NG AVIATION

ACADEMY

Training Catalogue 2026

WELCOME TO NG AVIATION ACADEMY

A TRAINING ACADEMY THAT OFFERS AN EXCELLENT TRAINING SOLUTION.

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GENERAL INFORMATION

"BY PROVIDING HIGHLY SPECIALIZED TRAINING COURSES, NG ACADEMY SUPPORTS THE AVIATION COMMUNITY IN UNDERSTANDING AND IMPLEMENTING THE PROCESS OF AERONAUTICAL INFORMATION DIGITIZATION."

NG ACADEMY provides various training courses in the field of aeronautical information to support different participant's backgrounds and subject areas of the aviation industry.

We provide standard and tailor-made training solutions to enrich your experts to benefit your organization.

Our team of instructors and experts with extensive experience in aviation and digitization build our learning strategy on a balanced amount of theoretical and practical training to provide our clients with the best learning experience.

WE BELIEVE that even a small difference in approach will bring our customers a great value-added.

In this regard, NG ACADEMY:

- creates and provides **tailor-made courses based on your specific requirements**;
- offers the **flexibility of means and locations** of training courses;
- provides (works with) **highly qualified and experienced instructors and operational experts** in the field of training subject;
- offers **theoretical and practical trainings** to reach **the best learning experience.**

"TRANSFERING DIGITIZATION EXPERTISE ON BOTH THEORETICAL AND PRACTICAL LEVEL OPENS NEW WAYS OF UNDERSTANDING DIGITAL AERONAUTICAL DATA POTENTIAL."

COURSE OVERVIEW

COURSE	DURATION
GENERAL AIS/AIM COURSES	
AIS to AIM INTRO	1 day

AIXM SPECIALIZED COURSES	
AIXM 5.1 BASIC	3 days
AIXM 5.1 ADVANCED	4 days
AIXM 5.1 EXPERT	5 days
GIS SPECIALIZED COURSES	
GIS in Digital Aeronautical Data	1 day
DIGITAL DATA SET SPECIALIZED COURSES	
Digital Data Sets BASIC	3 days
AIP Data Set	5 days
Aerodrome Mapping data set	7 days
Obstacle data set	1 day

NG ACADEMY provides multiple theoretical and practical courses for personnel and organizations dealing with aeronautical information.
Our courses are divided by level and complexity to deliver a best-fit training solution. The theoretical part gives participants essential information necessary to understand basic terms, processes and requirements. Practical part guides participants through real digitization of aeronautical information. Combination of both parts gives participants a comprehensive overview and understanding of digitization of aeronautical information.

Our courses are provided virtually, on site in our well-equipped classrooms in Bratislava, or can be delivered directly to you wherever you are in the world.

TAILOR-MADE COURSES

We care about our customers, and therefore we do our best to meet their specific requirements. NG ACADEMY offers a customizable training solution that can be set up specifically to cover all customers' requirements. We can design and deliver a course based on your specific requirements. Just let us know.

QUALITY

One of the basic pillars of NG ACADEMY is the QUALITY of courses provided. This fact is supported not only by the ISO 9001 certification but also by the customer-oriented approach. To provide our participants with the best learning experience we are fully committed to individual approach of our instructors during the lessons and sufficient space for participants to understand the subject. To achieve the highest possible level of quality, we limit the number of participants to a maximum of 10 for each course that combines theoretical and practical parts. This limitation allows course instructors to look at participants individually and thus deliver the best learning experience.

"THE QUALITY HAS BEEN ALWAYS OUR TOP PRIORITY"

CERTIFICATE OF QUALITY

NG ACADEMY has implemented Quality Management System that is ISO 9001:2015 certified.

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GENERAL AIS/AIM COURSES

AIS to AIM INTRO

BASIC INFORMATION

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This course provides participants with a brief overview of Aeronautical Information Management. Full day of theoretical training will give participants a basic knowledge of the AIS/AIM domain, products and services, and related legislation.

COURSE DURATION

1 day

NUMBER OF PARTICIPANTS

Max. 10

TYPE OF TRAINING

Theoretical

COURSE PREREQUISITE

None

COURSE CONTENT

SUBJECT
Introduction to the Course
Regulatory framework
▪ AIS within ANS ▪ ICAO vs. State ▪ AIS Provision ▪ Responsibilities ▪ Oversight
EU Regulation
▪ From SES to Implementing Regulation (EU) 2020/469 ▪ Reg. (EU) 2017/373 and Reg. (EU) 2020/469 (AIM related parts) ▪ Reg. 2014/139 Subpart A – Aerodrome data
ANNEX 15
▪ Content of Annex 15 ▪ AIS Products and Services in Standardize presentation
Aeronautical data - general
▪ Data management ▪ Requirements for Aeronautical data ▪ Data quality
Digital data transfer going forward
▪ The need for transition (ICAO GANP and SES vision) ▪ Digital data sets ▪ Example of digital data sets creation

AIXM SPECIALIZED COURSES

AIXM 5.1 BASIC

BASIC INFORMATION

Completing this course, participants will be familiar with today's data models for Aeronautical Information storage and exchange. Also, participants will be introduced to the basis of AIXM 5.1 UML

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Model and Geography Markup Language and its usage. The AIXM 5.1 XML model/schema will be studied, and the structure will be explained.

