]. SOx: Amount of sulfur oxide emitted (kg/hour). Valid values [0..#8230;1,000]. PM: Amount of particulate matter emitted (kg/hour). Valid values [0..#8230;1,000].
children	name baseAuxiliaryPowerUnit defaultTimeArrivals defaultTimeDepartures CO HC NOx SOx PM
used by	element fleet/auxiliaryPowerUnit

annotation	documentation This element supports the definition of custom auxiliary power units. These are most often on-board generators that provide electrical power to the aircraft while its engines are shut down.
------------	--

element auxiliaryPowerUnit/name

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

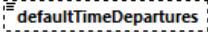
element auxiliaryPowerUnit/baseAuxiliaryPowerUnit

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

element auxiliaryPowerUnit/defaultTimeArrivals

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

element auxiliaryPowerUnit/defaultTimeDepartures

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

element auxiliaryPowerUnit/CO

diagram	
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	 <p>Amount of carbon monoxide emitted (kg/hour). Valid values [0..1,000].</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of carbon monoxide emitted (kg/hour). Valid values [0..1,000].

element auxiliaryPowerUnit/HC

	 <p>Amount of hydrocarbons emitted (kg/hour). Valid values [0..1,000].</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of hydrocarbons emitted (kg/hour). Valid values [0..1,000].

element auxiliaryPowerUnit/NOx

	 <p>Amount of nitrous noxide emitted (kg/hour). Valid values [0..1,000].</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of nitrous noxide emitted (kg/hour). Valid values [0..1,000].

element auxiliaryPowerUnit/SOx

	 <p>Amount of sulfur oxide emitted (kg/hour). Valid values [0..1,000].</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of sulfur oxide emitted (kg/hour). Valid values [0..1,000].

element auxiliaryPowerUnit/PM

	 <p>Amount of particulate matter emitted (kg/hour). Valid values [0..1,000].</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Amount of particulate matter emitted (kg/hour). Valid values [0..1,000].

complexType **badaAirplane**

diagram	<pre> badaAirplane ---+-----+ +-----+ badaAirplaneId mfgDescription numEngines engineTypeCode wakeCategory referenceAircraftMass minAircraftMass maxAircraftMass maxPayloadMass weightGradient </pre> <p>Block used to create a user defined BADA airplane.</p>
children	badaAirplaneId mfgDescription numEngines engineTypeCode wakeCategory referenceAircraftMass minAircraftMass maxAircraftMass maxPayloadMass weightGradient

	maxOperatingSpeed maxOperatingMachNumber maxOperatingAltitude maxAltitudeAtMaxTakeoffWeight temperatureGradientOnMaximumAltitude wingSurfaceArea buffetOnsetLiftCoeff buffetingGradient machDragCoeff
used by	element fleet/badaAirplane
annotation	documentation Block used to create a user defined BADA airplane.

element **badaAirplane/badaAirplaneId**

diagram	 badaAirplaneId ID of a BADA airplane model. Must be unique.
type	badaAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation ID of a BADA airplane model. Must be unique.

element **badaAirplane/mfgDescription**

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

element **badaAirplane/numEngines**

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

element **badaAirplane/engineTypeCode**

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

element **badaAirplane/wakeCategory**

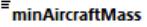
diagram	 wakeCategory The wake category.
type	badaWakeType
properties	content simple

facets	Kind	Value	Annotation
		pattern Heavy H Light L Medium M SuperHeavy J	
annotation	documentation		The wake category.

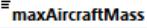
element badaAirplane/referenceAircraftMass

diagram	 <p>Minimum aircraft mass (min = 0.0, max = 455.0, metric ton).</p>
type	xs:double
properties	content simple
annotation	documentation Minimum aircraft mass (min = 0.0, max = 455.0, metric ton).

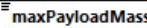
element badaAirplane/minAircraftMass

diagram	 <p>Minimum aircraft mass (min = 0.0, max = 455.0, metric ton).</p>
type	xs:double
properties	content simple
annotation	documentation Minimum aircraft mass (min = 0.0, max = 455.0, metric ton).

element badaAirplane/maxAircraftMass

diagram	 <p>Maximum aircraft mass (min = 0.0, max = 455.0, metric ton).</p>
type	xs:double
properties	content simple
annotation	documentation Maximum aircraft mass (min = 0.0, max = 455.0, metric ton).

element badaAirplane/maxPayloadMass

diagram	 <p>Maximum payload mass (min = 0.0, max = 455.0, metric ton).</p>
type	xs:double
properties	content simple
annotation	documentation Maximum payload mass (min = 0.0, max = 455.0, metric ton).

element badaAirplane/weightGradient

diagram	 <p>Weight gradient on maximum altitude (min = 0.0, max = 10.0, feet/kg).</p>
type	xs:double
properties	content simple
annotation	documentation Weight gradient on maximum altitude (min = 0.0, max = 10.0, feet/kg).

element badaAirplane/maxOperatingSpeed

diagram	
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	<p>maxOperatingSpeed</p> <p>Maximum operating speed (min = 0.0, max = 600.0, knots cas).</p>
type	xs:double
properties	content simple
annotation	documentation Maximum operating speed (min = 0.0, max = 600.0, knots cas).

element badaAirplane/maxOperatingMachNumber

diagram	<p>maxOperatingMachNumber</p> <p>Maximum operating Mach number (min = 0.0, max = 10.0, mach).</p>
type	xs:double
properties	content simple
annotation	documentation Maximum operating Mach number (min = 0.0, max = 10.0, mach).

element badaAirplane/maxOperatingAltitude

diagram	<p>maxOperatingAltitude</p> <p>Maximum operating altitude (min = ?9999.0, max = 60000.0, feel MSL).</p>
type	xs:double
properties	content simple
annotation	documentation Maximum operating altitude (min = ?9999.0, max = 60000.0, feel MSL).

element badaAirplane/maxAltitudeAtMaxTakeoffWeight

diagram	<p>maxAltitudeAtMaxTakeoffWeight</p> <p>Maximum altitude at maximum takeoff weight and ISA (min = ?9999.0, max = 60000.0, feel MSL).</p>
type	xs:double
properties	content simple
annotation	documentation Maximum altitude at maximum takeoff weight and ISA (min = ?9999.0, max = 60000.0, feel MSL).

element badaAirplane/temperatureGradientOnMaximumAltitude

diagram	<p>temperatureGradientOnMaximum...</p> <p>Temperature gradient on maximum altitude.</p>
type	xs:double
properties	content simple
annotation	documentation Temperature gradient on maximum altitude.

element badaAirplane/wingSurfaceArea

diagram	<p>wingSurfaceArea</p> <p>Wing surface area (min = 0.0, max = 1000.0, square meters).</p>
type	xs:double
properties	content simple
annotation	documentation Wing surface area (min = 0.0, max = 1000.0, square meters).

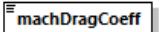
element **badaAirplane/buffetOnsetLiftCoeff**

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).

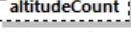
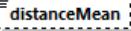
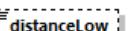
element **badaAirplane/buffetingGradient**

diagram	 buffetingGradient Buffeting gradient (jet only).
type	xs:double
properties	content simple
annotation	documentation Buffeting gradient (jet only).

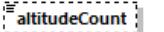
element **badaAirplane/machDragCoeff**

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**

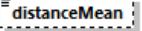
diagram	 badaAltitudeDistribution BADA altitude distribution data.	 altitudeCount Flight counts for a selected altitude.
children		 distanceMean Mean distance for a selected altitude. (nMi).
used by		 distanceStddev Standard deviation for the distance of a selected altitude. (nMi).
annotation		 distanceLow Min distance for a selected altitude. (nMi).
		 distanceHigh Maximum distance for a selected altitude. (nMi).
		 altitude The selected cruise altitude. (ft)

element **badaAltitudeDistribution/altitudeCount**

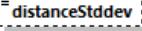
diagram	 altitudeCount Flight counts for a selected altitude.
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type	xs:int
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Flight counts for a selected altitude.

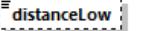
element **badaAltitudeDistribution/distanceMean**

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

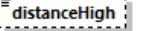
element **badaAltitudeDistribution/distanceStddev**

diagram	 distanceStddev Standard deviation for the distance of a selected altitude. (nMi).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Standard deviation for the distance of a selected altitude. (nMi).

element **badaAltitudeDistribution/distanceLow**

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

element **badaAltitudeDistribution/distanceHigh**

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

element **badaAltitudeDistribution/altitude**

diagram	 altitude The selected cruise altitude. (ft)
type	xs:int

properties	content simple
annotation	documentation The selected cruise altitude. (ft)

complexType **badaAltitudeDistributionSet**

diagram	<pre> graph LR A[badaAltitudeDistributionSet] --> B[badaAirplaneId] B --> C[altitudeDistribution] style A fill:#e0f2e0 style B fill:#d9eaf7 style C fill:#d9eaf7 </pre> <p>A block for defining a BADA altitude distribution set.</p>
children	badaAirplaneId altitudeDistribution
used by	elements fleet/badaAltitudeDistributionSet fleet/badaDefaultAltitudeDistributionSet
annotation	documentation A block for defining a BADA altitude distribution set.

element **badaAltitudeDistributionSet/badaAirplaneId**

diagram	<pre> graph LR A[badaAirplaneId] style A fill:#d9eaf7 </pre> <p>Airplane's BADA ID.</p>
type	badaAirplaneId
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Airplane's BADA ID.

element **badaAltitudeDistributionSet/altitudeDistribution**

diagram	<pre> graph LR A[altitudeDistribution] --> B[altitudeCount] A --> C[distanceMean] A --> D[distanceStddev] A --> E[distanceLow] A --> F[distanceHigh] A --> G[altitude] style A fill:#d9eaf7 style B fill:#d9eaf7 style C fill:#d9eaf7 style D fill:#d9eaf7 style E fill:#d9eaf7 style F fill:#d9eaf7 style G fill:#d9eaf7 </pre> <p>Flight counts for a selected altitude.</p> <p>Mean distance for a selected altitude. (nMi).</p> <p>Standard deviation for the distance of a selected altitude. (nMi).</p> <p>Min distance for a selected altitude. (nMi).</p> <p>Maximum distance for a selected altitude. (nMi).</p> <p>The selected cruise altitude. (ft)</p>
type	badaAltitudeDistribution
properties	minOcc 1 maxOcc unbounded content complex
children	altitudeCount distanceMean distanceStddev distanceLow distanceHigh altitude

complexType **badaConfig**

diagram	
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	<pre> graph LR badaConfig[badaConfig] --> phase[phase] badaConfig --> configName[configName] badaConfig --> stallSpeed[stallSpeed] badaConfig --> inducedDrag[inducedDrag] </pre> <p>badaConfig BADA Configuration Coefficient data.</p> <p>phase .The phase of flight (IC=initial climb, TO=take-off, AP=approach, LD=landing).</p> <p>configName The configuration identifier.</p> <p>stallSpeed Stall speed, CAS. Valid values: 0.0 through 600.0. (kts)</p> <p>parasiticDrag The parasitic drag coefficient. Valid values: 0.0 through 10.0.</p> <p>inducedDrag The induced drag coefficient. Valid values: 0.0 through 10.0.</p>
children	phase configName stallSpeed parasiticDrag inducedDrag
used by	element badaConfigSet/badaConfig
annotation	documentation BADA Configuration Coefficient data.

element **badaConfig/phase**

diagram	<pre> graph LR phase[phase] --> doc[.The phase of flight (IC=initial climb, TO=take-off, AP=approach, LD=landing).] </pre>
type	badaPhaseType
properties	content simple
facets	Kind Value Annotation pattern InitialClimb IC Takeoff TO Approach AP Landing LD Cruise CR
annotation	documentation .The phase of flight (IC=initial climb, TO=take-off, AP=approach, LD=landing).

element **badaConfig/configName**

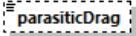
diagram	<pre> graph LR configName[configName] --> doc[The configuration identifier.] </pre>
type	string10
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 10
annotation	documentation The configuration identifier.

element **badaConfig/stallSpeed**

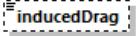
diagram	<pre> graph LR stallSpeed[stallSpeed] --> doc[Stall speed, CAS. Valid values: 0.0 through 600.0. (kts)] </pre>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation

Stall speed, CAS. Valid values: 0.0 through 600.0. (kts)

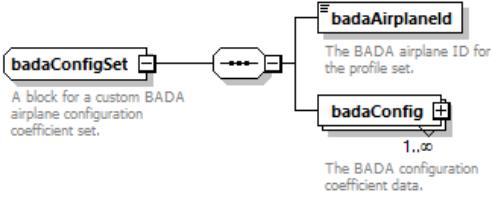
element **badaConfig/parasiticDrag**

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

element **badaConfig/inducedDrag**

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

complexType **badaConfigSet**

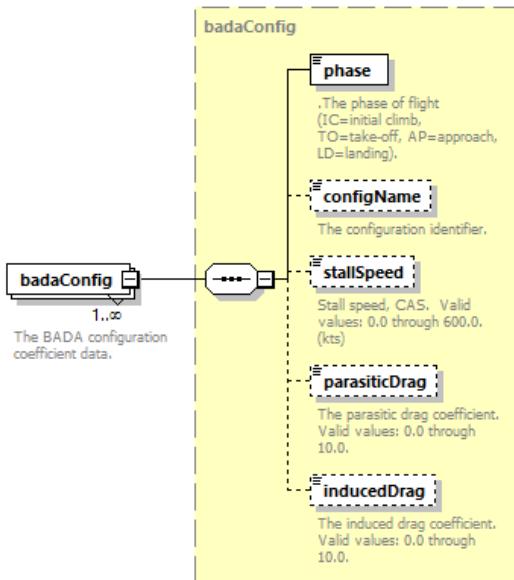
diagram	 <p>A block for a custom BADA airplane configuration coefficient set.</p> <p>badaAirplaneId The BADA airplane ID for the profile set.</p> <p>badaConfig The BADA configuration coefficient data. 1..∞</p>
children	badaAirplaneId badaConfig
used by	element fleet/badaConfigSet
annotation	documentation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

element **badaConfigSet/badaAirplaneId**

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

element **badaConfigSet/badaConfig**

diagram	
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	type	badaConfig
properties	minOcc 1 maxOcc unbounded content complex	
children	phase configName stallSpeed parasiticDrag inducedDrag	
annotation	documentation The BADA configuration coefficient data.	

