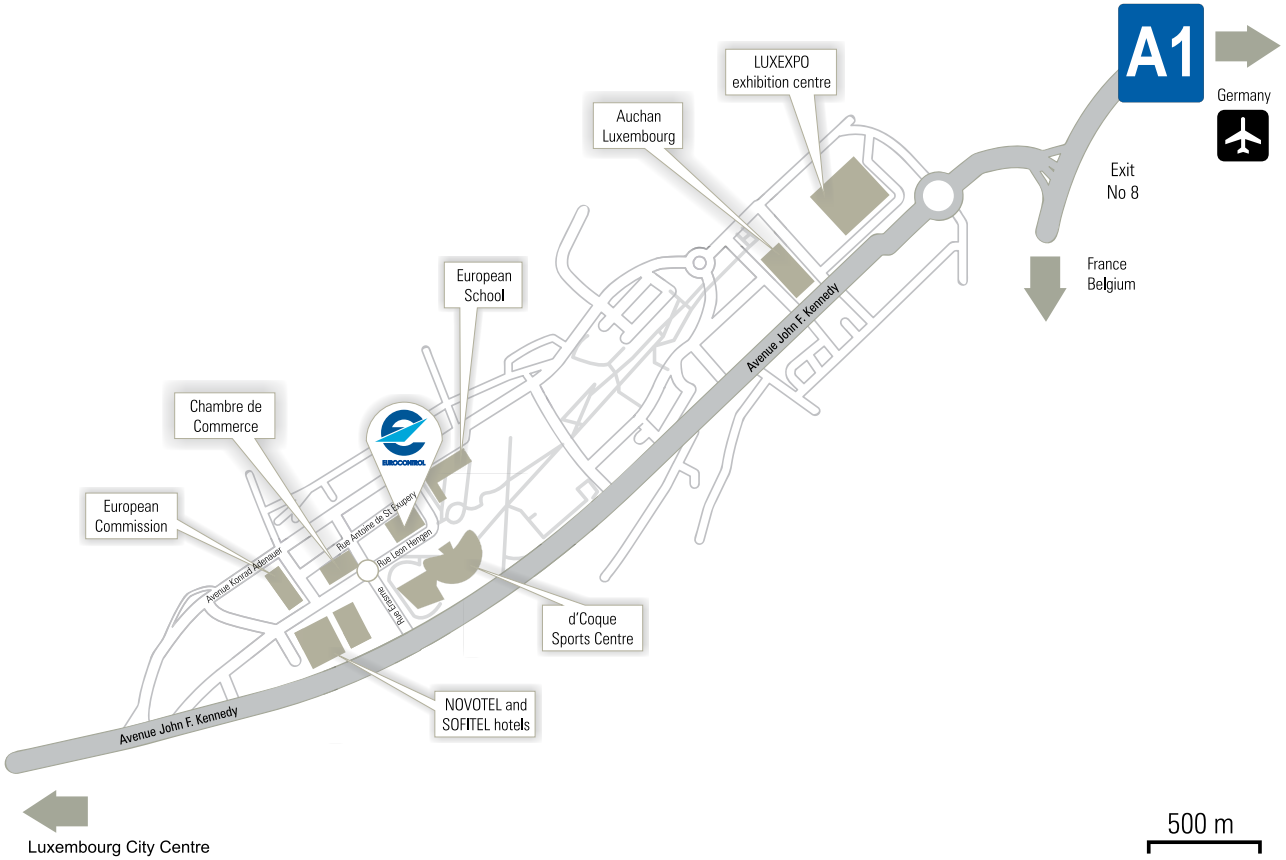
EUROCONTROL

EUROCONTROL Training 2016



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From Luxembourg city centre
take line 18 -
Bus stop 'Antoine de St Exupéry'

From Luxembourg Airport
take line 16 EUROBUS -
Bus stop 'D'Coque'

Foreword

With traffic levels slowly recovering, 2016 promises to be a crucial year for ATM performance. The increased interest in our training products demonstrates that ANSPs and CAAs see training as an integral part of their preparation for busier times.

This brochure provides you with a comprehensive overview of what we have lined up for you. Whether you are looking for a better insight into European regulation, training for network operation actors, airport staff, on-the-job training instructors, competency assessors, supervisors, safety actors, environment coordinators or communication, navigation or surveillance specialists, we make the best instructors available to you in the environment of your choice: here at the Training Institute or at your premises.

Recently, EU Regulation 2015/340 was published. This regulation changes the requirements for training such as OJTI and Competency Assessments. The IANS training courses have been adapted to reflect these new requirements.

Our controller selection tool (FEAST) and language proficiency test (ELPAC) go from strength to strength. Their training programmes are also covered in this brochure. They will gradually introduce on-line refresher training to help you save on travel costs for test administrators, adding new and attractive courses to our extensive offer of e-learning modules.

We hope to welcome you on one of our courses in 2016!

Alex Wandels
Head of the Institute of Air Navigation Services
Network Manager Directorate

EUROCONTROL
INSTITUTE OF AIR NAVIGATION SERVICES
40 years of expertise in training

EUROCONTROL TRAINING 2016

The EUROCONTROL Institute of Air Navigation Services (IANS) is EUROCONTROL's training centre, located in Luxembourg. It is recognised as a centre of excellence for providing advanced air traffic management (ATM) training, comprising both classroom and e-learning courses, as well as training standards, tools and programmes.

This brochure provides information about the range of training products and services available from EUROCONTROL in 2015. The brochure has five parts. The first part describes how to register for a course. The second and third part provide information about the different training programmes provided by EUROCONTROL as well as the range of EUROCONTROL training courses (delivered in a traditional classroom setting or as e-learning via the EUROCONTROL Training Zone). More detailed and up-to-date information for each course is available on the Training Zone within the online catalogue of training products at https://trainingzone.eurocontrol.int/catalogue.htm. The fourth part contains details of EUROCONTROL training tools and services. The final part describes how organisations can access EUROCONTROL training content.

This brochure is also available in PDF at https://trainingzone.eurocontrol.int/brochure.htm

EUROCONTROL TRAINING ZONE

The EUROCONTROL Training Zone is a digital learning environment that supports classroom and e-learning training. The Training Zone is used by thousands of individual users to consult available courses, receive pre-course information and training material, to study online and to interact with each other.

Direct your browser to: http://trainingzone.eurocontrol.int.

KEEPING IN TOUCH

Follow us on Facebook via www.facebook.com/EUROCONTROL.IANS

OR

Join the LinkedIN group "Alumni and Friends of the EUROCONTROL Institute of Air Navigation Services" (http://linkedin.com).

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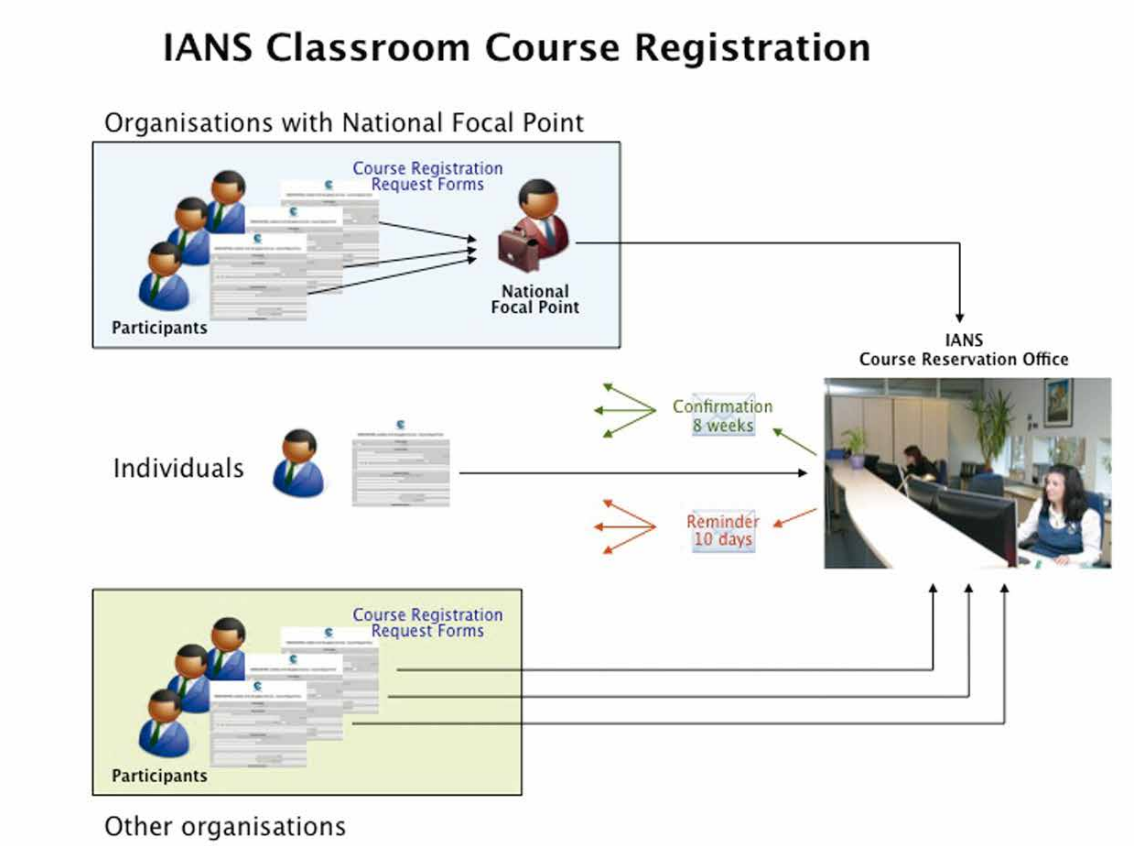
Registration

1


IANS Classroom Course Registration
Organisations with National Focal Point
Course Registration Request Forms
Participants
National Focal Point
IANS Course Reservation Office
Confirmation 8 weeks
Individuals
Reminder 10 days
Course Registration Request Forms
Participants
Other organisations

INTRODUCTION

This part of the brochure describes the arrangements for following EUROCONTROL training.
Information is also available at http://www.eurocontrol.int/articles/course-registration-and-enrolment.

Training portfolio

The current training portfolio and individual course delivery dates are always available online through the EUROCONTROL Training Zone (https://trainingzone.eurocontrol.int).

You can access to the training portfolio by selecting "Training Catalogue" without having to create an account or login. The training portfolio is continuously updated to try to best suit stakeholders' needs and customer demand. The planned course availability and course delivery dates might therefore be altered prior to confirmation of a participant's course.

Training Zone login

Registration on courses or access to some of the content requires a Training Zone login.

An individual Training Zone user account is free of charge and can be made by filling in the self-registration form on the home page of the EUROCONTROL Training Zone.

