

Practical Geomatics Information and Outline

Course overview

The course will endeavour to deliver the practical aspects of geomatics with respect to the treatment of geo-spatial aviation data. The industry is reliant upon the use of coordinate based data to ensure safety management of aircraft movement in and around airports / airspace. This has particular relevance to ICAO Annex 14, Annex 15 and AIXM. Ensuring that the geospatial data has the relevant integrity is of vital importance for locating terrain and obstacle data plus navigation aids and airport facilities.

This course will provide the attendees with a series of practical case studies that will introduce the fundamental principles of geodesy and cartography. Geo-spatial data can be obtained from numerous sources referenced to numerous coordinate reference systems. Achieving a final homogeneous dataset from the original data is of significant importance if the data is to provide the correct meaning to procedure designers and thus aircrew.

Three Case Studies

eTOD Annex 15

The development of digital terrain models with the integration of obstacles to achieve the necessary ICAO requirements for eTOD compliance. This will include how terrain data from different authorities can be used to achieve the geodetic integration and thus meet the necessary tolerance levels specified by ICAO.

Annex 14 Limitation Surfaces

The development of protection surface modelling from the grass roots surveying of obstacles to their integration within the design process.

AIXM

The development of how data shall be correctly integrated to create the airport information exchange model (v5). This module will show how the data is acquired and integrated and how the geodetic and cartographic requirements are achieved. An introduction to the ISO 19100 schema will also be made in respect of point, line and polygon obstacle features.

Course Aims

Throughout the development of the three case studies the course will deliver the necessary geodetic and cartographic principles. This will include the definitions of the ellipsoid, units of measure, datums, datum transformations and coordinate reference systems. The cartographic principles will concentrate on the correct presentation of the material in map and chart form to ensure complete transparency of the data.



Course Duration

2 working days

Course Location

Interlaken/Switzerland or on request. Please note that onsite locations require a tailored offer.

Course Instructor

Dr. Martin Rayson/Nils Lundström

Tuition Fee

1200 Euro per Student including all materials

Accommodation/Subsistence

At the participant's expense. A special rate for a local hotel exists.