COURSE DURATION

3 days

NUMBER OF PARTICIPANTS

Max. 10

TYPE OF TRAINING

Theoretical

COURSE PREREQUISITE

None

COURSE CONTENT

SUBJECT
Introduction to the Course Introduction to AIXM ▪ AIM Information flows ▪ Versions of AIXM data exchange models
AIXM 5.1 UML Model ▪ UML Modelling conventions ▪ Specific aspects of UML Model
AIXM 5.1 XML Model / Schema ▪ AIXM – core XSD ▪ Mapping inheritance ▪ Mapping Name of Classes ▪ Mapping Features ▪ Mapping Objects ▪ Mapping Choices ▪ Mapping relationship with Objects ▪ Mapping relationship with Features ▪ Mapping Data Types
AIXM 5.1 Feature Identification and Reference ▪ UUID Definition ▪ Namespace ▪ Usage in AIXM 5.1 ▪ Feature reference and it’s usage in AIXM 5.1
Temporality Model ▪ Building Temporality Model ▪ Time-Slices specification ▪ Usage examples
Geography Markup Language ▪ Geometries in GML ▪ XML and GML ▪ Usage of GML in AIXM 5.1
AIXM 5.1 Metadata Profile ▪ Aviation Profile of ISO 19115
AIXM 5.1 Business Rules and Extensions ▪ Sematic of Business Vocabulary and Business Rules ▪ AIXM Business Rules and Extensions
Data Edition and Processing ▪ Creation of Geometry Information ▪ Creation of AIXM 5.1 Data

AIXM 5.1 EXPERT

BASIC INFORMATION

Upon completion of this course, participants will have full understanding of the digitization of Aeronautical Information in AIXM 5.1 data exchange model and full awareness of all requirements and data processes. During this course, the details of Temporality will be explained and demonstrated as well as an advanced usage of Feature Identification and Reference. Participants will be guided through the requirements and processes for the creation of complete metadata information, and at the end of the course, they will be able to create digital AIXM 5.1 data.

COURSE DURATION

5 days

NUMBER OF PARTICIPANTS

Max. 10

TYPE OF TRAINING

Theoretical and Practical

COURSE PREREQUISITE

None

COURSE CONTENT: SAME AS PER AIXM 5.1 BASIC CONTENT, PLUS:

SUBJECT
Introduction to the Course
AIXM 5.1 BASIC Content
Temporality Model - EXPERT

- Temporality Rules
- Application of Temporality Model to data editing and data processing
- Analysis of problematic situations

AIXM 5.1 Metadata Profile

- Full Metadata Requirements
- Metadata specification for each Digital Data Set

AIXM 5.1 Business Rules and Extensions

- Digital NOTAM

Data edition and processing

- Generation of Digital Data Set
- Advanced Data editing
- Application of Temporality Model to Data editing and processing
- Detailed Data processing, Metadata included

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GIS SPECIALIZED COURSES

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GIS IN DIGITAL AERONAUTICAL DATA

BASIC INFORMATION

Completing this course, participants will gain a fundamental understanding of GIS systems and their use in the context of Digital Aeronautical Data Creation and Management. The course introduces the full GIS data lifecycle, including data sourcing, analysis, transformation, validation, post-processing, and export. Participants will also become familiar with GIS data maintenance processes, including updates within and outside the AIRAC cycle, as well as the tools and workflows used to ensure data quality and consistency.

COURSE DURATION

1 day

NUMBER OF PARTICIPANTS

Max. 10

TYPE OF TRAINING

Theoretical

COURSE PREREQUISITE

None

COURSE CONTENT

SUBJECT

Introduction to the Course

Introduction to GIS Systems

- Introduction to GIS System
- Differences between GIS Systems
- Achieving the same result through different approaches

DATA Lifecycle

- Source Data
- Data Analysis and Transformation
- Project preparation for data creation
- Data validation
- Post-processing tasks
- Data export

Data Maintenance Process

- Updates within the AIRAC cycle
- Updates outside of AIRAC cycle
- Processes and Tools

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DIGITAL DATA SETS SPECIALIZED COURSES

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DIGITAL DATA SETS BASIC

BASIC INFORMATION

This course provides participants with an overview of the Digital data sets, as a product of AIS defined by related legislation. Theoretical training focuses on related EU legislation requirements and ICAO SARPs concerning data originators and AIS providers. Practical part will give participants a general overview of digital data, its management, and processes within AIM and data originators.