complexType **badaFuel**

diagram	<pre> classDiagram class badaFuel { badaAirplaneld coeff_CF1 coeff_CF2 coeff_CF3 coeff_CF4 coeff_CR } badaFuel < -- badaFuel : A BADA Fuel data record. </pre> <p>The diagram shows the badaFuel class with the following attributes:</p> <ul style="list-style-type: none"> badaAirplaneld: The BADA aircraft ID coeff_CF1: 1st thrust specific fuel consumption coefficient. Valid values: 0.0 through 10.0. Variable units, (kg/(min*kN)) (jet); kg/(min*kN*knot); (turboprop); kg/min (piston)) coeff_CF2: 2nd thrust specific fuel consumption coefficient. Valid values: 0.0 through 1. (kts) coeff_CF3: 1st descent fuel flow coefficient. Min= Valid values: 0.0 through 100.0.(kg/min) coeff_CF4: 2nd descent fuel flow coefficient. Valid values: 0.0 through 1. (ft) coeff_CR: Cruise fuel flow correction coefficient. Valid values: 0.0 through 10.0. <p>An annotation "A BADA Fuel data record." is shown below the class name.</p>
children	badaAirplaneld coeff_CF1 coeff_CF2 coeff_CF3 coeff_CF4 coeff_CR
used by	element fleet/badaFuel
annotation	documentation A BADA Fuel data record.

element **badaFuel/badaAirplaneld**

diagram	<pre> classDiagram class badaAirplaneld { badaAirplaneld } badaAirplaneld < -- badaAirplaneld : The BADA aircraft ID </pre>
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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.

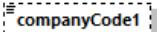
complexType **badaProfile**

diagram	<p>A BADA profile APF (airline procedures file) record.</p>
children	massRangeValue companyCode1 companyCode2 companyName aircraftVersion engine climbSpeedBelowTransitionAltitude climbSpeedAboveTransitionAltitude climbMachNumber cruiseSpeedBelowTransitionAltitude cruiseSpeedAboveTransitionAltitude cruiseMachNumber descentSpeedUnderTransitionAltitude descentSpeedOverTransitionAltitude descentMachNumber
used by	element badaProfileSet/profile
annotation	documentation

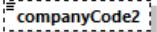
element **badaProfile/massRangeValue**

diagram	 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).

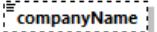
element **badaProfile/companyCode1**

diagram	 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	 Two-letter company code.
type	string2
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 2
annotation	documentation Two-letter company code.

element **badaProfile/companyName**

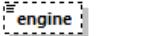
diagram	 Name of airline that uses this procedure.
type	string15
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 15
annotation	documentation Name of airline that uses this procedure.

element **badaProfile/aircraftVersion**

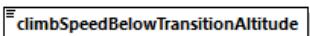
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diagram	 Aircraft version to which this procedure applies.
type	string12
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 12
annotation	documentation Aircraft version to which this procedure applies.

element badaProfile/engine

diagram	 Engine identifier.
type	string12
properties	minOcc 0 maxOcc 1 content simple
facets	Kind Value Annotation minLength 0 maxLength 12
annotation	documentation Engine identifier.

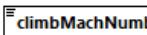
element badaProfile/climbSpeedBelowTransitionAltitude

diagram	 Standard climb 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) between 1,500/6,000 and 10,000 feet. Valid values: 0.0, through 600.0. (kts).

element badaProfile/climbSpeedAboveTransitionAltitude

diagram	 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) between 10,000 feet and Mach transition altitude. Valid values: 0.0 through 600.0. (kts)

element badaProfile/climbMachNumber

diagram	 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	 cruiseSpeedBelowTransitionAltitu... 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	 cruiseSpeedAboveTransitionAltitu... 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	 descentSpeedUnderTransitionAltit... 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	 descentSpeedOverTransitionAltitu... 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	<code>xs:double</code>
properties	content simple
annotation	<p>documentation</p> <p>Standard descent Mach number above transition altitude. Valid values: 0.0 through 10.0.</p>

complexType **badaProfileSet**

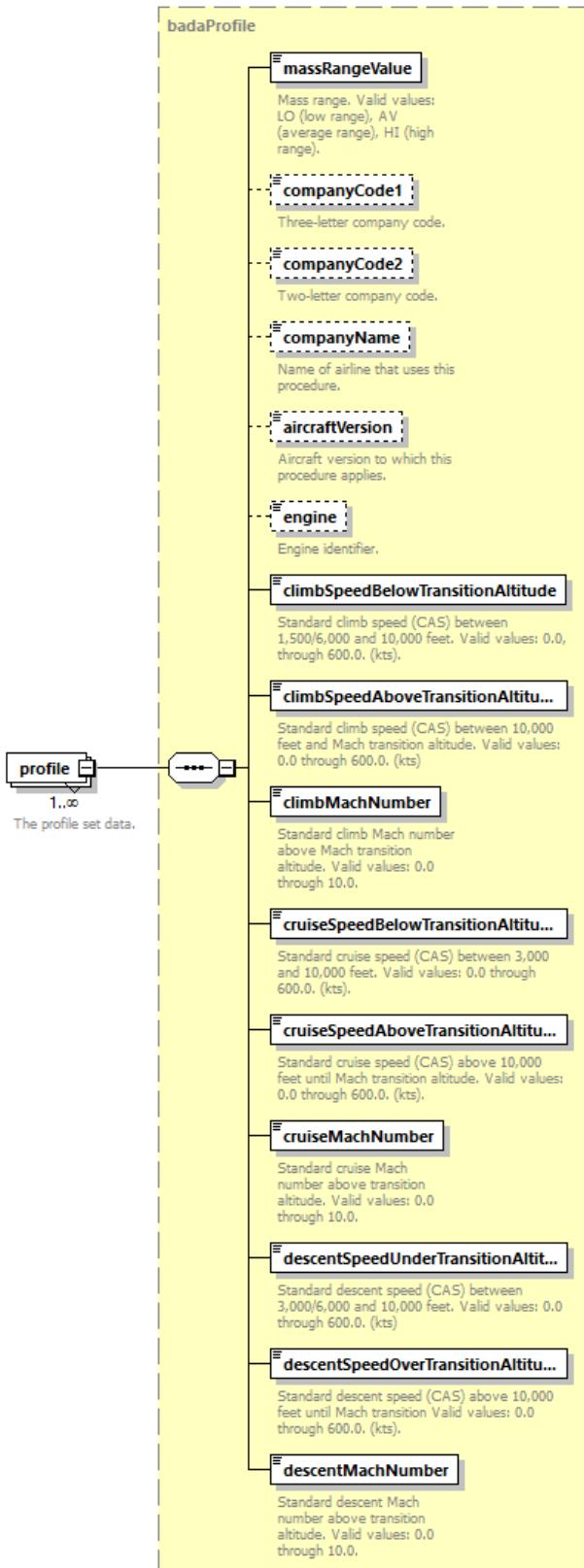
diagram	<pre> graph LR A[badaProfileSet] --> B[badaAirplaneId] B --> C[profile] </pre> <p>A block used to define a custom BADA profile set.</p> <p>The BADA airplane ID for the profile set.</p> <p>The profile set data.</p>
children	badaAirplaneId profile
used by	element fleet/badaProfileSet
annotation	<p>documentation</p> <p>A block used to define a custom BADA profile set.</p>

element **badaProfileSet/badaAirplaneId**

diagram	<pre> graph LR A[badaAirplaneId] </pre> <p>The BADA airplane ID for the profile set.</p>									
type	badaAirplaneId									
properties	content simple									
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>255</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	minLength	0		maxLength	255	
Kind	Value	Annotation								
minLength	0									
maxLength	255									
annotation	<p>documentation</p> <p>The BADA airplane ID for the profile set.</p>									

element **badaProfileSet/profile**

diagram	
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type	badaProfile
properties	minOcc 1 maxOcc unbounded content complex
children	massRangeValue companyCode1 companyCode2 companyName aircraftVersion engine climbSpeedBelowTransitionAltitude climbSpeedAboveTransitionAltitude climbMachNumber cruiseSpeedBelowTransitionAltitude cruiseSpeedAboveTransitionAltitude cruiseMachNumber descentSpeedUnderTransitionAltitude descentSpeedOverTransitionAltitude descentMachNumber
annotation	documentation The profile set data.

complexType **badaThrust**

diagram	<pre> classDiagram class badaAirplaneId { <<The BADA airplane ID.>> } class badaThrust { <<A custom BADA thrust data record.>> } badaThrust < -- badaAirplaneId class coeff_TC1 { <<1st max climb thrust coefficient. Valid values: 0.0 through 1.>> } class coeff_TC2 { <<2nd max climb thrust coefficient. Valid values: 0.0 through 1e9. (ft)>> } class coeff_TC3 { <<3rd max climb thrust coefficient. Valid values: -1034000 to 665880. Variable units, (1/feet^2 (jet); Newton (turboprop); knot-Newton (piston))>> } class coeff_TC4 { <<1st thrust temperature coefficient. Valid values: -45 through 50. (K)>> } class coeff_TC5 { <<2nd thrust temperature coefficient. Valid values: 0.0 through 10.0. (1/K)>> } class coeff_TDL { <<Low altitude descent thrust coefficient. Valid values: 0.0 through 10.0>> } class coeff_TDH { <<High altitude descent thrust coefficient. Valid values: 0.0 through 10.0>> } class coeff_APP { <<Approach thrust coefficient. Valid values: 0.0 through 10.0.>> } class coeff_LD { <<Landing thrust coefficient. Valid values: 0.0 through 10.0.>> } class descentAlt { <<Transition altitude above MSL for calculation of descent thrust. Valid values: -9999.0 through 60000.0. (ft)>> } class descentSpeed { <<Reference descent speed. Valid values: 0.0 through 600.0. (kts)>> } class descentMach { <<Reference descent Mach number. Valid values: 0.0 through 10.0.>> } class notes { <<User notes.>> } </pre>
children	badaAirplaneId coeff_TC1 coeff_TC2 coeff_TC3 coeff_TC4 coeff_TC5 coeff_TDL coeff_TDH coeff_APP coeff_LD descentAlt descentSpeed descentMach notes
used by	element fleet/badaThrust
annotation	documentation A custom BADA thrust data record.

element **badaThrust/badaAirplaneId**

diagram	<pre> classDiagram class badaAirplaneId { <<The BADA airplane ID.>> } </pre>
---------	--

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

element **badaThrust/coeff_TC1**

diagram	coeff_TC1 1st max climb thrust coefficient. Valid values: 0.0 through 1.
type	xs:double
properties	content simple
annotation	documentation 1st max climb thrust coefficient. Valid values: 0.0 through 1.

element **badaThrust/coeff_TC2**

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

element **badaThrust/coeff_TC3**

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

element **badaThrust/coeff_TC4**

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

element **badaThrust/coeff_TC5**

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

annotation	documentation 2nd thrust temperature coefficient. Valid values: 0.0 through 10.0. (1/K)
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element **badaThrust/coeff_TDL**

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

element **badaThrust/coeff_TDH**

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

element **badaThrust/coeff_APP**

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

element **badaThrust/coeff_LD**

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

element **badaThrust/descentAlt**

diagram	 descentAlt Transition altitude above MSL for calculation of descent thrust. Valid values: -9999.0 through 60000.0. (ft)
type	xs:double
properties	content simple
annotation	documentation Transition altitude above MSL for calculation of descent thrust. Valid values: -9999.0 through 60000.0. (ft)

element **badaThrust/descentSpeed**

diagram	
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	<p>descentSpeed</p> <p>Reference descent speed. Valid values: 0.0 through 600.0. (kts)</p>
type	xs:double
properties	content simple
annotation	documentation Reference descent speed. Valid values: 0.0 through 600.0. (kts)

