



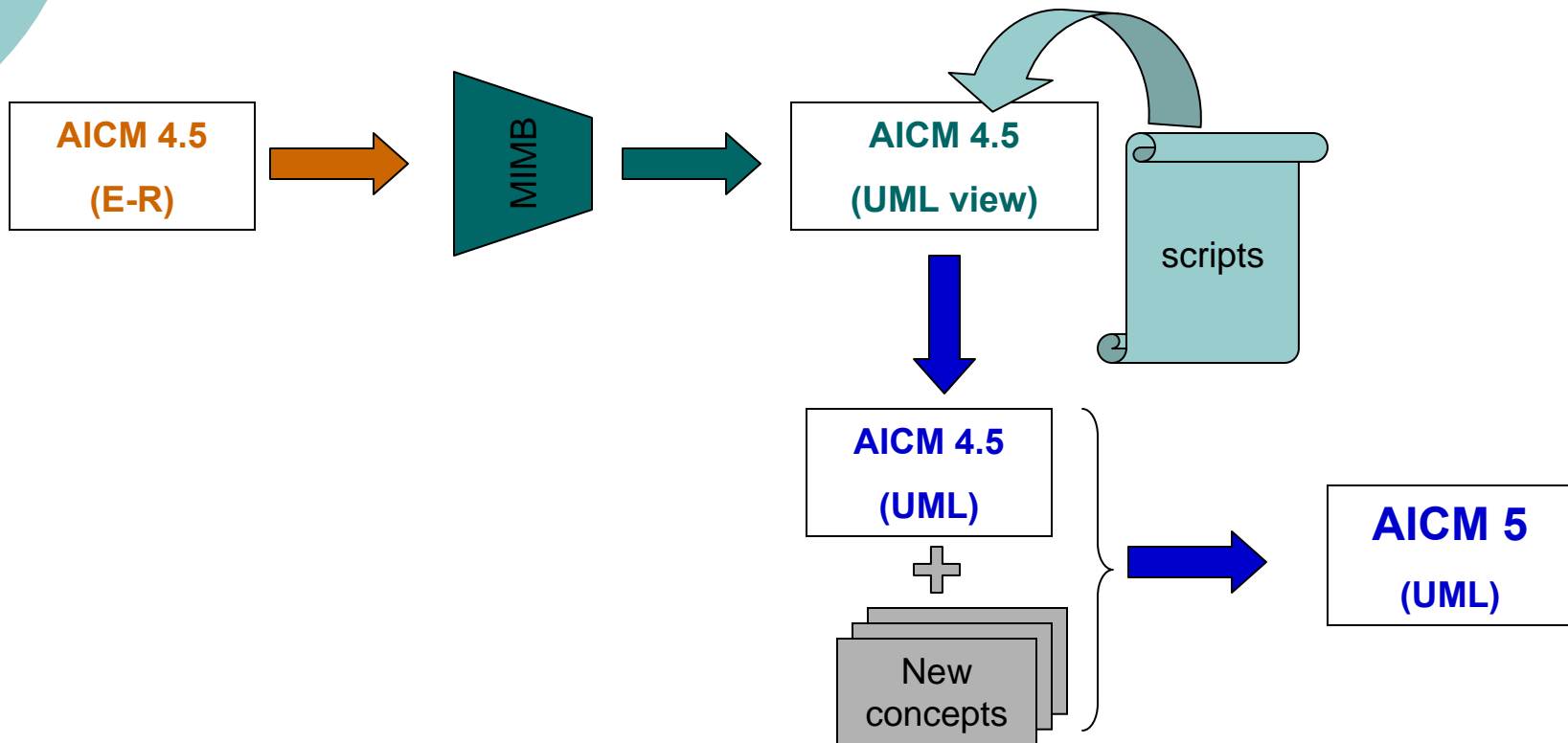
AIXM Domain Introduction

AIXM 5 Public Design Review
February 7-8, 2006
Washington DC

From AICM 4.5 to AICM 5.0

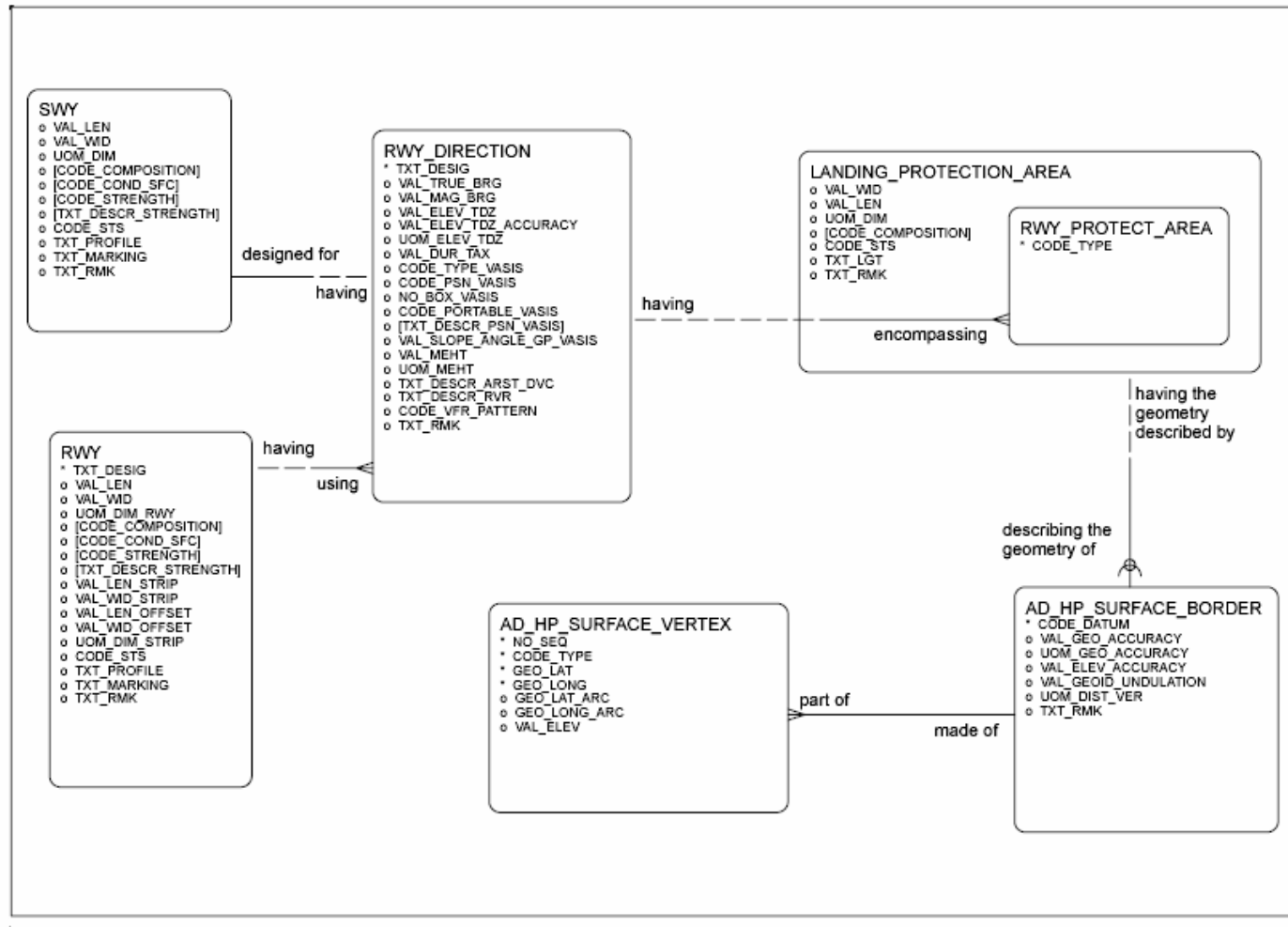
- Evolution

- 80% AICM 5 = AICM 4.5



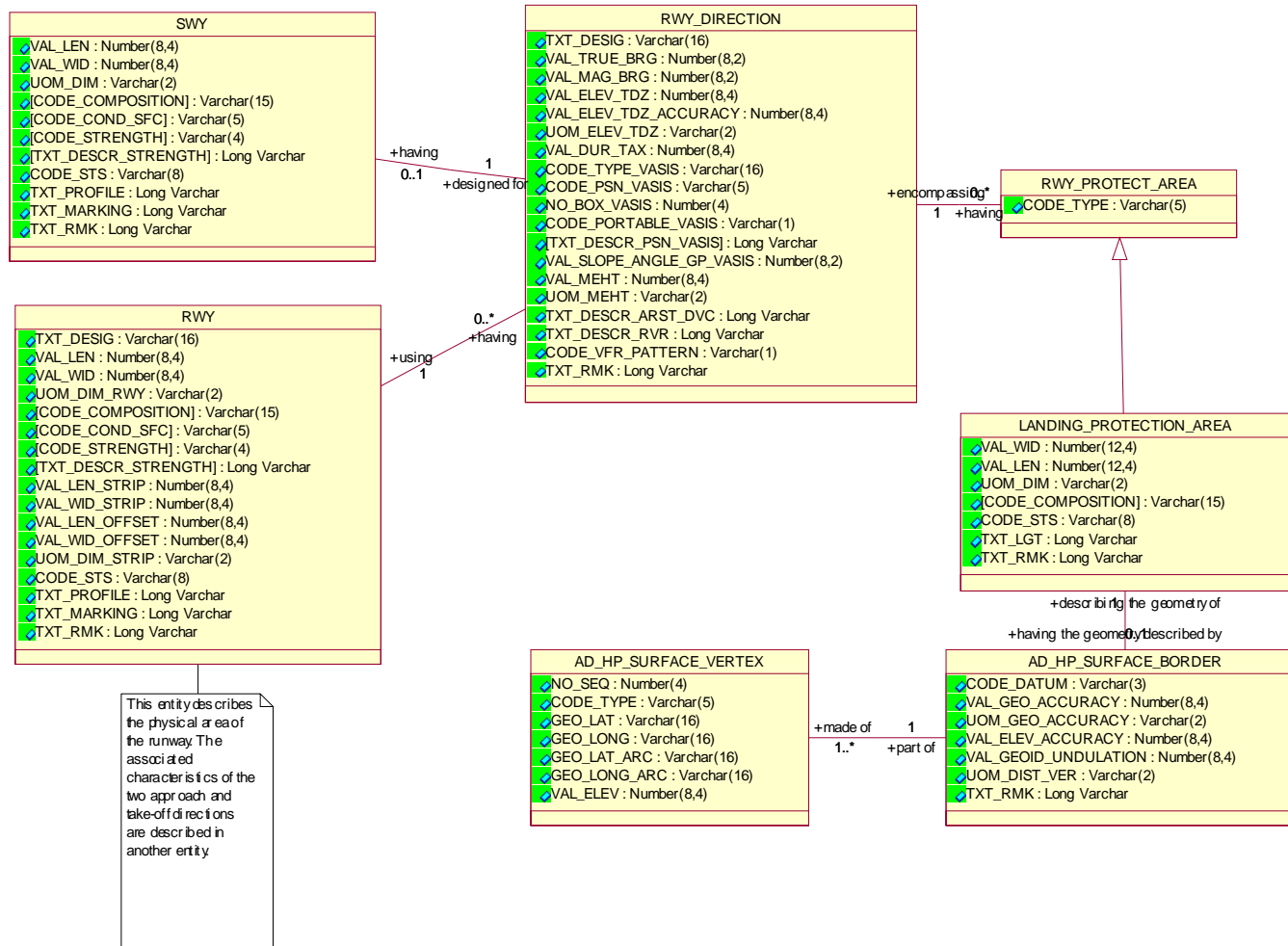
Example

AICM 4.5 e-r diagram



Example

AICM 4.5 UML from MIMB



AICM 4.5 Concepts

- AICM Web based training

- <http://elearning.eurocontrol.int>
- <http://elearning.eurocontrol.int/reports/registration.asp>

E-mail address: *

First Name: *

Last (Family) Name: *

Title: *

Organisation: *

Job Title:

Country: *

Brief reason for requesting to study:

I have read and accept the terms and conditions for access. *



AICM 4.5 Concepts

- Aerodrome/Heliport
- Navaids and Points
- Routes
- Airspace
- Organisation/Service
- Traffic Flow Restrictions
- *New model*
 - *Obstacles*
 - *Procedures*

AICM 4.5 Concepts

Aerodrome/Heliport

Aerodrome and Heliport

AICM: AD_HP

AIXM: <Ahp>

Defines the airport or heliport and provides general information.

Usage Limitation

AICM: AD_HP_USAGE

AIXM: <Ahu>

Rules describing flights and aircraft that can operate at the airport or heliport.

Runway

AICM: RWY

AIXM: <Rwy>

A runway at an airport.

