Training Programmes
Courses and Services for skills development
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A Global Leader in Air Navigation Services
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Airline, Airport and Aviation Industry
- AIS, ATFCM & Meteo
- ATC-Pilot Co-operation Course
- AWO – All Weather Operations for Ground Crew
- ATFM for Aviation
- Ground Vehicle Operations

English for Aviation
- English for Airport Personnel
- English for Airport Security Staff
- English for Ground Handling Agents
- English for Passenger Care
- English for Pilots
- English for Aviation Engineers and Maintenance Personnel

Security
- ATM Security Management System
- Information Security Management System
- Risk Management (ISO 31000)
- Aviation Security Management

COURSES ON AVIATION CULTURE
- A Day as a Controller
- A Day as a Pilot
- Flying with Awareness
- Drones: RPA Theory Based Pilot Course
- ATM Regulation Update
- Basics of Human Performance in Aviation

NOT ONLY AVIATION!
- Human Performance in HRO
- Simulation Based Training
- On the Job Training
- Let’s land this aircraft!
- Cleared for takeoff!

TECHNOLOGY & SERVICES
- Flight Simulator (FSTD)
- Tower Simulator
- Radar Simulator
- Visual Modelling Station
- Radar Custom Scenarios
EXPERIENTIAL LEARNING
The training involves active experimentation and revision of theories and concepts.

CASE STUDY
The training provides analysis and discussion of case studies.

E-LEARNING
The structure of the course includes the provision of modules for online learning.

TOWER SIMULATOR
The training involves the use of a control tower simulator.
< For further information about simulation systems, see “Technology and Services” section >

RADAR SIMULATOR
The training involves the use of a radar simulator.
< For further information about simulation systems, see “Technology and Services” section >

FLIGHT SIMULATOR
The training involves the use of a CRJ 200 flight simulator.
< For further information about simulation systems, see “Technology and Services” section >

METEOROLOGICAL SIMULATOR
The training involves the use of a meteorological simulator, to improve meteorological observation skills.
Skills development and training in complex organisations, which put into play well structured and profound competences, cannot overlook the technology that activates the learning process, the continuous updating of the training contents, the adoption of didactic methods that are able to effectively support the development of individuals.

The commitment which the Academy dedicates to the design and the delivery of its training courses is outstanding because it effectively oversees three key factors: the maintenance and development of the technology in the simulators, necessary for the training process of operational personnel, but also an effective platform for the development of social skills and abilities; the ongoing collaboration and mutual exchange between the Academy and the operational world, which allows instructors and teachers to keep their skills up to date; experimentations and considerations on the models and the innovation of didactic methodologies, occur through the participation and the contribution to national and international professional networks.

The training courses and services in this catalogue are the result of a daily commitment and 20 years of experience in skills development and training of operational and non-operational personnel. An experience that has taught the Academy to respond to needs which have become more and more challenging: from “simple” courses to the development of complex solutions for international clients, from the initial training to the continuous updating of operational personnel’s skills in the provision of air traffic control services, to the training of all personnel who work in the wider field of air transport.
Facilities

**ENAV Academy** is located in Forlì. It is set in the heart of an aeronautical community which involves the University of Bologna (Aerospace and Mechanical Engineering Degree Programmes), the Aviation High School “Francesco Baracca”, a flight school and a school for aviation maintenance technicians. The Academy offers its participants an environment reserved for learning. It has classrooms which seat between 6 and 30 people, a conference hall for up to 200 people, simulators and a canteen coffee bar.

The following simulators are used at the Academy for training activities:
- 2 Radar Simulators (24 working positions in 12 suites)
- 1 Procedural Simulator (8 working positions in 4 suites)
- 8 Tower 3D 270° Simulators
- 1 CRJ Flight Simulator
- 14 Part Task Trainer working positions

Specialised and committed technical assistance is constantly provided. The different scenarios and operational environments are customisable based on the course objectives. A few activities are carried out at the Rome Headquarters, while customised courses can be delivered on site, based on specific logistic and organisational needs.

< For further information about simulation systems, see “Technology and Services” section >
A Distinctive Approach

The quality of the training that the Academy offers is based on three critical success factors, constantly reviewed and monitored.

- Expert instructors and teachers with methodological and technical expertise adopt didactic strategies which effectively develop the abilities and skills of the participants. The methodological skills are developed and maintained over time with activities such as train the trainer. These activities ensure that the Academy Team is constantly kept up-to-date.

- Intensive simulations are part of a training methodology used to develop complex skills. Here at the ENAV Academy a simulation is not just simply the use of a technological tool, but rather the planning and implementation of a complex process based on a solid organised methodology.

- Teaching based on active methods using different and flexible approaches. Not only class activities but also practical activities, case studies, e-learning, blended courses and, of course, simulation.
Range of Courses

The training and teaching activities that the Academy plans and implements, first and foremost, are related to our core business: the training of Air Navigation Service personnel.

Over the years, important training courses intended for different fields of aviation have been developed. The training packages are divided into 4 specific areas of interest:

- **Training for ANSP** specifically for European and Non-European Service Providers who need training courses aimed at achieving new ratings and/or endorsements for their personnel.

- **Courses for the aviation field** intended as all entities that contribute to air transport management: airlines, airport and maintenance services, handling services and all those who operate within the air transport sector or those who need to develop their knowledge in specific areas in the aviation world.

- **Courses on aviation culture** designed for those who, for interest or profession, wish to further develop their knowledge of aviation, air traffic control and piloting.

- **Not only aviation!** The training experience gained in air traffic control and the aviation sector can be reviewed and offered to a wider business community with ventures for high reliability companies who use simulation environments as an opportunity for the development of complex skills.

A fifth section is dedicated to **technologies and services** offered by ENAV Academy to support training activities which also have the possibility of a dry lease.
Facts

More than 2,000,000

Training hours from 2005

672

Participants in 2016

130

Initial training courses in the past 10 years

935

OJTI trained
The expertise and competence acquired in all functional areas of air traffic management enable ENAV to be a reference point, nationally as well as internationally, for development projects, which can satisfy the needs of operators working in different areas in the aeronautical field. ENAV’s commercial offer arises from this experience and from these results, working in synergy with two other fundamental players, Techno Sky, an ENAV Group company responsible for the management, support and maintenance of installations and systems used for Italian air traffic control, and Enav Asia Pacific based in Kuala Lumpur (Malaysia) which provides targeted services to S.E. Asia clients.

Professionalism, experience and technology are the pillars of a global offer of high value added services provided by ENAV in the following sectors:

**Aeronautical Consulting and Design**
Whether rationalising operations in a single airport or modernising a country’s entire ATC infrastructure, ENAV has the ability to develop cutting-edge solutions across the world.

**Flight Inspection**
With its upgraded aircraft fleet and advanced data processing systems, ENAV provides a wide range of flight inspection services, ensuring standards of excellence, reduced flight times and competitive prices.

**Engineering**
ENAV supports organisations working in “mission critical” sectors by providing services and solutions in:
- Installation, integration and setting-up of CNS systems
- ATM software development
- Meteorology systems development, supply and installation

**Maintenance**
ENAV brings its experience in the management and maintenance of air traffic control systems and technology to all those organisations aiming to improve their logistics and maintenance processes.
The Group operates in 29 different countries.
Training Programmes

Foreword
ENAV, as an ANSP for Italy, designs and supplies courses specific for training air traffic controllers and professionals directly involved in Air Navigation Services. The training courses offered by ENAV, outlined below, are the result of both inhouse training experience and international projects which have matured over the years. In 2013, ENAV Asia Pacific, based in Kuala Lumpur (Malaysia), was set up with the aim to improve clients’ performance in South East Asia by supplying them with specific services.

Training and ANS services cover:
- **ANS Training**: single modules or integrated courses for the training of Air Traffic Controllers and Flight Information Service Officers. Human Performance Consulting and Training services
- **Training of Instructors and Assessors**: initial and refresher courses for OJT and STD instructors
- **Advanced Training**: specific in-depth analysis of cutting edge issues for ANS professionals
- **Safety**: basic and advanced courses aimed at promoting safety culture at all company levels, from the knowledge of regulations to investigation activities, from risk assessment to safety system management.
- **Airspace Design**: ENAV’s experience in designing and re-designing airspace in two practical, up-to-date courses.
Training Programmes

**ANS Training**
- ATCO Modular Courses
- ATCO Integrated Courses
- Human Performance in ATM
- FISO & MET AFIS Preparatory Course

**Training of Instructors and Assessors**
- OJTI – STDI (TWR/RAD/FIS&MET)
- OJTI – STDI Refresher
- Assessor
- Assessor Refresher
- Instructor Course

**Advanced Training**
- AWO
- All Weather Operations
- PBN
- Performance Based Navigation
- ATFM Course
- Parallel Operations
- Aerodrome Capacity Improvement
- ABES (TWR/RAD)

**Safety**
- Just Culture and Safety Culture
- Safety Regulations
- ANS Investigator Course (ATM/CNS)
- Risk Assessment Facilitator
- Occurrences Analyst
- Safety for Senior Management

**Airspace Design**
- PANS-OPS Basic
- PANS-OPS Advanced

Scheduling and prices available on www.enav.it
ANS Training

ENAV Academy designs and delivers training programmes for both future air traffic controllers and/or air traffic controllers who want to obtain a different rating or endorsement. The training activity is designed on the basis of training plans that have been approved by ENAC (the Italian Competent Authority). Both the basic courses and those designed for upgrading ratings also comply with:

- Eurocontrol Specifications for the ATCO Common Core Content Initial Training.

The training activity can be designed specifically according to customer requirements:

- Planning, both single rating/endorsement and fully integrated courses;
- Designing tower, radar and procedural approach simulation scenarios related to clients’ operative service areas. This is possible thanks to ENAV Academy expertise in building specific scenarios;
- Detailed training courses designed to meet clients’ specifications in terms of hours for each subject and simulation activities in compliance with certification requirements.

After successfully completing the course a professional competency certificate will be awarded and moreover a SATCO license issued by ENAC (the Italian Competent Authority) will be awarded to initial course participants.

Each individual and integrated course is outlined below. The hours of each course can be reduced.
ATCO Modular Courses

**RAD - Radar Endorsement**

**Aims**
Provide knowledge and skills in order to receive a certificate of competency for ADI with a radar endorsement.

**Prerequisites**
Successful completion of an ADI Training Course or possession of an ATCO licence with an ADI rating.

**Duration**
7 weeks

**TCL - Terminal Control Endorsement**

**Aims**
Provide knowledge and skills in order to receive a certificate of competency for APS or ACS with a Terminal Control endorsement.

**Prerequisites**
Successful completion of an APS or ACS Training Course or possession of an ATCO licence with an APS or ACS rating.

**Duration**
7 weeks

**ADI - Aerodrome Control Instrument**

**Aims**
Provide knowledge and skills in order to receive a SATCO licence or a certificate of competency for ADV, ADI/TWR, ADI/AIR, ADI/GMC/GMS ratings.

**Prerequisites**
Successful completion of an ATCO Basic Training Course or possession of an ATCO licence.

**Duration**
8 weeks

**APP - Approach Control Procedural**

**Aims**
Provide knowledge and skills in order to receive a SATCO licence or a certificate of competency for APP rating.

**Prerequisites**
Successful completion of an ATCO Basic Training Course or possession of an ATCO licence.

**Duration**
8 weeks

**APS - Approach Control Surveillance**

**Aims**
Provide knowledge and skills in order to receive a SATCO licence or a certificate of competency for APS rating.

**Prerequisites**
Successful completion of an ATCO Basic Training Course or possession of an ATCO licence.

**Duration**
11 weeks

**ACS - Area Control Surveillance**

**Aims**
Provide knowledge and skills in order to receive a SATCO licence or a certificate of competency for ACS rating.

**Prerequisites**
Successful completion of an ATCO Basic Training Course or possession of an ATCO licence.

**Duration**
14 weeks

**BASIC**

**Aims**
Provide participants with a basic knowledge and understanding in order to enable them to continue their professional career towards rating training courses.

**Prerequisites**
As defined by the client’s country regulator.

**Duration**
10 weeks

The length of the courses detailed above is pertinent to each single module. For multiple course attendance, the duration may be reduced. For more information please refer to the following table.
ATCO Integrated Courses

For companies whose personnel wish to achieve a specific rating or endorsement, an integrated course is preferable, since both length and costs can be reduced. Look at the table below:

<table>
<thead>
<tr>
<th>Course Combination</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic+ADI</td>
<td>18 weeks (no reduction)</td>
</tr>
<tr>
<td>Basic+APP</td>
<td>18 weeks (no reduction)</td>
</tr>
<tr>
<td>Basic+APS</td>
<td>21 weeks (no reduction)</td>
</tr>
<tr>
<td>Basic+ACS</td>
<td>24 weeks (no reduction)</td>
</tr>
<tr>
<td>APS+TCL</td>
<td>15 weeks (instead of 19 weeks)</td>
</tr>
<tr>
<td>ACS+TCL</td>
<td>19 weeks (instead of 22 weeks)</td>
</tr>
</tbody>
</table>

Further training combinations are available on request.

< For further information about simulation systems, see “Technology and Services” section >

Why choose Academy

- Customisable tower and radar scenarios
- Intensive simulation activities
- Airplane cockpit familiarisation in FNPT II flight simulator
- Two radar rooms with multiple sectors (up to 16 controllers)

Focal point tower environment: **Fiorenza MAZZOTTI**  
email: training@enav.it

Availability: ☑ SCHEDULED ☐ ON REQUEST  
Language: ☑ ITALIAN ☐ ENGLISH

Focal point radar environment: **Fabio OLIVETTI**  
email: training@enav.it

Availability: ☑ SCHEDULED ☐ ON REQUEST  
Language: ☑ ITALIAN ☐ ENGLISH
Human Performance in ATM

The aim of Human Performance in ATM programmes is to achieve high levels of safety standards in ATM operations. This is mainly carried out by adopting the main disciplines of Human Factors, which guarantee efficiency and well-being together with safety.