COURSE DURATION

3 days

NUMBER OF PARTICIPANTS

Max. 10

TYPE OF TRAINING

Theoretical and Practical

COURSE PREREQUISITE

None

COURSE CONTENT

SUBJECT
Introduction to the Course General framework
▪ AIS Provision ▪ Responsibilities
ICAO framework
▪ Content of ANNEX 15 ▪ AIS Products and Services ▪ ICAO Doc. 10066 PANS/AIM ▪ ICAO Doc. 8126 AIS Manual
EU Regulation
▪ From SES to Implementing Regulation (EU) 2020/469 ▪ Reg. (EU) 2017/373 and Reg. (EU) 2020/469 (AIM related parts) ▪ Reg. 2014/139 Subpart A – Aerodrome data
Aeronautical Data
▪ The need for digital aeronautical data ▪ Requirements for Aeronautical data ▪ Aeronautical Data Quality ▪ Aeronautical Data Management (collection, processing and distribution)
Digital Data sets
▪ AIP ▪ AMDB ▪ Terrain and Obstacle ▪ IFP
AIXM 5.x as a digital aeronautical data exchange model
▪ General overview ▪ UML, XML, GML (in general) ▪ Temporality ▪ Feature identification and reference
Metadata Products above digital data
▪ Digital NOTAM
Digital data creation in AIXM 5.1 format - showcase (Practical training)
▪ AMDB, Airspace data, Obstacle data, IFP data, digital NOTAM

AIP DATA SET

BASIC INFORMATION

With the completion of this course, participants will fully understand necessities for creating and providing AIP digital data set and will be provided with the legislation requirements overview. Within this course, detailed mapping for a minimum AIP digital data set and additional mapping based on ICAO PANS-AIM Doc. 10066 will be provided. At the end of the training participants will be able to create all required features and their properties.

COURSE DURATION

5 days

NUMBER OF PARTICIPANTS

Max. 10

TYPE OF TRAINING

Theoretical and Practical

COURSE PREREQUISITE

AIXM 5.1 EXPERT

COURSE CONTENT

SUBJECT

Introduction to the Course

Related legislative requirements and standards

- ICAO Annex 15
- ICAO Doc. 10066 PANS AIM
- AIXM 5.1 Schema
- EUROCONTROL Business rules
- Temporality Model

Creation of AIP data set – Practical Training

- ATS airspace
- Special activity airspace
- Route
- Route segment
- Waypoint (en-route)
- Aerodrome / Heliport
- Runway
- Runway direction
- FATO (Final Approach and Take-Off)
- TLOF (Touch-down Lift-Off)
- Radio navigation aid

AERODROME MAPPING DATA SET

BASIC INFORMATION

Upon the completion of this course, participants will fully understand the requirements for the creation and provision of the AMDB digital data set. The theoretical part also explains the difference between the AMXM and AIXM data exchange model and specific Metadata requirements for the AMDB data set. During the course, participants will create several elemental AMDB features using the NG/AIME system and recognize the use-cases and benefits of the AMDB data set.

COURSE DURATION

7 days

NUMBER OF PARTICIPANTS

Max. 10

TYPE OF TRAINING

Theoretical and Practical

COURSE PREREQUISITE

AIXM 5.1 EXPERT

COURSE CONTENT

SUBJECT
Introduction to the Course
Related legislative requirements and standards

- ICAO Annex 15
- ICAO Doc. 10066 PANS AIM
- AIXM 5.1 Schema
- EUROCONTROL Business rules
- Temporality Model
- EUROCAE ED-99/RTCA DO-292
- GML for Aviation data

Creation of AMDB data set features – Practical Training

- All aerodrome features as defined by EUROCAE ED-99/RTCA DO/292
- Complete guidance for data creation in AIXM 5.1

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OBSTACLE DATA SET

BASIC INFORMATION

With the completion of this course, participants will understand the requirements related to the creation and provision of the Obstacle data set in AIXM 5.1. The legislation overview will be focused specifically on the Obstacle data set. Within the practical part of the training, participants will be guided through the process of Obstacle data creation, including the features, properties, associations, and required metadata.

COURSE DURATION

1 day

NUMBER OF PARTICIPANTS

Max. 10

TYPE OF TRAINING

Theoretical and Practical

COURSE PREREQUISITE

AIXM 5.1 EXPERT

COURSE CONTENT

SUBJECT
Introduction to the Course
Related legislative requirements and standards

- ICAO Annex 15
- ICAO Doc. 10066 PANS AIM
- Annex 14
- AIXM 5.1 Schema
- EUROCONTROL Business rules
- eTOD
- Guidelines for creation of OBS Data Set

OBS Data creation, edition and processing – Practical Training

- OBS digital data creation
- OBS data edition
- Data Processing and Flow

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NG AVIATION SPECIALIZES IN THE DIGITAL TRANSITION OF THE CIVIL AND MILITARY AVIATION INDUSTRY

"Cooperating with key international partners, NG Aviation offers a spectrum of products and services that provide comprehensive digital solutions, transforming the industry´s information management and data exchange while fulfilling international regulatory compliance."

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