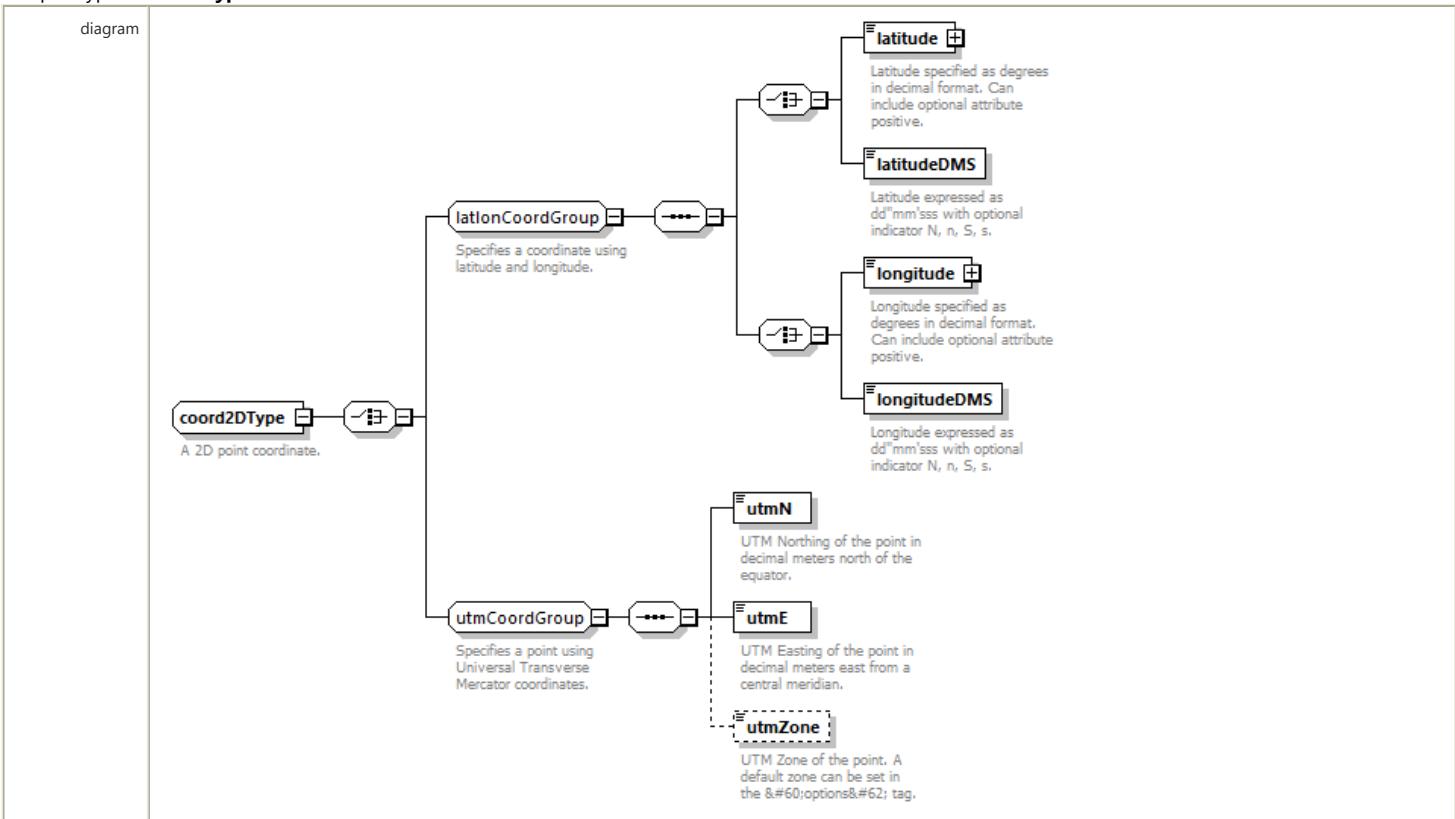
element **badaThrust/descentMach**

diagram	<p>descentMach</p> <p>Reference descent Mach number. Valid values: 0.0 through 10.0.</p>
type	xs:float
properties	content simple
annotation	documentation Reference descent Mach number. Valid values: 0.0 through 10.0.

element **badaThrust/notes**

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

complexType **coord2DType**



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

complexType coord3DElevationType

diagram	<pre> graph LR C[coord3DElevationType] --> C2D[coord2DType extension] C2D --- LCG[latitudeCoordGroup] C2D --- UCG[utmCoordGroup] LCG --- L[latitude] L --- L_DMS[latitudeDMS] LCG --- L_POS[longitude] L_DMS --- L_POS LCG --- L_DMS UCG --- UTM_N[utmN] UCG --- UTM_E[utmE] UCG --- UTM_Z[utmZone] UCG --- E[elevation] </pre> <p>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.</p>
type	extension of coord2DType
properties	base coord2DType
children	latitude latitudeDMS longitude longitudeDMS utmN utmE utmZone elevation
used by	elements roadway/coordinates/vertex polygon3DElevationType/vertex
annotation	documentation Type of coordinates used to specify a point in three-dimensional space. The type is actually the type of the point in two-dimensional space along with an elevation.

element coord3DElevationType/elevation

diagram	<pre> graph LR E[elevation] </pre> <p>Elevation or Z value for a coordinate.</p>
type	xs:float
properties	content simple
annotation	documentation Elevation or Z value for a coordinate.

complexType dispersionWeight1Type

diagram	
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	<p>dispersionWeight1Type </p> <p>Abstract type used to specify the dispersion weight for the backbone subtrack. This type is intended only to be a base class and will not be used in ASIF files directly.</p> <p>Represents the centerline of a set of dispersed tracks.</p>
children	backbone
used by	element dispersionWeight/dispersionWeight1 complexType dispersionWeight3Type
annotation	documentation Abstract type used to specify the dispersion weight for the backbone subtrack. This type is intended only to be a base class and will not be used in ASIF files directly.

element **dispersionWeight1Type/backbone**

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

complexType **dispersionWeight3Type**

diagram	<p>dispersionWeight3Type </p> <p>Specify the dispersion weight for a backbone with 2 subtracks.</p> <p>dispersionWeight1Type (extension)</p> <p>Represents the centerline of a set of dispersed tracks.</p> <p>weightl1</p> <p>Specify the dispersion weight for the first left subtrack.</p> <p>weightr1</p> <p>Specify the dispersion weight for the first right subtrack.</p>
type	extension of dispersionWeight1Type
properties	base dispersionWeight1Type
children	backbone weightl1 weightr1
used by	element dispersionWeight/dispersionWeight3 complexType dispersionWeight5Type
annotation	documentation Specify the dispersion weight for a backbone with 2 subtracks..

element **dispersionWeight3Type/weightl1**

diagram	<p>weightl1</p> <p>Specify the dispersion weight for the first left subtrack.</p>
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the first left subtrack.

element **dispersionWeight3Type/weightr1**

diagram	
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	<p>weightr1</p> <p>Specify the dispersion weight for the first right subtrack.</p>
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the first right subtrack.

complexType dispersionWeight5Type

diagram	<pre> classDiagram dispersionWeight3Type < -- dispersionWeight5Type dispersionWeight5Type "4" --> backbone dispersionWeight5Type "4" --> weightl1 dispersionWeight5Type "4" --> weightr1 dispersionWeight5Type "4" --> weightl2 dispersionWeight5Type "4" --> weightr2 backbone <--> weightl1 backbone <--> weightr1 backbone <--> weightl2 backbone <--> weightr2 </pre>
type	extension of dispersionWeight3Type
properties	base dispersionWeight3Type
children	backbone weightl1 weightr1 weightl2 weightr2
used by	element dispersionWeight/dispersionWeight5 complexType dispersionWeight7Type
annotation	documentation Specify the dispersion weight for a backbone with 4 subtracks.

element dispersionWeight5Type/weightl2

diagram	<p>weightl2</p> <p>Specify the dispersion weight for the second left subtrack.</p>
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the second left subtrack.

element dispersionWeight5Type/weightr2

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

complexType **dispersionWeight7Type**

diagram	<pre> classDiagram dispersionWeight5Type < -- dispersionWeight7Type dispersionWeight7Type { <<backbone>> <<weightl1>> <<weightr1>> <<weightl2>> <<weightr2>> <<weightl3>> <<weightr3>> } backbone <--> weightl1 backbone <--> weightr1 backbone <--> weightl2 backbone <--> weightr2 backbone <--> weightl3 backbone <--> weightr3 </pre>
type	extension of dispersionWeight5Type
properties	base dispersionWeight5Type
children	backbone weightl1 weightr1 weightl2 weightr2 weightl3 weightr3
used by	element dispersionWeight/dispersionWeight7 complexType dispersionWeight9Type
annotation	documentation Specify the dispersion weight for a backbone with 6 subtracks.

element **dispersionWeight7Type/weightl3**

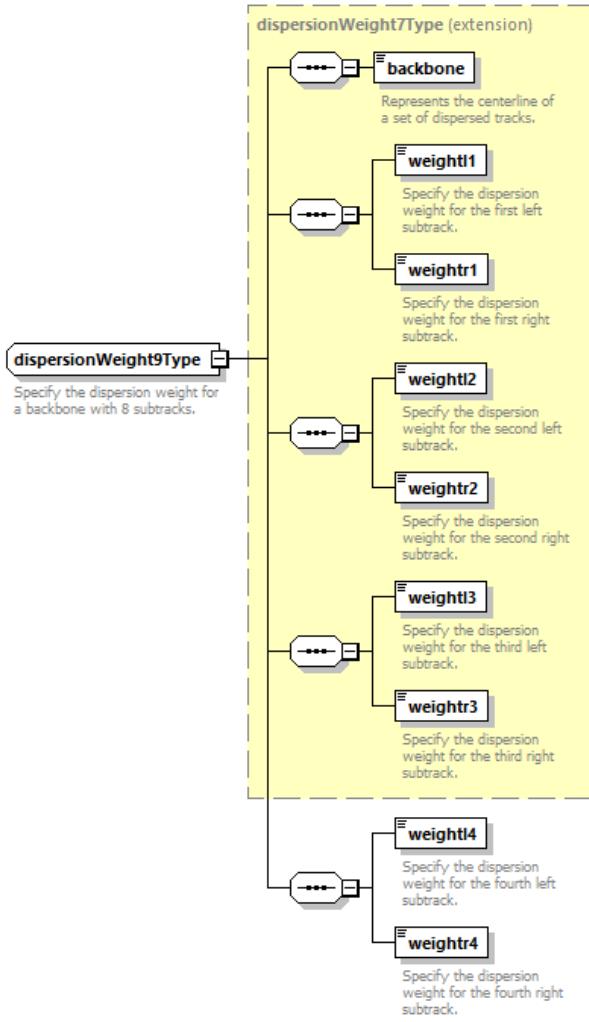
diagram	
type	xs:double
properties	content simple
annotation	documentation Specify the dispersion weight for the third left subtrack.

element **dispersionWeight7Type/weightr3**

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

complexType **dispersionWeight9Type**

diagram	
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type	extension of dispersionWeight7Type
properties	base dispersionWeight7Type
children	backbone weightl1 weightr1 weightl2 weightr2 weightl3 weightr3 weightl4 weightr4
used by	element dispersionWeight/dispersionWeight9
annotation	documentation Specify the dispersion weight for a backbone with 8 subtracks.

element [dispersionWeight9Type/weightl4](#)

diagram	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 weight for the fourth right subtrack.

complexType emissionFactorSet

diagram	<pre> classDiagram class emissionFactorSet { <<Supports legacy EDMS studies relating to content that contains emission factor definitions. This element supports the definition of various emission factors defined under GSE and training fires.>> } class CO { <<Amount of carbon monoxide emitted. Valid values: 0 to 3000. (kg/unit)>> } class HC { <<Amount of hydrocarbons emitted. Valid values: 0 to 100. (kg/unit)>> } class NOx { <<Amount of nitrous oxides emitted. Valid values: 0 to 100. (kg/unit)>> } class SOx { <<Amount of sulfur oxides emitted. Valid values: 0 to 10. (kg/unit)>> } class PM10 { <<Amount of 10-micron particulate matter emitted. Valid values: 0 to 1000. (kg/unit)>> } emissionFactorSet < -- CO emissionFactorSet < -- HC emissionFactorSet < -- NOx emissionFactorSet < -- SOx emissionFactorSet < -- PM10 </pre>
children	CO HC NOx SOx PM10
used by	elements userGroundSupportEquipment/userEmissionFactors/emissionFactorsCNG userGroundSupportEquipment/userEmissionFactors/emissionFactorsDiesel userGroundSupportEquipment/userEmissionFactors/emissionFactorsGas userGroundSupportEquipment/userEmissionFactors/emissionFactorsLPG
annotation	documentation Supports legacy EDMS studies relating to content that contains emission factor definitions. This element supports the definition of various emission factors defined under GSE and training fires.

element emissionFactorSet/CO

diagram	
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)

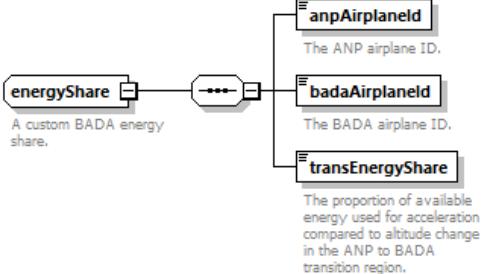
element **emissionFactorSet/SOx**

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	 The diagram illustrates the structure of the energyShare element. It consists of three components: anpAirplaneId , badaAirplaneId , and transEnergyShare . anpAirplaneId is described as "The ANP airplane ID." badaAirplaneId is described as "The BADA airplane ID." transEnergyShare is described as "The proportion of available energy used for acceleration compared to altitude change in the ANP to BADA transition region." A note below states: "A custom BADA energy share."
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	<p>The proportion of available energy used for acceleration compared to altitude change in the ANP to BADA transition region.</p>
type	xs:double
properties	content simple
annotation	documentation The proportion of available energy used for acceleration compared to altitude change in the ANP to BADA transition region.

complexType **engineModeEmissions**

diagram	<p>Describes custom emission factors user-defined aircraft engines.</p> <p>time : Time engine operates in a given mode (minutes). Valid values: Nonnegative.</p> <p>fuel : Fuel emission factor (g/kg). Valid values: Nonnegative.</p> <p>CO : Amount of carbon monoxide emitted (g/kg). Valid values: Nonnegative.</p> <p>HC : Amount of hydrocarbons emitted (g/kg). Valid values: Nonnegative.</p> <p>NOx : Amount of nitrous oxide emitted (g/kg). Valid values: Nonnegative.</p> <p>SOx : Amount of sulfur oxide emitted (g/kg). Valid values: Nonnegative.</p> <p>SN : Smoke number for the engine mode (g/kg). Valid values: Nonnegative.</p> <p>PM : Amount of particulate matter emitted (g/kg). Valid values: Nonnegative.</p>
children	time fuel CO HC NOx SOx SN PM
used by	elements aircraftEngine/approachEmissionFactors aircraftEngine/climbEmissionFactors aircraftEngine/takeOffEmissionFactors aircraftEngine/taxiIdleEmissionFactors
annotation	documentation Describes custom emission factors user-defined aircraft engines.

