Aerodrome Pavement Design and Management

DATES
09.11 - 11.11.2020 Berlin English
09.11 - 11.11.2020 Virtual English
In-house English

Please visit www.airsight.de/training for an up-to-date version of the programme or contact training@airsight.de if you have any question.

Aerodrome pavement has to be sufficiently well-constructed and maintained to support the dynamic and static loads imposed by aircraft during take-off, landing and taxiing manoeuvres as well as when parked on stand.

This 3-day course provides participants with the required knowledge to understand the principles of aerodrome pavement design and management, in-line with international best-practices and the regulatory requirements (e.g. EASA and ICAO). After an overview of the aerodrome-specific operational considerations and requirements (ACN & PCN), this course introduces the different pavement types (flexible, rigid and others) together with their associated materials, structures, advantages and disadvantages in terms of performance and durability.

This course also presents the common techniques for pavement inspection and maintenance, and further introduces the Pavement Management Systems (PMS) principles and activities aiming to ensure the structural soundness of the pavement assets during their projected lifetime.

The training course addresses primarily aerodrome pavement designers and contractors of construction activities on the movement area as well as airport and aviation authorities’ personnel. It will be supplemented by practical examples and case studies and is designed in an interactive form including group exercises as well as discussions.
Course Content

Regulatory framework related to the design and management of aerodrome pavements

- EASA aerodrome regulatory requirements
- ICAO (e.g. Annex 14 and Doc. 9157, Part 3)
- FAA ACs
- UK CAA

Airfield engineering considerations with regard to aerodrome pavement design

- Performance requirements
- Operational considerations
- Earthworks
- Buried structures
- Drainage
- AGL
- Utilities

Aerodrome pavement types

- Flexible pavement
- Rigid pavement
- Other types of pavement

Airport operators perspective on requirements on pavement design

- Performance requirements
- Operational considerations
- ACN-PCN-system
- Material performance and selection
- Whole life value

Aerodrome pavement inspection & maintenance

- Performance expectations
- Maintenance requirements
- Performance monitoring
- Pavement Management Systems
- In-situ testing
- Maintenance drivers, solutions, planning

Aerodrome pavement management

- Inventory
- Condition monitoring
- KPIs
- Forecasting
- Life cycle modelling
- Long term planning
- Data management and access