Airport Timesheet

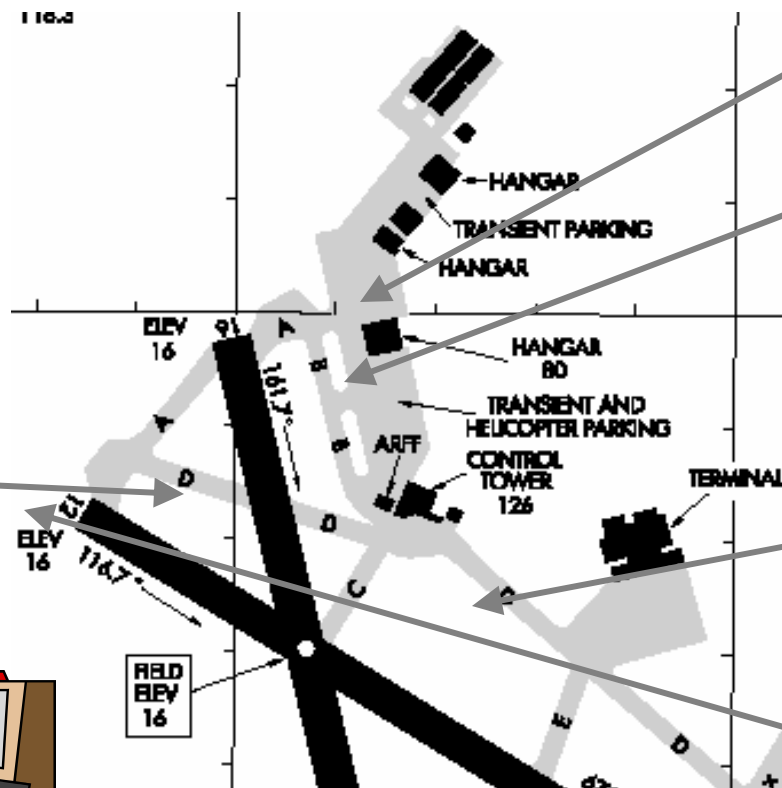
AICM: TIMESHEET

AIXM: <Aht>

Operating hours of the airport



Continuous



Obstacle at Airport

AICM: AD_HP_OBSTACLE

AIXM: <Aho>

Obstacle at an airport

Apron

AICM: APRON

AIXM: <Apn>

Locations where aircraft park and passengers enter and exit the aircraft.

Taxiway

AICM: TWY

AIXM: <Twy>

Fixed path used by aircraft to travel to and from a runway.

Runway Direction

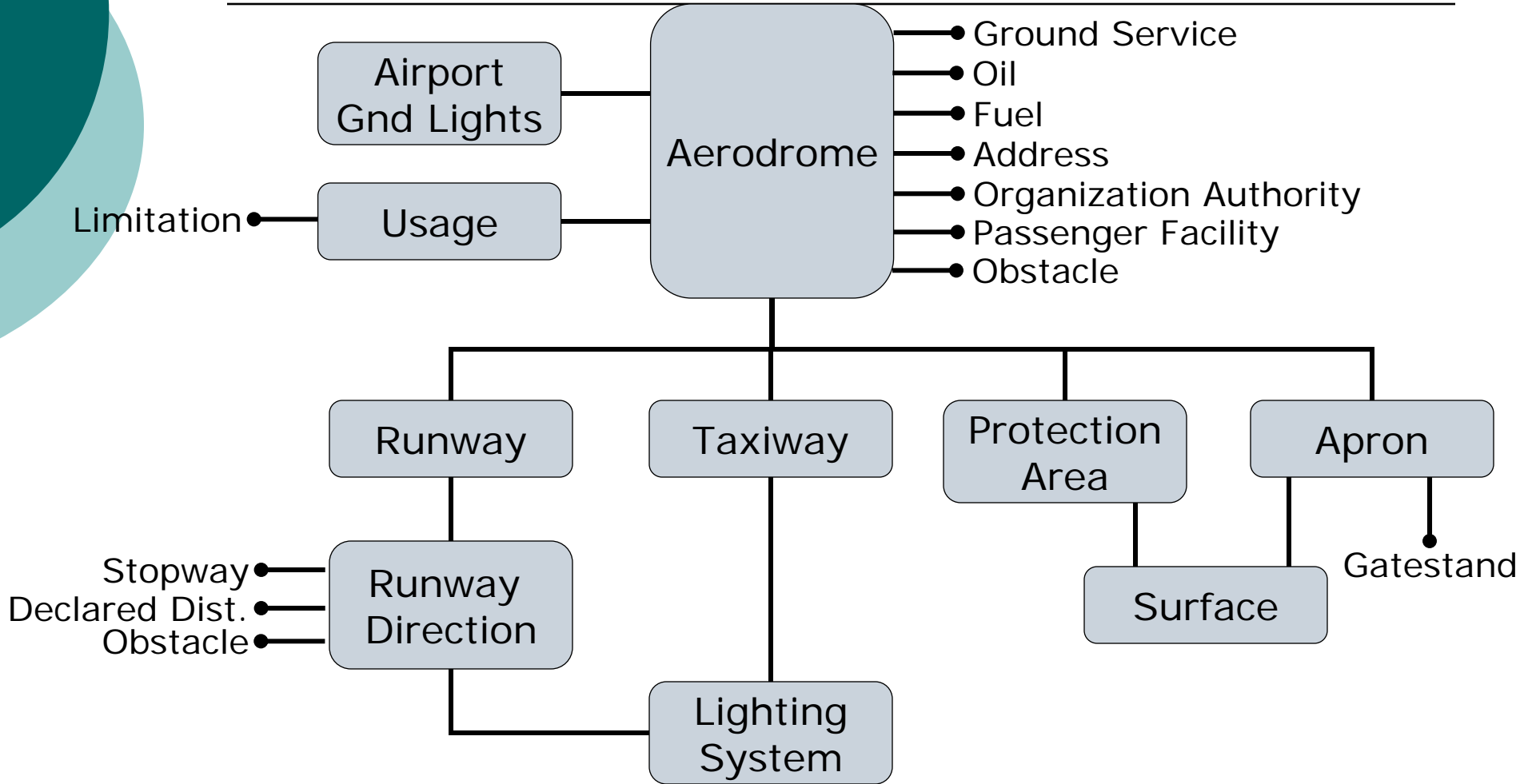
AICM: RWY_DIRECTION

AIXM: <Rdn>

Defines runway direction, approach lighting and thresholds.