element **engineModeEmissions/time**

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

Time engine operates in a given mode (minutes). Valid values: Nonnegative.

element **engineModeEmissions/fuel**

diagram	 Fuel emission factor (g/kg). Valid values: Nonnegative.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Fuel emission factor (g/kg). Valid values: Nonnegative.

element **engineModeEmissions/CO**

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

element **engineModeEmissions/HC**

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

element **engineModeEmissions/NOx**

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

element **engineModeEmissions/SOx**

diagram	 Amount of sulfur oxide emitted (g/kg). Valid values: Nonnegative.
type	xs:double

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

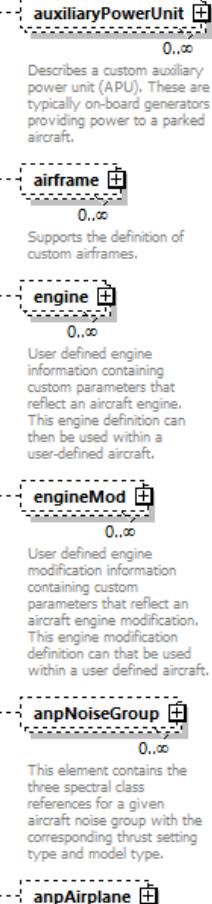
element engineModeEmissions/SN

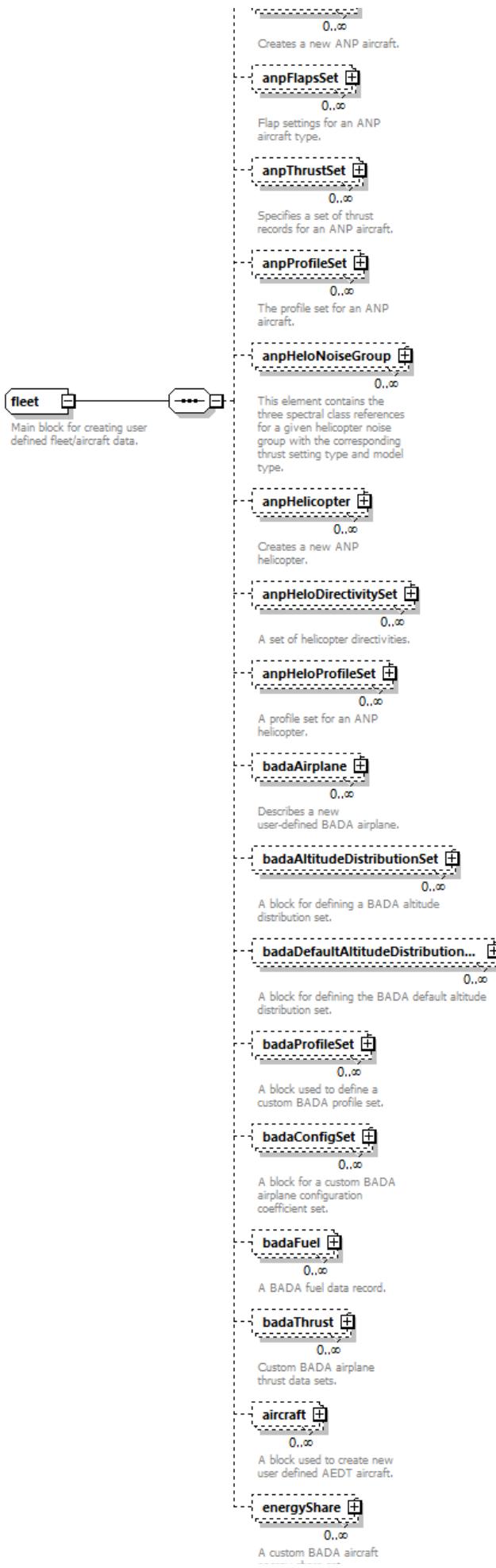
diagram	 SN <p>Smoke number for the engine mode (g/kg). Valid values: Nonnegative.</p>
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Smoke number for the engine mode (g/kg). Valid values: Nonnegative.

element engineModeEmissions/PM

diagram	 PM <p>Amount of particulate matter emitted (g/kg). Valid values: Nonnegative.</p>
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	 <p>The diagram illustrates the complex type fleet. It consists of a dashed box containing five elements: auxiliaryPowerUnit, airframe, engine, engineMod, anpNoiseGroup, and anpAirplane. Each element is accompanied by its name, a small icon, and a multiplicity indicator (0..∞). Detailed descriptions are provided for each element:</p> <ul style="list-style-type: none"> auxiliaryPowerUnit: Describes a custom auxiliary power unit (APU). These are typically on-board generators providing power to a parked aircraft. airframe: Supports the definition of custom airframes. engine: 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: User defined engine modification information containing custom parameters that reflect an aircraft engine modification. This engine modification definition can then be used within a user defined aircraft. anpNoiseGroup: This element contains the three spectral class references for a given aircraft noise group with the corresponding thrust setting type and model type. anpAirplane: A placeholder for the anpAirplane element.
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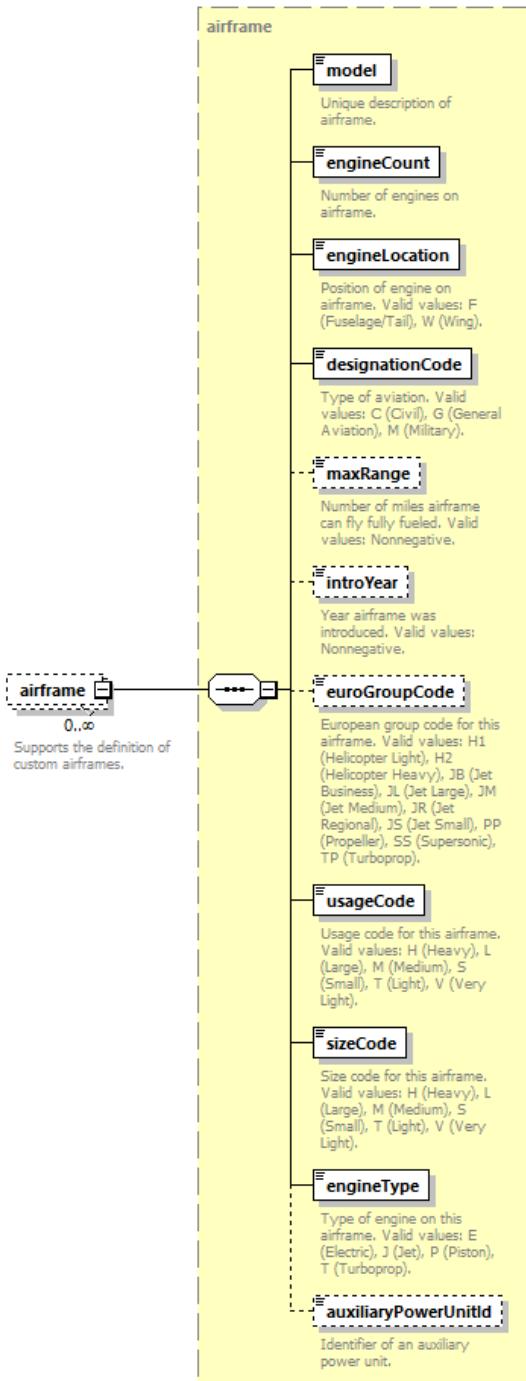
	energy share set.
children	auxiliaryPowerUnit airframe engine engineMod anpNoiseGroup anpAirplane anpFlapsSet anpThrustSet anpProfileSet anpHeloNoiseGroup anpHelo helicopter anpHeloDirectivitySet anpHeloProfileSet badaAirplane badaAltitudeDistributionSet badaDefaultAltitudeDistributionSet badaProfileSet 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	<pre> classDiagram class auxiliaryPowerUnit { name baseAuxiliaryPowerUnit defaultTimeArrivals defaultTimeDepartures CO HC NOx SOx PM } auxiliaryPowerUnit < -- auxiliaryPowerUnit auxiliaryPowerUnit "0..∞" *--> "0..∞" auxiliaryPowerUnit note over auxiliaryPowerUnit: Describes a custom auxiliary power unit (APU). These are typically on-board generators providing power to a parked aircraft. </pre>
type	auxiliaryPowerUnit
properties	minOcc 0 maxOcc unbounded content complex
children	name baseAuxiliaryPowerUnit defaultTimeArrivals defaultTimeDepartures CO HC NOx SOx PM
annotation	documentation Describes a custom auxiliary power unit (APU). These are typically on-board generators providing power to a parked aircraft.

element fleet/airframe

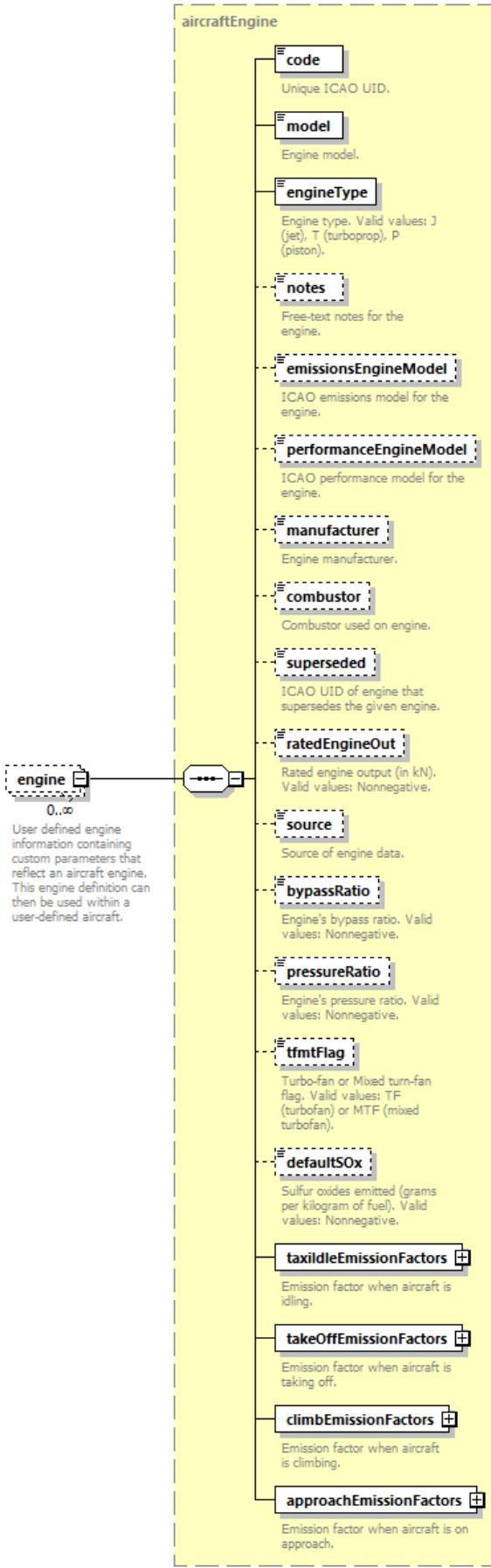
diagram	
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type	airframe
properties	minOcc 0 maxOcc unbounded content complex
children	model engineCount engineLocation designationCode maxRange introYear euroGroupCode usageCode sizeCode engineType auxiliaryPowerUnitId
annotation	documentation Supports the definition of custom airframes.

element fleet/engine

diagram	
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type	aircraftEngine
properties	minOcc 0 maxOcc unbounded content complex

children	code model engineType notes emissionsEngineModel performanceEngineModel manufacturer combustor superseded ratedEngineOut source bypassRatio pressureRatio tfmtFlag defaultSOx 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	<pre> classDiagram class aircraftEngineMod { code description } engineMod *-- aircraftEngineMod note over engineMod: 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. </pre>
type	aircraftEngineMod
properties	minOcc 0 maxOcc unbounded content complex
children	code description
annotation	documentation User defined engine modification information containing custom parameters that reflect an aircraft engine modification. This engine modification definition can that be used within a user defined aircraft.

element fleet/anpNoiseGroup

diagram	<pre> classDiagram class anpNoiseGroup { noiseld spectralClassApproach spectralClassDeparture spectralClassAfterburner thrustSetType modelType npdCurves } anpNoiseGroup *-- anpNoiseGroup note over anpNoiseGroup: This element contains the three spectral class references for a given aircraft noise group with the corresponding thrust setting type and model type. </pre>
type	anpNoiseGroup
properties	minOcc 0 maxOcc unbounded content complex
children	noiseld spectralClassApproach spectralClassDeparture spectralClassAfterburner thrustSetType modelType npdCurves
annotation	documentation This element contains the three spectral class references for a given aircraft noise group with the corresponding thrust setting type and model type.

element fleet/anpAirplane

diagram	<p>anpAirplane</p> <pre> classDiagram class anpAirplane { anpAirplaneId description sizeCode owner engineTypeCode numberEngines maxGrossWeightTakeoff maxGrossWeightLand maxDsStop depThrustCoeffType thrustStatic thrustRestore noiseld noiseCategory minBurn } anpAirplane "0..∞" --> "Creates a new ANP aircraft." </pre>
type	anpAirplane
properties	minOcc 0 maxOcc unbounded content complex
children	anpAirplaneId description sizeCode owner engineTypeCode numberEngines maxGrossWeightTakeoff maxGrossWeightLand maxDsStop depThrustCoeffType thrustStatic thrustRestore noiseld noiseCategory minBurn
annotation	documentation Creates a new ANP aircraft.

element **fleet/anpFlapsSet**

diagram	<p>Flap settings for an ANP aircraft type.</p>
type	anpFlapsSet
properties	minOcc 0 maxOcc unbounded content complex
children	anpAirplanId flaps
annotation	documentation Flap settings for an ANP aircraft type.

element fleet/anpThrustSet

diagram	<p>Specifies a set of thrust records for an ANP aircraft.</p>
type	anpThrustSet
properties	minOcc 0 maxOcc unbounded content complex
children	anpAirplanId thrustGeneral thrustJet thrustProp tsfcCoefficients
annotation	documentation Specifies a set of thrust records for an ANP aircraft.

element fleet/anpProfileSet

diagram	<p>The profile set for an ANP aircraft.</p>
type	anpProfileSet
properties	minOcc 0 maxOcc unbounded content complex
children	anpAirplanId profile
annotation	documentation The profile set for an ANP aircraft.