The Academy’s experience in design and developing systems and training projects permits ENAV to offer suitable solutions for the development of Non-Technical Skills. From simple themed workshops to consulting and support in developing NTS models in complex organisational systems. The Academy also offers a customised training package for ‘non-technical skills’ necessary to improve air traffic controllers’ ability to interact with one another, with technology, procedures and operative environments, thus improving the ability to cope with traffic loads, yet at the same time maintaining high performance.

NTS improve the organisation and the management of complex situations because:
- They increase the quality of interpersonal relationships
- They allow to overcome structural, communicative and relational barriers within the working environment
- They improve optimisation of operational resources
- They ensure that tasks are carried out correctly and that objectives are consequently achieved

To correctly pinpoint the NTS that characterise complex activities means to focus on recruitment processes, create training courses in line with operational activities and guarantee career development in compliance with company objectives.

Consultancy areas include Team Resource Management - initial and recurrent – related to Notechs:
- Team-cooperation and communication
- Human Error management
- Stress management
- Human Performance Limitation

Why choose Academy

- A complete modular package
- Maximum integration of Human Factors in technical programs
- Specific programs focused on achieving safety objectives, efficiency and well-being in the performance of operative personnel

Focal Point: Nicoletta LOMBARDO
email: training@enav.it

Availability: ○ SCHEDULED  ○ ON REQUEST
Language: ○ ITALIAN  ○ ENGLISH

COURSE INFO
FISO & MET AFIS

The aim of this course is to provide participants with the operational skills required for Flight Information Services. A MET/AFIS endorsement is obtained on successful completion of the course.

Target Population
This course is tailored for ANSPs whose countries have implemented or intend to implement AFIs and/or FICs, National Regulators and/or entities (private or public) that issue FISO licences, or private citizens looking for professional courses.

Objectives
After completion of the course, participants will have the operational ability to deal with:

- Management of VFR/IFR traffic in class G Airspace
- Management of unusual situations
- Management and dissemination of Met information

In addition, participants will gain basic knowledge of ATCS, FIS, AFIS, ALRS, Airspace classification, Rules of the Air, Navigation, Aircraft Performance, Flight planning, ATFCM, Aerodromes, Aeronautical Meteorology, CNS and Human Factors.

Core Contents

- Theory includes ATM, NAV, Aircraft Performance, CNS, Met and HF
- The simulation phase includes AFU and FIC simulation environments. This practical phase lasts over 150 hours
- Met Lab for meteorological scenario simulations

Notes
Specific simulation service areas can be implemented on request.

Why choose Academy

- Training centre approved by the Civil Aviation Authority
- 8 tower 270° simulators, for AFU simulations
- 1 FIC room
- Top rated instructors
- Long standing experience in providing FISO courses
- Met Lab simulator

Focal Point: Corrado SCATIGNO
email: training@enav.it

Availability: SCHEDULED, ON REQUEST
Language: ITALIAN, ENGLISH
Training of Instructors and Assessors

The ANSP objective is to provide a service with the highest standards of quality and efficiency, together with the unquestionable condition of safety, ever present throughout the process. In this context, the development of new professionals, their introduction into an operational environment and the guarantee that over time necessary standards of performance are kept up to date represent critical success factors for Service Providers. A central role is the training of instructors who have the responsibility of managing the on-the-job training and the assessors, who over time can verify the consistency of the skills required.

Over 900 trained OJT-I, a “refresher campaign” which in the last year alone involved nearly 300 OJT-I, more than 200 assessors specialised in managing the evaluation process of operational skills, solid international experience in delivering both courses and refresher courses. With this background ENAV Academy is well placed as a partner for training instructors and assessors.
OJTI – STDI (TWR/RAD/FISO&MA)

Duration: 10 day course for TWR and RAD environment
5 day course for FISO&MA

Target Population
Course designed for operational personnel who want to become OJT Instructors. To improve focus, 3 training courses are offered:
a) ATC in a TWR environment 
b) ATC in a RAD environment 
c) Operational personnel such as FISO or MA.

Objectives
After completing the course the participants will be able to:
• Recognize the principle factors connected to human performance in training and the relationship between learning, competency and motivation typical of a trainee.
• Conduct a training session using briefing, monitoring and debriefing, as well as the methodology and the connected techniques such as demonstration and talk through.

Core Contents
• Motivation and competency in the training process
• The team
• Interpersonal communication
• Organisational and regulatory context
• The training process
• Questioning techniques
• Preparation and briefing
• Methodologies and instruments for monitoring
• Debriefing
• Performance evaluation
The use of practical activities and simulations allow the development of competency through concrete experience.

< For further information about simulation systems, see “Technology and Services” section >

Why choose Academy
• Focus on training processes
• Practical activities and simulations: “Learning by doing”
• Simulation in a realistic environment
• Customisable training profiles
• Use of role play

Focal Point: Fabio TINARELLI
email: training@enav.it

Availability: SCHEDULED
Language: ITALIAN, ENGLISH
Compliancy: Eurocontrol, EU Commission Reg. 2015/340
OJTI – STDI Refresher

Through practical activities and simulations, the refresher course consolidates participants’ knowledge and best practices to enhance briefings, monitoring and debriefings. The course offers the opportunity to share experiences and exchange views among OJTs on methodology, techniques and tools.

**Target Population**
The course is for air traffic controllers who already possess an OJTI specialisation and need to refresh their skills. To improve focus on training, there are 2 training courses: TWR and RDR.

**Objectives**
- Recognise the factors that influence the training process for OJT, methodological implications and behaviours for a successful OJTI experience.
- Compare everyday individual practices with the new methodologies and tools used for training process evaluation with particular emphasis on the evaluation sheets.
- Consolidate knowledge and best practices to improve the briefing, monitoring and debriefing activities.
- Emphasise the importance of being in line with methodologies and best practices for On-the-Job training.

**Core Contents**
- The training process and roles
- Human Factors
- Communication
- OJT methodology
- Assessment techniques

< For further information about simulation systems, see “Technology and Services” section >

**Why choose Academy**
- Focus on training processes
- Practical activities and simulations: “Learning by doing”
- Teaching/Learning methodologies such as:
  - Role play
  - Case studies
  - Team work
  - Videos

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**COURSE INFO**

<table>
<thead>
<tr>
<th>Focal Point: Roberto QUARTO</th>
</tr>
</thead>
<tbody>
<tr>
<td>email: <a href="mailto:training@enav.it">training@enav.it</a></td>
</tr>
</tbody>
</table>

**Availability:** SCHEDULED | ON REQUEST
**Language:** ITALIAN | ENGLISH
**Compliancy:** Eurocontrol, EU Commission Reg. 2015/340
Assessor

The aim of the course is to provide competences in order to carry out the role of Assessor: comprehension, evaluation of competences and feedback will be stressed as they are crucial in managing competence assessments of ATCO or SATCO. The course is based on theory and practice.

<table>
<thead>
<tr>
<th>Target Population</th>
<th>The course is for air traffic controllers, according to European Commission Regulation 2015/340.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectives</td>
<td>At the end of the course participants will:</td>
</tr>
<tr>
<td></td>
<td>• have knowledge of unit competence schemes and European regulation;</td>
</tr>
<tr>
<td></td>
<td>• know responsibilities and requirements for the role of assessor;</td>
</tr>
<tr>
<td></td>
<td>• be able to measure and evaluate the operational competence, and take related appropriate actions.</td>
</tr>
<tr>
<td>Core Contents</td>
<td>• Introduction</td>
</tr>
<tr>
<td></td>
<td>• Regulations (ICAO, Eurocontrol, EU Commission)</td>
</tr>
<tr>
<td></td>
<td>• Unit Competence Scheme and Unit Training Plan</td>
</tr>
<tr>
<td></td>
<td>• Competence</td>
</tr>
<tr>
<td></td>
<td>• Assessment techniques</td>
</tr>
<tr>
<td></td>
<td>• Communication</td>
</tr>
<tr>
<td></td>
<td>• Role of the Assessor and possible issues</td>
</tr>
</tbody>
</table>

| Why choose Academy | • Advanced Assessment Techniques                                                                  |
|                   | • Over 200 Assessors trained in the last 5 years                                                   |
|                   | • Teaching methodologies such as:                                                                 |
|                   |   • Role play                                                                                     |
|                   |   • Case studies                                                                                  |
|                   |   • Team work                                                                                     |
|                   |   • Videos                                                                                        |

Focal Point: Roberto QUARTO
email: training@enav.it

Availability: SCHEDULED ON REQUEST
Language: ITALIAN ENGLISH
Compliancy: Eurocontrol, EU Commission Reg. 2015/340
Assessor Refresher

The aim of the course is to refresh the necessary knowledge to carry out the role of Assessor, and the ability to effectively assess the competency of ATCO or SATCO.

**Target Population**
The course is for air traffic controllers who have already successfully completed an assessor course.

**Objectives**
At the end of the course participants will have:
- an in-depth and up-to-date understanding of the role and responsibilities of an assessor;
- refreshed knowledge of assessment techniques and regulations.

**Core Contents**
- Introduction
- ICAO and European Union regulations
- Unit Competence Scheme and Unit Training Plan analysis
- Competence
- Assessment techniques
- Advanced Assessment Techniques
- Teaching methodologies such as:
  - Role play
  - Case studies
  - Team work
  - Videos

**Why choose Academy**

**Focal Point:** Roberto QUARITO  
Email: training@enav.it

**Availability:** SCHEDULED

**Language:** ITALIAN, ENGLISH

**Compliance:** Eurocontrol, EU Commission Reg. 2015/340

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**Duration:** 2 day course
Advanced Training

ENAV manages and handles traffic in one of the busiest and most congested air space in the world but constantly guarantees a high quality of service. Adding to the complexity of the operational environment is the diversity of the Italian territory and climate thereby ensuring that ENAV Air Traffic Controllers have gained experience with advanced Air Traffic Control Service procedures. Operations at Roma Fiumicino (Parallel Operations), Milano Malpensa and Linate (all weather operations on single and multi-runways) and the ATMOP project for the complete re-organisation of the air space and ground movement in Kuala Lumpur (3 parallel runways and 2 control towers), with the relative implementation of the new PBN concept are only a few examples of the capabilities and expertise that ENAV is able to offer the wider aviation community. ENAV, with the experience gained over the years at the Academy through the planning and delivery of advanced courses for Air Traffic Controllers is able to impart the necessary know how to operate in innovative and highly complex situations in an efficient and effective way.
AWO – All Weather Operations

Target Population
The course is for ADI-TWR/RAD rated Air Traffic Controllers.

Objectives
Know and apply the regulations for ensuring safe and efficient aerodrome traffic movements during reduced visibility (RAVC).

Core Contents
During the course, participants will be taught the regulations that make up the framework for AWOs through classroom theory based lessons after which participants will be given the opportunity to learn control and coordination techniques applicable to AW operations through customisable simulations in a tower simulator.

The main topics are:
- Aerodrome procedures in low visibility conditions (RAVP)
- SMR/ A-SMGCS
- LVP
- Optimised Operations
- GBAS
- ATFCM
- Degraded equipment
- AWO checklists

During the course participants will be able to experience first-hand a precision approach in low visibility in a flight simulator (CRJ200) supervised by a pilot.

< For further information about simulation systems, see “Technology and Services” section >

Why choose Academy

- Long standing high level Know-how experience acquired from managing AW operations at “critical” airports
- Milano- Linate Airport, the first in the world to implement an AWO checklist
- Know-how and multilateral experience with AWOs at LIML and LIMC

Focal Point: Fabrizio SCOMPARIN
email: training@enav.it

Availability: SCHEDULED  ON REQUEST
Language: ITALIAN ENGLISH
Compliancy: ICAO
PBN - Performance Based Navigation

The introduction of the PBN concept represents a shift from sensor based navigation to performance-based navigation. The aim of this course is to provide the theory of PBN and in-depth simulated approaches where the participants can learn how to implement PBN concepts and increase their skills in future traffic management.

Target Population
This course is for Air Traffic Controllers, preferably with an APS or ACS rating – with or without TCL endorsement – because they can be more involved in the simulation phase, however ANSP’s head of training and training-related personnel will also find the course useful.

Objectives
- Understand the principle of Performance Based Navigation
- RNAV and RNP Applications
- Acquire knowledge in air/ground capabilities and flight operations supporting PBN operations
- Understand RNAV1 and RNP APCH Applications
- Understand ATC procedures related to PBN performance requirements
- Provide ATC services in airspace where PBN is implemented

Core Contents
- Understand the principles of PBN: What is PBN; PBN benefits; RNAV & RNP; Principles of area navigation; GNSS navigation; PBN applications;
- Acquire knowledge in air/ground capabilities and flight operations supporting PBN: FMC & FMS; PBN operations and on-board architecture; Waypoints: The path terminator concept
- Understand RNAV applications: Design criteria; RNAV1 applications in TMA & CTR: SIDs & STARS; Best practices ATC; Radar Vectoring and RNAV1 operations; Direct To instruction: Usage and cautions; Contingency Procedures; Phraseology examples
- Understand RNP APCH applications: RNP APCH classification and flight techniques; ATM and RNP APCH; Vectoring and stabilization; Backups;
- ATC Procedures in a PBN environment simulation phase: Tactical use of PBN applications (Use of Direct To instruction); Radar vectoring: Applications and consequences; mixed equipage environment; transition between different operating environments; ATC contingency procedures
- Separation Minima; ATC monitoring, Enroute/Terminal/Approach control local procedures, local route network
- Communications: phraseology, flight plan, indication on strip, radar screen, radar label

Notes
Structure of the course: 2 days of theory on regulations, procedures and the design process followed by 3 days of radar simulation supervised by experienced instructors.

For further information about simulation systems, see “Technology and Services” section

Why choose Academy
- A 360° overview of future operations
- Training on operational techniques
- How to use techniques and how they are designed
- Enav has already designed procedures in Italy and abroad

Focal Point: Fabio TINARELLI
email: training@enav.it

Availability: SCHEDULED ON REQUEST
Language: ITALIAN ENGLISH
ATFM Course

The aim of the course is to understand why Air traffic flow and management (ATFM) has become a vital part of air traffic management (ATM) and how it enables the use of the full capacity of the air transport system respecting standard safety levels.