AICM 4.5 Concepts

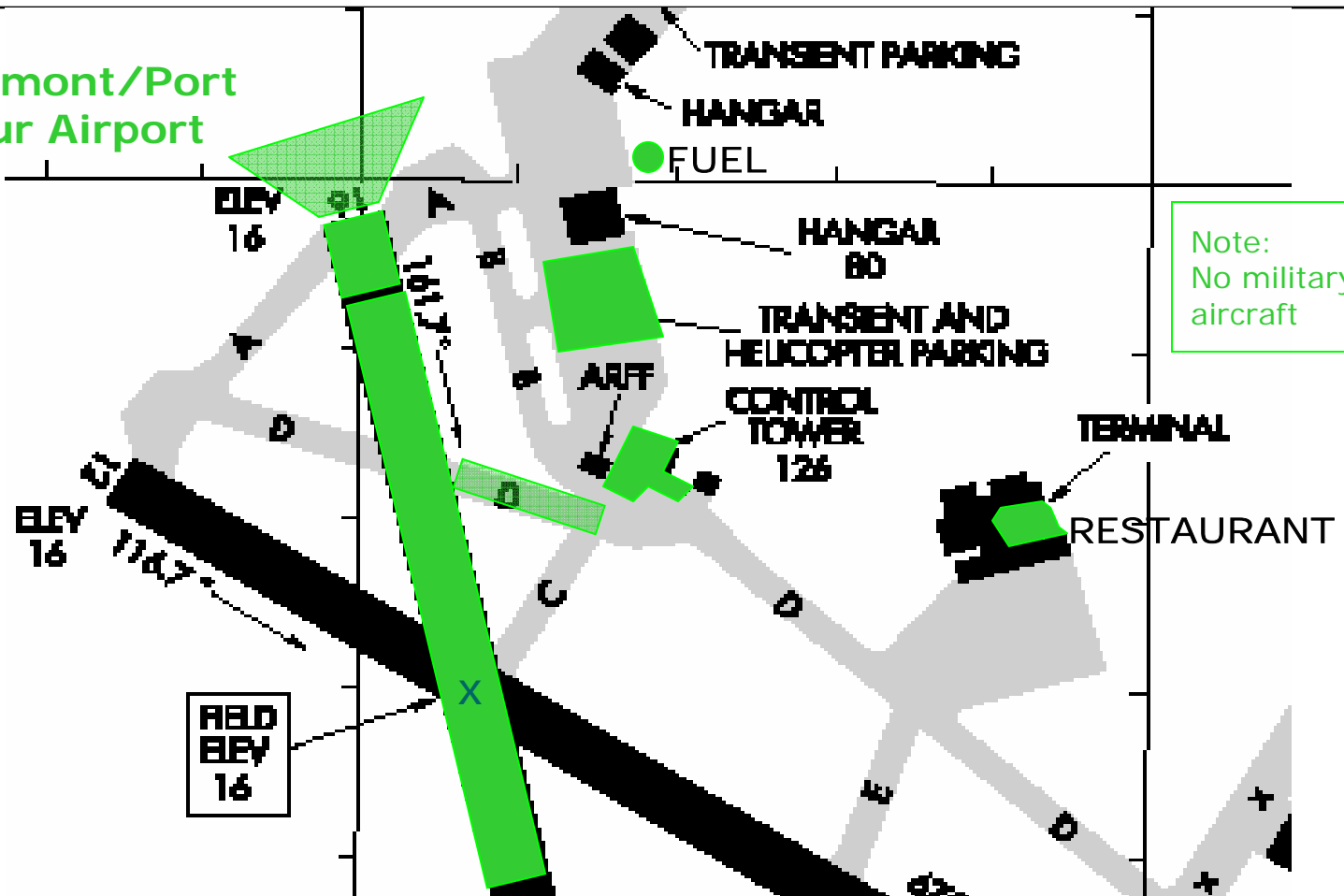
Aerodrome/Heliport



AICM 4.5 Concepts

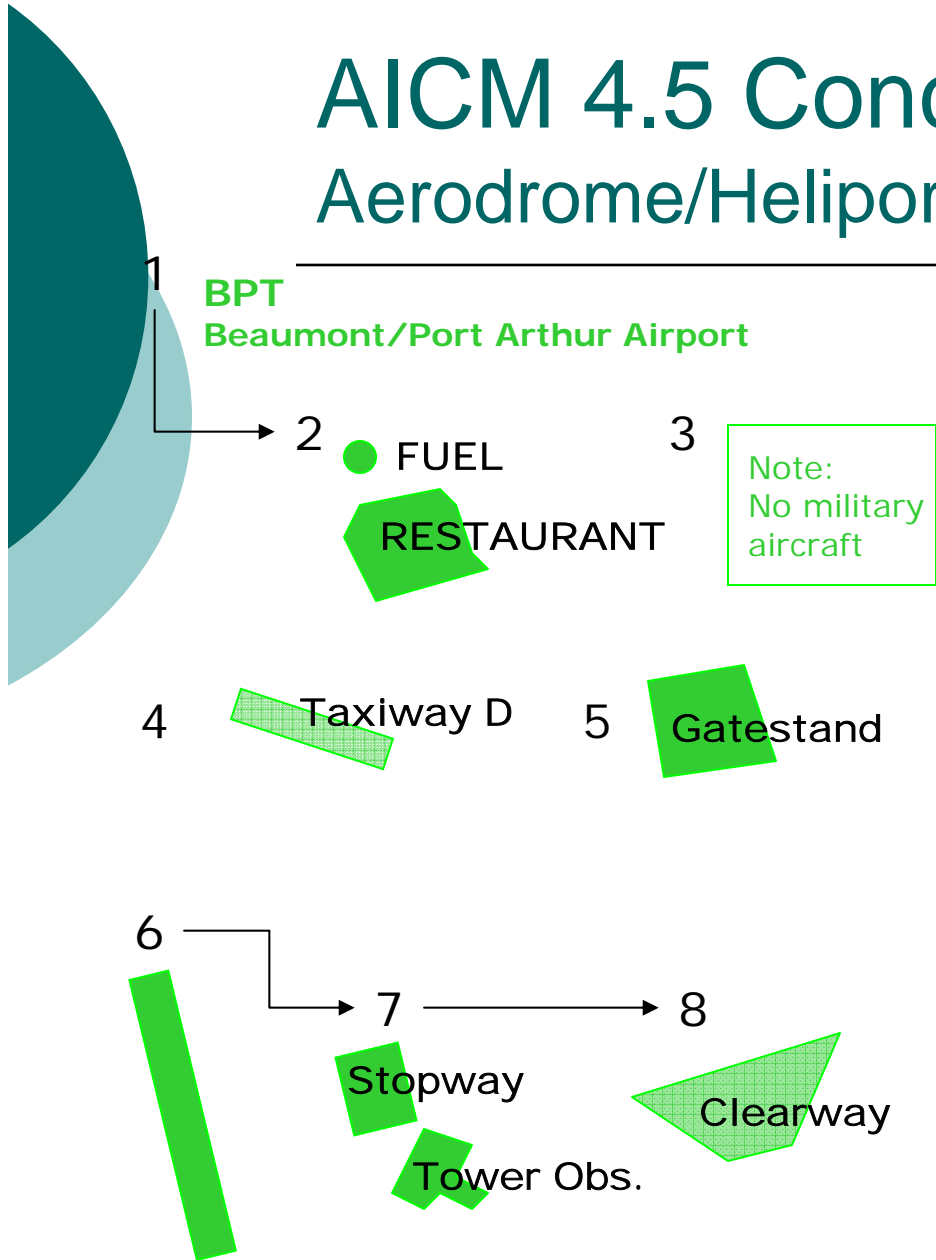
Aerodrome/Heliport

BPT
Beaumont/Port
Arthur Airport



AICM 4.5 Concepts

Aerodrome/Heliport



| | |
|---|--|
| 1 | Define airport |
| 2 | Assign passenger facility and fuel |
| 3 | Create usage rules for the airport |
| 4 | Define taxiway and assign it to the airport |
| 5 | Define the apron gatestand and assign it to the airport. |
| 6 | Define runway and runway directions and assign it to the airport |
| 7 | Assign obstacle, stopway to the runway direction. |
| 8 | Define the clearway and assign to the runway. |