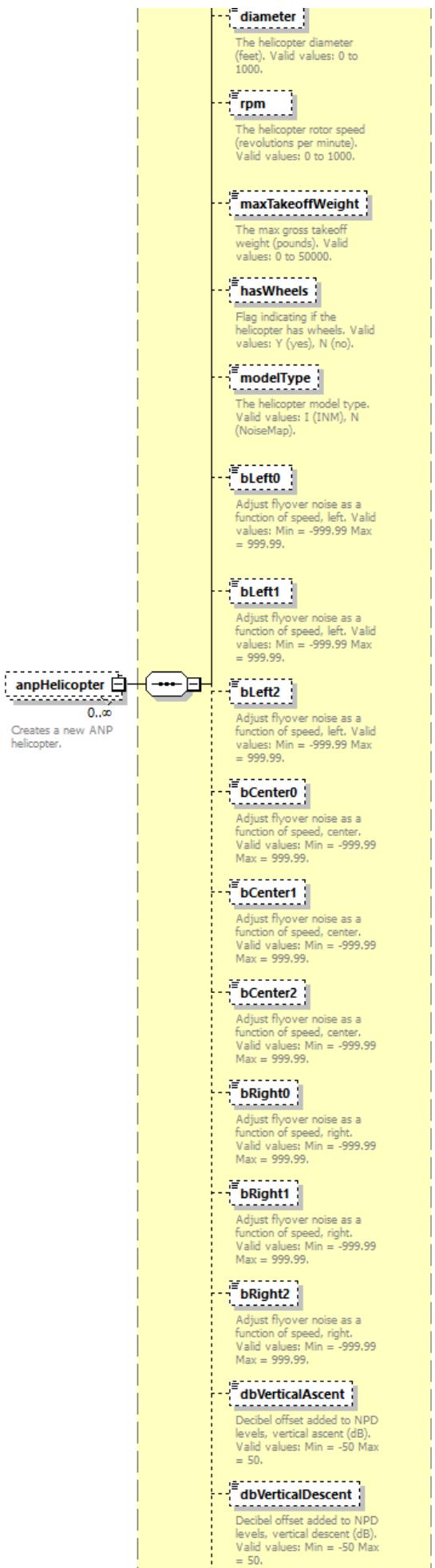
element fleet/anpHeloNoiseGroup

diagram	
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	<pre> classDiagram class anpHeloNoiseGroup { noiseld spectralClassApproach spectralClassDeparture spectralClassFlyover speedApproach speedDeparture speedFlyover npdCurves } anpHeloNoiseGroup "0..∞" --> "anpHeloNoiseGroup" </pre> <p>This element contains the three spectral class references for a given helicopter noise group with the corresponding thrust setting type and model type.</p>
type	anpHeloNoiseGroup
properties	minOcc 0 maxOcc unbounded content complex
children	noiseld spectralClassApproach spectralClassDeparture spectralClassFlyover speedApproach speedDeparture speedFlyover npdCurves
annotation	documentation This element contains the three spectral class references for a given helicopter noise group with the corresponding thrust setting type and model type.

element fleet/anpHelicopter

diagram	<pre> classDiagram class anpHelicopter { anpHelicopterId noiseld directivityId description owner engineTypeCode numberRotors } </pre>
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	<p>dbHorizontalAcceleration Decibel offset added to NPD levels, depart horizontal acceleration (dB). Valid values: Min = -50 Max = 50.</p> <p>dbClimbAcceleration Decibel offset added to NPD levels, depart with climbing acceleration (dB). Valid values: Min = -50 Max = 50.</p> <p>dbHorizontalDeceleration Decibel offset added to NPD levels, approach with horizontal deceleration (dB). Valid values: Min = -50 Max = 50.</p> <p>dbDescendDeceleration Decibel offset added to NPD levels, approach with descending deceleration (dB). Valid values: Min = -50 Max = 50.</p>
type	anpHelicopter
properties	minOcc 0 maxOcc unbounded content complex
children	anpHelicopterId noiseld directivityId description owner engineTypeCode numberRotors diameter rpm maxTakeoffWeight hasWheels modelType bLeft0 bLeft1 bLeft2 bCenter0 bCenter1 bCenter2 bRight0 bRight1 bRight2 dbVerticalAscent dbVerticalDescent dbHorizontalAcceleration dbClimbAcceleration dbHorizontalDeceleration dbDescendDeceleration
annotation	documentation Creates a new ANP helicopter.

element fleet/anpHeloDirectivitySet

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

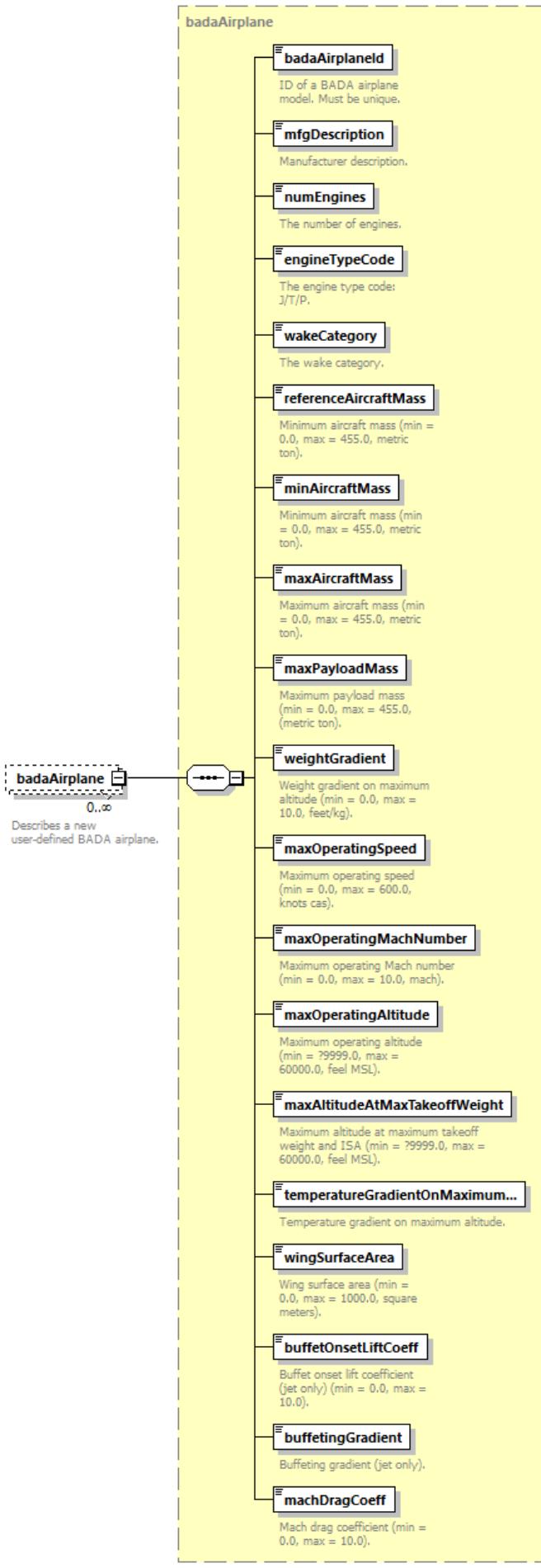
element fleet/anpHeloProfileSet

diagram	<p>anpHeloProfileSet A profile set for an ANP helicopter.</p> <p>anpHelicopterId The anp helicopter id.</p> <p>profile One or more ANP profiles.</p>
type	anpHeloProfileSet
properties	minOcc 0 maxOcc unbounded content complex
children	anpHelicopterId profile

annotation documentation
A profile set for an ANP helicopter.

element **fleet/badaAirplane**

diagram



type	badaAirplane
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properties	minOcc 0 maxOcc unbounded content complex
children	badaAirplaneId mfgDescription numEngines engineTypeCode wakeCategory referenceAircraftMass minAircraftMass maxAircraftMass maxPayloadMass weightGradient maxOperatingSpeed maxOperatingMachNumber maxOperatingAltitude maxAltitudeAtMaxTakeoffWeight temperatureGradientOnMaximumAltitude wingSurfaceArea buffetOnsetLiftCoeff buffetingGradient machDragCoeff
annotation	documentation Describes a new user-defined BADA airplane.

element fleet/badaAltitudeDistributionSet

diagram	<p>A block for defining a BADA altitude distribution set.</p>
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	<p>A block for defining the BADA default altitude distribution set.</p>
type	badaAltitudeDistributionSet
properties	minOcc 0 maxOcc unbounded content complex
children	badaAirplaneId altitudeDistribution
annotation	documentation A block for defining the BADA default altitude distribution set.

element fleet/badaProfileSet

diagram	<p>A block used to define a custom BADA profile set.</p> <p>The BADA airplane ID for the profile set.</p> <p>The profile set data.</p>
type	badaProfileSet
properties	minOcc 0 maxOcc unbounded content complex
children	badaAirplaneId profile
annotation	documentation A block used to define a custom BADA profile set.

element **fleet/badaConfigSet**

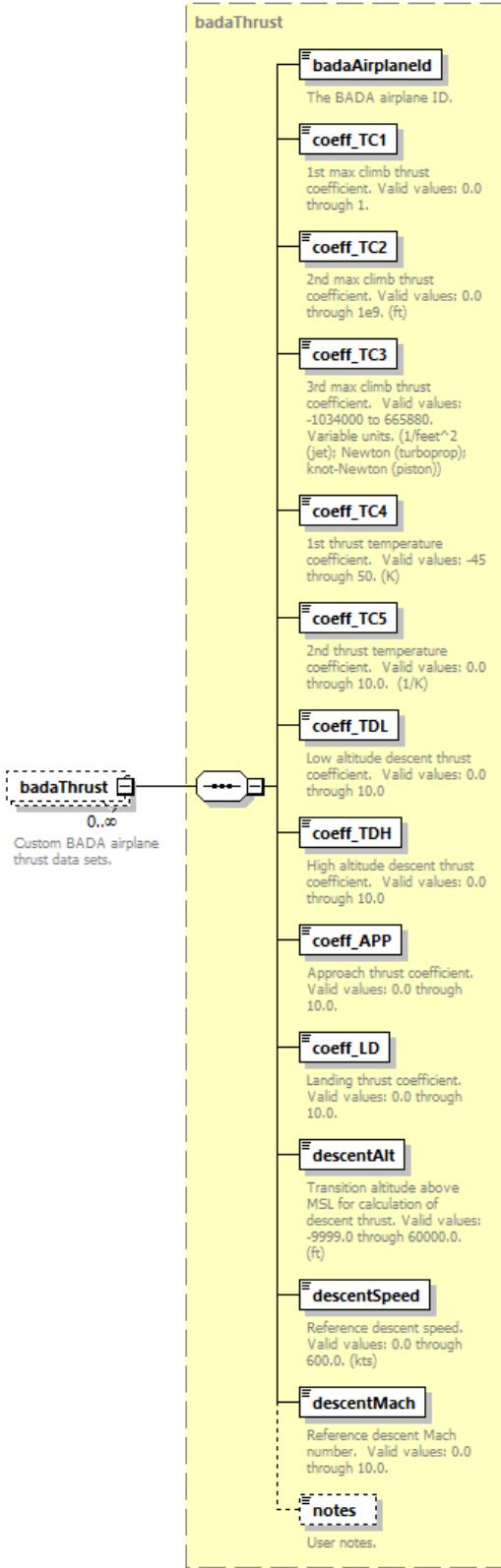
diagram	<pre> graph LR A["badaConfigSet 0..∞ A block for a custom BADA airplane configuration coefficient set."] --> B["badaAirplaneld 1..∞ The BADA airplane ID for the profile set."] B --> C["badaConfig"] </pre>
type	badaConfigSet
properties	minOcc 0 maxOcc unbounded content complex
children	badaAirplaneld badaConfig
annotation	documentation A block for a custom BADA airplane configuration coefficient set.

element **fleet/badaFuel**

diagram	<pre> graph LR A["badaFuel 0..∞ A BADA fuel data record."] --> B["badaAirplaneld"] B --> C["coeff_CF1"] C --> D["coeff_CF2"] D --> E["coeff_CF3"] E --> F["coeff_CF4"] F --> G["coeff_CR"] </pre>
type	badaFuel
properties	minOcc 0 maxOcc unbounded content complex
children	badaAirplaneld coeff_CF1 coeff_CF2 coeff_CF3 coeff_CF4 coeff_CR
annotation	documentation A BADA fuel data record.

element **fleet/badaThrust**

diagram	
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type	badaThrust
properties	minOcc 0 maxOcc unbounded content complex
children	badaAirplaneId coeff_TC1 coeff_TC2 coeff_TC3 coeff_TC4 coeff_TC5 coeff_TDL coeff_TDH coeff_APP coeff_LD descentAlt descentSpeed descentMach notes
annotation	documentation Custom BADA airplane thrust data sets.