Target Population
This course is tailored for employees working in air traffic management, ATC providers outside the ECAC area, and any person engaged in Air Traffic Services (ATS) for whom a deeper knowledge of traffic flow and capacity management is recommended.

Objectives
After the completion of the course, participants will have a deeper knowledge and understanding of the following items:
- how an ATFM service operates
- how an ATFM service is structured and organized
- how the capacity of an airspace sector and airport can be determined
- how an ATFM service is implemented
- which and how ATFM measures are applied
- what data is exchanged in the ATFM service

Furthermore, participants will receive information about European methods and systems used for the management of flow and a general perception of ATFM application by other organisations around the world.

Core Contents
- ATFM general concepts: organisation and use
- ATFM and CDM (Collaborative Decision Making): a close co-operation
- ATFM output: messages, web-based conferences, tools and manuals.

Notes
Specific courses for ANSPs outside ECAC can be provided.

Why choose Academy
- Training centre approved by the Civil Aviation Authority
- Training centre working in close collaboration with the European NMOC and SESAR working groups
- Direct relationship with experts related to the provision of service in flow management positions (FMP)
- Use of tools related to flow management

Focal Point: Elisabetta COPPI
email: training@enav.it

Availability: SCHEDULED
Language: ITALIAN, ENGLISH
Compliancy: ICAO DDC 9371, Commission regulation (EU) 255/2010

Duration: 3 day course
Parallel Operations

A feasible solution for the improvement of the airport capacity is to have simultaneous instrumental approaches to airports with parallel runways. Simultaneous operations can be part of the airport system and allow a greater number of movements, thereby maintaining high airport performance even in marginal weather conditions.

### Target Population

This course is for Air Traffic Controllers, preferably with APS or ACS rating – with or without TCL endorsement.

### Objectives

At the end of this course participant will have knowledge of:

- Independent and dependent parallel runway operations
- Use of independent approaches to parallel or near-parallel runways
- Factors associated with parallel operations
- ATCO intervention process
- Specific tools and air space architecture needed to implement IPAs

### Core Contents

- Simultaneous parallel approaches and departures.
- Segregated parallel approaches and departures
- Semi-mixed parallel operations
- Mixed mode parallel operations
- Aircraft performance

### Notes

- Courses can be provided on site
- Short course (3 days) or advanced course (10 days) can be offered to customers with specific requirements
- Customised service area can be designed/provided on request
- Courses can be provided, on request, to ANSPs outside ECAC.

< For further information about simulation systems, see “Technology and Services” section >

### Why choose Academy

- Parallel operations already implemented by ENAV
- Training of international clients: UKSATSE (ANSP of Ukraine), DCA (ANSP of Malaysia), Air Traffic Management Bureau (ANSP of China)
- Simulations in a TMA with multiple airports
- Study visit at an airport/approach with parallel operations supervised by an expert trainer

Advanced course: in addition to the standard “Parallel Operations” (5 days), the 10 day course will cover 3 or more simultaneous approaches using the techniques of independent approaches with the advanced concepts of PBN routes to intercept the localizer. Particular emphasis will be placed on maintaining the hourly runway capacity and a safer air space environment.
### Aerodrome Capacity Improvement

The aim of the course is to consolidate the skills of the participants to increase airport capacity by optimising arrivals. The participants will be made aware of the impact of ATC instructions/clearances on aircraft through lessons based on flight dynamics and flight simulator activities carried out by a professional pilot.

<table>
<thead>
<tr>
<th>Target Population</th>
<th>This course is for air traffic controllers, preferably with an APS or ACS rating – with or without a TCL endorsement.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectives</td>
<td>At the end of the course, participants will be able to efficiently separate arriving aircraft by correctly applying the techniques of vectoring and speed control. Efficiency improvement in departure management.</td>
</tr>
<tr>
<td>Core Contents</td>
<td>The course includes theory and practical activities. The theory consists of lessons focused primarily on:</td>
</tr>
<tr>
<td></td>
<td>• Vectoring - from a technical and regulatory point of view;</td>
</tr>
<tr>
<td></td>
<td>• Application of vertical and horizontal speed control methods;</td>
</tr>
<tr>
<td></td>
<td>• Co-ordination dynamics between ATC units/sectors.</td>
</tr>
<tr>
<td></td>
<td>The practical activities take place in a simulator with simulations that increase in complexity with a single or multiple sector layout.</td>
</tr>
</tbody>
</table>

< For further information about simulation systems, see “Technology and Services” section >

The course can be customised according to:

- Overall duration
- Quantity and objectives of simulation exercises
- Number of participants
- Simulation scenarios

**Why choose Academy**

Focal Point: **Fabio OLIVETTI**  
email: training@enav.it

Availability:  
- SCHEDULED  
- ON REQUEST  
Language:  
- ITALIAN  
- ENGLISH
**ABES – Abnormal and Emergency Situations (TWR/RAD)**

The course refreshes the skills covered in the initial training stage as specified by international regulations. The very nature of emergencies means they are rare but at the same time require high skills to be managed which makes ABES continuous training essential. The course is offered both in a tower (for ADV/ADI ratings) and radar environment (for APS/ACS ratings).

<table>
<thead>
<tr>
<th>Target Population</th>
<th>Air traffic controllers with a valid ATCO license for aerodrome, approach or area control.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectives</td>
<td>Recognise and know how to deal with the different types of emergencies and abnormal situations that can happen in a tower or radar environment. Know and apply best practices for managing emergency situations in terms of ground/air communications, co-ordination, traffic and stress management. Know and apply appropriate checklists.</td>
</tr>
</tbody>
</table>
| Core Contents     | - Overview of ABES  
- Common abnormal and emergency situations  
- The ASSIST concept  
- Checklist  
- Communication effectiveness  
- Common ground between Unusual, Priority and Emergency Situations  
- Air/ground co-operation - Pilot and ATC environment  
- ATC contingencies  
- Avoidance of mental overload |

< For further information about simulation systems, see “Technology and Services” section >

![Why choose Academy](https://via.placeholder.com/150)

- Video and simulations to enhance the theory and reinforce the concepts

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Focal Point: **Federico MANCINELLI**  
email: training@enav.it

Availability: ☑ SCHEDULED ☐ ON REQUEST  
Language: ☑ ITALIAN ☑ ENGLISH

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Training for ANSP | Training Programmes | 33
Every productive field which concerns efficiency is continuously under internal and external pressure and ATM is no different. The airline companies request direct routes, optimal cruising levels, continuous climb and descent, no trajectory constraints, punctuality, high level of predictability and, at the same time, low air fares. In this industry, pressure on efficiency goes hand in hand with an implicit and equally important request: the safety of the flights.

Air transport is (statistically and effectively) the safest mode of transport because it has based the efficiency of its service provision on redundancy, certified staff and Quality Management Systems to support technical and operational internal activity. In addition, all air transport companies and ATM have implemented Safety Management System to decrease risk and increase safety performance levels.

Both the explicit requests for efficiency and safety are balanced strong point features of the Safety Management System and the effective level of divulgence of the safety culture. The course offered in this catalogue sets out to consolidate the skills of professionals who contribute to Safety.

- ENAV is one of the leading organization in Safety Air Traffic Management enhancement
- ENAV has a high level of commitment to improve the safety performance
- ENAV is involved in the major R&D initiatives applied to Safety and works in partnership with the main worldwide aviation stakeholders (ICAO, EC, EASA, CANSO, IATA, ACI, etc)
- Consultancy service to design/improve the Safety Management System for national and international aviation organisations and/or industries
- We teach you what we put into practice because it works
The aim of the course is to learn about safety culture and understand how important it is for aeronautical entities and, in general, for HROs to develop a safe working environment which is able to improve by learning from its mistakes. To create a safe and safer working environment implies the necessity to understand the basic concepts of safety, and to intervene at a “company culture” level to acknowledge and support the development of a Just Culture and a Safety Culture specific for organisations.

### Target Population
The course is for anyone who needs to improve company performance, by introducing a cultural change connected to the implementation in the every day operations of the most modern concepts of safety. Small and large aeronautical companies which need to launch operative safety procedures, or need new applicable ideas to be able to manage the development of the procedures.

People involved: operational and productive middle management, teaching HR personnel, Safety Manager, Post Holder for movements/operations, people in charge of production units, systems management and those who are responsible for the notification of aeronautical events, etc.

### Objectives
To know about Just Culture and Safety Culture and their processes aimed at learning potential improvements based on lesson learned and lesson dissemination. To make use of the regulations and best practices of the aviation field so as to acquire basic methodology and management skills needed to simplify and support the cultural changes in the field of safety and the developing features that characterise the aviation industry.

### Core Contents
- Origin and development of Just Culture and Safety Culture in national and international companies
- National and International documentation: ICAO, Eurocontrol, EASA, ENAC
- Complex companies and Safety
- Elements of sociology concerning management and organisations
- Lesson learned: “The ENAV experience”
- Classroom laboratory: “A safe organisation”

Focal Point: **Mauro BONINI**
email: training@enav.it

<table>
<thead>
<tr>
<th>Availability</th>
<th>SCHEDULED</th>
<th>ON REQUEST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language</td>
<td>ITALIAN</td>
<td>ENGLISH</td>
</tr>
</tbody>
</table>
Safety Laws

The aim of the course is to inform participants of Safety laws. To understand the area of interest (therefore the area of action) of a company and to assess the level of “compliance” and “effectiveness” of the company, it is necessary to know the different national and international laws, hierarchy of the sources, the impact and pertinence of the company laws and any interaction with the authorities and Stakeholders.

Target Population
The course is for Company Management that have or need to verify, update or establish an operational safety management system in the ATM/ANS field, or that have direct/indirect connections with national and international companies, so as to understand the reasons behind the regulations and expected supervision and oversight activities.

Objectives
To know the national and international safety laws. To be able to reconstruct the hierarchy of the sources and learn how to compare company documentation with the regulations in effect to assess the adequacy and the level of compliance and effectiveness.

Core Contents
- The hierarchy of the sources in Safety
- The prerogative of national and international entities and companies ICAO, EU Community, EASA, Eurocontrol, ENAC
- National and International documentation in force
- Company local regulation

Duration: 2 day course

COURSE INFO

Focal Point: Mauro BONINI
email: training@enav.it

Availability: SCHEDULED
Language: ITALIAN, ENGLISH
ANS Investigator Course (ATM/CNS)

The aim of the course is to train an ANS (Air Navigation Services) investigator, both for ATM and CNS specific field (Air Traffic Management/Communication – Navigation - Surveillance services). The course participants will be able to investigate and/or support in depth examination of events connected to safety operations in the ANS field. The course will allow investigators to reach conclusions, considerations and suggestions which will improve safety performance in their organisations.

Target Population
The course is for ATCO or ATSEP/Technicians/Engineers who will be used to lead and/or support investigations provided by national and European laws for both ATM and CNS.

Objectives
Concepts and notions concerning the following will be covered: essential Safety topics and specific methodology for “Occurrence Management”; Safety reports and their use; investigation techniques for learning mechanisms; across the board knowledge to be able to manage interpersonal dynamics associated with the human aspect when examining events. Reference law will also be covered. The course covers a learning phase which will not only define concepts but allow the participants to acquire all the necessary investigative capabilities or be of investigative support, learning techniques on how to collect and examine facts/information/data, to be able to recap and deliver a logical debriefing of events. The course includes a final practice exercise (participants will conduct an investigation and present the results). A part of the course can be offered as e-Learning.

Core Contents
- The concept of Safety related to its laws
- Notions on laws in force
- Investigation in the ANS field (ATM/CNS)
- Error theory
- Human factors
- Theory and practice based interviews
- Guided investigative practice
- Typical event
- Investigative practical phases of an event
- Presentation of the results of an investigation

Focal Point: Mauro BONINI
email: training@enav.it

Availability: SCHEDULED
Language: ITALIAN

Duration: 5 day course
Risk Assessment Facilitator

The aim of the course is to train personnel to optimise and guide a risk assessment procedure stated in the different EU regulations. An RAF is a safety expert that has mastered the methodologies for “Risk analysis” and “Risk assessment” which are used to assess the phases of the Air Traffic Management functional system cycle, which in turn is essential as a guide for the assessment of the experts and their contribution with their specific subjects, procedures, activities and functions subject to change, and risk assessment.

Target Population

The course is for people who will be called to co-ordinate and/or manage “Risk Assessment Teams” (teams which will assess risk connected to changes and/or to operations concerning the ATM functional system cycle). The participants must be people from different professional backgrounds that characterise the organisation (profiles such as operative-technical staff directly connected to ATM/ANS and ATS/CNS fields).

Objectives

The aim of the course is to train specialised experts who will be able to coordinate and/or manage a team of experts expressly created or who have a permanent position, to deal with analysis, management and risk assessment in the company.
The training will include both the techniques, and the procedures, which are applied to the safety management system concerning safety in companies, systems/services/functions assessment and any variations.
The participants will acquire the necessary across the board skills to be able to improve team management.

Core Contents

- General concepts on Safety
- Proactive safety
- Classification of variations
- Variations to the system
- Risk assessment activities
- Variations and functional ATM system cycle
- Relations with external entities
- Elements of sociology both general and organisational
- Facilitation
- Practical activities

Duration: 4 day course

Focal Point: Mauro BONINI
email: training@enav.it

Availability: SCHEDULED
Language: ITALIAN
Occurrence Analyst
Investigation in Complex Environments

The aim of the course is to train an Occurrence analyst. In different “complex” or “HRQs” companies (i.e. chemical, healthcare, energetic/nuclear, aviation companies etc.), to investigate events is the best and most effective way to learn from experience and to understand future risks by preventing them. Participants will be trained to investigate and/or support investigations of events connected to the safety of the typical operations in the relevant fields, reaching conclusions, making considerations and suggestions to improve Company performance and intercept “Weak Signals”.