Course Reservation Office

The EUROCONTROL Training Institute Course Reservation Office (CRO) plays a central role in the management of requests. It is the central point of contact for any information related to registration and enrolment.

Contacting the Course Reservation Office:

By e-mail: ians.reservation@eurocontrol.int

By telephone: +352 43 60 61 205 or +352 43 60 61 307

By mail: Course Reservation Office
EUROCONTROL Institute of Air Navigation Services
12, rue Antoine de Saint-Exupéry
L-1432 Luxembourg
LUXEMBOURG

IANS CLASSROOM COURSES - HOW TO REGISTER?

Requests for course participation are made by submitting an online course registration request form (form: http://trainingzone.eurocontrol.int/CourseRequest.htm).

Course registration requests should include as much of the requested information as possible. This will enable places to be allocated in accordance with the policies for priorities agreed by EUROCONTROL Member States.

National Focal Points

National Focal Points act as local representatives of the Institute, providing a source of information about our training, and will often be able to answer a wide variety of questions about the training that is available and related issues. Some States have nominated more than one Focal Point, each representing a particular group or organisation.

Details of all National Focal Points are available at (http://trainingzone.eurocontrol.int/ListFP.htm).

For organisations with a Focal Point

The course registration request form should be submitted to the National Focal Point-see above for more details.

For organisations without a Focal Point

The course registration request form and/or requests for further information about our classroom training courses may be submitted directly to the Institute's Course Reservation Office.

For individuals

The course registration request form and/or requests for further information about our classroom training courses may be submitted directly to the Institute's Course Reservation Office. Registration requests submitted by individuals are usually subject to a tuition fee; contact the Institute's Course Reservation Office for more details.

Notification of course confirmation

Eight weeks before the start of the course, the Institute's Course Reservation Office sends a confirmation email to the course participant and the National Focal Point. The email contains useful information about getting to the Institute and details of any preparatory work that should be completed a few weeks before the course starts.

In addition a reminder email is sent 10 days before the start of the course.

If you are unable to take up an allocated place on a training course

Demand for places on our classroom training courses exceeds availability. Because of this, course participants who have been allocated a place but are unable to attend are asked to notify the Institute's Course Reservation Office as soon as possible through the National Focal Point. Early notification that an allocated place will not be taken up will enable the Course Reservation Office to re-allocate the place if at all possible. As with a course registration request, notification that an allocated place will not be taken up should be forwarded to the Course Reservation Office by the National Focal Point to ensure that both your own organisation and the Institute are fully informed.

Accommodation in Luxembourg

There is a wide range of hotels available in Luxembourg which are conveniently located for those visiting the Institute. Further details about the location of local hotels can be found through the Institute's web site at http://www.eurocontrol.int/articles/hotel-booking.

EUROCONTROL has negotiated preferential rates with many of the local hotels. To benefit from this special arrangement you should specify the appropriate booking code when you reserve your hotel accommodation. The relevant National Focal Point can provide the necessary booking code.

If you do not have a Focal Point and wish to take advantage of the preferential rates, where they are available, please contact the Course Reservation Office by e-mail at ians.reservation@eurocontrol.int.

E-LEARNING AND VIRTUAL CLASSROOM TRAINING - HOW TO REGISTER?

Direct access

Some e-learning modules are available through the EUROCONTROL Training Zone without any need for registration. These modules are made available through the "Direct-Access Modules" catalogue in the EUROCONTROL Training Zone: http://trainingzone.eurocontrol.int/directaccess.htm.

Registered access

Registration is required for most e-learning modules and for all virtual classroom courses. The completion of e-learning modules is often a pre-requisite to the attendance of virtual classroom or classroom courses. Registration is free of charge and is performed via the self-registration form available on the home page of the EUROCONTROL Training Zone.

E-learning programmes

These programmes are mainly a collection of e-learning courses. These programmes share courses which are also available as independent courses. A participant Training Zone login account is required.

Note on tracking

No group monitoring or tracking of progress is possible for direct access e-learning modules or for individual registration. Organisations wishing to monitor the progress of their students should refer to the Training Zone for Organisations service on page 93.

NETWORK OPERATIONS TRAINING CLASSROOM COURSES - HOW TO REGISTER?

National Focal Points are not involved in the registration procedure for Network Manager Operations courses.

Classroom courses

Participation in a classroom course requires a Training Zone login account. Registration requests are made online through the Training Zone catalogue. Requests are answered within a few days. The controls put in place are designed to ensure that users do not follow inappropriate courses for which they are insufficiently prepared.

FMP courses (online form, manual registration)

To participate in an FMP course you must first complete the online form, which is available through the Network Management website or the EUROCONTROL Training Zone. A Training Zone login account is not required. FMP managers are informed about registration and cancellation requests.

The purpose of this registration procedure is to better allocate participant requests to an appropriate course. It puts an emphasis on the background of the user and ensures that requests are given personalised treatment.

Contact

For more information on the content of the NMO courses, contact the NMO Training Secretariat via email:
nm.fmpcourse@eurocontrol.int or telephone +32 27 29 51 91.

Accommodation in Brussels

Further details about the location of hotels in Brussels can be found through EUROCONTROL's web site at:
http://www.eurocontrol.int/articles/eurocontrol-headquarters-brussels.

TRAINING PROGRAMMES

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EUROCONTROL Training Programmes

In the recent years we are witnessing ever growing recognition of the importance of the proper training and competence of staff performing different tasks in an NSA or in an ATM/ANS service provider. Whether driven by regulation or by the speed of change in ATM, there is an increasing need for qualifications/competencies for staff performing a wide range of tasks.

The following part contains information about EURCONTROL training programmes designed with a purpose to empower the staff members with the required knowledge/competencies for performing specific tasks.

- Network Operations Training Programmes
- Reporting and Investigation of ATM Safety Occurences
- Oversight of Changes
- Audit Techniques and Management of an Audit Programme
- Oversight of Safety Management Systems
- Planning and Conduct of Safety Survey
- Management of Changes
- NSA Training Programme
- ATSEP Basic Training Programme

INTRODUCTION TO NETWORK OPERATIONS – NMO-INTRO

This programme provides an introduction to Network Operations and includes an overview of Air Traffic Flow and Capacity Management (ATFCM), the Initial Flight Plan Processing System (IFPS) and flight planning and includes a virtual tour of the Network Manager Operations Centre (NMOC).

Duration: Programme of 3 E-learning courses - 6 hours.

- Introduction to ATFCM - NMO-ATFCM-INTRO-E
- IFPS and Flight Planning E-Learning - NMO-IFPS-INTRO-E
- NMOC Ops Room Tour - NMO-ATFCM-OPS-E

AO REFRESHER TRAINING – NMO-REFR-AO

This programme provides an easy-to-access repository of available Network Operations related online web-based training packages suitable for the operations staff of aircraft operators.

Duration: Programme of 16 E-learning courses - 15 hours.

- Introduction to ATFCM - NMO-ATFCM-INTRO-E
- IFPS and Flight Planning E-learning - NMO-IFPS-INTRO-E
- NMOC Ops Room Tour - NMO-ATFCM-OPS-E
- ATFCM Messages NMO - ATFCM-MSG-E
- CIAO – CHMI Interface for Aircraft Operators - NMO-CIAO-HELP-E
- Latest NM changes for AO - NMO-CHG-AO-E
- NOP FAQ - NMO-NOP-FAQ-E
- FAM Flight Activation Monitoring - NMO-ATFCM-FAM-E
- EVITA - NMO-NOP-EVITA-E
- Flight Level Compliance - NMO-ATFCM-FLC-E
- Flight Efficiency: Re-routing & Fuel costs - NMO-ATFCM-FE-E
- Best ATFCM Practices for Critical Events at Airports - NMO-ATFCM-BEST-E
- Airport Collaborative Decision Making: from concept to implementation and partners' roles - APT-ACDM-E
- NMIR – NM Interactive Reporting - NMO-NMIR-E
- The Why, the How and the When of CCAMS - NMO-CCAMS-INTRO-E
- Games for AO - NMO-ATFCM-AOGAME-E

FMP REFRESHER TRAINING –NMO-REFR-FMP

This provides an easy-to-access repository of available Network Operations related online web-based training packages suitable for Flow Management Position (FMP) staff.

Duration: Programme of 19 E-learning courses - 17 hours.

- Introduction to ATFCM - NMO-ATFCM-INTRO-E
- IFPS and Flight Planning E-learning - NMO-IFPS-INTRO-E
- NMOC Ops Room Tour - NMO-ATFCM-OPS-E
- ATFCM Messages - NMO-ATFCM-MSG-E
- NOP FAQ - NMO-NOP-FAQ-E
- CIFLO – CHMI Interface for Flow - NMO-CIFLO-HELP-E
- EVITA - NMO-NOP-EVITA-E
- Latest NM changes for FMP - NMO-CHG-FMP-E
- Flight Level Compliance - NMO-ATFCM-FLC-E
- FAM Flight Activation Monitoring - NMO-ATFCM-FAM-E
- Provision of Environment data
- Best ATFCM Practices for Critical Events at Airports - NMO-ATFCM-BEST-E
- Airport Collaborative Decision Making: from concept to implementation and partners' roles - APT-ACDM-E
- Flight Efficiency: Re-routing & Fuel costs - NMO-ATFCM-FE-E
- ATFCM Training on MUAC - NMO-ATFCM-MUAC-E
- ATFCM Prague Training for FMP/ACC - NMO-ATFCM-PRAG-E
- More about ATFCM - NMO-ATFCM-MORE-E
- The Why, the How and the When of CCAMS - NMO-CCAMS-INTRO-E
- Games for FMP - NMO-ATFCM-FMPGAME-E

TWR REFRESHER TRAINING– NMO-REFR-TWR

This provides an easy-to-access repository of available Network Operations related online web-based-training packages suitable for Tower staff.

Duration: Programme of 6 E-learning courses – 8 hours.

- Introduction to ATFCM - NMO-ATFCM-INTRO-E
- ATFCM Messages for TWR - NMO-ATFCM-MSG-TWR-E

- FAM – Flight Activation Monitoring - NMO-ATFCM-FAM-E
- CITO – CHMI Interface for Towers - NMO-CITO-HELP-E
- Best ATFCM Practices for Critical Events at Airports - NMO-ATFCM-BEST-E
- Airport Collaborative Decision Making: from concept to implementation and partners' roles - APT-ACDM-E

AMC REFRESHER TRAINING – NMO-REFR-AMC

This provides an easy-to-access repository of available Network Operations related online web-based training packages suitable for Airspace Management Cell staff.

Duration: Programme of 5 E-Learning courses – 5 hours.