element **fleet/aircraft**

diagram	<pre> classDiagram class aircraft { <<description>> <<airframeModel>> <<engineCode>> <<engineModCode>> <<anpAirplaneId>> <<badaAirplaneId>> <<anpHelicopterId>> } aircraft < -- aircraft aircraft "0..<<A block used to create new user defined AEDT aircraft.>>" --> aircraft </pre> <p>The diagram shows the <code>aircraft</code> element with the following structure:</p> <ul style="list-style-type: none"> Attributes: <ul style="list-style-type: none"> <code>description</code>: The description for this user defined aircraft. <code>airframeModel</code>: The airframe model used for this user defined aircraft. <code>engineCode</code>: The engine code used for this user defined aircraft. <code>engineModCode</code>: The engine modification code used for this user defined aircraft. Relationships: <ul style="list-style-type: none"> A self-referencing relationship with multiplicity <code>0..<<...>></code>. A relationship to another <code>aircraft</code> element with documentation: <code>A block used to create new user defined AEDT aircraft.</code>
type	<u>aircraft</u>
properties	<p>minOcc 0 maxOcc unbounded content complex</p>
children	<u>description</u> <u>airframeModel</u> <u>engineCode</u> <u>engineModCode</u> <u>anpAirplaneId</u> <u>badaAirplaneId</u> <u>anpHelicopterId</u>
annotation	<p>documentation A block used to create new user defined AEDT aircraft.</p>

element fleet/energyShare

diagram	<pre> classDiagram class energyShare { <<anpAirplaneId>> <<badaAirplaneId>> <<transEnergyShare>> } energyShare "0..<<A custom BADA aircraft energy share set.>>" --> energyShare </pre> <p>The diagram shows the <code>energyShare</code> element with the following structure:</p> <ul style="list-style-type: none"> Attributes: <ul style="list-style-type: none"> <code>anpAirplaneId</code>: The ANP airplane ID. <code>badaAirplaneId</code>: The BADA airplane ID. <code>transEnergyShare</code>: The proportion of available energy used for acceleration compared to altitude change in the ANP to BADA transition region. Relationships: <ul style="list-style-type: none"> A self-referencing relationship with multiplicity <code>0..<<...>></code>.
type	<u>energyShare</u>
properties	<p>minOcc 0 maxOcc unbounded content complex</p>
children	<u>anpAirplaneId</u> <u>badaAirplaneId</u> <u>transEnergyShare</u>
annotation	<p>documentation A custom BADA aircraft energy share set.</p>

complexType latitudeDecimalType

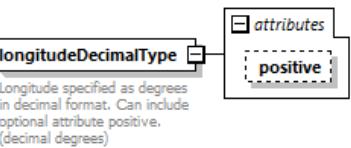
diagram	<pre> complexType latitudeDecimalType { attributes { positive } <<Latitude specified as degrees in decimal format. Can include optional attribute positive. (decimal degrees)>> } </pre> <p>The diagram shows the <code>latitudeDecimalType</code> complex type with the following structure:</p> <ul style="list-style-type: none"> Attributes: <ul style="list-style-type: none"> <code>positive</code> Documentation: Latitude specified as degrees in decimal format. Can include optional attribute <code>positive</code>. (decimal degrees)
type	extension of <u>xs:double</u>

properties	base xs:double
used by	element latlonCoordGroup/latitude
attributes	Name positive Type derived by: xs:string Use optional Default N Fixed Annotation
annotation	documentation Latitude specified as degrees in decimal format. Can include optional attribute positive. (decimal degrees)

attribute latitudeDecimalType/@positive

type	restriction of xs:string
properties	use optional default N
facets	Kind Value Annotation pattern N n S s

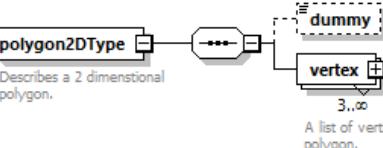
complexType longitudeDecimalType

diagram	 <p>longitudeDecimalType —> attributes Longitude specified as degrees in decimal format. Can include optional attribute positive. (decimal degrees)</p>
type	extension of xs:double
properties	base xs:double
used by	element latlonCoordGroup/longitude
attributes	Name positive Type derived by: xs:string Use optional Default E Fixed Annotation
annotation	documentation Longitude specified as degrees in decimal format. Can include optional attribute positive. (decimal degrees)

attribute longitudeDecimalType/@positive

type	restriction of xs:string
properties	use optional default E
facets	Kind Value Annotation pattern E e W w

complexType polygon2DType

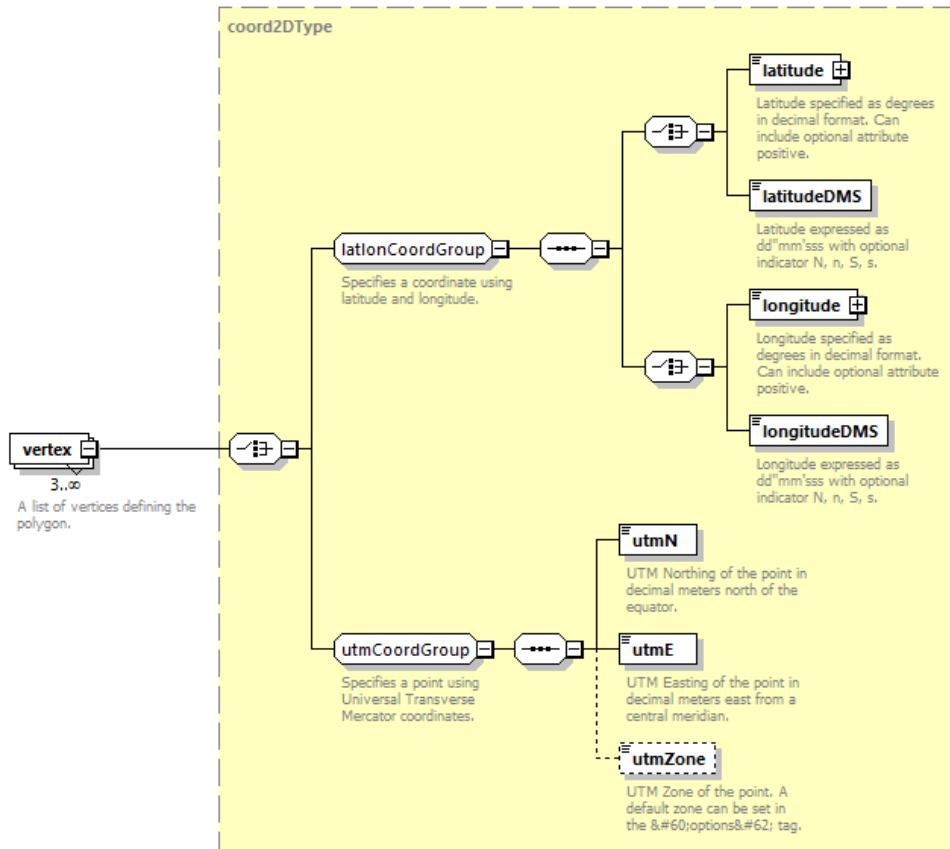
diagram	 <p>polygon2DType —> dummy Describes a 2 dimensional polygon.</p> <p>dummy —> vertex A list of vertices defining the polygon. 3..∞</p>
children	dummy vertex
used by	elements boundary/polygon oneOrThreeCoords2DGroupSet/polygonCoords
annotation	documentation Describes a 2 dimensional polygon.

element polygon2DType/dummy

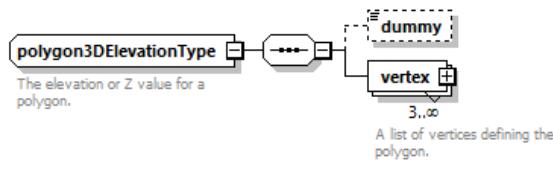
diagram	
type	xs:int
properties	minOcc 0 maxOcc 1 content simple

element polygon2DType/vertex

diagram

type [coord2DType](#)properties minOcc 3
maxOcc unbounded
content complexchildren [latitude](#) [latitudeDMS](#) [longitude](#) [longitudeDMS](#) [utmN](#) [utmE](#) [utmZone](#)annotation documentation
A list of vertices defining the polygon.**complexType polygon3DElevationType**

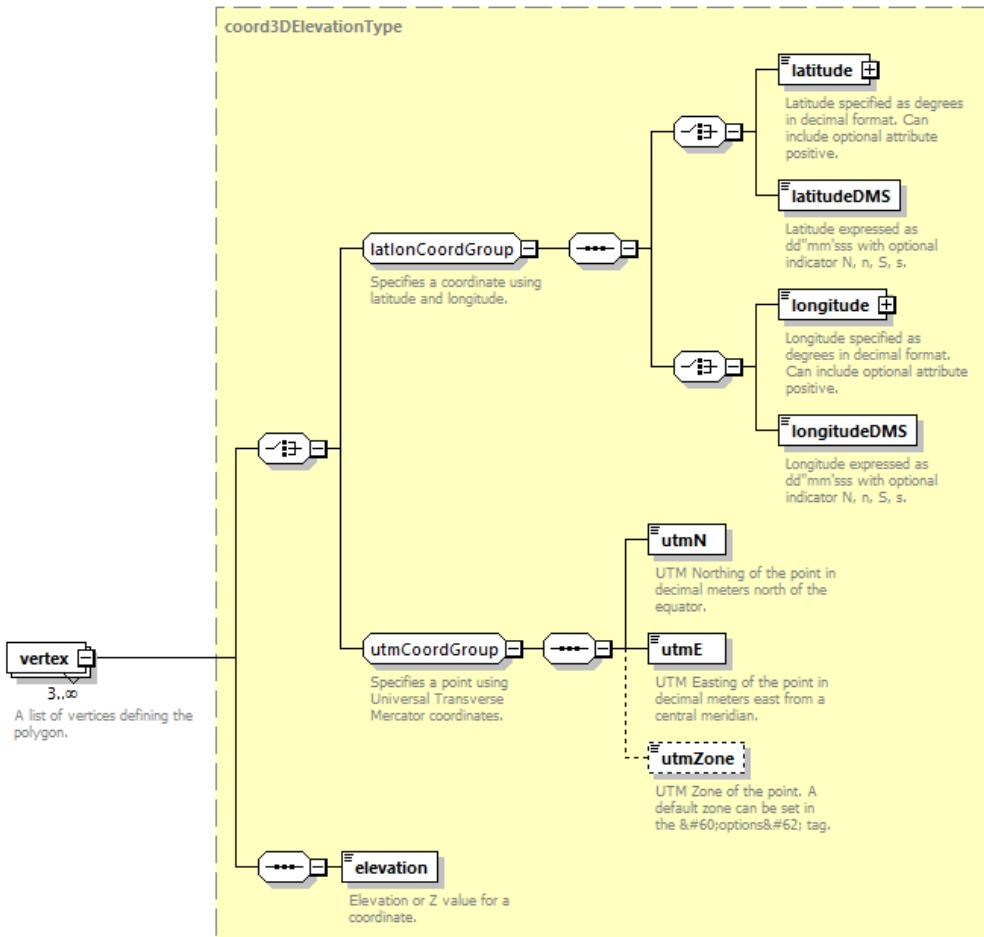
diagram

children [dummy](#) [vertex](#)annotation documentation
The elevation or Z value for a polygon.**element polygon3DElevationType/dummy**

diagram

type `xs:int`properties minOcc 0
maxOcc 1
content simple**element polygon3DElevationType/vertex**

diagram



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

complexType profiles

diagram	<pre> profiles < -- arrivalProfile profiles < -- departureProfile </pre> <p>profiles</p> <ul style="list-style-type: none"> arrivalProfile: A flight's arrival profile. departureProfile: A flight's departure profile.
children	departureProfile arrivalProfile
used by	elements operation/badaProfiles operation/saeProfiles
annotation	documentation Contains an arrival and departure profile.

element profiles/departureProfile

diagram	<pre> profileType < -- departureProfile </pre> <p>departureProfile</p> <p>A flight's departure profile.</p>
type	profileType
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 255

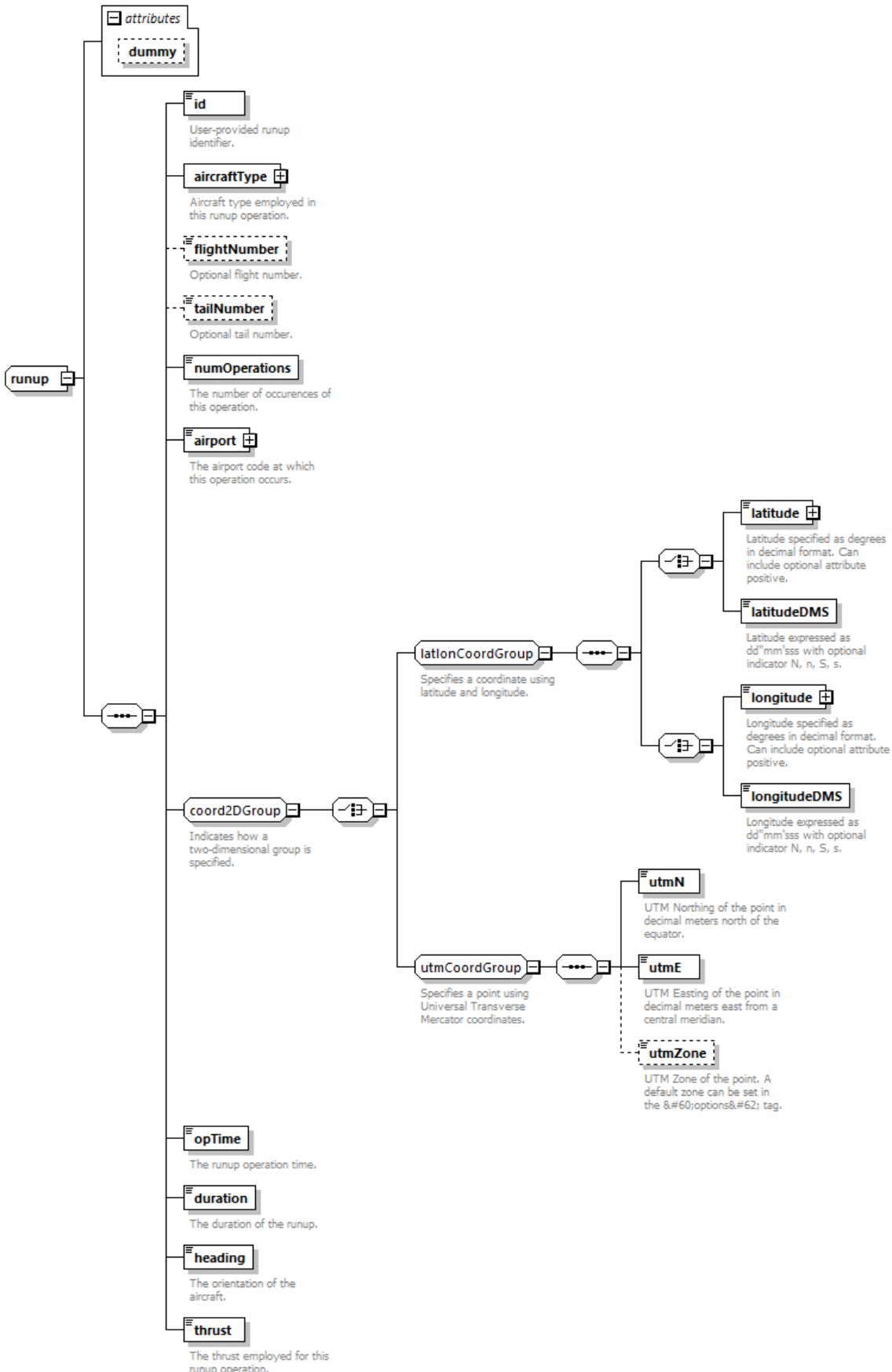
annotation	documentation A flight's departure profile.
------------	--