AICM 4.5 Concepts

Aerodrome/Heliport

| AD_HP | |
|---|--|
| * CODE_ID | Coded Identifier |
| * TXT_NAME | Full name |
| o CODE_ICAO o CODE_IATA | ICAO and IATA codes |
| * CODE_TYPE | Type of aerodrome/heliport |
| o CODE_TYPE_MIL_OPS o CODE_INTL_TFC o CODE_SKED o CODE_NON_SKED o CODE_PRIV o CODE_VFR o CODE_IFR | Usage type codes [DEPRECATED 4.0] Use AD_HP_USAGE instead |
| o TXT_DESC_REF_PT | Reference point description |

....continued

AICM 4.5 Concepts

Aerodrome/Heliport

- * GEO_LAT
- * GEO_LONG
- CODE_DATUM
- VAL_GEO_ACCURACY
- UOM_GEO_ACCURACY
- VAL_ELEV
- VAL_ELEV_ACCURACY
- VAL_GEOID_UNDULATION
- UOM_DIST_VER
- VAL_CRC
- TXT_VER_DATUM

Position group

Attributes that define the Aerodrome position

- TXT_NAME_CITY_SER
- TXT_DESCR_SITE

- VAL_MAG_VAR
- DATE_MAG_VAR
- VAL_MAG_VAR_CHG

....continued

AICM 4.5 Concepts

Aerodrome/Heliport

| | |
|------------------------|--|
| * GEO_LAT | Geographic position value |
| * GEO_LONG | |
| o CODE_DATUM | Geographic position datum |
| o VAL_GEO_ACCURACY | Geographic position accuracy – UOM mandatory if VAL_ specified |
| o UOM_GEO_ACCURACY | |
| o VAL_ELEV | Elevation value |
| o VAL_ELEV_ACCURACY | Elevation accuracy – UOM mandatory if VAL_ specified |
| o UOM_DIST_VER | |
| o VAL_GEOID_UNDULATION | Geoid undulation value |
| o TXT_VER_DATUM | Vertical datum [MSL tide gauge] |
| o VAL_CRC | CRC Value |

AICM 4.5 Concepts

Aerodrome/Heliport

- * GEO_LAT
- * GEO_LONG
- CODE_DATUM
- VAL_GEO_ACCURACY
- UOM_GEO_ACCURACY
- VAL_ELEV
- VAL_ELEV_ACCURACY
- VAL_GEOID_UNDULATION
- UOM_DIST_VER
- VAL_CRC
- TXT_VER_DATUM