- CIAM – CHMI Interface for Airspace Management - NMO-CIAM-HELP-E
- CIFLO – CHMI Interface for Flow - NMO-CIFLO-HELP-E
- Introduction to ATFCM - NMO-ATFCM-INTRO-E
- NMOC Ops Room Tour - NMO-ATFCM-OPS-E
- Flight Efficiency: Re-routing & Fuel costs - NMO-ATFCM-FE-E

ENVIRONMENT CO-ORDINATORS TRAINING – NMO-REFR-EN

This provides an easy-to-access repository of available Network Operations related online web-based training packages suitable for Environment Co-ordinators.

Duration: Programme of 4 E-Learning courses – 4 hours.

- CIREN–CHMI Interface for Environment Coordinators - NMO-CIREN-HELP-E
- Introduction to ATFCM - NMO-ATFCM-INTRO-E
- IFPS and Flight Planning E-learning - NMO-IFPS-INTRO-E
- NMOC Ops Room - NMO-ATFCM-OPS-E

Reporting and Investigation of ATM Safety Occurences - LEX-PRG-OCC

Introduction

After completing this training programme, participants will be able to assist in:

- the investigation of ATM-related safety occurrences;
- the oversight of the national implementation of the safety occurrence reporting and assessment regulations.

This training programme will address the following subjects in detail:

- applicable international standards, recommended practices and regional regulatory requirements in relation to ATM safety occurrence reporting and assessment;
- the process for the management of such ATM safety occurrences (including reporting and investigation);
- application of general principles of ATM safety occurrence investigation;
- application of the specific systemic investigation and analysis tools, (e.g. EUROCONTROL's Systemic Occurrence Analysis Methodology (SOAM));
- application of EUROCONTROL developed tools for ATM safety occurrence reporting and investigation - TOKAI (Toolkit for ATM Occurrence Investigation), including RAT (Risk Analysis Tool);
- different implementing arrangements in relation to the management of ATM safety related occurrences;
- application of the HERA technique to analyse and encode errors for incident reports, and to extract safety lessons.

It consists of the following courses:

- Safety Oversight / Implementation of Occurrence Reporting and Assessment (LEX-SORA);
- ATM Occurrence Investigation and Analysis (SAF-INV);
- ATM Occurrence Reporting and Investigation Tools (SAF-TOOLS);
- Human Error Analysis with HERA (HUM-HERA).

There is no prescribed sequence for the courses to be followed.

Participants who successfully complete this training programme within two years will be granted a Certificate of Achievement which, will list all courses successfully completed.

Participants who attend an individual course will receive:

- a Certificate of Attendance;
- a Certificate of Accomplishment only for examined courses (where they have successfully completed the examination - applicable only for the LEX-SORA course so far).

Recommended pre-requisites

Before starting this training programme, it is recommended to have a good understanding of:

- the concepts, principles and key elements of an SES-compliant safety management system (i.e. SAF-SMS course and SAF-SM1 e-learning package);
- EU legislation for SES (i.e. LEX-SES or LEX-SES-E course).

Maximum duration

Participants who successfully complete this training programme within 2 years will be granted a Certificate of Achievement, which will list all courses successfully completed.

Enrolment

You should enrol for individual courses using the normal course registration process. You may take individual courses without committing to any particular training programme.

If you would like attendance on the course to count towards a Certificate of Achievement, please indicate this when completing the course registration request.

You may enrol for the training programme at any time, and your previously completed courses could count towards the granting of a Certificate of Achievement if completed within two years of finishing the training programme (NB: an NSA-XXX course previously attended is considered equivalent to a LEX-XXX course).

Audience

This training programme has been developed for staff working in an NSA or in an ATM/ANS service provider, involved in the handling of ATM safety-related occurrences (reporting, investigation, analysis, and oversight of the national implementation of the applicable regulatory framework).

Oversight of Changes - LEX-PRG-CHG

Introduction

After completing this training programme, participants will have a solid understanding of oversight of changes, and will be able to assist in:

- reviewing the safety arguments for changes, including software safety;
- supervising the conformity of systems and constituents with essential requirements and relevant implementing rules for interoperability;
- auditing relevant processes in relation to changes.

This training programme will address the following subjects in detail:

- the risk assessment and mitigation process (or safety assessment process) applicable to ATM/ANS changes;
- relevant EU legislation in relation to the safety assessment of changes and the software safety assurance system;
- relevant EU legislation for SES interoperability, and the key processes involved to achieve, demonstrate and supervise compliance;
- the process of safety oversight of changes, and the key aspects to consider;
- the ANS software safety assurance process, its relationship with the overall risk assessment activity and its relationship with existing industry software standards.

It consists of the following courses:

- Introduction to Safety Assessment (SAF-SA1);
- Safety Oversight of Changes in ATM/ANS (LEX-SOCH);
- SES Interoperability (LEX-IOP);

It is recommended to start this training programme with SAF-SA1, then LEX-SOCH. There is no prescribed order for the other courses.

Participants who successfully complete this training programme within two years will be granted a Certificate of Achievement which will list all courses successfully completed.

Participants who attend an individual course will receive:

- a Certificate of Attendance;
- a Certificate of Accomplishment for examined courses (where they have successfully completed the examination).

Recommended pre-requisites

Before starting this training programme, it is recommended to have a good understanding of:

- EU legislation for SES (i.e. LEX-SES-E or LEX-SES course);
- Auditing techniques (i.e. LEX-AUDIT-1 & 3 courses);
- The concepts, principles and key elements of a SES-compliant Safety Management System (i.e. SAF-SMS course).

Maximum duration

Participants who successfully complete this training programme within 2 years will be granted a Certificate of Achievement, which will list all courses successfully completed.

Enrolment

You should enrol for individual courses using the normal course registration process. You may take individual courses without committing to any particular training programme.

If you would like attendance on the course to count towards a Certificate of Achievement, please indicate this when completing the course registration request. You may enrol for the training programme at any time, and your previously completed courses could count towards the granting of a Certificate of Achievement if completed within two years of finishing the training programme (NB: an NSA-XXX course previously attended is considered equivalent to a LEX-XXX course). Please note that priority will be given to those who enrolled on the training programme when places are allocated on courses.

Audience

This training programme has been developed specifically for staff working in an NSA, involved in oversight of changes (both airspace-related and technical).

Audit Techniques and Management of an Audit Programme - LEX-PRG-AUDIT

Introduction

After completing this training programme, participants will be able to:

- conduct an audit;
- assist in the management of an audit programme in compliance with applicable EU legislation for SES.

This training programme will address the following subjects in detail:

- various audit techniques;
- the audit process, including management of the audit programme.

It consists of the following stages:

- Stage 1: Audit Techniques and Practice Stage 1 (LEX-AUDIT-1);
- Stage 2: Conduct of an Actual Audit;
- Stage 3: Audit Techniques and Practice Stage 3 (LEX-AUDIT-3).

All three stages are mandatory, and shall be completed in the prescribed order.

Participants who successfully complete this training programme within 18 months will be granted a Certificate of Achievement which will list all stages successfully completed.

Participants will receive:

- a Certificate of Attendance for stages 1 and 3;
- a Certificate of Achievement (following successful completion of the examination at the end of stage 3).

Maximum duration

Participants who successfully complete this training programme within 18 months will be granted a Certificate of Achievement which will list all courses successfully completed.

Enrolment

You should enrol for LEX-AUDIT-1 using the normal course registration process. You may take LEX-AUDIT-1 without committing to this training programme.

If you would like attendance on the course to count towards a Certificate of Achievement, please indicate this when completing the course registration request. You may enrol for the training programme after completing the LEX-AUDIT-1 course, and your previously completed courses could count towards the granting of a Certificate of Achievement provided the stage 3 training is completed within 18 months of the stage 1 training (NB: an NSA-XXX course previously attended is considered equivalent to a LEX-XXX course). Please note that priority will be given to those who enrol on the training programme when places are allocated on courses.

Audience

This training programme has been developed specifically for staff working in an NSA who are involved in the planning and conduct of audits.

Oversight of Safety Management Systems - LEX-PRG-SMS

Introduction

After completing this training programme, participants will have a solid understanding of:

- the concepts, principles and key elements of a safety management system;
- best practices in safety management;
- the key aspects to be considered during the safety oversight of safety management systems implemented by ANSPs.

It consists of the following courses:

- Safety Management System in ATM – From Theory to Practice (SAF-SMS);
- Safety Oversight of Safety Management Systems (LEX-SOSM).

It is recommended to start this training programme with SAF-SMS.

Participants who successfully complete this training programme within 18 months will be granted a Certificate of Achievement, which will list all courses successfully completed.

Participants who attend an individual course will receive:

- a Certificate of Attendance;
- a Certificate of Accomplishment for LEX-SOSM (where case they have successfully completed the examination).

Recommended pre-requisites

Before starting this training programme, it is recommended to have a good understanding of:

- EU legislation for SES (i.e. LEX-SES-E or LEX-SES course)

Maximum duration

Participants who successfully complete this training programme within 18 months will be granted a Certificate of Achievement, which will list all courses successfully completed.

Enrolment

You should enrol for individual courses using the normal course registration process. You may take individual courses without committing to any particular training programme.

If you would like attendance on the course to count towards a Certificate of Achievement, please indicate this when completing the course registration request. You may enrol for the training programme at any time, and your previously completed courses could count towards the granting of a Certificate of Achievement if completed within 18 months of finishing the training programme (NB: an NSA-XXX course previously attended is considered equivalent to a LEX-XXX course). Please note that priority will be given to those who enrol on the training programme when places are allocated on courses.

Audience

This training programme has been developed specifically for staff working in an NSA, involved in safety oversight of safety management systems.

Planning and Conduct of Safety Survey - SAF-PRG-SURVEY

Introduction

After completing this training programme, participants will be able to assist in the planning and conduct of safety surveys, in compliance with applicable EU legislation for SES.

This training programme will address the following subjects in detail:

- types of safety surveys;
- the safety survey process.

It consists of the following stages:

- Stage 1: Safety management survey (SAF-SAS-1);
- Stage 2: Participation in an actual safety survey in the participant's own organisation;
- Stage 3: Safety management survey (SAF-SAS-3).

All three stages are mandatory, and must be completed in the prescribed order.

Participants who successfully complete this training programme within 18 months will be granted a Certificate of Achievement, which will list all stages successfully completed.

Participants will receive:

- a Certificate of Attendance for stages 1 and 3;
- a Certificate of Achievement (following successful assessment at the end of stage 3).

Recommended pre-requisites

Before starting this training programme, it is recommended to have a good understanding of:

- the concepts, principles and key elements of a SES-compliant Safety Management System (i.e. SAF-SMS course).

Maximum duration

Participants who successfully complete this training programme within 18 months will be granted a Certificate of Achievement, which will list all courses successfully completed.

Enrolment

You should enrol for SAF-SAS-1 using the normal course registration process. You can take SAF-SAS-1 without committing to this training programme.