element **profiles/arrivalProfile**

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

complexType **runup**

diagram	
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children	<code>id</code> <code>aircraftType</code> <code>flightNumber</code> <code>tailNumber</code> <code>numOperations</code> <code>airport</code> <code>latitude</code> <code>latitudeDMS</code> <code>longitude</code> <code>longitudeDMS</code> <code>utmN</code> <code>utmE</code> <code>utmZone</code> <code>opTime</code> <code>duration</code> <code>heading</code> <code>thrust</code>												
used by	elements AifxXml/runup case/runup												
attributes	<table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Use</th> <th>Default</th> <th>Fixed</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td><code>dummy</code></td> <td><code>xs:int</code></td> <td>optional</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	Type	Use	Default	Fixed	Annotation	<code>dummy</code>	<code>xs:int</code>	optional			
Name	Type	Use	Default	Fixed	Annotation								
<code>dummy</code>	<code>xs:int</code>	optional											

attribute **runup/@dummy**

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

element **runup/id**

diagram	<pre> graph TD id[id] --- anpAircraftId[anpAircraftId] id --- airframeModel[airframeModel] id --- engineCode[engineCode] id --- engineModCode[engineModCode] id --- apuName[apuName] id --- gse[groundSupportEquipmentLTOOperationSet] </pre>						
type	<code>string16</code>						
properties	content simple						
facets	<table> <tr> <td>Kind</td> <td>Value Annotation</td> </tr> <tr> <td>minLength</td> <td>0</td> </tr> <tr> <td>maxLength</td> <td>16</td> </tr> </table>	Kind	Value Annotation	minLength	0	maxLength	16
Kind	Value Annotation						
minLength	0						
maxLength	16						
annotation	documentation User-provided runup identifier.						

element **runup/aircraftType**

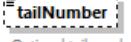
diagram	<pre> graph TD aircraftType[aircraftType] --- anpAircraftId[anpAircraftId] aircraftType --- airframeModel[airframeModel] aircraftType --- engineCode[engineCode] aircraftType --- engineModCode[engineModCode] aircraftType --- apuName[apuName] aircraftType --- gse[groundSupportEquipmentLTOOperationSet] </pre>
type	<code>aircraftType</code>
properties	content complex
children	<code>anpAircraftId airframeModel engineCode engineModCode apuName groundSupportEquipmentLTOOperationSet assignDefaultGse</code>
annotation	documentation Aircraft type employed in this runup operation.

element **runup/flightNumber**

diagram	<pre> graph TD flightNumber[flightNumber] </pre>						
type	<code>string16</code>						
properties	<table> <tr> <td>minOcc</td> <td>0</td> </tr> <tr> <td>maxOcc</td> <td>1</td> </tr> <tr> <td>content</td> <td>simple</td> </tr> </table>	minOcc	0	maxOcc	1	content	simple
minOcc	0						
maxOcc	1						
content	simple						

facets	Kind Value Annotation minLength 0 maxLength 16
annotation	documentation Optional flight number.

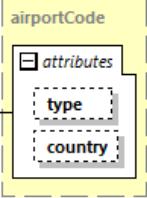
element runup/tailNumber

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

element runup/airport

diagram	 airportCode The airport code at which this operation occurs. attributes type country
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 which this operation occurs.

element runup/opTime

diagram	 The runup operation time.
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

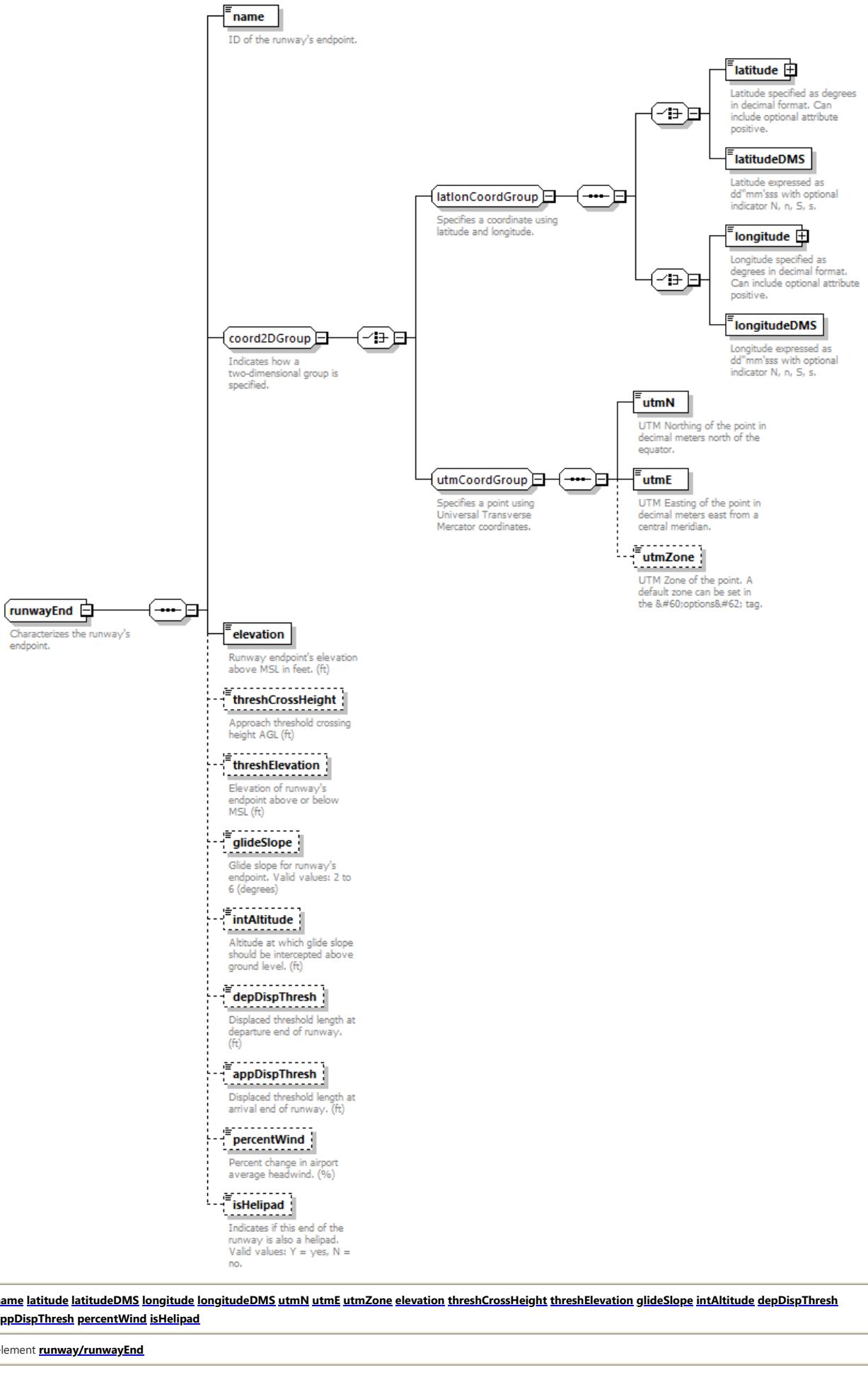
diagram	 heading The orientation of the aircraft.
type	xs:double
properties	content simple
annotation	documentation The orientation of the aircraft.

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	
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annotation	documentation Characterizes the runway's endpoint.
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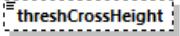
element runwayEnd/name

diagram	 name ID of the runway's endpoint.
type	string8
properties	content simple
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation ID of the runway's endpoint.

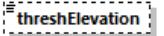
element runwayEnd/elevation

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

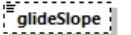
element runwayEnd/threshCrossHeight

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

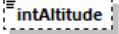
element runwayEnd/threshElevation

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

element runwayEnd/glideSlope

diagram	 glideSlope Glide slope for runway's endpoint. Valid values: 2 to 6 (degrees)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple
annotation	documentation Glide slope for runway's endpoint. Valid values: 2 to 6 (degrees)

element runwayEnd/intAltitude

diagram	 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)

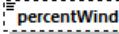
element runwayEnd/depDispThresh

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)

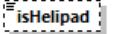
element runwayEnd/appDispThresh

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 runway is also a helipad. Valid values: Y = yes, N = no.

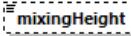
complexType **scenarioAirportLayoutType**

diagram	<pre> graph LR SA[scenarioAirportLayoutType] --- A[airportLayoutName] SA --- M[mixingHeight] SA --- UH[useHourlyMetData] SA --- AT[averageTemperature] SA --- DHT[dailyHighTemperature] SA --- DLT[dailyLowTemperature] SA --- P[pressure] SA --- PMSL[pressureMSL] SA --- H[humidity] SA --- WS[windSpeed] SA --- WD[windDirection] SA --- C[ceiling] SA --- V[visibility] SA --- ACSet[airportConfigSet] ACSet --- AC[airportCapacity] </pre> <p>The diagram illustrates the structure of the <code>scenarioAirportLayoutType</code> complex type. It starts with a main element <code>scenarioAirportLayoutType</code>, which contains several child elements: <code>airportLayoutName</code>, <code>mixingHeight</code>, <code>useHourlyMetData</code>, <code>averageTemperature</code>, <code>dailyHighTemperature</code>, <code>dailyLowTemperature</code>, <code>pressure</code>, <code>pressureMSL</code>, <code>humidity</code>, <code>windSpeed</code>, <code>windDirection</code>, <code>ceiling</code>, <code>visibility</code>, <code>airportConfigSet</code>, and <code>airportCapacity</code>. The <code>airportConfigSet</code> element is shown with a plus sign, indicating it can contain multiple <code>airportConfig</code> elements. Annotations provide descriptions for each element.</p>
children	airportLayoutName mixingHeight useHourlyMetData averageTemperature dailyHighTemperature dailyLowTemperature pressure pressureMSL humidity windSpeed windDirection ceiling visibility airportConfigSet airportCapacity
used by	element scenarioAirportLayoutSet/scenarioAirportLayout
annotation	<p>documentation</p> <p>Describes weather conditions.</p>

element **scenarioAirportLayoutType/airportLayoutName**

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

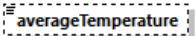
element scenarioAirportLayoutType/mixingHeight

diagram	 mixingHeight
	Height at the top layer of atmosphere where relatively vigorous mixing of pollutants and other gases takes place for the airport in a given month. Varies diurnally and seasonally. (ft)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Height at the top layer of atmosphere where relatively vigorous mixing of pollutants and other gases takes place for the airport in a given month. Varies diurnally and seasonally. (ft)

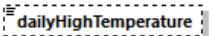
element scenarioAirportLayoutType/useHourlyMetData

diagram	 useHourlyMetData
	If true, use user-defined hourly meteorological data to compute emissions. If false, use default annual averages to compute emissions. (true or false)
type	xs:boolean
properties	minOcc 0 maxOcc 1 content simple default false
annotation	documentation If true, use user-defined hourly meteorological data to compute emissions. If false, use default annual averages to compute emissions. (true or false)

element scenarioAirportLayoutType/averageTemperature

diagram	 averageTemperature
	Average temperature (°F).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Average temperature (°F).

element scenarioAirportLayoutType/dailyHighTemperature

diagram	 dailyHighTemperature
	Average daily high temperature (°F).
type	xs:double
properties	minOcc 0

	maxOcc 1 content simple default 0
annotation	documentation Average daily high temperature (°F).

element **scenarioAirportLayoutType/dailyLowTemperature**

diagram	dailyLowTemperature Average daily low temperature (°F).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Average daily low temperature (°F).

element **scenarioAirportLayoutType/pressure**

diagram	pressure Average barometric pressure. (in Hg)
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Average barometric pressure. (in Hg)

element **scenarioAirportLayoutType/pressureMSL**

diagram	pressureMSL Average barometric pressure at mean sea level.
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Average barometric pressure at mean sea level.

element **scenarioAirportLayoutType/humidity**

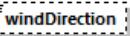
diagram	humidity Relative humidity (%).
type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Relative humidity (%).