Position group

Attributes that define the Aerodrome position

- TXT_NAME_CITY_SER
- TXT_DESCR_SITE

City served and location description

- VAL_MAG_VAR
- DATE_MAG_VAR
- VAL_MAG_VAR_CHG

Magnetic variation and annual rate of change

....continued

AICM 4.5 Concepts

Aerodrome/Heliport

- VAL_REF_T
- UOM_REF_T

Reference temperature

- TXT_NAME_ADMIN
- TXT_DESCR_ACL
- TXT_DESCR_SRY_PWR
- TXT_DESCR_WDI
- TXT_DESCR_LDI

Textual descriptions of facilities

- VAL_TRANSITION_ALT
- UOM_TRANSITION_ALT

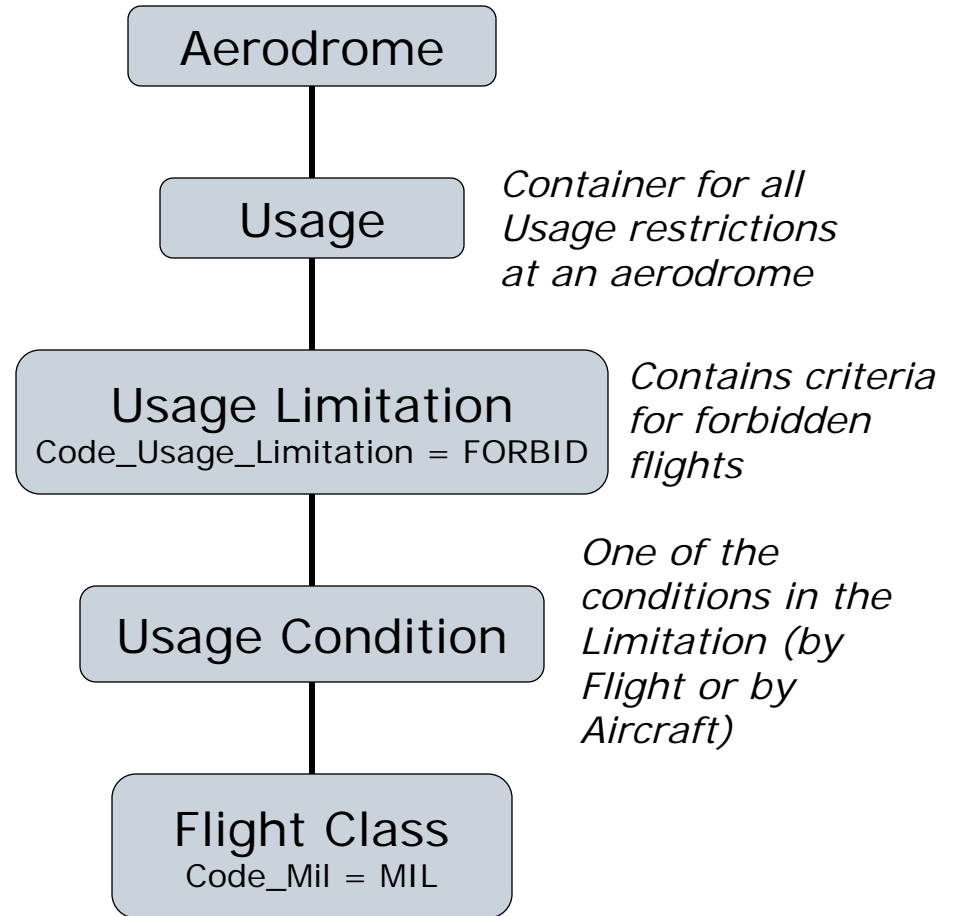
Transition altitude

- TXT_RMK

AICM 4.5 Concepts

Aerodrome/Heliport

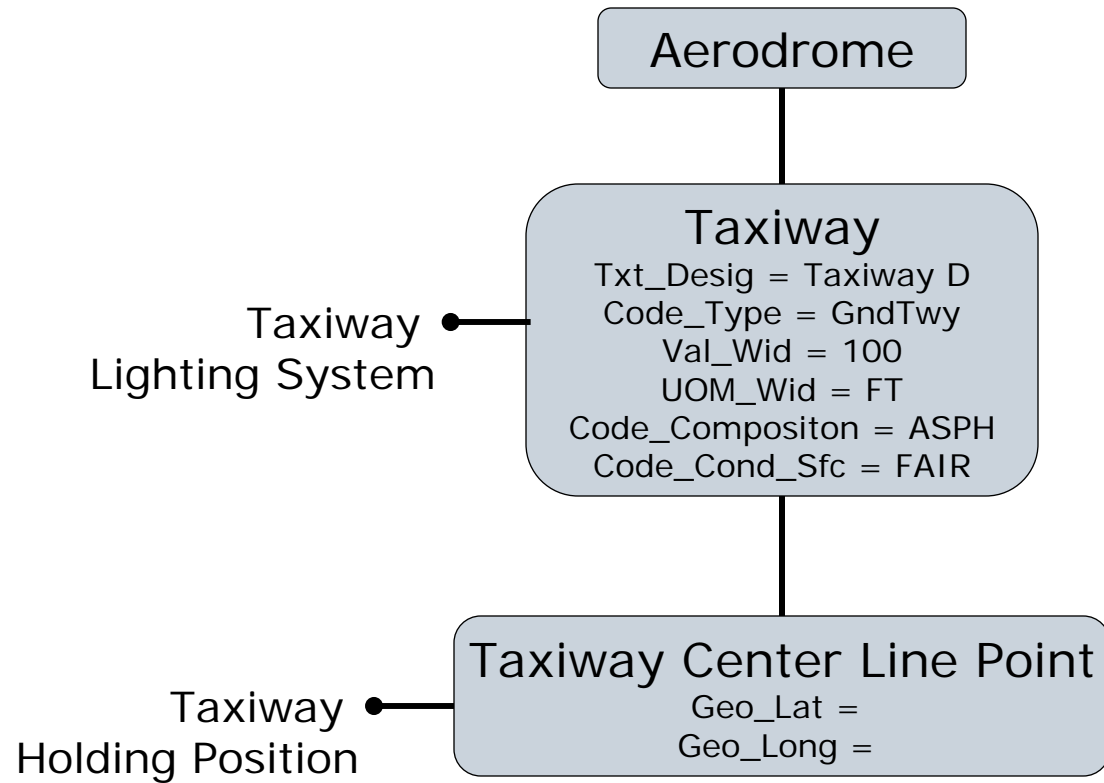
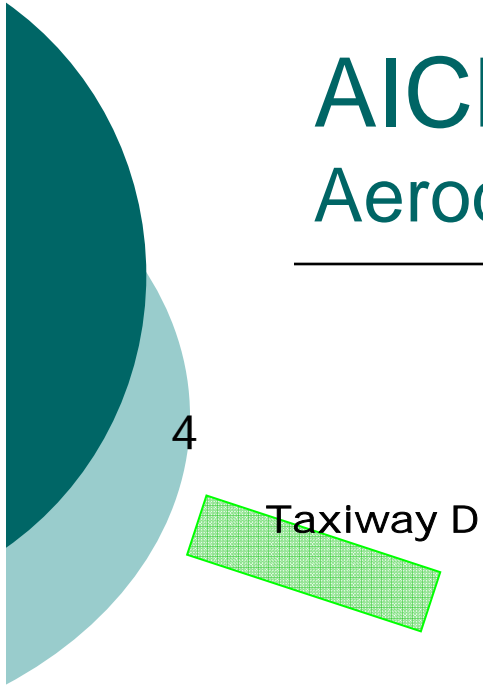
Note:
No military
aircraft