If you would like attendance on the course to count towards a Certificate of Achievement, please indicate this when completing the course registration request. You may enrol for the training programme after completing the SAF-SAS-1 course and your previously completed courses could count towards the granting of a Certificate of Achievement, provided that stage 3 has been completed within 18 months of the stage 1 training. Please note that priority will be given to those who enrol on the training programme when places are allocated on courses.

Audience

This training programme has been developed specifically for staff working in an ATM/ANS service provider and who are involved in the planning and conduct of safety surveys.

Management of Changes - SAF-PRG-CHG

Introduction

After completing this training programme, participants will have a solid understanding of the management of changes, and will be able to assist in:

- safety assessments of ATM/ANS changes, including software safety assessment;
- conformity assessment tasks in relation to SES interoperability.

This training programme will address the following subjects in detail:

- the risk assessment and mitigation process (or safety assessment process) applicable to ATM/ANS changes;
- relevant EU legislation in relation to the safety assessment of changes and the software safety assurance system;
- relevant EU legislation for SES interoperability, and the key processes involved to achieve, demonstrate and supervise compliance;
- the ANS software safety assurance process, its relationship with the overall risk assessment activity and its relationship with existing industry software standards.

It consists of the following courses:

- Introduction to Safety Assessment (SAF-SA1);
- Practical Safety Assessment (SAF-SA2);
- SES Interoperability (LEX-IOP);
- ATM Software Safety Assessment (SAF-SW).

It is recommended to start this training programme with SAF-SA1. There is no prescribed order for the other courses.

Participants who successfully complete this training programme within two years will be granted a Certificate of Achievement, which will list all courses successfully completed.

Participants who attend an individual course will receive:

- a Certificate of Attendance;
- a Certificate of Accomplishment for examined courses (where they have successfully completed the examination).

Recommended pre-requisites

Before starting this training programme, it is recommended to have a good understanding of:

- the concepts, principles and key elements of an SES-compliant Safety Management System (i.e. SAF-SMS course).

Maximum duration

Participants who successfully complete this training programme within 2 years will be granted a Certificate of Achievement which will list all courses successfully completed.

Enrolment

You should enrol for individual courses using the normal course registration process. You may take individual courses without committing to any particular training programme.

If you would like attendance on the course to count towards a Certificate of Achievement, please indicate this when completing the course registration request. You may enrol for the training programme at any time, and your previously completed courses could count towards the granting of a Certificate of Achievement if completed within two years of finishing the training programme (NB: an NSA-XXX course previously attended is considered equivalent to a LEX-XXX course). Please note that priority will be given to those who enrolled on the training programme when places are allocated on courses.

Audience

This training programme has been developed specifically for staff working in an ATM/ANS service provider who are involved in managing changes (both airspace-related and technical).

Introduction

The NSA training programme is designed to support States' obligation to ensure specific training for those involved in oversight activities. It will provide participants with a solid foundation in all of the core NSA functions as required by the EU legislation in force, and with an awareness of on-going regulatory developments. It consists of the following courses:

Basic courses (all mandatory):

- Introduction to EU Legislation for the Single European Sky (LEX-SES);
- Audit Techniques and Practice (LEX-AUDIT-1 & 3);
- Functions of a National Supervisory Authority (LEX-ORG).

Specialist courses (mandatory selection of 3 out of 7 of these courses):

- Safety Oversight of ATM/ANS Staff Competence (LEX-SOCA);
- Safety Oversight of Safety Management Systems (LEX-SOSM);
- Safety Oversight of Changes in ATM/ANS (LEX-SOCH);
- Safety Oversight/Implementation of Safety Occurrence Reporting and Assessment (LEX-SORA);
- SES Interoperability (LEX-IOP);
- SES : The Performance Scheme (LEX-PERF);
- Oversight of Provision of MET Information (LEX-MET).

Participants who successfully complete the NSA training programme within 3 years will be granted a Certificate of Achievement which will list all courses successfully completed.

Participants who attend an individual course will receive:

- a Certificate of Attendance
- a Certificate of Accomplishment (only if they have successfully completed the examination)

Those wishing to complete the NSA training programme are strongly recommended to undertake the three basic courses (LEX-SES, LEX-ORG and LEX-AUDIT-1 & 3) before attempting any of the specialist courses. From the list of optional courses, a number of three have to completed to conclude the training programme.

Note: *a number of additional courses provided by IANS will bring more understanding in specific domains NSA staff is working on. See the list of IANS courses addressing in more detail specific implementing rules (and their related AMC/GM or community specification, if any).*

In addition, the GEN-INTRO course (Discover Air Traffic Control) is a good opportunity for staff with no operational background, to understand and experience first-hand the working environment and responsibilities of the job of air traffic controllers.

For detailed information, please consult IANS catalogue.

Continuous updates

There are many benefits for NSA staff in keeping up-to-date with on-going regulatory developments. It can facilitate:

- the definition of appropriate corrective actions to an EASA finding
- the improvement of existing processes within the NSA and the organisations under their supervision
- In addition, it can help minimising the efforts towards a smooth transition to new implementing measures, and avoiding going in a direction which is inconsistent with what the future holds!

The NSA training programme therefore addresses, in a pro-active way, the on-going regulatory developments which will affect NSA obligations in the field of ATM/ANS.

Enrolment

You should enrol for individual courses using the normal course registration process. You may take individual courses without committing to the whole NSA training programme.

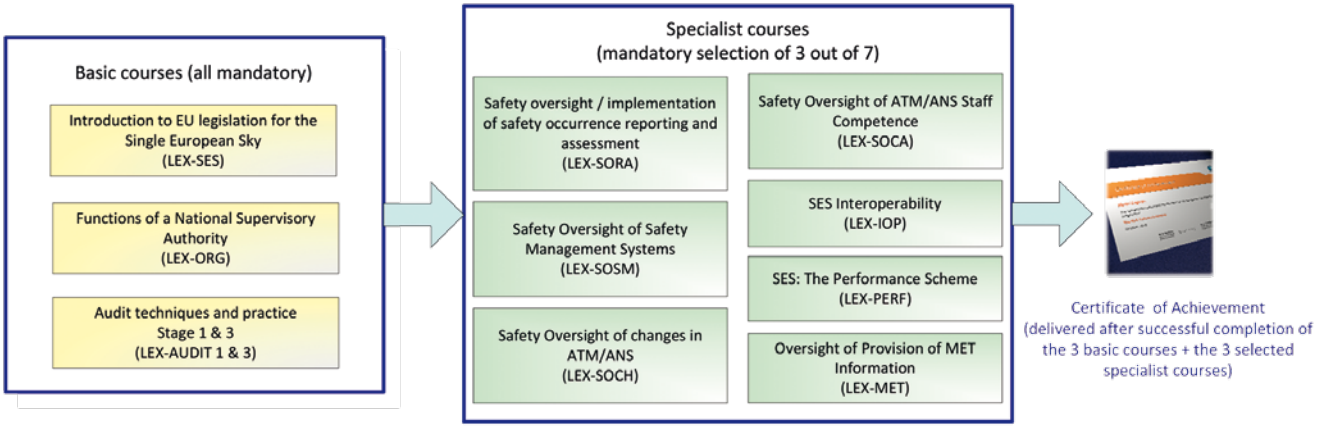
If you would like attendance on the course to count towards a Certificate of Achievement, please indicate this when completing the course registration request. You may enrol for the NSA training programme at any time, and your previously completed courses will count towards the granting of a Certificate of Achievement if completed within three years of finishing the training programme. Please note that priority will be given to those who are enrolled for the NSA training programme when places are allocated on courses.

Audience

The training programme has been developed specifically for staff working at an NSA. It is ideally suited to those who have recently joined the organisation and wish to gain a comprehensive understanding of the role and function of an NSA. It will also be of value to those with some experience within an NSA who wish to develop their knowledge and skills related to specific NSA functions, in preparation for taking on greater responsibilities, for example.

Although the training programme is focused on the oversight role of an NSA, the principles covered, and much of the content, are equally applicable to the work of other regulatory agencies. The courses are also of interest to those wishing to gain an understanding of regulatory functions and techniques, for example staff from ANSPs preparing to take on additional responsibilities which include working with the NSA or regulator.

The diagram below summarises the main features of the NSA training programme.



ATSEP-CCC

The EUROCONTROL Specification for Air Traffic Safety Electronics Personnel Common Core Content Initial Training sets out the minimum training requirement for ATSEP basic and qualification training is designed to provide entry-level training for those wishing to follow a career which involves operational-safety-related tasks. This EUROCONTROL specification document covers 11 subjects for basic training. In order to assist air navigation service providers in meeting the relevant basic training requirements, EUROCONTROL has developed an ATSEP Common Core Content (CCC) Basic Training Programme, covering the seven subjects of the basic training requirements which are not site specific. The programme is designed to impart fundamental knowledge of the CNS/ATM environment applicable to all learner ATSEPs, and is divided into five modules:

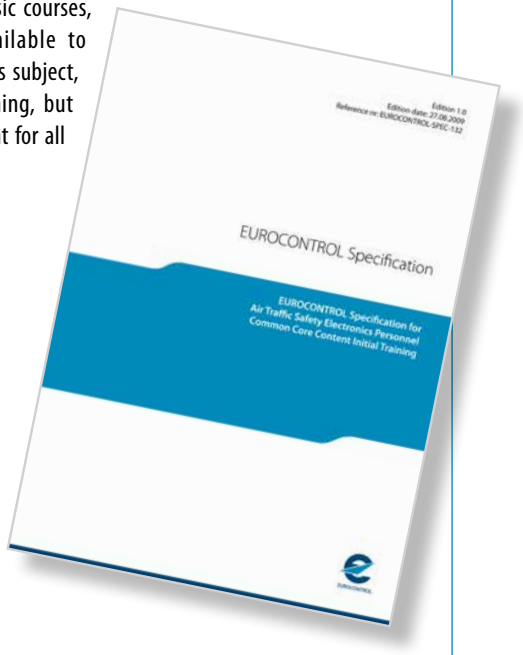
1. general (air traffic familiarisation, meteorology and aeronautical information services)
2. communication
3. navigation
4. surveillance
5. data processing

The ATSEP CCC Basic Training Programme is delivered over 2.5 weeks of training, each 0.5 week covering one module. The modules each include an examination. It is recommended that participants wishing to complete the whole ATSEP CCC Basic Training Programme follow all five modules over the continuous period. Participants who intend to complete the training programme but do not wish to do so over 2.5 consecutive weeks should indicate this when registering for the individual modules.

Subject to availability, participants may follow individual modules without undertaking to complete the entire programme. Please note that priority will be given to those participants who are enrolled for the whole ATSEP CCC Basic Training Programme. Enrolment for the ATSEP CCC Basic Training Programme should be made using the normal course registration process.