Target Population
The course is for professional experts, who in their different fields of activity in complex organisations deal with continuous improvement procedures, and implement suitable measures to improve and correct procedures in place, creating new procedures, based on the results of the occurrence investigations to avoid unwanted or dangerous situations in the future.

Objectives
The course will cover concepts pertaining to: essential safety contents and Occurrence Management methodologies, safety reports and their use, learning and proactive investigation techniques, across the board competences to be able to deal with interpersonal dynamics connected to the human aspect of event analysis; reference law. The training syllabus includes a learning phase, which not only defines the concepts, but also teaches the ability to investigate or to support an investigation, by developing the necessary techniques to collect and examine facts/information/data, the ability to recap and to deliver a logical debriefing of events that have occurred.

Core Contents
• The concepts of Safety related to the reference law in the complex fields
• Investigation into risk activities
• Error theory
• Human factors
• Practical and theory based interviews
• Guided investigative activities
• Typical event (case studies based on aviation experience)
• Practical investigation phases based on an operational event
• The presentation of the results of an investigation

COURSE INFO
Focal Point: Mauro BONINI
email: training@enav.it

Availability: SCHEDULED
Language: ITALIAN, ENGLISH
Nowadays it is becoming more and more important and necessary to know the different national and international laws that oblige aviation companies to control safety management systems and to work towards improving safety performance. The aim of this course is to inform and deliver concepts that help Senior Management to understand and manage the complex and sensitive world of operative safety in aviation services.

**Target Population**
The course is for Senior Management (CEO, COO, Post Holder, Top Management) in ATM and aviation companies (Airport management company, ANSP national certificates, Aero Club, etc.) that have or must establish and/or check the effectiveness of the management system of aviation safety operations and/or the authorities (local councils, local government office, police force etc.) and industries (suppliers/providers of products/services, maintenance companies, handlers, etc.) that have direct/indirect contacts with aviation entities.

**Objectives**
To know national and international reference laws, understand and manage the management system of aviation safety operations. Indicate the relationship with Stakeholders and the Authorities. Underline the importance of “high level commitment”.

**Core Contents**
- Reference laws
- Structure and prerogatives of national and international organisations: ICAO, European Community, EASA, Eurocontrol, ENAC
- National and international documentation in effect
- Relationship between aviation entities and Stakeholders
- Just Culture and Safety Culture origins and development
- Elements of sociology both general and organisational
- Lessons learned: “The ENAV experience”
Airspace Design

Changing needs in terms of capacity, environmental impact and new on-board technology will mean the re-design of existing air space in the near future. One of the most significant boosters for technological development is the constant upgrade of airline fleets, followed by the update of the providers of air navigation services, such as satellite navigation routes.

ENAV has a wide understanding of these new technologies and can offer its vast knowledge, gained through worldwide work experience in some of the most challenging scenarios with regard to technological innovation and operational complexity.

The re-designing of Italian domestic air space (RISA) implemented in 2015, which involved almost the whole air space, and the ATMOP (Malaysia) project, which covered the re-designing of the whole airways system.

The introduction of the PBN concept, the complete re-designing of the whole Kuala Lumpur terminal area, the implementation of PMS (Point Merge System) and simultaneous operations on 3 parallel runways at KLIA2 are some examples of experience and knowledge that ENAV can provide to clients who need to project their air traffic control services in the future.

Why choose Academy

- Every theory based lesson is followed by a design activity to define the concepts
- Distance follow-up between trainers and designers
- The trainers are designers who are constantly involved with hands-on design activities
- Theory based lectures together with how to implement the knowledge
- Recognised international expertise (i.e. BlueMed GNSS, Medusa GNSS)
PANS-OPS Basic
Conventional Instrument Flight Procedures

The aim of the course is to provide participants with theory and practice drawn from the ICAO PANS-OPS Doc 8168 Vol. II, necessary for the design of conventional instrument flight procedures.

Target Population
The course is for personnel involved in design, validation, revision of instrument flight procedures. In order to be more effective participants should have:

• Good knowledge of English
• Knowledge of Air Navigation Services
• High school diploma

Objectives
To design conventional instrumental flight procedures or segments.

Core Contents

• Module 1: ICAO Documentation, basic knowledge and general criteria

• Module 2: Conventional instrument approach procedures - Non-Precision Approach:
  Final approach segment (with FAF and with no FAF); Visual Segment Surface; Straight or turning missed approach segment; Intermediate segment; Initial approach segment – straight or Reversal; Circling Procedure; Minimum sector altitude (MSA)

• Module 3: Conventional instrument approach procedures – Precision Approach:
  ILS Final approach segment; Missed approach segment - straight and turning; Intermediate approach segment; Initial approach segment

• Module 4: Conventional departure procedures:
  Straight or Turning departure; Information to be published

• Module 5: Conventional Routes, STAR and Holding:
  VOR and NDB routes; STAR; Holdings

Notes
Each module will include practical activities. The skills acquired during the course (13 days) are verified and evaluated with a final assessment (2 days). The examination consists of:

• theory based written exam;
• design and presentation of an instrument flight procedure project.

Focal Point: Eleonora CECILI
email: training@enav.it

Availability: SCHEDULED
Language: ITALIAN
Compliance: ICAO Doc 8168 Vol. II, PANS-OPS
The aim of the course is to provide participants with theory and practice drawn from the ICAO PANS-OPS Doc 8168 Vol. II, necessary for the design of conventional instrument flight procedures. The course will focus exclusively on RNP approach procedures APCH (LNAV, LNAV/VNAV and LPV-LP minima).

### Target Population
The course is for designers with experience in the design of instrument flight procedures.

### Objectives
- To design lateral navigation approach procedures
- To design APV/BARO vertical navigation procedures
- To design APV/SBAS procedures with and without vertical navigation

### Core Contents
- PBN Concept
- GNSS instrument flight procedures - General Criteria
- Non precision approach procedure construction (LNAV minima)
- APV/BARO vertical navigation procedure construction (LNAV/VNAV minima)
- APV/SBAS vertical navigation procedures (LPV and LP minima)

### Notes
Each topic will include practical activities. The course consists of 9 lessons of 7 hours a day, plus one-day final exam. The exam consists of a theory test with multiple choice questions, design and presentation of an instrument flight procedure project.

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**Focal Point:** Eleonora CECILI
email: training@enav.it

**Availability:** SCHEDULED

**Language:** ITALIAN

**Compliance:** ICAO Doc 8168 Vol. II, PANS-OPS
Training Programmes
Courses for the Aviation Field
ENAV Academy has a long standing experience in planning and delivering seminars and courses in different aviation sectors: airline and maintenance companies, both managing and handling companies and in general all the entities that operate in the air transport field, or entities which need in-depth courses relevant to the aviation field.

ENAV Academy offers courses, seminars and tailor made services for developing skills and knowledge in the following fields:

- Meteorological training
- Human Performance in flight operations
- Airline, Airport and Aviation industry
- English for Aviation
- Security
Meteorological Training

ENAV ensures a 24 hour a day monitoring of the meteorological conditions for the 40 airports under its jurisdiction. The ENAV meteorological service produces about 3,000 observation and 500 forecast messages daily. ENAV Met Observers disseminate METAR and MET Reports each hour or half hour while forecasters from the Meteorological Forecasting Units in Rome and Milan issue forecasts for the major airports valid for 9, 24, and 30 hours. MET forecasts are disseminated through an international telecommunication network and are available for aircraft operations and ATS units. Academy offers its clients training activities and seminars related to aviation meteorology to facilitate an operational integration between MET services, ATS and aviation industry.
Aeronautical Meteorological Technician Refresher

This course offers an update of general meteorology and aviation meteorology together with a review of the main coding and observation techniques.

**Target Population**
This course is for aeronautical meteorological technicians who need to reinforce, update or rebuild their own skills.

**Objectives**
On completion of the course participants will have improved their skills and competencies and also reviewed:
- general meteorology
- main aeronautical reports
- coding of METAR/SPECI and MET-Reports/SPECIAL
- basic observation techniques
- co-ordination procedures

**Core Contents**
- Synoptic meteorology and climatology (summary)
- Meteorological instruments and methods of observation
- Aviation weather hazards
- Coding and dissemination of weather information
- Air Traffic Services.

**Why choose Academy**
- Long standing experience in aviation meteorology
- More than 150 meteorological technicians trained
- Operational experience in over 40 airports
- Outdoor practical activities and use of a met simulator

Certified courses available on request
“Aeronautical Meteorological Technician” (TM), compliant with National and International regulations (ENAC – WMO)

**COURSE INFO**

Focal Point: **Claudia FACCANI**
email: training@enav.it

Availability: ☑ SCHEDULED ☐ ON REQUEST
Language: ☑ ITALIAN ☑ ENGLISH

Duration: 5 day course
Aeronautical Forecasting Refresher

This course provides an overview of the main competencies, duties, and skills of an aeronautical weather forecaster.

Objectives

At the end of the course the participants will be able to:
- Make a weather forecast
- Identify aviation weather hazards
- Code and issue the main aeronautical messages
- Interpret tephigrams
- Interpret satellite and radar images
- Analyze NWP and Ensemble Prediction Systems maps

Core Contents

The following subjects will be covered:
- Summary of ATCS and aviation world
- Standards and skills required for a forecaster
- Aviation weather hazards: turbulence, wind shear, icing, severe convection, obscuration phenomena, volcanic ash, tropical cyclones
- Meteorological messages: METAR, TAF, WO, WS, SIGMET, AIRMET, AIREP
- Tephigrams
- Satellite image interpretation
- Radar image interpretation
- Atmospheric models
- “Ensemble forecast”

Why choose Academy

- Long standing experience in aviation meteorology
- Operational experience in over 40 airports
- Practical activities and use of a met simulator

Certified courses available on request
“Aeronautical Meteorological Forecaster” (AMF), compliant with National and International regulations (ENAC – WMO)

Focal Point: Claudia FACCANI
email: training@enav.it

Availability: SCHEDULED
Language: ITALIAN

COURSE INFO

Duration: 5 day course
## Advanced Meteorology Seminars

<table>
<thead>
<tr>
<th>Seminar 1</th>
<th>Atmospheric modelling – NWP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration</td>
<td>1 day course</td>
</tr>
<tr>
<td>Target Population</td>
<td>Secondary school education or higher</td>
</tr>
<tr>
<td>Objectives</td>
<td>Learn how mathematical models work and how they facilitate the quality of forecasting</td>
</tr>
</tbody>
</table>
| Core Contents | • Why modelling the atmosphere  
• Basic equations  
• How to solve equations  
• Parameter identification  
• Initialization of a mathematical model  
• Verification of the results  
• Interpretation of the results |

<table>
<thead>
<tr>
<th>Seminar 2</th>
<th>Ensemble Prediction System – EPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration</td>
<td>1 day course</td>
</tr>
<tr>
<td>Target Population</td>
<td>Previous knowledge on atmospheric modeling</td>
</tr>
<tr>
<td>Objectives</td>
<td>Learn the potential of the “ensemble model” compared to a deterministic forecast</td>
</tr>
</tbody>
</table>
| Core Contents | • Why the “ensemble model”  
• Chaos  
• How to determine an “ensemble”  
• Verification of the results  
• Interpretation of the results |

<table>
<thead>
<tr>
<th>Seminar 3</th>
<th>Aviation weather hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration</td>
<td>1 day course</td>
</tr>
<tr>
<td>Target Population</td>
<td>High school diploma or higher</td>
</tr>
<tr>
<td>Objectives</td>
<td>Learn about aviation weather hazards</td>
</tr>
</tbody>
</table>
| Core Contents | • Atmosphere and aviation  
• Icing  
• Turbulence  
• Wind shear  
• Cumulonimbus  
• Reducd visibility  
• Volcanoes |
Seminar 4  
**Satellite meteorology**

**Duration**
1 day course

**Target Population**
High school diploma or higher

**Objectives**
Learn how to read and interpret satellite images

**Core Contents**
- Meteorological satellites
- Electromagnetic radiation
- Interpretation of visible and infrared satellite images
- Composite images and RGB
- Interpretation of RGB images

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**Why choose Academy**

- An in-depth modular course to understand relevant topics of aviation meteorology

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**E-learning: “climate and synoptic meteorology”**

Only for Italian version seminars listed above, an introductory e-learning module is available to learn and/or refresh basics of meteorology. Below there is a list of the core contents:

- Meteorological Organisations
- Atmosphere and electromagnetic radiation
- Atmospheric thermodynamics
- Water in the atmosphere
- Atmospheric stability
- Clouds and precipitation
- Wind
- General Circulation
- Circulation at mid-latitudes
## Meteorology for Airline and Airport Personnel

**Duration:** 2 day course  

This course covers basic concepts on aviation meteorology needed to interpret and use meteorological information in the working environment.

<table>
<thead>
<tr>
<th>Target Population</th>
<th>This course is for aviation personnel such as handlers, flight schools and airline company support staff, government authorities, armed forces and anyone who would like to broaden their knowledge of aviation meteorology.</th>
</tr>
</thead>
</table>
| Objectives        | At the end of the course the participants will be able to:  
|                   | • Interpret meteorological messages  
|                   | • Recognise and monitor meteorological phenomena that can negatively affect or reduce airport operational capacity |
| Core Contents     | • Brief climatology outline: meteorological phenomena affecting Italian airports  
|                   | • Decoding meteorological bulletins: TAF, METAR/MET-Report, aerodrome warnings  
|                   | • Precipitations and runway contamination  
|                   | • Thunderstorm identification and mapping  
|                   | • Reading met charts |

### Why choose Academy

- The complexity of meteorological phenomena in a short and concrete course  
- Long standing experience in aviation meteorology  
- Operational experience in over 40 airports 

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**Focal Point:** Claudia FACCANI  
email: training@enav.it

**Availability:**  
- **SCHEDULED**  
- **ON REQUEST**

**Language:**  
- **ITALIAN**  
- **ENGLISH**
Human Performance in Flight Ops

Over the years the concept of Team Integration has become the cornerstone of every complex operation that characterises Flight Ops. When working in a highly technological context with a low tolerance error policy, it is important to manage all the available resources in the best possible way to minimise risks. This means not only the reliability of technology and the effectiveness of the procedures, but it also means the quality of crew performance, which is the result of technical training and CRM-Crew Resource Management.