element **scenarioAirportLayoutType/windSpeed**

diagram	windSpeed Wind speed at airport surface (mph).

type	xs:double
properties	minOcc 0 maxOcc 1 content simple default 0
annotation	documentation Wind speed at airport surface (mph).

element scenarioAirportLayoutType/windDirection

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

element scenarioAirportLayoutType/visibility

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

simpleType aircraftPerformanceModelType

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

simpleType AircraftSizeType

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

simpleType **airframeModel**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraft/airframeModel airframe/model
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation Refers to an existing airframe model.

simpleType **airportCodeType**

type	restriction of xs:string
properties	base xs:string
used by	attribute airportCode/@type
facets	Kind Value Annotation enumeration ICAO enumeration IATA enumeration FAA enumeration OTHER enumeration ANY
annotation	documentation The type of an airport code.

simpleType **anpAirplaneId**

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

simpleType **anpCoeffType**

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

simpleType **anpFlapId**

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

	maxLength 6
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simpleType [anpHeloDirectId](#)

type	restriction of xs:string
properties	base xs:string
used by	element anpHeloDirectivitySet/anpHeloId
facets	Kind Value Annotation minLength 0 maxLength 12

simpleType [anpHeloDirectivityId](#)

type	restriction of xs:string
properties	base xs:string
used by	element anpHelicopter/directivityId
facets	Kind Value Annotation minLength 0 maxLength 12

simpleType [anpHeloGroundType](#)

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

simpleType [anpHeloId](#)

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

simpleType [anpHeloNoiseld](#)

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

simpleType [anpHeloSideType](#)

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

simpleType [anpNoiseld](#)

type	restriction of xs:string
properties	base xs:string
used by	elements anpNoiseGroup/noiseld anpAirplane/noiseld

facets	Kind Value Annotation minLength 0 maxLength 255
--------	---

simpleType **anpNpdNoiseType**

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

simpleType **anpNpdOpMode**

type	restriction of xs:string
properties	base xs:string
used by	elements anpNPDCurve/opMode anpHeloNPDCurve/opMode
facets	Kind Value Annotation pattern A D 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/auxiliaryPowerUnit/name
facets	Kind Value Annotation minLength 0 maxLength 30
annotation	documentation Name of the auxiliary power unit.

simpleType **badaAirplaneld**

type	restriction of xs:string
properties	base xs:string
used by	elements aircraft/badaAirplaneld badaAirplane/badaAirplaneld badaAltitudeDistributionSet/badaAirplaneld badaProfileSet/badaAirplaneld badaConfigSet/badaAirplaneld badaFuel/badaAirplaneld badaThrust/badaAirplaneld energyShare/badaAirplaneld
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
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properties	base xs:string
used by	element badaConfig/phase
facets	Kind Value Annotation pattern InitialClimb C Takeoff TO Approach AP Landing LD Cruise CR

simpleType **badaWakeType**

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

simpleType **directionType**

type	restriction of xs:string
properties	base xs:string
used by	element taxipath/direction
facets	Kind Value Annotation pattern A Arrival D Departure I Inbound O Outbound
annotation	documentation Supports the direction type of a taxi path. Direction type can be either arrival, departure, inbound, or outbound.

simpleType **doubleExclusive0Inclusive10**

type	restriction of xs:double
properties	base xs:double
used by	element pointStationarySource/stackDiameter
facets	Kind Value Annotation maxInclusive 10 minExclusive 0
annotation	documentation A double value in the range (0,10).

simpleType **doubleExclusive10**

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

simpleType **doubleExclusive100**

type	restriction of xs:double
properties	base xs:double
used by	elements taxiway/dispersionWidth categorySandSaltPile/fastestMileOfWind categorySandSaltPile/frictionVelocity categoryBoilerHeater/fuelAshContent categoryBoilerHeater/fuelSulfurContent categoryGenerator/fuelSulfurContent airportConfig/maxWindSpeed categoryFuelTank/verticalTank/meanWindSpeed categorySandSaltPile/meanWindSpeed airportConfig/minWindSpeed categoryDeicingArea/solutionConcentrationPercent
facets	Kind Value Annotation minInclusive 0 maxExclusive 100

simpleType **doubleExclusive1000**

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 doubleExclusive1000

type	restriction of xs:double
properties	base xs:double
used by	element categorySandSaltPile/erodedSurfaceArea
facets	Kind Value Annotation minInclusive 0 maxExclusive 10000
annotation	documentation A double value in the range [0,10000).

simpleType doubleExclusive2000

type	restriction of xs:double
properties	base xs:double
used by	elements categoryDeicingArea/ethyleneGlycolDensity categoryDeicingArea/propyleneGlycolDensity categorySolventDegreaser/solutionDensity
facets	Kind Value Annotation minInclusive 0 maxExclusive 2000
annotation	documentation A double value in the range [0,2000).

simpleType doubleExclusiveRange100

type	restriction of xs:double
properties	base xs:double
used by	elements categorySandSaltPile/moistureContent categorySandSaltPile/surfaceRoughness
facets	Kind Value Annotation minExclusive 0 maxExclusive 100
annotation	documentation A double value in the range (0,100).

simpleType doubleInclusive1

type	restriction of xs:double
properties	base xs:double
used by	elements userGroundSupportEquipment/defaultLoadFactor groundSupportEquipmentGateAssignment/fractionAssigned categoryBoilerHeater/pm25ToPm10Ratio categoryGenerator/pm25ToPm10Ratio categoryIncinerator/pm25ToPm10Ratio categoryOther/pm25ToPm10Ratio categorySandSaltPile/surfaceWindSpeedFraction
facets	Kind Value Annotation minInclusive 0 maxInclusive 1
annotation	documentation A double value in the range [0,1].

simpleType doubleInclusive100

type	restriction of xs:double
properties	base xs:double

used by	elements runwayAssignment/arrivalPercentage runwayAssignment/departurePercentage categoryBoilerHeater/pollutionControlFactorCO categoryGenerator/pollutionControlFactorCO categoryIncinerator/pollutionControlFactorCO categoryOther/pollutionControlFactorCO categoryBoilerHeater/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	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>enumeration</td> <td>MetricTonnes</td> <td></td> </tr> <tr> <td>enumeration</td> <td>Kilograms</td> <td></td> </tr> <tr> <td>enumeration</td> <td>Grams</td> <td></td> </tr> <tr> <td>enumeration</td> <td>ImperialTons</td> <td></td> </tr> <tr> <td>enumeration</td> <td>Pounds</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	enumeration	MetricTonnes		enumeration	Kilograms		enumeration	Grams		enumeration	ImperialTons		enumeration	Pounds	
Kind	Value	Annotation																	
enumeration	MetricTonnes																		
enumeration	Kilograms																		
enumeration	Grams																		
enumeration	ImperialTons																		
enumeration	Pounds																		
annotation	<p>documentation</p> <p>Unit of measure for a given emission.</p>																		

simpleType **empty-string**

type	restriction of xs:string						
properties	base xs:string						
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>enumeration</td> <td></td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	enumeration		
Kind	Value	Annotation					
enumeration							

simpleType **engineCode**

type	restriction of xs:string									
properties	base xs:string									
used by	elements aircraftEngine/code aircraft/engineCode									
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>255</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	minLength	0		maxLength	255	
Kind	Value	Annotation								
minLength	0									
maxLength	255									
annotation	<p>documentation</p> <p>Code for an airframe's engine.</p>									

simpleType **engineModCode**

type	restriction of xs:string									
properties	base xs:string									
used by	elements aircraftEngineMod/code aircraftType/engineModCode aircraft/engineModCode									
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>50</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	minLength	0		maxLength	50	
Kind	Value	Annotation								
minLength	0									
maxLength	50									
annotation	<p>documentation</p> <p>Airplane's engine modification code.</p>									

simpleType **engineModel**

type	restriction of xs:string									
properties	base xs:string									
used by	element aircraftEngine/model									
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>minLength</td> <td>0</td> <td></td> </tr> <tr> <td>maxLength</td> <td>255</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	minLength	0		maxLength	255	
Kind	Value	Annotation								
minLength	0									
maxLength	255									

simpleType **engineType**

type	restriction of xs:string						
properties	base xs:string						
used by	elements aircraftEngine/engineType anpHelicopter/engineTypeCode anpAirplane/engineTypeCode badaAirplane/engineTypeCode						
facets	<table> <thead> <tr> <th>Kind</th> <th>Value</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>pattern</td> <td>Jet J Turbo Turboprop T Prop Piston P</td> <td></td> </tr> </tbody> </table>	Kind	Value	Annotation	pattern	Jet J Turbo Turboprop T Prop Piston P	
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).
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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 [0,1000).

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
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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].
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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
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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

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

simpleType **opType**

type	restriction of xs:string
properties	base xs:string
used by	element operation/opType
facets	Kind Value Annotation pattern A Arrival D Departure V Overflight F Circuit T TouchAndGo R Runup W RunwayToRunway L LTO LandingTakoff X Taxi
annotation	documentation Type of operation.

simpleType **originSourceType**

type	restriction of xs:string
properties	base xs:string
used by	elements polarGrid/originSource polarReceptor/originSource
facets	Kind Value Annotation pattern Gate Parking Facility Roadway Runway Stationary Source Taxiway Training Fire
annotation	documentation Supports the polarReceptor source type. Original source type can be either gate, parking facility, roadway, runway, stationary source, taxiway, and training fire.

simpleType **profileType**

type	string255
properties	base string255
used by	elements profiles/arrivalProfile operation/badaProfile profiles/departureProfile operation/saeProfile
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation An aircraft's flight profile.

simpleType **quarterHourMinutes**

type	restriction of xs:int
properties	base xs:int
used by	attribute quarterHourlyProfile/temporalFactor/@startMinutes
facets	Kind Value Annotation enumeration 0 enumeration 15 enumeration 30 enumeration 45
annotation	documentation Either 0, 15, 30, or 45.

simpleType **string1**

type	restriction of xs:string
properties	base xs:string
used by	elements operation/arrivalStageLength operation/departureStageLength airframe/designationCode airframe/engineLocation airframe/engineType anTsfCCoefficients 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/faid
facets	Kind Value Annotation minLength 0 maxLength 15
annotation	documentation A string up to 15 characters long.

simpleType string16

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

simpleType string2

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

simpleType string20

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

simpleType string200

type	restriction of xs:string
properties	base xs:string
used by	element aircraftEngine/notes
facets	Kind Value Annotation minLength 0 maxLength 200
annotation	documentation A string up to 200 characters long.

simpleType string25

type	restriction of xs:string
properties	base xs:string

used by	elements aircraftEngine/emissionsEngineModel aircraftType/engineCode airport/facilityType aircraftEngine/performanceEngineModel airportWeatherStation/weatherStationName
facets	Kind Value Annotation minLength 0 maxLength 25
annotation	documentation A string up to 25 characters long.

simpleType **string25**

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 study/name scenario/name case/name annualization/name annualizationCase/name building/name receptorSet/name pointReceptor/name airportLayoutType/name badaThrust/notes anpHeloProfile/profileGroupId anpHeloProcedureStep/profileGroupId anpProfile/profileGroupId case/reference/refCase case/reference/refScenario sensorNode/source study/terrainFiles trackref/trackName simpleType profileType
facets	Kind Value Annotation minLength 0 maxLength 255
annotation	documentation A string up to 255 characters long.

simpleType **string3**

type	restriction of xs:string
properties	base xs:string
used by	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/bnald 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	element track/name
facets	Kind Value Annotation minLength 0 maxLength 64
annotation	documentation A string up to 64 characters long.

simpleType **string66**

type	restriction of xs:string
properties	base xs:string
used by	element windRoseStation/windRoseDataSet
facets	Kind Value Annotation minLength 0 maxLength 66

simpleType **string7**

type	restriction of xs:string
properties	base xs:string
used by	element airport/dafifId
facets	Kind Value Annotation minLength 0 maxLength 7

simpleType **string8**

type	restriction of xs:string
properties	base xs:string
used by	elements operation/arrivalRunway case/climateId operation/departureRunway climate/identifier runwayEnd/name trackref/runway track/runway runwayAssignment/runway taxipath/runwayName operation/tailNumber runup/tailNumber
facets	Kind Value Annotation minLength 0 maxLength 8
annotation	documentation A string up to eight characters long.

simpleType **string9**

type	restriction of xs:string
properties	base xs:string
used by	element windRoseStation/directionUnit
facets	Kind Value Annotation minLength 0 maxLength 9

simpleType **studyType**

type	restriction of xs:string
properties	base xs:string
used by	element study/studyType
facets	Kind Value Annotation enumeration Emissions enumeration Dispersion enumeration Noise and Emissions enumeration Noise and Dispersion
annotation	documentation Type of study. NOTE: AEDT only supports the Noise and Emissions value.

simpleType **taxiModelType**

type	restriction of xs:string
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properties	base xs:string
used by	element scenario/taxiModel
facets	Kind Value Annotation enumeration UserSpecified enumeration Delayed enumeration Sequencing
annotation	documentation Type of taxi modeling.

simpleType **timeInModeBasisType**

type	restriction of xs:string
properties	base xs:string
used by	element scenario/timeInModeBasis
facets	Kind Value Annotation enumeration Performance enumeration ICAO
annotation	documentation Time in mode can either be based on ICAO or performance.

simpleType **trackType**

type	restriction of xs:string
properties	base xs:string
used by	elements trackref/optype track/optype
facets	Kind Value Annotation pattern A Arrival D Departure V Overflight T TouchAndGo X ArrivalHeliTaxi O DepartureHeliTaxi
annotation	documentation Type of track.

simpleType **trainingFireFuelType**

type	restriction of xs:string
properties	base xs:string
facets	Kind Value Annotation pattern JP-4 JP-5 JP-8 Propane Tekflame
annotation	documentation Supports 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".

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