The complete ATSEP CCC Basic Training Programme lasts 2,5 weeks and is composed of five courses: ATSEP-GEN, ATSEP-COM, ATSEP-NAV, ATSEP-SUR and ATSEP-DAT.

In addition to the five basic courses, training material is available to support the Human Factors subject, part of qualification training, but as a shared subject relevant for all ATSEPs.



TRAINING COURSES

3

This part of the brochure describes training that is offered in classroom setting or as e learning modules on the Training Zone. Classroom training courses are usually held at EUROCONTROL (Luxembourg or Brussels). As part of the partnership that EUROCONTROL is developing with Member States and with other leading training organisations, courses are also delivered at other locations. Further information about the availability of specific courses and the location at which they will be delivered are available on-line in the EUROCONTROL Training Zone.

Information about our portfolio of courses is grouped into general topic areas. For each course, a short description of the content is provided. The training catalogue on the EUROCONTROL Training Zone contains additional information such as a summary of the objectives that will be achieved by following the training, the length of the course, the target audience and details of any pre-requisite knowledge. For e learning modules, we also indicate the typical time needed to complete the course.

This symbol indicates that the training is classroom-based.

This symbol indicates that the training is computer-based (on your own, at your own time).

This symbol indicates that the training is computer-based (at a specific time, in a group).

This symbol indicates that this is training material that supports classroom-based teaching. It is not accessible to individual learners.

This symbol indicates that the training is a blended course. It is not accessible to individual learners.

This denotes a programme – collection of courses.

This symbol indicates a new course.

This symbol indicates that the course has been recently updated.

This icon indicates that the e-learning training is designed to meet the requirements of part of the EUROCONTROL Common Core Content Syllabus for initial training.

GENERAL ATM MANAGEMENT

Gaining knowledge in general Air Traffic Management (ATM) is essential.

The high level goals of the Single European Sky (SES) is to harmonise the European Air Traffic Management (ATM) from a technological and operational perspective. The aim is to reach the agreed performance targets by increasing the capacity of systems while reducing ATM costs and the environment impact of fights yet increasing the level of safety.

The General Air Traffic Management Domain addresses the challenges and explains the way forward to build the future ATM system, keeping high levels of security and maintaining essential cooperation between the civil and military ATM.

In this context, this domain also covers the Centralised Services (CS), their concept of operation, envisaged business model, financing, governance and management.

Only the timely, synchronised and coordinated deployment of SESAR in accordance with the European ATM Master Plan will contribute to achieving the SES performance objectives. This is why this domain also covers SESAR deployment and the Common projects supporting the implementation of the European ATM Master Plan.

Finally, acquiring a "hands-on" experience of the working environment for air traffic controllers will help appreciate the role of Air Traffic Control (ATC) within the ATM system.

- Introduction to ATM
- Discover Air Traffic Control
- Building a Future ATM System
- Introduction to EU Legislation for the Single European Sky
- Introduction to the ESSIP/LSSIP mechanism
- Introduction to Civil Military Coordination
- Civil - Military ATM Coordination
- Discover Centralised Services - An Overview
- ATM Summer School
- Security Management in ATM
- Introduction to Environment
- Introduction to ATS Messaging Management Center (AMC)
- Pilot Common Project and SESAR Deployment
- Legal and Financial Issues for ANSP
- Management of Air Navigation Services
- Quality Management Systems (QMS) for Civil Aviation Authorities (CAA) and Air Navigation Service Providers
- Remotely Piloted Aircarft Systems - A Regulatory Overview

INTRODUCTION TO ATM GEN-ATM-INTRO (E)	This course will provide participants with an overview of how the European Air Traffic Management system works today. Duration: 2 hours.
DISCOVER AIR TRAFFIC CONTROL GEN-INTRO (C)	Many people with an interest in aviation would like to understand more about the job of the Air Traffic Controller. The GEN-INTRO course provides a "hands-on" experience of the working environment for air traffic controllers. The insight that they will acquire will help the participants to appreciate the role within the ATM system. Duration: 2 days.
BUILDING A FUTURE ATM SYSTEM GEN-FUT (C)	This continuously evolving course provides an overview of the future ATM situation within Europe based on the European ATM Master Plan. It further explains the SESAR deployment aiming at reaching the performance targets with a strong role of the Network Manager and supported by the Centralised Services. Duration: 5 days.
INTRODUCTION TO EU LEGISLATION FOR THE SINGLE EUROPEAN SKY LEX-SES (C)	This course provides an overview of EU legislation for the Single European Sky, in the field of ATM/ANS. It also describes how the regulatory developments will further affect the stakeholders involved in ATM/ANS (ATM/ANS service providers, competent authorities including NSAs, network manager, EASA, ATM/ANS manufacturers, etc.). Duration: 4 days.
INTRODUCTION TO THE ESSIP/LSSIP MECHANISM GEN-ELSSIP (E)	This module answers many questions and describes ESSIP/LSSIP, the ESSIP/LSSIP mechanism, the stakeholders' roles, an individual ESSIP objective's life cycle, and the ESSIP/LSSIP deliverables. Duration: 30 minutes.
INTRODUCTION TO CIVIL MILITARY COORDINATION GEN-CIV/MIL-INTRO (E)	This package of 3 modules provides an overview of the institutional framework governing in civil-military coordination, the implications of the Single European Sky on civil/military coordination, and CNS considerations in relation to civil-military coordination. Duration: Package of 3 modules - 1 hour 20 minutes.
CIVIL - MILITARY ATM COORDINATION GEN-CIV/MIL (C)	A look at the work being done to enhance civil-military coordination in the Single European Sky: • the improvement of European ATM efficiency for the benefit of civil/military aerial needs; • the development of viable solutions to support military ATM/CNS performance and interoperability. Military participation in SES and SESAR activities is also discussed. Duration: 4 days.
DISCOVER CENTRALISED SERVICES - AN OVERVIEW GEN-CS (C)	The "Discover Centralised Services" course describes the overall concept of Centralised Services, the envisaged business model, its financing, governance and management. Each Centralised Service is described in some detail starting from its Concept of Operations. Duration: 3 days.

ATM SUMMER SCHOOL GEN-ATM-UNI C	This course is the perfect combination for university students and new comers in ATM/ATC domain of theoritical knowledge about the current and future air traffic management (ATM) environment and hands-on unique opportunity to control traffic through high fidelity simulators in the en-route phase of flight and Tower simulation. Duration: 5 days.
SECURITY MANAGEMENT IN ATM GEN-SEC C	This course about ATM security learns how to conduct a Security Risk Assessment in the light of relevant regulation. Other substantial parts of the course are cyber security incidents (including CNS) and how to respond, ATM security oversight and relevant activities in the scope of SESAR. Duration: 4 days.
INTRODUCTION TO THE ENVIRONMENT ENV-INTRO E	This package covers the general issues associated with the environment and aviation. Indications of what actions you can take in your daily work/life to help mitigate the impact of aviation on the environment are addressed. It gives a basic grounding for both ATM personnel and the general public alike. Duration: Package of 3 modules - 50 minutes.
INTRODUCTION TO ATS MESSAGING MANAGEMENT CENTRE (AMC) GEN-AMC E	This AMC package provides first information on AMC and its user types. Then information for each user type is provided in separate modules: CCC operators, External COM operators, AMF-I users, Read/Only users. Duration: Package of 5 modules – 30 minutes.
PILOT COMMON PROJECT (PCP) AND SESAR DEPLOYMENT GEN-PCP NEW C	After describing the different phases of SESAR and the link with the European ATM Master Plan, the course focuses on the Common projects, the PCPs and six ATM Functionalities. Duration: 3 days.
LEGAL AND FINANCIAL ISSUES FOR AIR NAVIGATION SERVICE PROVIDERS GEN-FIN NEW C	This course explains the state rights and obligations, charging policy, facilities financing, management and control. Duration: 5 days.
MANAGEMENT OF AIR NAVIGATION SERVICES GEN-ANS-MGMT NEW C	The course focuses on Legal issues in Air Navigation Services management. Duration: 5 days.
QUALITY MANAGEMENT SYSTEMS (QMS) FOR CIVIL AVIATION AUTHORITIES (CAA) AND AIR NAVIGATION SERVICE (ANS) PROVIDERS GEN-QMS NEW C	This course addresses the following topics:- ICAO recommendations on ANS quality and safety assurance - JAA and FAA quality management standards - Air Navigation System Model for quality management and customer service - Quality culture and principles - Quality costs and process efficiency - Quality and service policies - Integration of other management standards to a quality management system - ISO 9001:2000 model and ISO 9000 series standards - Quality and service audits - Customer service standards. Duration: 5 days.
REMOTELY PILOTED AIRCRAFT SYSTEMS – A REGULATORY OVERVIEW GEN-RPAS NEW C	The course provides a detailed overview of the standards and regulation on RPAS (Remotely Piloted Aircraft Systems). Duration: 3 days.

AIRSPACE MANAGEMENT

Airspace is a scarce resource. The way this limited and finite resource is designed, organised and managed can impact significantly on the effectiveness with which air traffic can be accommodated and handled, in terms of safety, environment, capacity and costs.

Airspace organisation is a generic term encompassing air traffic routes, sectors, terminal areas, etc., and its effective management is rapidly becoming recognised as crucial to the achievement of the efficient performance of the ATM network.

- Airspace Strategy
- Introduction to Air Traffic Flow and Capacity Management
- Operational Airspace Manangement
- Network Capacity Planning
- Introduction to ATS Messaging Management Center(AMC)
- Introduction to Network Operations
- Introduction to ATFCM

AIRSPACE STRATEGY ASM-STRAT C	This course looks at the regulatory environment, strategies and fora for the design and development and management of European airspace. Duration: 4 days
INTRODUCTION TO AIR TRAFFIC FLOW AND CAPACITY MANAGEMENT ASM-ATFCM C	This course offers an introduction to ATFCM. It explains the rules and procedures that exist and introduces the main actors - the Network Manager, aircraft operators and flow management positions in area control centres. The course also describes the daily work necessary to achieve effective flow and capacity management. Duration: 4 days.
OPERATIONAL AIRSPACE MANAGEMENT ASM-OPS NEW C	The operational airspace management course looks at day-to-day management of European airspace in support of network performance. Duration: 3 days.
NETWORK CAPACITY PLANNING ASM-CAP C	A consolidated and coordinated approach to capacity planning is required at network and local level to ensure a continuous improvement of the operational performance of the network. This course will explain the European network capacity planning and assessment methodology and how this relates to the preparation and monitoring of the Network Operations Plan. It also includes an introduction to the operations planning tools and data sets. Duration: 4 days.
INTRODUCTION TO ATS MESSAGING MANAGEMENT CENTER (AMC) GEN-AMC E	This AMC package provides first information on AMC and its user types. Then information for each user type is provided in separate modules: CCC operators, External COM operators, AMF-I users, Read/Only users. Duration: Package of 5 modules - 30 minutes.
INTRODUCTION TO NETWORK OPERATIONS NMO-INTRO PRG	This programme provides an introduction to Network Operations and includes an overview of Air Traffic Flow and Capacity Management (ATFCM), the Initial Flight Plan Processing System (IFPS) and flight planning and includes a virtual tour of the Network Manager Operations Centre (NMOC). Duration: Programme of 3 E-learning courses – 6 hours.
INTRODUCTION TO ATFCM NMO-ATFCM-INTRO-E E	A web-based interactive ATFCM presentation giving an insight into Air Traffic Flow and Capacity Management in Europe as managed by NM. Duration: 2 hours 30 minutes.