CRM, intended as the effective management of the crew aimed at maintaining high safety levels, is a flexible and systematic method to optimise human performance and above all safety.

It is a structured training course with the aim of developing non-technical skills, known as NOTECHS, learning techniques for threat and error management, and developing safety culture (Just Culture).

The main aim of the courses is to establish a high level of safety in flight operations for airlines, through structured training, checking and continuous improvement of the crews’ NOTECHS according to EU-OPS1, the transition into EC law of JAR-OPS1.

The aim of the courses is:

• To support the creation of an internal Crew Resource Management structure (CRM)
• Ensure the training and updating of human factor and just culture contents for middle management
• To make organisations aware of safety culture through CRM courses aimed at the integration of different professional figures.

Why choose Academy

• All HP Flight OPS courses are designed by aviation psychology experts with the direct support of operational staff involved.
• Our approach towards CRM focuses on 4 different areas:
  • safety: CRM is the appropriate tool to work with
  • flexibility and economics: specific courses which allow airlines to save money in the long run
  • operations: performance improvement regarding efficiency and effectiveness
  • company climate: improvement of personal relationships and the development of a positive company climate.
Crew Resource Management - Initial Training

Duration: 2 day course

Target Population: Flight crews

Objectives:
- Acquire knowledge related to Human Factors in a flight operation context.
- Understand how Non-Technical Skills influence operational crew performance.
- Expand knowledge of the limits and capabilities of human performance.
- Improve awareness of how to optimise teamwork.
- Improve awareness of one’s own NTS and the impact it has on operations.
- Analyse case studies

Core Contents:
- Human factors in aviation
- General instructions on CRM principles and objectives
- Human factors and reliability, error chain, error prevention and detection.
- Information acquisition and processing
- Situational Awareness
- Decision making
- TEM- Threats and Error Management
- Operational Risk Management
- Stress & stress management
- Fatigue & Vigilance
- Workload management
- NOTECHS- Non-Technical Skills
- Communication and co-ordination inside and outside the cockpit
- Team behaviour Synergy
- Leadership and Followership
- Company safety culture, SOPs, Organisational Factors

COURSE INFO

Focal Point: Nicoletta LOMBARDO
email: training@enav.it

Availability: SCHEDULED ON REQUEST
Language: ITALIAN ENGLISH

54 | Training Programmes | Courses for the Aviation Field
Crew Resource Management - Recurrent Training

Duration: 1 day course

<table>
<thead>
<tr>
<th>Target Population</th>
<th>Flight Crews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectives</td>
<td>Maintain a high level of safety through continuous learning drawn from Safety Reports.</td>
</tr>
</tbody>
</table>
| Core Contents     | • Human error and reliability, error chain, error prevention and detection  
                    • Safety culture, SDPs, organisational factors  
                    • Stress, stress management, fatigue and vigilance  
                    • Information acquisition and processing, situational awareness, workload management  
                    • Decision making  
                    • Communication and co-ordination inside and outside the cockpit  
                    • Leadership and team behaviour, synergy  
                    • Automation and philosophy of the use of automation (if relevant)  
                    • Specific type-related differences  
                    • Case studies. |

Focal Point: Nicoletta LOMBARDO
email: training@enav.it

Availability: SCHEDULED
Language: ITALIAN

COURSE INFO

Case Study
Exp Learning
## Notechs Assessment Course

*Duration:* 2 day course

### Target Population
Type Rating Examiners involved in the assessment of Pilots

### Objectives
The aim of the course is to make examiners familiar with an operator’s behavioural marker system in order to enable them to properly evaluate non-technical skills, deliver a constructive debriefing and give guidance to crews on how to improve future performance. To be able to train instructors to evaluate organisational non-technical skills and standardising the evaluation process.

### Core Contents
- Introduction to Behaviour Evaluation
- Notechs
- Notechs Evaluation Drill: Case studies
- NoTechs Evaluation: Guidelines
- Evaluation Standardisation: Case studies
- Notechs Briefing and Debriefing

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### Course Info

<table>
<thead>
<tr>
<th>Focal Point: <strong>Nicoletta LOMBARDO</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>email: <a href="mailto:training@enav.it">training@enav.it</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Availability:</th>
<th>SCHEDULED</th>
<th>ON REQUEST</th>
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<tbody>
<tr>
<td>Language:</td>
<td>ITALIAN</td>
<td>ENGLISH</td>
</tr>
</tbody>
</table>

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- CASE STUDY
- EXP LEARNING
Crew Resource Management Instructor Course (CRMI)

Duration: 3 day course

<table>
<thead>
<tr>
<th>Target Population</th>
<th>Flight crews</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectives</td>
<td>The aim of the course is to acquire knowledge and skills to enable participants to develop and deliver a focused and interactive CRM training which focuses on the nature of flight inspection operations, objectives, requirements and SOPs.</td>
</tr>
</tbody>
</table>
| Core Contents     | • CRM and Human Factors  
                   • Human Factor/CRM Issues: Human Error, Decision Making, Situational Awareness, Stress and Fatigue, Workload e Task Management, Communication, Team and Leadership  
                   • Facilitation and Teaching  
                   • Adult learning  
                   • Learning styles  
                   • Teaching group dynamics and trainee management  
                   • Classroom management  
                   • Feedback  
                   • CRM Course Planning  
                   • Case Studies - Creation and Use  
                   • Drill creation and use  
                   • Presentation drill |

Focal Point: Nicoletta LOMBARDO  
email: training@enav.it

Availability:  SCHEDULED     ON REQUEST
Language:  ITALIAN     ENGLISH

COURSE INFO

Meteorological Training
Human Performance in Flight Ops
Airline, Airport and Aviation Industry
English for Aviation
Airline, Airport and Aviation Industry

In the aviation world many players interact and cooperate to provide one of the most complex and efficient services in the world. The increasing pressure on efficiency and cost saving has characterised the aviation world in the last few years, in particular airline companies, pillars of the sector, can find a solution through more efficient and optimised provision of services.

To reach this objective it is necessary that the players involved in this process interact and collaborate. With this in mind Enav, through its ad hoc Academy courses and seminars, has decided to share with aviation partners its knowledge and skills with the aim of increasing ATM awareness in each player. This is the key factor for a better operative result.
AIS, ATFCM & Meteo

Target Population
The course is for all air transport companies, pilots, handlers and flight schools.

Objectives
Improve participants’ knowledge by providing the tools to make the quality of their operations more effective, with particular attention to:
- To become familiar with ATFCM “output” messages;
- Reading and decoding Met messages: both area and airport
- Reading NOTAMs;
- Enhance flight planning.

Core Contents
- Enav operational manuals
- ICAO Doc 8126
- OPADD (Eurocontrol)
- ATFCM handbook
- IFPS User’s manual
- RAD
- MO-MET (ENAV)
- ICAO Annex 3
- ICAO Doc 8896
- ICAO Doc 8377

Why choose Academy
- Training centre approved by ENAC
- FMP direct management
- Meteorological service provider
- Direct involvement of Flow Management Position ATCOs
- Rated AIS and Met personnel

Duration: 3 day course

Focal Point: Corrado SCATIGNO
email: training@enav.it

Availability: SCHEDULED
Language: ITALIAN, ENGLISH

COURSE INFO
ATC-Pilot Co-operation Course

Duration: 1 day course

Target Population
This course is for pilots in general, in particular for line pilots or those who have operational experience.

Objectives
The course covers introduction to air traffic control to enable pilots to understand the controllers’ point of view through simulations. Problems concerning traffic management will be analysed with the support of instructors and operative controllers. Classroom activities are discussion opportunities and are reinforced through simulation sessions. The course activities emphasise how to improve the collaboration between pilots and ATC and increase pilots’ situational awareness during everyday operations.

Core Contents
- To become familiar with the radar controller working position (CWP)
- A demo of radar control session
- To experience by means of simulations the peculiarities of upper, lower and approach sectors controlling arrival, departure and overflight aircraft (focus on: radar separation, FLAs, co-ordinations, emergency situation management, speed control, parallel approaches, PBN)

Time will be set aside for in-depth study of specific topics if needed by the participants.

Prior to the course, a self-study handout of the theory (ATC’s role, service area, controller working position, operational techniques) will be given.

For further information about simulation systems, see “Technology and Services” section.

Why choose Academy
- Direct contact with ENAV air traffic controllers for explaining, clarifying and going into depth.
- ENAV’s long standing operational experience in 4 area control centres with peaks of 6,000 flights per day.
- 2 radar simulators comparable to Enav’s operational equipment.
- Different simulation scenarios are available

Focal Point: Fabio OLIVETTI
email: training@enav.it

Availability:
- SCHEDULED
- ON REQUEST

Language:
- ITALIAN
- ENGLISH

RDR SIM
TWI SIM
E-LEARNING

60 | Training Programmes | Courses for the Aviation Field
# AWO – All Weather Operations for Ground Crew

**Duration:** 5 day course

<table>
<thead>
<tr>
<th><strong>Target Population</strong></th>
<th>The course is for airport operators involved in all weather operations.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objectives</strong></td>
<td>To know the national/international regulations for AWO and the applicable procedures during reduced visibility (RAVP)</td>
</tr>
<tr>
<td><strong>Core Contents</strong></td>
<td>The main regulations in effect for AWO will be taught through theory lessons in the classroom. The participants will become familiar with AW operations in a tower simulator. The main topics covered are:</td>
</tr>
</tbody>
</table>

- National/international regulations
- LVP
- Reduced Aerodrome Visibility Procedures (RAVP)
- Local AWO plan
- Airport infrastructure and equipment
- Degraded available equipment
- Safety management for AWO

During the course, participants will be able to experience a hands-on flight in low visibility using a flight simulator (CRJ200) with a certified pilot.

< For further information about simulation systems, see “Technology and Services” section >

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**Why choose Academy**

- Long standing experience in managing ground operations
- Milano Linate was the first airport in the world to have implemented a AW checklist

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**COURSE INFO**

- **Focal Point:** Fabrizio SCOMPARIN
  - email: training@enav.it
- **Availability:** SCHEDULED, ON REQUEST
- **Language:** ITALIAN, ENGLISH

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Courses for the Aviation Field | Training Programmes | 61
ATFM for Aviation

The aim of this course is to understand why Air Traffic Flow Management (ATFM) has become a vital part of Air Traffic Management (ATM) and how it enables the full capacity of the air transport system with respect to standard safety levels.

**Target Population**
This course is for employees working in airline operations, security authorities, regulators and any person engaged in aircraft operations for whom a general overview of traffic flow and capacity management is required.

**Objectives**
After the completion of the course, participants will have a general knowledge and understanding of the following items:

- how an ATFM service operates
- how an ATFM service is structured and organised
- how the capacity of an airspace sector and airport can be determined
- how an ATFM service is implemented
- which and how ATFM measures are applied
- which data is exchanged in providing ATFM service

Furthermore, participants will receive information about the European methods and systems used for flow management and a general perception of the application of ATFM by other worldwide organisations.

**Core Contents**
- ATFM general concepts: organisation and use
- ATFM and CDM (Collaborative Decision Making): a close cooperation
- ATFM outputs: messages, web-based conferences, tools and manuals.

**Notes**
Specific courses for ANSPs outside ECAC can be provided.

**Why choose Academy**

- Training centre approved by the Civil Aviation Authority
- Training centre that works in close collaboration with the European NMOC and SESAR working groups
- Direct relationship with experts related to the provision of services for flow management positions (FMP)
- Use of tools related to flow management

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**Focal Point:** Elisabetta COPPI
email: training@enav.it

**Availability:** SCHEDULED
**Language:** ITALIAN
**Compliancy:** ICAO DO03971
Commission Regulation (EU) 255/2010

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Duration: 3 day course
Knowledge of standard phraseology and the principles of air traffic control by airport vehicle operators can only bring an increase in safety. When all operators working on the same frequency communicate in a clear and correct way, situational awareness for everyone involved increases so it is possible to work in better harmony and be more efficient. During the course, incidents involving ground vehicles and best practices to avoid them will be looked at.

<table>
<thead>
<tr>
<th>Target Population</th>
<th>The course is for airport operators that are involved in operations that require contact with the control tower, such as the handling company, runway inspection vehicles, bird control unit, firefighting services and personnel who work in the manoeuvring area.</th>
</tr>
</thead>
</table>
| Objectives        | • Know principles of air traffic control in an airport environment.  
                    • Know about an airport layout and the different classifications of the areas  
                    • Use aeronautical phraseology correctly in accordance with Doc 9432  
                    • Apply the appropriate behaviour to diverse ABES  
                    • Learn best practices for working safely every day |
| Core Contents     | • ATS and principles of air traffic control  
                    • Airport zones (manoeuvring and movement area, maps)  
                    • Markings and Lighting  
                    • Phraseology (ICAO Doc 9432)  
                    • Methods for interacting with ATCOs  
                    • ABES and airport emergency plans |
| Notes             | Customisable for specific airports upon request |

< For further information about simulation systems, see “Technology and Services” section >

Why choose Academy

• Long standing training experience in over 40 Italian airports  
• A unique opportunity to directly interact with air traffic controllers
English for Aviation

The airline industry employs a wide variety of people for a wide variety of jobs. Most of these jobs require communication in English, whether it be among co-workers or with passengers. English is the most common second language that airport staff need to know and the majority of airline companies require that their staff be fluent in English. In most cases airport personnel will normally have a basic understanding of the English language.

ENAV Academy is a leader in the training of Air Traffic Controllers and ATM personnel. It also offers these courses to foreign clients and has the experience and know how in this field. The philosophy behind the English for Aviation courses that it offers is to teach English for people working in the field of aviation, whether you are a baggage handler or a member of the ground crew these courses can help you learn the specific vocabulary and structures to use on the job.

The aim of these courses is to make a difference to your English. You will be given the tools to make your job easier, you will achieve competence and knowledge to be more effective and efficient in your job.