3

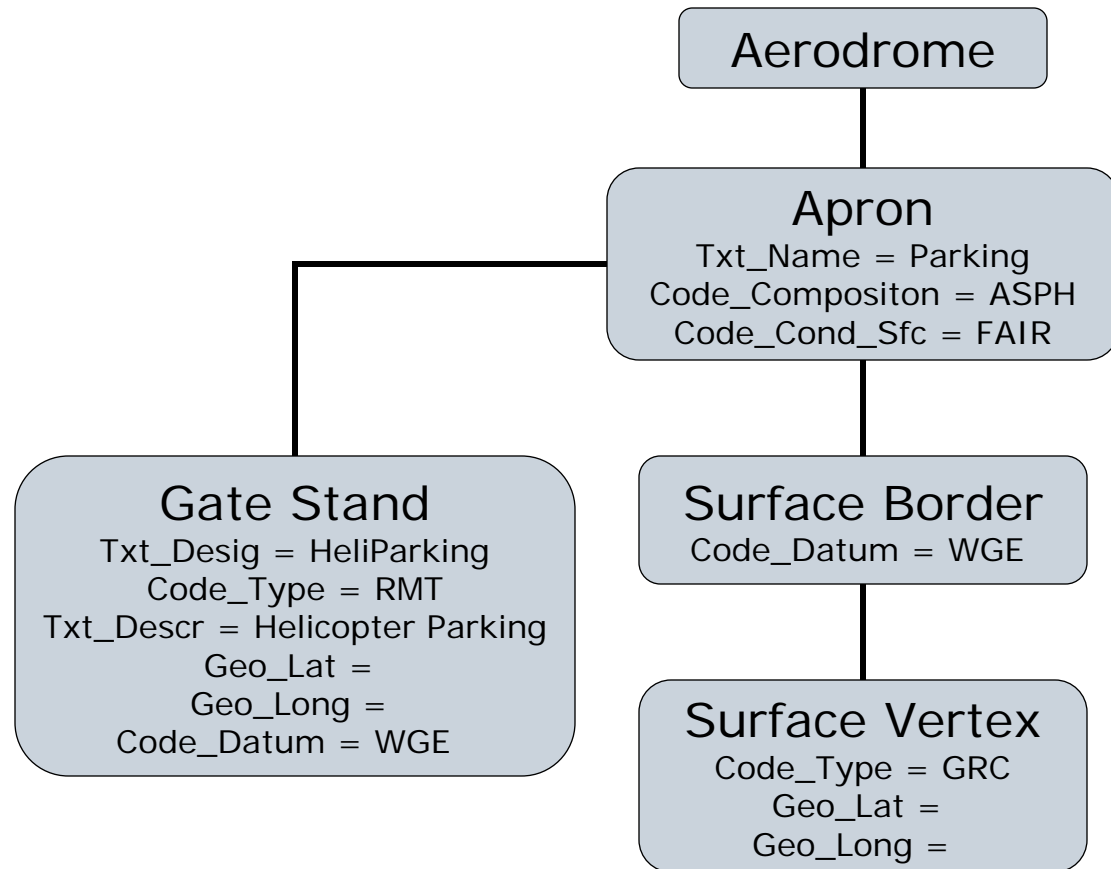
AICM 4.5 Concepts

Aerodrome/Heliport



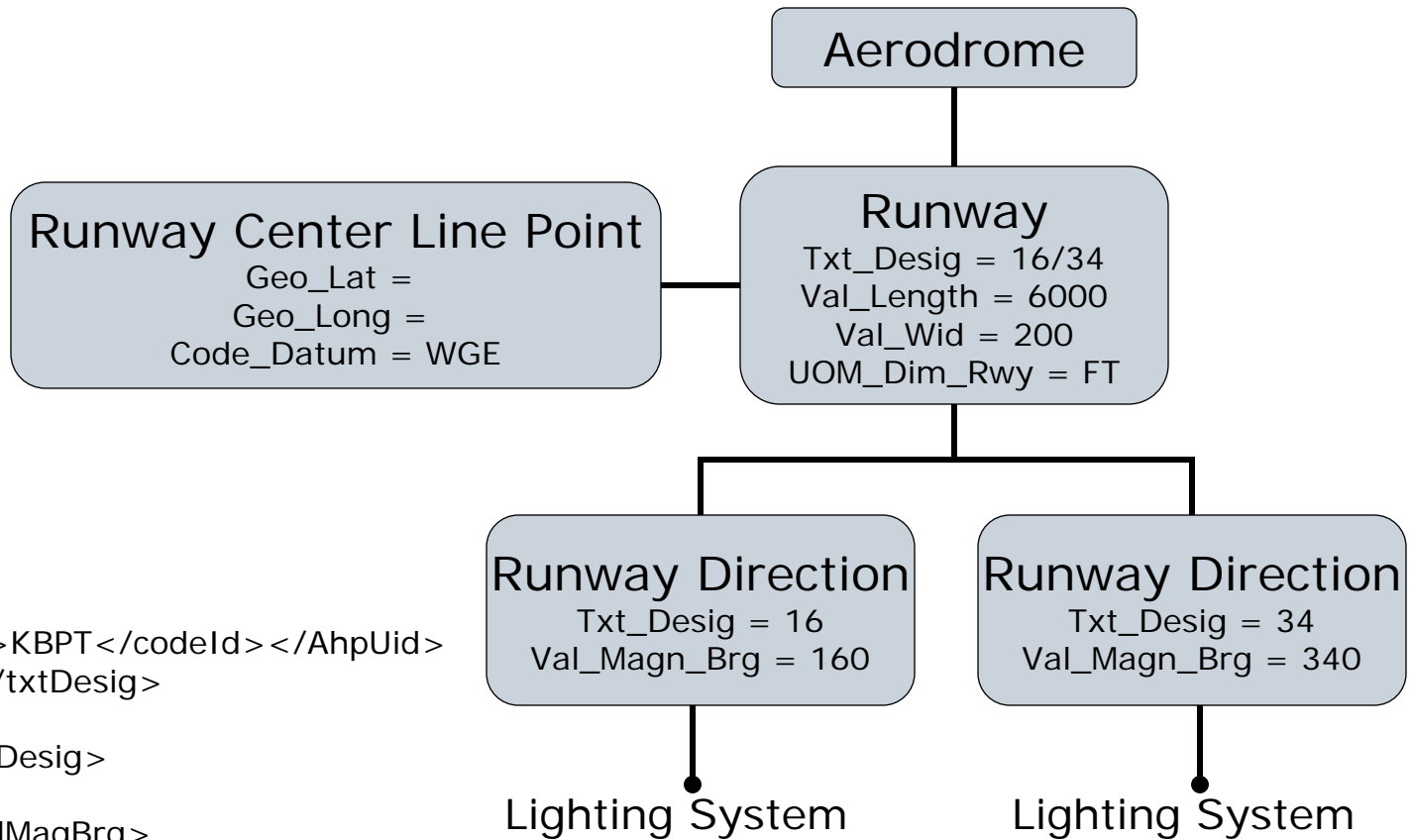
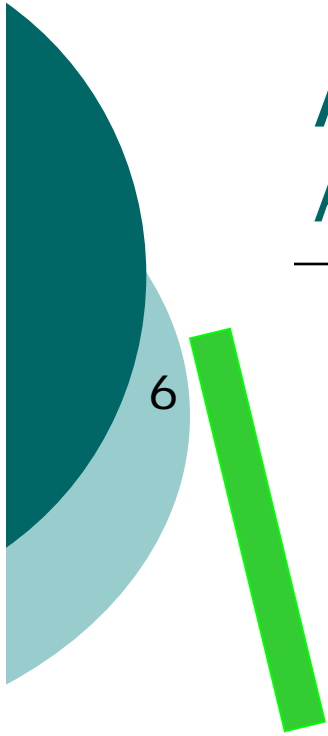
AICM 4.5 Concepts

Aerodrome/Heliport



AICM 4.5 Concepts

Aerodrome/Heliport



```

<Rdn>
  <RdnUid>
    <RwyUid>
      <AhpUid><codeId>KBPT</codeId></AhpUid>
      <txtDesig>16/34</txtDesig>
    </RwyUid>
    <txtDesig>16</txtDesig>
  </RdnUid>
  <valMagBrg>160</valMagBrg>
</Rdn>
  
```

AICM 4.5 Concepts

Aerodrome/Heliport

Runway Direction

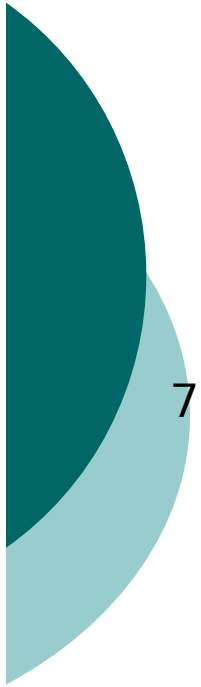
Stopway

Tower Obs.