NETWORK OPERATIONS TRAINING

The Network Manager (NM) aims to provide the best possible Network Operations service. This provision is based on the continuous optimisation of local and regional planning, operational procedures, associated tools and network infrastructures in full partnership with airports, ANSPs/FABs and users. This demands a high level of knowledge from the NM staff and from all partners, both in the ATC and aircraft operator communities.

The Collaborative Decision-Making process also requires a high degree of shared knowledge amongst participants in order to be successful.

The use of Web-Based Training (WBT) is one of the pillars of the NM training strategy, put in place to meet the demand for training and collaboration within Network Operations. NM WBT modules are equally suitable for self-study and classroom teaching.

The following descriptive overview, grouped by subject, should raise the awareness of all Network Operations partners of how their work can be assisted by our on-line training provision.

- ATFCM Awareness
- Tools and Interfaces
- Network Operations Portal
  - Collaboration Human Machine Interface
  - NM Interactive Reporting
  - European AIS Database
  - Centralised SSR Code Assignment and Management System
- Initial integrated Flightplan Processing System
- Aircraft Operators
- Flow Management Position
- Tower Staff
- Airspace Management Cell
- Airspace Data System
- Crisis Management

ATFCM AWARENESS

Air Traffic Flow and Capacity Management (ATFCM) is performed on a daily basis by the Network Manager Operations Centre (NMOC) in a Collaborative Decision Making (CDM) process with the Flow Management Positions (FMP) and Aircraft Operators (AO) to achieve a balance in the whole network between demand and capacity.

INTRODUCTION TO NETWORK OPERATIONS NMO-INTRO PRG	This programme provides an introduction to Network Operations and includes an overview of Air Traffic Flow and Capacity Management (ATFCM), the Initial Flight Plan Processing System (IFPS) and flight planning and includes a virtual tour of the Network Manager Operations Centre (NMOC). Duration: Programme of 3 E-learning courses – 6 hours.
INTRODUCTION TO ATFCM NMO-ATFCM-INTRO-E E	A web-based interactive ATFCM presentation giving an insight into Air Traffic Flow and Capacity Management in Europe as managed by NM. Duration: 2 hours and 30 minutes.
NETWORK MANAGER OPERATIONS CENTRE (NMOC) TOUR NMO-ATFCM-OPS-E E	A virtual tour of the Network Manager Operations Centre (NMOC). Duration: 15 minutes.
ATFCM MESSAGES NMO-ATFCM-MSG-E E	A package of 16 modules detailing messages used in ATFCM, including those relating to aerodrome closures, low visibility, flight suspensions, revision requests by AO, slots missed re-routeing, message formats, AOWIR and more. Duration: Package of 16 modules – 2 hours.
MORE ABOUT ATFCM NMO-ATFCM-MORE-E E	This web-based training can be considered as the follow up to the "Introduction to ATFCM" WBT. It also serves as a pre-requisite to the FMP Module 3 and 4. Duration: 90 minutes.
FLIGHT EFFICIENCY: RE-ROUTEING & FUEL COSTS NMO-ATFCM-FE-E E	Aircraft operators face many challenges, including very competitive and deregulated aviation markets, unstable fuel prices and environmental constraints. Both ANSPs and Aircraft Operators (AO) have to improve the way they operate to ensure the sustainable growth of aviation whilst respecting the environment. Flight efficiency has a significant economic and environmental impact and is therefore a key component of the sustainable growth goal. Duration: 3 hours.
FLIGHT LEVEL COMPLIANCE NMO-ATFCM-FLC-E E	This presentation is applicable to dispatchers, pilots and controllers. It will explain why the RFL must be complied with. Duration: 10 minutes.

INTRODUCTION TO AIR TRAFFIC FLOW AND CAPACITY MANAGEMENT ASM-ATFCM (C)	This course offers an introduction to ATFCM. It explains the rules and procedures that exist and introduces the main actors - the Network Manager, aircraft operators and flow management positions in area control centres. The course also describes the daily work necessary to achieve effective flow and capacity management. Duration: 4 days.
FLIGHT ACTIVATION MONITORING NMO-ATFCM-FAM-E (E)	Web-based training explaining how Flight Activation Monitoring (FAM) works and its implications on flight operations. It also outlines the benefits of FAM in providing enhancements in Air Traffic Flow & Capacity Management (ATFCM). Duration: 90 minutes.
ATFCM COURSE FOR AIRCRAFT OPERATORS NMO-ATFCM-AO-C (C)	This course provides a good theoretical knowledge and understanding in Air Traffic Flow and Capacity Management and NM operations, mainly focusing on the operational processes of the aircraft operators. Duration: 1 day.
BEST ATFCM PRACTICES FOR CRITICAL EVENTS AT AIRPORTS NMO-ATFCM-BEST-E (E)	This web-based training module is aimed at sharing best ATFCM practices in order to improve the management of critical events at airports. Within the concept of Collaborative Decision Making (CDM), it is recommended that all involved - ACCs, FMPs, TWRs, AOs and airport authorities - have a good knowledge and understanding not only of their own responsibilities, but also those of the other parties as well. It must always be remembered that any best practice mentioned in this WBT may require to be adapted to suit local procedures. Duration: 45 minutes.

TOOLS AND INTERFACES

Network Operations Portal

The NOP Portal is designed to facilitate NM user access to all kinds of dynamic data and operational information in a consolidated way. Information is displayed according to the ATFCM phases: Strategic, Pre-tactical, Tactical, & Post Operations.

The ultimate goal is to facilitate decision-making for all ATFCM actors by sharing the most up-to-date view on the Network Operations situation along the ATFCM cycle (plans, events, scenarios, real-time information on flights and measures, etc.).

NETWORK OPERATIONS PORTAL FAQ NMO-NOP-FAQ-E (E)	This module covers the most Frequently Asked Questions (FAQ) on the NOP operational portlets. Duration: 60 minutes.
NETWORK OPERATIONS PORTAL CLASSROOM COURSE NMO-NOP-ADV-C (C)	The objective of this course is to provide the theoretical background and practical training necessary for the usage of the NOP (Network Operations Portal). Duration: 2 days.

INTRODUCTION TO CIAO + NOP – VIRTUAL CLASSROOM NMO-CIAONOP-INTRO-V (V)	Online training, with instructor giving an introduction via the Virtual Classroom on CIAO and NOP. Duration: 3 hours.
NOP VIRTUAL CLASSROOM NMO-NOP-BASIC-V (V)	Online training with instructor giving an introduction via the Virtual Classroom on NOP. Duration: 1 day.
EVITA NMO-NOP-EVITA-E (E)	Web-based training module which describes the EVITA tool. This tool will support decision-making in crisis events that have an adverse impact on aviation in Europe. Duration : 45 minutes.
Collaboration Human Machine Interface (CHMI) CHMI gives access to Network Operations via different means: CIAO, CIAM, CIAO, CIFLO, CITO and CIREN.	
CIAO ADVANCED - CHMI CLASSROOM COURSE FOR AO NMO-CIAO-ADV-C (C)	Advanced 2 day classroom course on the usage of CIAO which has 2 pre-requisites: the CIAO basic course (NMO-CIAO-BASIC-V) and Introduction to ATFCM (NMO-ATFCM-INTRO-E). Duration: 2 days.
CIAO - CHMI INTERFACE FOR AIRCRAFT OPERATORS NMO-CIAO-HELP-E (E)	Web-based training module with detailed explanations of each function in the CIAO. Duration: This is a database so the duration depends on the degree of usage.
CIAO BASIC - VIRTUAL CLASSROOM NMO-CIAO-BASIC-V (V)	Online training with instructor via the virtual classroom on the basic usage of CIAO. Duration: 1 day.
INTRODUCTION TO CIAO + NOP - VIRTUAL CLASSROOM NMO-CIAONOP-INTRO-V (V)	Online training with instructor giving an introduction via the virtual classroom on CIAO and NOP. Duration: 3 hours.
CIFLO - VIRTUAL CLASSROOM NMO-CIFLO-BASIC-V (V)	Online training with instructor via the Virtual Classroom on CIFLO (Collaboration Interface for Flow). Duration : 1 day.
CIFLO - CHMI INTERFACE FOR FLOW MANAGEMENT POSITIONS NMO-CIFLO-HELP-E (E)	Web-based training module with detailed explanations of each function in the CIFLO. Duration: This is a database so the duration depends on the degree of usage.

CITO - CHMI INTERFACE FOR TOWERS NMO-CITO-HELP-E (E)	Web-based training package with detailed explanations of each function in the CITO. Duration: Package of 4 modules - 1 hour.
CIAM - CHMI INTERFACE FOR AIRSPACE MANAGEMENT NMO-CIAM-HELP-E (E)	Web-based training module with detailed explanations of each function in the CIAM. Duration: 30 minutes.
CIREN - CHMI INTERFACE FOR ENVIRONMENT CO-ORDINATORS NMO-CIREN-HELP-E (E)	Web-based training package with detailed explanations of each function in the CIREN. Duration: Package of 3 modules – 80 minutes.
NM Interactive Reporting (NMIR)	
NM INTERACTIVE REPORTING NMO-NMIR-E (E)	NM Interactive Reporting (NMIR) is a Web interface allowing users to access a wide range of reports and statistical data on European ATFCM. This updated version of the web-based training (since the interface of CIR has changed) explains how to use it. Duration: Package of 5 modules – 1 hour.
EAD - European AIS Database WBT on the world's largest aeronautical information system – a centralised reference database of quality-assured aeronautical information and, simultaneously, a fully integrated, state-of-the-art Aeronautical Information Services (AIS) solution.	
EUROPEAN AIS DATABASE - OPERATIONS IM-EAD-OPS (E)	This package provides an overview of the EAD concept. The emphasis of this training is on operational aspects, including the functions available for EAD Clients such as the helpdesk, the knowledge base, the EAD operational time lines and web mail. Furthermore, the different EAD applications for Data Users, Published AIP Management System (PAMS), Static Data Operations (SDO), International NOTAM Operations (INO) as well as the integrated Briefing Facilities, are featured in detail during this training. Duration: Package of 34 modules - 4 hours.
Centralised SSR Code Assignment and Management System (CCAMS)	
THE WHY, THE HOW AND THE WHEN OF CCAMS NMO-CCAMS-INTRO-E (E)	This centralised code assignment and management system (CCAMS) awareness module introduces the main concepts of CCAMS and SSR code allocation. Duration: 15 minutes.
CCAMS CONTINGENCY NMO-CCAMS-CONT-E (E)	The module describes the various CCAMS contingency scenarios and how they are handled. Some prior knowledge is assumed. If you are new to CCAMS, please have a look at "CCAMS Introduction" first. Duration: 20 minutes.