• ICAO approved training centre
• Qualified mother tongue English teachers
• Recognised trainers in Aviation English
• Pre-course interviews to evaluate individual needs

Why choose Academy
English for Airport Personnel

To develop language awareness, acquire specialised aviation terminology, build confidence in the professional skills needed for the airport personnel, independently from their specific jobs.

**Target Population**
Course designed for airport personnel who have a basic knowledge of English and need to improve their English in their own fields.

**Objectives**
After completing the course the participants will:
- have the knowledge, skills and understanding to be able to communicate comfortably on work related topics;
- be more sophisticated in their use of functional language and be able to focus on its proficiency in different situations;
- use the correct register and communicate with the professional formality when dealing with particularly complex problem solving tasks.

**Core Contents**
- Each topic is integrated into a range of class activities designed to equip the participant with the strategies and approaches needed to deal with the demands of their jobs.
- Vocabulary presented and practised in context to help participants understand and use their skills in the work environment.
- Language skills are practised in realistic case studies which reflect topical airport issues.
- Strong emphasis on the development of natural speaking skills with personalisation concerning specific topics.
- Coverage of language structures known to be essential for all professionals working within an airport.

**Notes**
An attendance certificate will be issued at the end of the course. This course covers general aspects of the airport environment. A three day specific course can be part of a larger and more effective offer: English for Airport Security Staff, English for Ground Handling Agents, English for Passenger Care.

**Focal Point:** Roberto QUARTO
email: training@enav.it

**Courses for the Aviation Field | Training Programmes | 65**
## English for Airport Security Staff

**Duration:** 2 day course

To develop language awareness, acquire specialised terminology, build confidence in the professional skills needed for their job.

<table>
<thead>
<tr>
<th>Target Population</th>
<th>Course designed for security staff who have a basic knowledge of English and need to improve their English.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectives</td>
<td>After completing the course the participants will:</td>
</tr>
<tr>
<td></td>
<td>• have the knowledge, skills and understanding to be able to communicate comfortably on work related topics;</td>
</tr>
<tr>
<td></td>
<td>• be more effective in their use of functional language and be able to focus on its proficiency in different situations;</td>
</tr>
<tr>
<td></td>
<td>• use the correct register and communicate with the professional formality when dealing with particularly complex problem solving tasks.</td>
</tr>
<tr>
<td>Core Contents</td>
<td>The topic is integrated into a range of class activities designed to equip the participant with the strategies and approaches needed to deal with the demands of their jobs.</td>
</tr>
<tr>
<td></td>
<td>Vocabulary presented and practised in context to help participants understand and use their skills in the work environment.</td>
</tr>
<tr>
<td></td>
<td>Language skills are practised in realistic case studies which reflect topical security issues, such as:</td>
</tr>
<tr>
<td></td>
<td>• aggressive passengers;</td>
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<tr>
<td></td>
<td>• dangerous items;</td>
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<tr>
<td></td>
<td>• banned items;</td>
</tr>
<tr>
<td></td>
<td>• body search and passenger screening;</td>
</tr>
<tr>
<td></td>
<td>• duty free issues;</td>
</tr>
<tr>
<td></td>
<td>• checking baggage.</td>
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<tr>
<td></td>
<td>Specific items can be oriented to participants’ needs. Strong emphasis on the development of natural speaking skills when dealing with passengers. Coverage of language structures known to be essential for security.</td>
</tr>
<tr>
<td>Notes</td>
<td>An attendance certificate will be issued at the end of the course. At the end of the course a pocket user-friendly phrasebook will be given to each participant.</td>
</tr>
<tr>
<td></td>
<td>This course covers specific aspects for Airport Security Staff, the two day course English for Airport Personnel can be part of a larger and more effective offer.</td>
</tr>
</tbody>
</table>

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**Focal Point:** Corrado SCATIGNO  
email: training@enav.it

**Availability:** SCHEDULED  
**Language:** ITALIAN, ENGLISH  
**Compliancy:** Common European Framework of Reference
English for Ground Handling Agents

<table>
<thead>
<tr>
<th>Target Population</th>
<th>Course designed for Ground handling Agents who have a basic knowledge of English and need to improve their English.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectives</td>
<td>After completing the course the participants will:</td>
</tr>
<tr>
<td></td>
<td>• have the knowledge, skills and understanding to be able to communicate comfortably on work related topics;</td>
</tr>
<tr>
<td></td>
<td>• be more effective in their use of functional language and be able to focus on its proficiency in different situations;</td>
</tr>
<tr>
<td></td>
<td>• use the correct register and communicate with the professional formality when dealing with particularly complex problem solving tasks.</td>
</tr>
<tr>
<td>Core Contents</td>
<td>The topic is integrated into a range of class activities designed to equip the participants with the strategies and approaches needed to deal with the demands of their jobs.</td>
</tr>
<tr>
<td></td>
<td>Vocabulary presented and practised in context to help participants understand and use their skills in the work environment Language skills are practised in realistic case studies which reflect topical ground handling issues, such as:</td>
</tr>
<tr>
<td></td>
<td>• communicating needs to aircraft crew;</td>
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<tr>
<td></td>
<td>• understanding aircraft crew needs;</td>
</tr>
<tr>
<td></td>
<td>• unusual events;</td>
</tr>
<tr>
<td></td>
<td>• aircraft and airport vocabulary;</td>
</tr>
<tr>
<td></td>
<td>• phraseology;</td>
</tr>
<tr>
<td></td>
<td>• giving and understanding directions.</td>
</tr>
<tr>
<td></td>
<td>Specific items can be oriented to participants’ needs. Strong emphasis on the development of natural speaking skills when dealing with crew members. Coverage of language structures known to be essential for ground handlers.</td>
</tr>
<tr>
<td>Notes</td>
<td>An attendance certificate will be issued at the end of the course. This course covers specific aspects for Ground Handling Agents, the two day course English for Airport Personnel can be part of a larger and more effective offer.</td>
</tr>
</tbody>
</table>

Focal Point: Corrado SCATIGNO
email: training@enav.it

Availability: SCHEDULED ○ ON REQUEST
Language: ITALIAN ○ ENGLISH
Compilancy: CEFR: ICO Doc 4444

COURSE INFO
English for Passenger Care

To develop language awareness, acquire specialised terminology, build confidence in the professional skills needed for their job.

**Target Population**
Course designed for security staff who have a basic knowledge of English and need to improve their English.

**Objectives**
After completing the course the participants will:
- have the knowledge, skills and understanding to be able to communicate comfortably on work related topics;
- be more effective in their use of functional language and be able to focus on its proficiency in different situations;
- use the correct register and communicate with the professional formality when dealing with particularly complex problem solving tasks.

**Core Contents**
The topic is integrated into a range of class activities designed to equip the participant with the strategies and approaches needed to deal with the demands of their jobs.

Vocabulary presented and practised in context to help participants understand and use their skills in the work environment.

Language skills are practised in realistic case studies which reflect topical passengers' assistance issues, such as:
- disabled passengers and reduced mobility;
- UMs;
- travelling with pets;
- information desk;
- check-in;
- special baggage (sports, instruments, etc.);
- lost and found;
- special needs.

Strong emphasis on the development of natural speaking skills when dealing with passengers.

Coverage of language structures known to be essential for passenger care.

**Notes**
An attendance certificate will be issued at the end of the course. At the end of the course a pocket user-friendly phrasebook will be given to each participant.

This course covers specific aspects for Passenger Care, the two day course English for Airport Personnel can be part of a larger and more effective offer.

**COURSE INFO**
- **Focal Point:** Corrado SCATIGNO
  - email: training@enav.it
- **Availability:** SCHEDULED, ON REQUEST
- **Language:** ITALIAN, ENGLISH
- **Compliancy:** Common European Framework of Reference
English for Pilots

To build confidence in the use of ICAO standard phraseology.

<table>
<thead>
<tr>
<th>Target Population</th>
<th>Course designed for Pilots who have a basic knowledge of English and need to improve their phraseology.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectives</td>
<td>After completing the course the participants will:</td>
</tr>
<tr>
<td></td>
<td>• have the knowledge, skills and understanding to be able to communicate comfortably using phraseology;</td>
</tr>
<tr>
<td></td>
<td>• be more effective in their use of phraseology and be able to focus on its proficiency in different situations;</td>
</tr>
<tr>
<td></td>
<td>• use the correct register and communicate with the professional formality when dealing with particularly complex problem solving tasks.</td>
</tr>
<tr>
<td>Core Contents</td>
<td>The topic is integrated into a range of class activities designed to equip the participant with the strategies and approaches needed to deal with the demands of their jobs.</td>
</tr>
<tr>
<td></td>
<td>Phraseology and common words/phrases presented and practiced in context to help participant understand and use their skills in their work environment.</td>
</tr>
<tr>
<td></td>
<td>Language skills are practised in realistic case studies which reflect topical pilot issues, such as:</td>
</tr>
<tr>
<td></td>
<td>• start up and pushback;</td>
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<tr>
<td></td>
<td>• taxi;</td>
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<td></td>
<td>• take-off;</td>
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<td></td>
<td>• cruise;</td>
</tr>
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<td></td>
<td>• approach;</td>
</tr>
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<td></td>
<td>• landing;</td>
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<td></td>
<td>• crew interaction;</td>
</tr>
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<td></td>
<td>• unusual situations.</td>
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<tr>
<td></td>
<td>Specific items can be oriented to participants’ needs. Strong emphasis on the development of natural speaking skills when dealing with ATCOs. Coverage of language structures known to be essential for pilots.</td>
</tr>
<tr>
<td>Notes</td>
<td>An attendance certificate will be issue at the end of the course.</td>
</tr>
</tbody>
</table>

Focal Point: Corrado SCATIGNO
email: training@enav.it

Availability: ☑ SCHEDULED ☐ ON REQUEST
Language: ☑ ITALIAN ☑ ENGLISH
Compliancy: CEFR
ICAO Doc 4444
To develop language awareness, acquire specialised terminology, build confidence in the professional skills needed for their job.

**Target Population**

Course designed for engineers and maintenance personnel to improve their vocabulary and communication skills within their fields.

**Objectives**

After completing the course the participants will:

- have the knowledge, skills and understanding to be able to communicate comfortably using technical English
- use the correct register and communicate with professional formality when dealing with particularly complex problem solving tasks
- be more effective in their use of communicative skills, focusing on language proficiency in different situations.

**Core Contents**

The topic is integrated into a range of class activities designed to equip the participants with the strategies and approaches needed to deal with the demands of their jobs. Common words/phrases presented and practised in context to help participants understand and use their skills in the work environment.

Language skills are practised in realistic case studies which reflect topical participant issues, such as:

- Checking and filing documents
- Understanding technical manuals
- Trouble shooting and reporting
- Speaking in meetings
- E-mailing

Specific items can be oriented to participants’ needs.

Strong emphasis on the development of natural speaking skills when dealing with customers and suppliers.

**Notes**

An attendance certificate will be issued at the end of the course.
Security

Nowadays a new approach to security is needed not just for the threat posed by terrorism. Security is one of the pillars of an organisation, related to social and legal liability, especially for those entities in charge of protecting people and other relevant values. Furthermore, liability is based on what organisations do before, not after a security breach.

Moreover, security can be considered a science requiring a methodological approach, an in-depth knowledge and professional skills for a sound effective governance, based on the appropriate security culture.

ENAV Academy offers specific courses taught by certified professionals with direct practical experience in the field. The aim of the courses is to provide the appropriate tools to understand security issues, both for air navigation service providers and the aviation community.
ATM Security Management System

ATM Security is an emerging issue for very complex and sensitive environments and is considered a part of the Civil Aviation Security concept, as prescribed by Standard 3.5 of Annex 17 to Chicago Convention. The course offers an in-depth overview on the methodological elements of a Security Management System tailored for air navigation service providers.

The course takes into consideration the legal framework, the need for a risk-based approach and the evolution of threats, with a focus on human factors and contingency planning.

<table>
<thead>
<tr>
<th>Target Population</th>
<th>ANSP Security Managers, ANSP security Officers, Personnel from National Supervisory Authorities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectives</td>
<td>The course will provide a “toolbox” for initiating and developing a comprehensive Security Management System, for the ANSP environment. The syllabus covers topics from commitment to dissemination, through policy definition, approach to risk management, drafting processes and procedures, controls and indicators, incident handling, lesson learned and dissemination, in a “centralised management” from a physical, logical and personnel security point of view.</td>
</tr>
</tbody>
</table>
| Core Contents     | • Definition of the scope, legal framework and regulatory constraints;  
|                   | • Overview of best practices and terms of reference: ICAO Doc 8973 and ICAO Doc 9985;  
|                   | • Roles and responsibilities: top management commitment;  
|                   | • Fundamentals for building security culture;  
|                   | • Inter-departmental interactions;  
|                   | • Risk management;  
|                   | • Processes and procedures;  
|                   | • Establishing a sound security organisation;  
|                   | • Co-ordination with civil and military entities;  
|                   | • Security controls and indicators;  
|                   | • Continuous review and improvement. |
| Notes             | The course requires a basic knowledge of aviation security principles, to be assessed before enrollment, through a questionnaire. During the course multiple pass/fail tests will be sat, plus a final exam. |

Why choose Academy

- ENAV is a leader in the field of ATM Security
- ENAV has long standing direct experience
- NSAs certifications: law enforcement and military entities.

Focal Point: Francesco DI MAIO
email: training@enav.it

Availability: SCHEDULED  ON REQUEST
Language: ITALIAN  ENGLISH

Duration: 2 week course

COURSE INFO

EXP LEARNING  CASE STUDY
### Information Security Management System

Information is a valuable and very sensitive asset of any entity, especially those based on high technology in which confidentiality, integrity and availability of data are mandatory and essential for service continuity. Implementing a sound information security management, based on best practices and standards, is both the measurement of due diligence and the means through which a mature organisation pursues the continuous improvement in a competitive world. The course offers the elements for implementing and developing an information security strategy, based on ISO 2700x standard, focused on aviation and aviation-related entities.