Stopway
Val_Len = 500
Val_Wid = 250
Code_Composition = SAND
Code_Cond_Sfc = FAIR

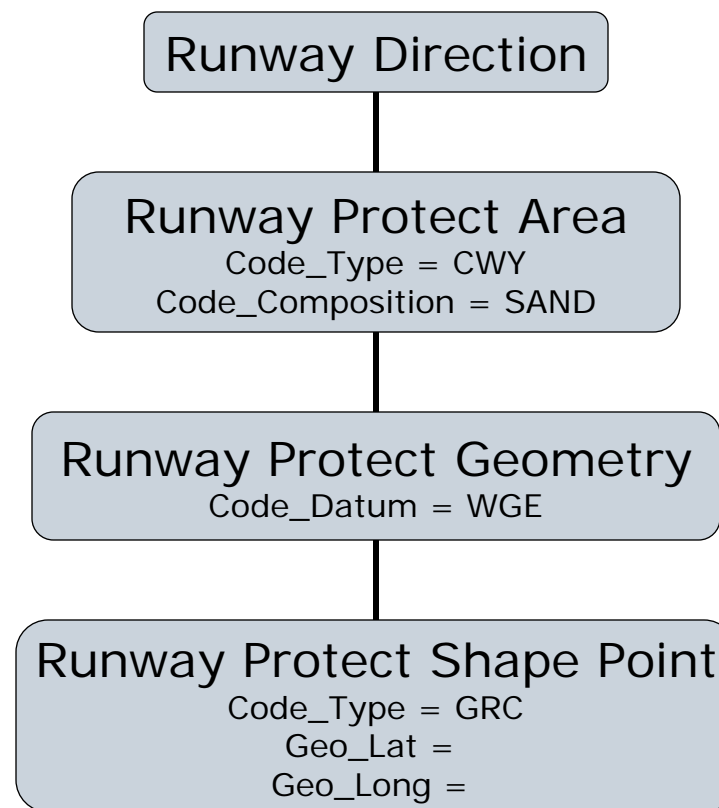
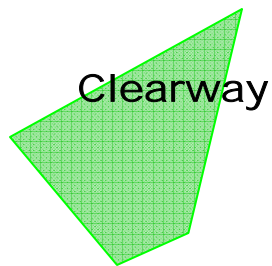
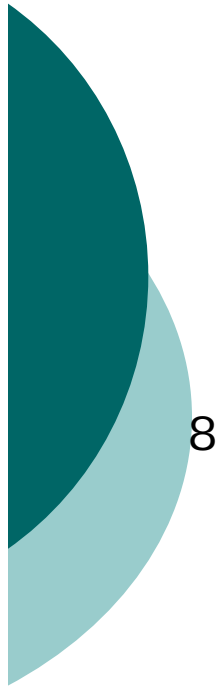
Runway Direction Obstacle
Code_Type_Ops = APCH
Val_Dist_Thr = 1500
Val_Dist_To_Cline = 1000

Obstacle
Txt_Name = Tower
Txt_Descr_Type = ATC Tower
Geo_Lat
Geo_Long
Code_Lgt = YES
Code_Datum = WGE
Val_Elev = 126
UOM_Dist_Ver = FT



AICM 4.5 Concepts

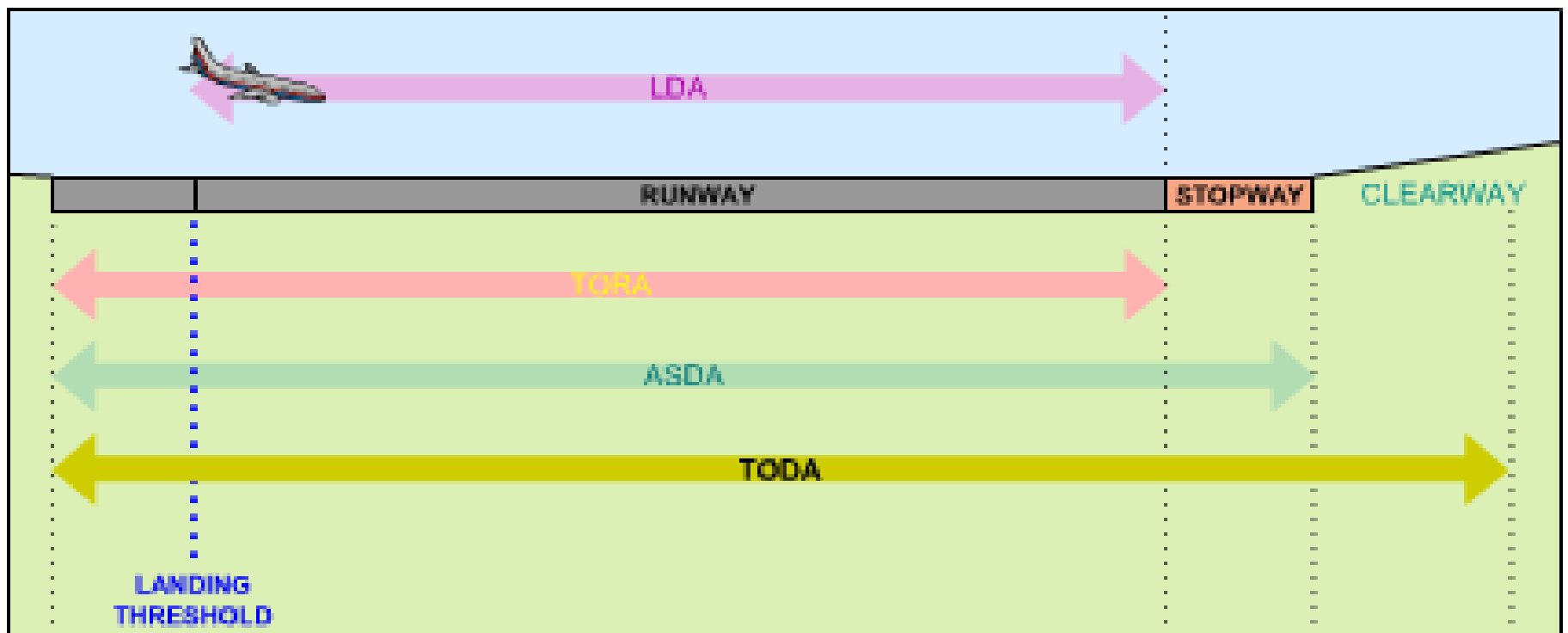
Aerodrome/Heliport



AICM 4.5 Concepts

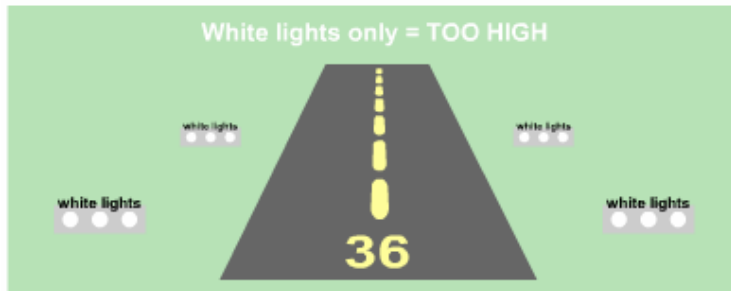
Aerodrome/Heliport

- Declared Distances



AICM 4.5 Concepts

Aerodrome/Heliport



Approach Lights and VASIS

AICM 4.5 Concepts

Aerodrome/Heliport