INITIAL INTEGRATED FLIGHTPLAN PROCESSING SYSTEM (IFPS)	
IFPS AND FLIGHT PLANNING E-LEARNING NMO-IFPS-INTRO-E (E)	A web-based training module providing an understanding of the Initial Integrated Flight Plan Processing System (IFPS) and of flight planning. This package can be followed on its own, but also serves as a pre-requisite for the more detailed IFPS classroom course. Duration: 2 hours.
IFPS AND FLIGHT PLANNING COURSE NMO-IFPS-ADV-C (C)	The objective of this course is to obtain the theoretical background and practical training for the Integrated Initial Flight Plan Processing System. Duration: 1 day.
ICAO 2012 FLIGHT PLAN GUIDE NMO-IFPS-FPL-E (E)	This Flight Plan Guide allows users to search for the correct format to be used for the different fields of the CIAO Flight Plan via a database. Duration: This is a database so the duration depends on the degree of usage.
AIRCRAFT OPERATORS (AO)	
AO REFRESHER TRAINING NMO-REFR-AO (PRG)	This programme provides an easy-to-access repository of available Network Operations related online web-based training packages suitable for the operations staff of aircraft operators. Duration: Programme of 16 E-learning courses – 16 hours.
CIAO BASIC - VIRTUAL CLASSROOM NMO-CIAO-BASIC-V (V)	Online training with instructor via the virtual classroom on the basic usage of CIAO. (NMO-CIAO-ADV-C) classroom course on the usage of CIAO. Duration: 1 day.
CHMI CLASSROOM COURSE FOR AO ADVANCED NMO-CIAO-ADV-C (C)	Advanced 2 day classroom course on the usage of CIAO which has 2 pre-requisites: the CIAO basic course (NMO-CIAO-BASIC-V) and Introduction to ATFCM (NMO-ATFCM-INTRO-E). Duration: 2 days.
INTRODUCTION TO CIAO + NOP - VIRTUAL CLASSROOM NMO-CIAONOP-INTRO-V (V)	Online training with instructor giving an introduction via the virtual classroom on CIAO and NOP. Duration: 3 hours.
NOP VIRTUAL CLASSROOM NMO-NOP-BASIC-V (V)	Online training with instructor giving an introduction via the Virtual Classroom on NOP. Duration: 1 day.
NETWORK OPERATIONS PORTAL CLASSROOM COURSE NMO-NOP-ADV-C (C)	The objective of this course is to provide the theoretical background and practical training necessary for the usage of the NOP (Network Operations Portal). Duration: 2 days.

IFPS AND FLIGHT PLANNING COURSE NMO-IFPS-ADV-C (C)	The objective of this course is to obtain the theoretical background and practical training for the Integrated Initial Flight Plan Processing System. Duration: 1 day.
ATFCM COURSE FOR AIRCRAFT OPERATORS NMO-ATFCM-AO-C (C)	This course provides a good theoretical knowledge and understanding in Air Traffic Flow and Capacity Management and NM operations, mainly focusing on the operational processes of the aircraft operators. Duration: 1 day.
INTRODUCTION TO AIR TRAFFIC FLOW AND CAPACITY MANAGEMENT ASM-ATFCM (C)	This course offers an introduction to ATFCM. It explains the rules and procedures that exist and introduces the main actors - the Network Manager, aircraft operators and flow management positions in area control centres. The course also describes the daily work necessary to achieve effective flow and capacity management. Duration: 4 days.

FLOW MANAGEMENT POSITION – FMP

Web-based training material and classroom courses for flow management position staff.

Participation in classroom courses is subject to the completion of the following pre-requisites:

For FMP Module 2, completion of the E-learning courses "Introduction to ATFCM" and "Network Management Operations Centre (NMOC) Tour" is required.

For FMP Module 3, completion of the E-learning course "More about ATFCM" and attendance of an FMP Module 2 classroom course is required.

For FMP Module 4, completion of E-learning course "More about ATFCM" is required.

FMP REFRESHER TRAINING NMO-REFR-FMP (PRG)	This provides an easy-to-access repository of available Network Operations related online web-based training packages suitable for Flow Management Position (FMP) staff. Duration: Programme of 19 E-learning courses – 17 hours.
FMP MODULE 2 - THEORETICAL ASPECTS NMO-FMP-2-C (C)	Completion of this course will provide participants with an understanding of the fundamental concepts of the procedures applied by the NM and of FMPs. Duration: 5 days.
FMP MODULE 3 - PRACTICAL ASPECTS NMO-FMP-3-C (C)	This course provides demonstrations and exercises in a classroom/simulated environment designed to improve participants' understanding of FMP/NMOC interaction, the application of CHMI and the methods available for ATFCM problem resolution. Duration: 5 days.
FMP MODULE 4 - REGIONALLY FOCUSED REFRESHER NMO-FMP-4-C (C)	The course concentrates on regional issues and their impact on the Network. The area to which each refer is reflected in their title – for example Module 4-NORDIC, Module 4-CENTRAL, Module 4 -SOUTH EAST etc. Duration: 4 days.

CIFLO – VIRTUAL CLASSROOM NMO-CIFLO-BASIC-V (V)	Online training with instructor via the virtual classroom on the basic usage of CIFLO. Duration: 1 day.
NOP VIRTUAL CLASSROOM NMO-NOP-BASIC-V (V)	Online training with instructor giving an introduction via the Virtual Classroom on NOP. Duration: 1 day.
NETWORK OPERATIONS PORTAL CLASSROOM COURSE NMO-NOP-ADV-C (C)	The objective of this course is to provide the theoretical background and practical training necessary for the usage of the NOP (Network Operations Portal). Duration: 2 days.
TOWER STAFF	
TWR REFRESHER TRAINING NMO-REFR-TWR (PRG)	This provides an easy-to-access repository of available Network Operations related online web-based training packages suitable for Tower staff. Duration: Programme of 6 E-learning courses – 8 hours.
BEST ATFCM PRACTICES FOR CRITICAL EVENTS AT AIRPORTS NMO-ATFCM-BEST-E (E)	This web-based training module is aimed at sharing best ATFCM practices in order to improve the management of critical events at airports. Within the concept of Collaborative Decision Making (CDM), it is recommended that all involved - ACCs, FMPs, TWRs, AOs and airport authorities - have a good knowledge and understanding not only of their own responsibilities, but also those of the other parties as well. It must always be remembered that any best practice mentioned in this WBT may require to be adapted to suit local procedures. Duration: 45 minutes.
AIRSPACE MANAGEMENT CELL	
AMC REFRESHER TRAINING NMO-REFR-AMC (PRG)	This provides an easy-to-access repository of available Network Operations related online web-based training packages suitable for Airspace Management Cell staff. Duration: Programme of 5 E-Learning courses – 5 hours.
AIRSPACE DATA SYSTEM – ENV	
ENVIRONMENT CO-ORDINATORS TRAINING NMO-REFR-ENV (PRG)	This provides an easy-to-access repository of available Network Operations related online web-based training packages suitable for Environment Co-ordinators. Duration: Programme of 4 E-Learning courses – 4 hours.
CRISIS MANAGEMENT	
INTRODUCTION TO AVIATION CRISIS MANAGEMENT IN EUROPE NMO-EACC-INTRO (E)	This WBT module provides an Introduction to Aviation Crisis Management in Europe. It explains the roles of, and relationships between, the - European Aviation Crisis Coordination Cell (EACCC) - State Focal Points for aviation crisis - Eurocontrol Network Manager. Duration: 15 minutes.

AIRPORT INTEGRATION AND THROUGHPUT

The Institute's airport-related courses mainly cover the work of the EUROCONTROL Airport Unit. The Airport Unit provides stakeholders with fast, easy-to-implement and cost-effective solutions to help enhance safety, capacity and efficiency in an environmentally friendly manner, thereby ensuring the integration of the airports into the European ATM network. The courses focus on airport operations, and bring together airports, airlines and air navigation service providers.

Of course, cooperation between airports, airlines and air navigation service providers is nothing new. It is as old as the industry itself. What is new is the very high degree of integration that is increasingly being required to optimise the use of two very limited resources: space on the ground and time.

- Airport Collaborative Decision-Making: from Concept to Implementation and Partners' Roles
- Airport Collaborative Decision-Making
- Airport CDM – Train the Trainer
- Total Quality Management for Airports
- Aerodrome Resource Management – Runway Safety
- Performance Indicator and Analysis Tool for Airports
- Advanced Surface Movement Guidance and Control Systems Implementation

AIRPORT COLLABORATIVE DECISION MAKING: FROM CONCEPT TO IMPLEMENTATION AND PARTNERS' ROLES APT-ACDM-E	Airport CDM is about partners working together more efficiently and transparently in how they work and share data. This course highlights in detail the Airport CDM concept elements in support of local Airport CDM implementation. The dedicated modules focus on the role, tasks and responsibilities of each CDM partner. Finally, in the last module, a flight is followed from one A-CDM airport to another. The course covers each milestone, highlighting the working practices at airports which have implemented A-CDM. Duration : Package of 8 modules -3 hours.
AIRPORT COLLABORATIVE DECISION MAKING APT-ACDM	Airport CDM is about all airport partners working together more efficiently by sharing data and acting on the basis of this common knowledge. This course explains the importance of common operational situational awareness and describes the local benefits and the gains to the overall ATM network. Duration: 3 days.
AIRPORT CDM – TRAIN THE TRAINER APT-ACDM-T	This course provides participants with a toolbox of techniques designed to facilitate the sharing of CDM knowledge amongst local partners. The topics covered include human factors aspects, which play a major role in making Airport CDM work. The course includes exercises on the evaluation of potential practical solutions to problems. Duration: 3 days.
TOTAL QUALITY MANAGEMENT FOR AIRPORTS APT-TQM NEW	This course provides the skills you need to promote a quality culture throughout your organization, and understand the benefits of providing a sustainable quality and cost profile of customer services. Duration: 5 days
AERODROME RESOURCE MANAGEMENT - RUNWAY SAFETY APT-ARM	This course is mainly for operational staff from airports and focuses on how to prevent runway incursions. It will help airports to build a strategy to prevent these occurrences from happening. One of the main points is the introduction of local runway safety teams, which are fundamental to ensuring the prevention of runway incursions. Duration: 5 days.
PERFORMANCE INDICATOR AND ANALYSIS TOOL FOR AIRPORTS APT-PIATA-P	PIATA+ is a versatile analysis and modelling tool that offers key functionality for effective airport performance assessment. It enables thorough analysis of collected airport data and modelling of the maximum runway system throughput in different scenarios. This course is offered upon request at the stakeholder's premises. Duration: 5 days.
ADVANCED SURFACE MOVEMENT GUIDANCE AND CONTROL SYSTEMS IMPLEMENTATION APT-ASMGCS-IMP	The implementation of an A-SMGCS is a key factor for efficient ground operation in the future. This course examines all aspects from procurement and deployment to operating an A-SMGCS at an airport. It also explains, which further enhancements to the existing systems are currently investigated within the SESAR programme. Duration: 3 days.