<table>
<thead>
<tr>
<th>Target Population</th>
<th>Security Managers; Information Security managers; top and senior managers requiring knowledge on information protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectives</td>
<td>Provide a comprehensive approach to information security science, not from the technical point of view, but implementing sustainable strategies and actions to preserve strategical information, needed to survive in a very competitive world.</td>
</tr>
</tbody>
</table>
| Core Contents      | • ISO 2700x standards;  
• How to acquire a certification;  
• Gap analysis;  
• Risk management;  
• Senior commitment;  
• Deming cycle applied to information security;  
• Statement of Applicability;  
• Rules and procedures;  
• Business Impact Analysis and Business Continuity Plan;  
• Human factor;  
• Information security. |
| Notes              | Information refers not only to IT, but involves the concept of information in an organisation. Confidentiality, integrity and availability are considered pillars related to any kind of information. |

**Why choose Academy**

- ENAV is the first European Air Navigation Services Provider certified ISO 27001 since 2011 and has a long standing experience in the field.
- ENAV is a leader in information security for the aviation environment, by having an Integrated Security Defence Centre mainly for proactive protection of operational data, by applying the concept of “Centralised Security Governance”. 

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**Focal Point:** Francesco DI MAIO  
email: training@enav.it

**Availability:**  
- SCHEDULED  
- ON REQUEST

**Language:**  
- ITALIAN  
- ENGLISH
Risk Management (ISO 31000)

Risk management is the fundamental driving force for any Security Management System and requires a scientific approach. ISO 31000 is currently recognised as the unique standard supporting the methodology for risk management in any environment. The course provides an in-depth understanding of the framework and support the organisation in pursuit of effectiveness in a Security Management System.

<table>
<thead>
<tr>
<th>Target Population</th>
<th>Security Risk Assessors – Security managers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectives</td>
<td>Understanding ISO 31000 with a focus on security-related risks and management</td>
</tr>
</tbody>
</table>
| Core Contents     | • The art of risk management: architecture, organisation, commitment;  
                     • Liability and accountability;  
                     • Implementing risk management through identification, analysis, evaluation and treatment;  
                     • Treatment options and treatment plans;  
                     • Monitoring and review;  
                     • Documentation |

Why choose Academy

• The course is based not only on theory but on long standing experience in an operational environment in which risk management is part of the task.

Duration: 1 week course

Focal Point: Francesco DI MAIO  
email: training@enav.it

Availability: SCHEDULED  
Language: ITALIAN  
ON REQUEST  
ENGLISH
Aviation Security Management

Duration: 3 week course (EU supplementary course: 1 additional week)

Developed on standard ICAO training packages, the course offers a wide overview of aviation security management based on Annex 17 to Chicago Convention, related to airports, airlines, aeronautical operators and all those entities required to have an Aviation Security Management System compliant to ICAO guidance materials. The course has an optional week specifically for regional requirements, in particular the European legal framework.

Target Population: Security post-holders, security managers, security managing personnel, airline personnel, airport personnel, and aircraft operators;

Objectives: Provide knowledge of security management, to professionals responsible for aviation security operations, based on the existing legal framework and guidance materials.

Core Contents:
- Understanding the threat, not only terrorism;
- Understanding the existing legal framework - from the national AVSEC Programme to the entity AVSEC Programme;
- Risk management: organisation, commitment, roles and responsibilities;
- Physical security (requirements and program management);
- Human resources;
- Quality controls and PDCA cycle;
- Contingency planning;
- Co-operation at local, national and international level.

The main course is based on ICAO Annex 17, ICAO Doc 8973 and ICAO Doc 9854.

The optional week is aimed at understanding EU legal framework (updated to EU Regulation 1998/2015).

Notes: The course is for senior and top security managers and requires basic knowledge of AVSEC principles which will be assessed before enrollment, through a questionnaire. During the course multiple pass/fail tests will be sat, plus a final exam.

Why choose Academy:
- The course is taught by an ICAO AVSEC PMC© and ECAC AVSEC Manager, national inspector and certified instructor.
- Theory and practice will come together with an innovative “on the job” methodology.

Focal Point: Francesco DI MAIO
email: training@enav.it

Availability: SCHEDULED, ON REQUEST
Language: ITALIAN, ENGLISH
COURSES ON AVIATION CULTURE

The role of Air Navigation Service Provider in Italy has allowed ENAV to develop an in-depth understanding of the needs in this industry as well as promoting initiatives to spread aviation culture throughout the country.

With this objective in mind, the Academy’s initiatives are suitable for people who are interested in becoming familiar with, or increasing their knowledge of the aviation world. ENAV provides the know-how and expertise for activities that it performs on a daily basis and therefore can deliver specifically designed courses which divulgate aviation culture.

The courses are for people with different backgrounds: passengers, drone pilots, or trainers who teach aviation subjects and want to keep their knowledge up-to-date. The courses take place at the Academy, in both a stimulating and state-of-the-art environments, where simulators and staff with inter-disciplinary skills are available.
A Day as a Controller

A Day as a Pilot

Flying with Awareness

Drones: RPA Theory Based Pilot Course

ATM Regulation Update

Basics of Human Performance in Aviation

Scheduling and prices available on www.enav.it
A Day as a Controller

At the end of the course participants will have acquired the knowledge which is essential for air navigation services: procedures, techniques and systems.

Target Population
Anyone passionate, curious or wants to have fun and wishes to increase their knowledge and learn more about the “secrets” of air traffic control. The course is for enthusiastic simulation lovers such as IVAO pilots and VATSIM controllers.

Objectives
To acquire the theory essential to air traffic control which is preparatory to simulation.
To know and be able to apply phraseology and air traffic control techniques.
Simulations where you are able to manage moderate traffic in radar or tower environments.

Core Contents
The course is specifically aimed at both radar and tower simulation and will cover the following topics:
- ATS
- Air space classification
- Tower service area
- Tower operative techniques and phraseology
- Radar service area
- Radar operative techniques, phraseology and tools

Notes
On request the course may be totally aimed at radar simulation rather than tower. Moreover, the complexity of the simulation may be adapted to the participants’ requirements.

< For further information about simulation systems, see “Technology and Services” section >

Why choose Academy
- Simulations on systems used by Enav
- Several different control tower and radar scenarios may be simulated
- ENAV air traffic controllers are available for in-depth follow ups.

Focal Point: Gianluigi BO
email: training@enav.it

Availability: SCHEDULED
Language: ITALIAN

COURSE INFO

Courses on Aviation Culture | Training Programmes | 79
A Day as a Pilot

Target Population
Flight lovers or anyone who wishes to try a new experience.

Objectives
The course is for flight lovers who want to experience the thrill and excitement of being a pilot for a day. The course covers step by step a typical pilot’s day.

Core Contents
The package provides:

• Classroom briefing of flight physics and its principals, the main flight instruments, basic knowledge of aviation meteorology and air traffic control.
• Realistic flight plan filing, with calculation of fuel load.
• The use of a pilot’s pre-flight checklist.
• A flight in a CRJ 200 jet aircraft STD, which has been certified by ENAC to train pilots. Participants, assisted by a pilot, will be able to take command and put into practice the concepts learned throughout the day.
• Detailed debriefing which examines the main stages of a pilot’s day and clarifies any doubts.

< For further information about simulation systems, see “Technology and Services” section >

Why choose Academy

• 360° skills and experience to discover what a pilot’s day is like
• Unique experience in a certified flight simulator

Focal Point: Emanuele RONCONI
email: training@enav.it

Availability: SCHEDULED
Language: ITALIAN

Duration: 1 day course
Flying with Awareness

Duration: 1 day course

Target Population
Anyone who feels anxious about flying.

Objectives
At the end of the course the participants will have experienced what happens behind the scenes during flight and acquired first-hand knowledge of safety and professionalism which characterise this environment. A pilot and a team of highly skilled tutors in the activities which are carried out in a pilot’s cockpit, in an air traffic control environment (control towers, area control centres...), in dealing with stress management with the aim of overcoming the fear of flying.

Core Contents

• Cognitive briefing
• Reference theories related to air traffic
• Reference theories related to flight physics and to on board equipment
• Meeting with pilot and sharing cockpit experience
• Stress management activities with psychologists.
• A demo of TWR/RDR simulation
• Flight simulation activity
• Debriefing.

< For further information about simulation systems, see “Technology and Services” section >

Why choose Academy

• A complete “behind the scenes” course

Focal Point: Emanuele RONCONI
email: training@enav.it

Availability: SCHEDULED
Language: ITALIAN

COURSE INFO

FLIGHT SIM
TWR SIM
RDR SIM
Drones: RPA Theory Based Pilot Course

To be able to master a Remotely Piloted Aircraft System (RPAS) in a professional manner, a licence or a certificate is necessary. According to ENAC rules it is mandatory to attend a specific course and sit an examination to obtain this licence/certificate.

**Target Population**
The course is for those who wish to obtain a Professional Certificate or Licence for RPAS or RPA.

**Objectives**
To provide the theory concerning applicable rules of the air, basic aviation cognitive concepts, meteorology, aspects of safety and operative risks in accordance with the “Remotely piloted aircraft system regulation”. After completing the course, a leading RPA manufacturer is available for practical training, thus completing all the steps needed to become a commercial RPAS pilot.

**Core Contents**
- Aviation Law
- Pilots’ duties and responsibilities
- Documentation on board
- Aircraft and pilot logbook records
- Flight rules
- Segregated air space, NOTAM etc.
- Meteorology
- Aerodynamics
- Internal or electrical combustion propulsion
- VFR communication
- ATC Transponder
- Human performance

**Notes**
Training plan under certification by ENAC

**Why choose Academy**
- Long standing experience and highly qualified personnel
- Continuously updated didactic material
- Capability to adapt to clients’ needs

**COURSE INFO**
Focal Point: Gianluigi BO
email: training@enav.it

Availability: SCHEDULED
Language: ITALIAN, ENGLISH
ATM Regulation Update

Duration: 1 day course

This course will provide participants with an overview on the regulations in effect and focus on the areas which have undergone the main modifications over the last few years. Finally, indications will be given on how to apply ATM regulations at operative level and in particular, the human/machine interface of the radar/tower controller and operative techniques.

Target Population
The course is for professionals who teach and work in an ATM environment and need to keep their knowledge of ATM up-to-date. The course is for teachers of aviation institutes and flight schools that teach the following subjects: ATM, air law, air traffic management, etc.

Objectives
To know which national and international ATM regulations are in effect and any recent modifications.
To know the HMI of an air traffic controller and the operative techniques adopted.

Core Contents
The following documents will be reviewed, showing the modifications and characteristics:
- EASA Regulations
- EU Commission Regulations
- ENAC regulations
- Italian AIP

To increase comprehension of concepts, an overview of the current ATM situation, from an operative point of view, will be covered:
- Normal and abbreviated flight plan
- Strip marking
- Modern radar and tower CWP (orientation)
- Operative techniques (indications)

Why choose Academy
- ENAV’s long standing experience and knowledge for professionals
- A complete and structured refresher course to be constantly updated in a continuously evolving field

Focal Point: Gianfranco BEVILACQUA
email: training@enav.it

Availability: SCHEDULED
Language: ITALIAN

COURSE INFO
Basics of Human Performance in Aviation

Duration: 2 day course

Target Population: The course is for those who approach the topic of HP in the aviation field and need to focus on the practical-theoretical area. Those who work in complex companies where human factors are the key factors for safety, efficiency and well-being objectives.

Objectives: To understand how job aspects, related to individuals, groups and organisations can affect a person’s capability to successfully accomplish a wide variety of tasks and job requirements, including the management of related changes.

Core Contents:
- Human Factor and Human Performance: methodological approaches
- Human errors:
  - Error definition
  - Error theories and models
  - Violations
  - Error management
- Notechs
- Information processing: situational awareness, problem solving and decision making
- Stress, effort and workload
- Communication
- Teamwork
- Ergonomic principles
- Organisational culture and safety culture

Why choose Academy:
- A complete overview on HP in a concrete and dynamic course

Focal Point: Nicoletta LOMBARDO
email: training@enav.it

Availability: SCHEDULED
Language: ITALIAN ENGLISH

COURSE INFO
86

Training Programmes
Not only aviation!
NOT ONLY AVIATION!

The experience, the training and teaching activities, implemented in the field of aviation and air traffic control can be revised and used in companies that operate in business sectors outside the aviation world. It is, in fact, possible to offer unique training experiences using the mechanism of similarity.

The procedures, the training and the teaching formats designed for the ATC field can in fact be considered valid and effective for all “High Reliable Organisations”- hospitals, chemical companies, iron and steel firms, high technological laboratories- as well as companies that need to develop the ability to manage their business effectively in turbulent and high risk situations. The skills developed by ENAV to manage Human Performance and the skills to plan and manage the training process based on simulations and then implemented on the job are offered in the following seminars.

On the other hand a similarity mechanism is the basis of the two formats (“Let’s land this aircraft!” and “Cleared for takeoff!”) where the simulation environment is an opportunity to work on organisational behaviour, group co-operation and negotiation, problem solving, decision making, stress management and effective communication. Every step is carried out in a unique and stimulating environment such as a flight simulator or a control tower simulator.
Training Programmes

- Not only aviation!

Human Performance in HRO

Simulation Based Training

On the Job Training

"Let’s land this aircraft!"

"Cleared for takeoff!"

Scheduling and prices available on www.enav.it
Training Programmes
Not only aviation!

Complex social-technical systems are characterised by strong connections between people, technology and organisations. To promote safety within complex systems, where events that occur can also be complex, means taking into consideration people, the way they behave and how they experience it. To learn about people working in HRO, how they interact and think when they find themselves in complicated operational context leads to the planning of resilient systems.

Target Population
The course is for HRO managers as well as human performance and safety personnel.

Objectives
The objective of the course is to share innovative models and tools for safety management applicable in an HRO environment.

Core Contents
- The importance of human factors in increasing human performance in HRO
- HRO dynamics
- Appliance of Human Factors and Human Performance in HROs
- What safety is: production or protection?
- The effect of human factors in the genesis of events
- Human error
- Safety system models
- Resilient system planning

Why choose Academy
- ENAV’s long standing experience in aviation applied to a complex organisational context

CASE STUDY

Focal Point: Nicoletta LOMBARDO
email: training@enav.it

Availability: SCHEDULED
Language: ITALIAN

Duration: 3 day course
Simulation Based Training

To develop the skills to be able to manage and supervise training processes which are based on the use of simulations.

**Target Population**
Teachers and professionals involved in planning and managing training activities using a simulation based environment in different sectors: health, transport, military, drilling and generally all settings in which training widely makes use of simulation.

**Objectives**
- To identify the characteristics of simulation
- To understand the variables of a process that contribute to the effectiveness of simulation based training.
- To be able to effectively manage the different phases of a simulation process

**Core Contents**
- HRO: specific features and characteristics.
- Simulations for HRO: work experience in military, health and production industry environments.
- Simulation, training processes and learning approaches
- Planning simulation sessions: objectives, workload and evaluation criteria
- Simulation procedure: phases and aspects worth considering

**Notes**
The course adopts a highly oriented operative methodology which makes use of case history analysis, role play and the implementation of training processes in complex simulation environments (i.e. flight simulators or control towers simulators).

< For further information about simulation systems, see “Technology and Services” section >

**Why choose Academy**
- Long standing experience in training in complex simulation environments
- Active methodologies and real case studies used in the course

In addition to the didactic course material, the participants will receive a copy of the book “Simulando s’impara. Progettare e gestire ambienti complessi di apprendimento. Il caso ENAV Academy” (FrancoAngeli 2015)

**COURSE INFO**

Focal Point: Giorgio M. GHEZZI
email: training@enav.it

Availability: SCHEDULED
Language: ITALIAN, ENGLISH

EXP LEARNING  CASE STUDY  TWR SIM  FLIGHT SIM
On the Job Training

To develop the skills to manage and supervise the on the job training process comparing the procedures which are used on the job to those adopted when more reliability is required.

<table>
<thead>
<tr>
<th>Target Population</th>
<th>Trainers and professionals involved in the planning and management of On the Job Training activities (OJT).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objectives</td>
<td>At the end of the course the participants will be able to</td>
</tr>
<tr>
<td></td>
<td>• Understand objectives, potential and limits of OJT in the different sectors</td>
</tr>
<tr>
<td></td>
<td>• Identify the main factors connected to human performance in the training phase and the connection between</td>
</tr>
<tr>
<td></td>
<td>learning, skills and motivations which are typical features of training</td>
</tr>
<tr>
<td></td>
<td>• Identify the key elements for the success of an OJT</td>
</tr>
<tr>
<td>Core Contents</td>
<td>• From being “spontaneous” to managing structured OJT courses: organisation, procedures, roles and tools</td>
</tr>
<tr>
<td></td>
<td>• Motivation and skills during the training</td>
</tr>
<tr>
<td></td>
<td>• The training process: phases and variables</td>
</tr>
<tr>
<td></td>
<td>• Techniques to support the training process</td>
</tr>
<tr>
<td></td>
<td>• Skills to manage briefing and debriefing</td>
</tr>
<tr>
<td></td>
<td>• From identifying the objectives to evaluating a performance</td>
</tr>
<tr>
<td>Notes</td>
<td>The course adopts a highly oriented operative methodology which makes use of case history analysis, role play and the testing of training processes in complex simulation environments (i.e. flight simulators or control towers simulators)</td>
</tr>
</tbody>
</table>

< For further information about simulation systems, see “Technology and Services” section >

Why choose Academy

• Long standing experience in training in complex simulation environments
• Active methodologies and real case studies used in the course

Focal Point: Giorgio M. GHEZZI
email: training@enav.it

Availability: SCHEDULED
Language: ITALIAN

COURSE INFO

Not only aviation! | Training Programmes | 91
Let’s land this aircraft!

**Course duration**
The format offered extends over two days. The course details are developed on the basis of the client’s specific request and different course layouts can be considered.

**Target Population**
The format can be adapted to suit both different company positions and professional backgrounds. For middle or high profile managers, this could be an opportunity to consolidate their communicative and team working skills in highly uncertain settings with factors concerning time pressure and quality of results.

**Objectives**
To train and develop skills through involving and challenging activities: piloting an aircraft in a flight simulator cockpit, experiencing a complex communicative process, with the other crew members, while dealing with a complicated situation.

**Core Contents**
The course alternates classroom work and flight simulation sessions. The participants, may be divided into groups, to “experiment” or observe the behaviour in the simulation sessions which will be analysed during debriefings. Contents that may be further developed according to clients’ specific requirements are:
- Communication as a complex procedure
- Interpersonal communication and communication within the group
- The negotiating process within the team and the management of divergent objectives
- Decision making processes in complex situations

< For further information about simulation systems, see “Technology and Services” section >

**Why choose Academy**
- A unique and involving experience for the development of complex skills

**Focal Point:** Giorgio M. GHEZZI
email: training@enav.it

**Availability:**
- SCHEDULED
- ON REQUEST

**Language:**
- ITALIAN
- ENGLISH

**COURSE INFO**

**FLIGHT SIM**

**EXP LEARNING**

92 | Training Programmes | Not only aviation!
Cleared for takeoff!

**Course duration**
1 day course. The course details are developed on the basis of the client’s specific request and different course lay-outs can be considered.

**Target Population**
The course can be adapted to suit both company positions and professional backgrounds. For example, groups which need to work on complex projects can acquire different methodologies and develop skills to be able to collaborate effectively.

**Objectives**
To train and develop skills through involving and challenging activities: airport traffic management with the use of a control tower simulator, experiencing the complexity of the interactions with pilots and/or other “players” of an airport system.

**Core Contents**
The course alternates classroom work and tower simulation sessions. The participants, may be divided into groups, to “experiment” or observe the behaviour in the simulation sessions which will be analysed during debriefings. Contents that may be further developed according to clients’ specific requirements are:
- Problem solving & Decision making
- Team co-operation
- Negotiation

< For further information about simulation systems, see “Technology and Services” section >

**Why choose Academy**

- A complex airport setting to practice social skills in an involving simulation environment

---

Focal Point: Giorgio M. GHEZZI  
email: training@enav.it

Availability: SCHEDULED  
Language: ITALIAN

TWR SIM  
EXP LEARNING
To enhance and maintain complex skills, participants need a state-of-the-art and powerful simulator infrastructure for their practical training. ENAV Academy has a wide variety of modern technologies and tailored services to offer clients looking for innovative, effective and cost-containing solutions.

At our training centre in Forlì, we have: 1 Mechtronix jet FFT flight simulator, 8 Adacel tower simulators and up to 24 Selex–ATRES Radar CWP available for training or learning purposes. ATC simulator professionals work closely with clients to design and implement unique and realistic simulation scenario layouts, both in terms of the visual environment and exercise data preparation.
Training Programmes
Technology & Services

- Flight Simulator (FSTD)
- Tower Simulator
- Radar Simulator
- Visual Modelling Station
- Radar Custom Scenarios

Scheduling and prices available on www.enav.it
Flight Simulator (FSTD)

Mechtronix Ascent Generic Jet FFT

The flight simulator at the Academy is manufactured by Mechtronix and is an Ascent Generic Jet FFT. It reproduces realistic characteristics of a regional jet and in particular, a Bombardier CRJ 200. The simulator is certified by ENAC according to EASA regulations for a FNPT II MCC.

Navigation Database

The navigation database, which is all the data used by the system for instrumental navigation (VOR, NDB, ILS, airways and fixes), is constantly updated and covers all the European airspace.
Certification Sheet

The following is a list of the principle technical characteristics stated, during the certification phase, by ENAC.

- **FSTD No.** IT-034
- **S/N** FFT 2059
- **Aircraft Type** Generic Multi Engine Jet Aeroplane (based on a CRJ-100/200)
- **FSTD Certification Level** FNPT Level II MCC
- **Visualization** Three projectors with a field of view of a 150 degrees horizontal and 35 degrees vertical (resolution per channel 1024 x 768 pixels).
- **Engines** General Electric CF-34-3A1
- **Instruments** EFIS Collins PRO-LINE 4 (simulated on 6 LCD screens)
- **ACAS** TCAS I
- **Additional Capabilities** Single FMS Collins 4200 (simulated)
- **Restrictions/Limitations** Maximum crosswind component for take-off and landing is 20 knots.
- **CAT I** RVR: 550m DH: 200ft
- **Training/Check IFR** Yes/Yes (limited to the rating of the IRI/IRE)
- **Proficiency checks** Yes (only single pilot IR proficiency check)
- **Autocoupled Approach** Yes
- **GPWS / EGPWS** Yes / N/A
- **GPS** No

Dry lease for certified aeronautical use

ENAV Academy offers the flight simulator for dry lease (rent), limited to the facility and technical assistance. Instructors and training is to be provided by the lessee.

Non-aeronautical use

The simulator can be used for non-aeronautical activities for companies and entities in which it can be used as a preparatory environment for the development of non-technical and behaviour skills. The following are examples of non-aeronautical activities, some of which have been experienced in other courses:

- Team building
- TRM Seminars
- Stress management and decision making
- Courses to overcome the fear of flying

Focal Point: Greta PAGANELLI
email: training@enav.it

MORE INFO
ENAV Academy’s tower simulators were developed to reproduce the principle systems found in an operational environment (surface movement radar, light panel, aerodrome radar, weather panel, radio panel, strip bay etc.), thereby allowing simulations to be as close to the real environment as possible. The 8 tower simulators, developed by Adacel, have a 270° view with rear projection to maximize involvement and image quality. The simulation scenarios are completely customisable with regards to the exercise environment as well as for the movement of aircraft and vehicles. All customisation is done in-house. Each simulator can have up to 4 positions with communication panels and a supervisor position where an instructor can control all the parameter settings of the simulation: weather conditions, co-ordinations, malfunctions. A maximum of two highly specialised pseudo-pilots with aviation background can be used during a simulation to have total control of the movements in the “playing field”.

Focal Point: **Federico MANCINELLI**
email: training@enav.it
The Academy has two radar rooms, one composed of 16 CWP (Console Selex COS2000 and Monitor Barco ISIS 2Kx2K) and another of 8 CWP with both rooms configured EXE-PLN. The platform used for simulation is a Vitrociset ATRES (Air TRaffic Environment Simulator) that can be configured for independent or multi-sector use. Each room has an equivalent number of pseudo-pilot positions according to the CWPs (considering EXE positions only).

Both radar rooms are equipped with a Flight Data Processing (FDP) system actually used in the operational environment. The simulation rooms can be completely customisable in terms of:

- ATS geographic area and procedures
- Vertical and horizontal sector layouts
- Flexible DFL
- Sector merging
- Aircraft performance
- Meteorological situations
- Simulation exercises
- Type of sensor (PSR, SSR, Mode S) and type of signal (mono or MRT head)

Both radar rooms are equipped with a Flight Data Processing (FDP) system actually used in the operational environment.

Recently, thanks to the collaboration with the SICTA consortium, a third radar room has been set up, which includes 10 CWPs + 3 spare, using EIZO 2Kx2K 26,5 inch monitors.

The innovative platform GEARS- Ground Enroute Approach Realtime Simulator, guarantees rapid prototyping and scenario evaluation for ATM simulations thanks to tools able to design and plan a process, as well as the tuning of traffic samples. The platform guarantees a wide flexibility usage, which allows “standalone” simulations on PCs for preparatory/ familiarisation phases, or in “Distributed Interactive” mode for the whole radar room for real time simulations. The wide choice of tools (such as Label LINK IT with DAP, ERATO, AMAN, FDP, Trajectory Prediction, Airspace Server, STCA – MTCD) and the possibility of ad Hoc development, offers an extremely competitive and effective solution. This platform has been used for Real Time Simulations for the redesign of the United Arab Emirates airspace.
Visual Modelling Station

Design and development of 3D scenery: a tailor-made solution for operational training

The introduction of technology for creating simulation scenery and the development of internal skills have allowed ENAV Academy to improve its ability to respond to operational training needs in terms of speed and accuracy of simulation scenarios. The process for creating a scenario starts with the identification of needs and technical specifications that the simulation environment must satisfy. It is of particular importance to obtain panoramic photographs from the control tower point of view and airport layout plans. Parallel to the process of creating visuals, the exercises are designed in terms of the air traffic to control and dynamics of the simulation that will be involved in every phase of the training. The 3D modelling team adds the livery to aircraft to accurately replicate the air traffic that characterises a specific airport. The scenarios produced by the ENAV Academy team are extremely accurate. The feedback from trainees once they reach their tower operational units indicates the designed visuals are very realistic.

Presagis Creator

The software used to develop the visual database is Presagis Creator. The 3D geometry model file format is OpenFlight, which is a standard format for any type of visual for ground or air side objects which can also be found in most flight simulators. This makes it possible to develop scenarios for every type of use and allowing for possible conversion of scenarios from one system to another.

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Radar Custom Scenarios

The objective of planning a radar course is the design of an “ad hoc” simulation environment, which allows training of operational skills to their maximum efficiency. The Academy has the resources and skills necessary for the complete design and implementation of a “playing field” in terms of the system and air traffic flow.

Design methodology and workflow

The design of new scenarios for radar simulations starts with the geographic area, which is a faithful reproduction of the original operational area (or simplified, to adapt perfectly to training needs). An accurate analysis of the traffic flow affecting the air space in question is then conducted. A sample traffic flow taken from real flight plans is entered into the simulator and the simulation is launched, fine tuning takes place to create interactions, to evaluate workload and to correct any possible errors.

Workflow for the creation of a simulation

- **Identify the characteristics of the simulation**
- **Traffic flow selection**
- **Elaboration of the selected flow**
- **Import to simulator**
- **Testing and fine tuning**

Identification of needs and definition of simulation requirements

Traffic selection based on the identified objectives (flow and time slots, sector layouts, exclusion of certain types of traffic, inclusion or not of airports, etc.)

Elaboration of the selected flow using automated tools developed by ENAV Academy

Import of simulation exercises to simulator

Testing and fine tuning

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