AIRPORT CAPACITY PLANNING APT-ACAP	The Stakeholders/Actors involved in ATM do not have the same background on all parts of the network, in this case airports and their capacity determination. For improving the Network CDM processes a better understanding of interdependencies is pivotal. Duration: 4 days.

ENVIRONMENT

The United Nations Intergovernmental Panel on Climate Change estimates aviation's impact on the environment as 2-3% of the world's CO_2 emissions. This percentage is likely to increase in the coming years owing to aviation's dependence on fossil fuels. Aviation is faced with conflicting and growing demands: for more mobility on one side, not only at European level; and for less environmental impact on the other side. The rate of improvement in aircraft environmental performance is slowing (diminishing returns) and ATM is expected to make an increasingly important contribution to aviation sustainability and the achievement of European performance targets. EUROCONTROL stimulates environmental progress in air traffic management by fostering the collaborative implementation of best environmental practice among stakeholders and making sure that they play their own part in this vital objective.

- Introduction to the Environment
- The Environment in Air Traffic Management
- Environment to Co-ordinators Training
- Aviation and the Environment- Managing Green Airports

INTRODUCTION TO THE ENVIRONMENT ENV-INTRO E	This package covers the general issues associated with the environment and aviation. Indications of what actions you can take in your daily work/life to help mitigate the impact of aviation on the environment are addressed. It gives a basic grounding for both ATM personnel and the general public alike. Duration: Package of 3 modules – 50 minutes.
THE ENVIRONMENT IN AIR TRAFFIC MANAGEMENT ENV-ENV C	The Single European Sky (SES) initiative and the SES ATM Research (SESAR) Programme include efficiency and environmental objectives within their overarching objective of sustainable development. This course provides a broad overview of the environmental impact of the aviation industry and the measures that can be taken to improve sustainability. Duration: 5 days.
ENVIRONMENT CO-ORDINATORS TRAINING NMO-REFR-ENV PRG	This provides an easy-to-access repository of available Network Operations related online web-based training packages suitable for Environment Co-ordinators. Duration: Programme of 4 E-Learning courses – 4 hours.
AVIATION AND THE ENVIRONMENT-MANAGING GREEN AIRPORTS ENV-APT NEW C	This course gives an overview of the environmental aspects involved in airport operations. Duration: 5 days.

INFORMATION MANAGEMENT

The future will bring many changes to the way in which information is exchanged in ATM. Accurate information (aeronautical, weather, flight planning, etc.) is essential for efficient and safe flight. This is recognised through the inclusion of aeronautical information management (AIM) within the Single European Sky initiative, and with the crucial role of system-wide information management (SWIM) in SESAR.

The courses provides an insight into the complex technical, operational and regulatory developments in this field, following the path outlined in the ICAO Roadmap for the Transition from AIS to AIM, moving towards SWIM.

- AICM/AIXM
- European AIS Database – Operations
- From AIS to AIM Towards Swim
- Aeronautical Data Quality

AICM/AIXM IM-CMXM E	The objective of this package is to explain the main concepts of the Aeronautical Information Conceptual Model and the Aeronautical Information exchange Model (AICM/AIXM) and how they relate to Air Traffic Management (ATM) and Aeronautical Information Publications (AIP). Duration: Package of 10 modules - 12 hours.
EUROPEAN AIS DATABASE - OPERATIONS IM-EAD-OPS E	This package provides an overview of the EAD concept as well as the EAD Pro application. The emphasis of this training is on operational aspects, including the functions available for EAD Clients such as the helpdesk, the knowledge base, the EAD operational time lines and web mail. Furthermore, the different EAD Pro applications for Data Users, Published AIP Management System (PAMS), Static Data Operations (SDO), International NOTAM Operations (INO) as well as the integrated Briefing Facilities for ARO, are featured in detail during this training. Duration: Package of 34 modules - 4 hours.
FROM AIS TO AIM TOWARDS SWIM IM-AIM C	AIM is about providing the right aeronautical information in the right place at the right time. This course explains how to implement AIM, and how it affects current AIS practice. The SES Aeronautical Data Quality IR, Digital NOTAMs and the European AIS Database are also covered, as is the evolution towards SWIM (system-wide information management). Duration: 5 days.
AERONAUTICAL DATA QUALITY IM-ADQ C	The EU regulation 73/2010 "laying down requirements on the quality of aeronautical data and aeronautical information for the single European sky", also knows as ADQ, is being implemented in Europe. This course aims to provide stakeholders with the necessary understanding, tools, and experience to proceed with this challenging task. Duration: 5 days.

COMMUNICATIONS

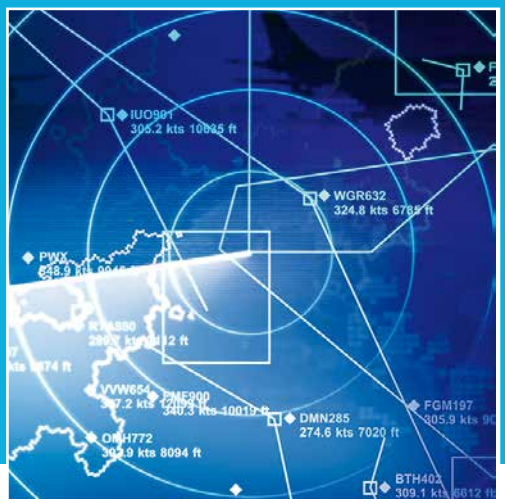
Aeronautical telecommunications are a core enabler for air traffic management.

Today, traditional voice communications are no longer sufficient to support modern operations. The introduction – in addition to voice – of a variety of data transfer systems for new and existing mobile and fixed communications systems, makes this a rapidly developing sector of the industry.

The courses offered provide a detailed understanding of current, short-term and future communications networks and applications, and also cover the planned migration steps as part of the Single European Sky, SESAR and ICAO strategies.

- Ground Data Networks in Aviation
- Data Link Implementation in Europe
- Towards Voice over IP in Aeronautical Communications
- ATS Message Handling System
- European Frequency Management, Principle and Tools
- Voice Over IP in ATM Test Suite
- Introduction to ATS Messaging Management Centre (AMC)

GROUND DATA NETWORKS AND APPLICATIONS IN AVIATION COM-DATA C	This course provides a comprehensive overview of the data communication applications, technology and infrastructure used in ATM. The Pan-European Network Services (PENS) are covered in detail, including Surveillance, OLDI/FMTP, Messaging, and others. Related Single European Sky issues are analysed, together with strategic developments. Duration: 5 days.
DATA LINK IMPLEMENTAION IN EUROPE COM-DLK C	This course addresses the implementation of data link services in Europe following the introduction of the Data Link Services Implementing Rule (Regulation 29/2009). Duration: 5 days.
TOWARDS VOICE OVER IP IN AERONAUTICAL COMMUNICATIONS COM-VOICE C	This course provides a detailed view of aeronautical voice telephony and radio networks, largely focusing on the transition of current systems to the Voice over Internet Protocol (VoIP). It looks in detail at VoIP principles and its future use in aeronautical communications, including crucial migration issues for integrating VoIP into the ATM network architecture. Duration: 5 days.
ATS MESSAGE HANDLING SYSTEM COM-AMHS C	This course covers messaging techniques and their applications in ATM. It provides a detailed explanation of how to migrate from the current AFTN/CIDIN to the new AMHS systems, and the latters' new capabilities from both technical and operational perspectives. It also addresses related strategic developments in Europe and elsewhere. Duration: 4 days.
EUROPEAN FREQUENCY MANAGEMENT, PRINCIPLE AND TOOLS COM-FREQ C	The communication, navigation and surveillance systems used in aviation rely on the availability of radio frequencies without interference. The optimised and flexible management of the radio spectrum allocated to aviation is a must in order to support today's operations and the future ATM evolution. This course will present today's international agreements and processes plus the automation systems used to manage European aviation frequency allocation. Duration: 5 days.
VOICE OVER IP IN ATM TEST SUITE COM-VOTER C	The course helps all VOTER (EUROCONTROL VoIP in ATM Test Suite) users to understand the test suite structure, its installation, configuration and execution. The test result analysis and test report generation are introduced to complete the test work. The Voice Quality measurement part of VOTER is also introduced and demonstrated. Duration: 2 days.
INTRODUCTION TO ATS MESSAGING MANAGEMENT CENTER (AMC) GEN-AMC E	This AMC package provides first information on AMC and its user types. Then information for each user type is provided in separate modules: CCC operators, External COM operators, AMF-I users, Read/Only users. Duration: Package of 5 modules -30 minutes.



NAVIGATION

The navigational performance of an aircraft is dependent on two main factors: the navigation aids, whether ground or space-based, that are used, their geometry relative to the aircraft and the capabilities of the aircraft's avionics. The navigation domain addresses recent advances in navigation capabilities and the performance that can be delivered by the associated infrastructure. These advances include the development and introduction of performance-based navigation (PBN), which will enable improvements to be made in airspace design and will provide a far greater degree of flexibility in aircraft operations.

Ultimately, advanced navigation functionalities, with the support of appropriate ATM tools, will enable aircraft operators to conduct their flights in accordance with preferred trajectories, dynamically adjusted, in an optimum and cost-efficient manner.

- Implementing Performance Based Navigation (PBN) in ECAC
- Global Navigation Satellite System
- Area Navigation in European Terminal Control Areas (TMAs)
- Performance Based Navigation (PBN) Awareness Package

IMPLEMENTING PERFORMANCE BASED NAVIGATION (PBN) IN ECAC NAV-PBN C	This course, originally developed to support the ICAO Airspace workshops, explains the ICAO PBN concept and clarifies the differences between RNAV and RNP. It discusses the different navigation specifications together with the navigational infrastructure. It also considers the steps required to implement PBN in ECAC and discusses the PCP Implementing Rule (IR) ATM Functionality 1 (AF1) as well as the current status of the PBN IR. Duration: 4 days.
GLOBAL NAVIGATION SATELLITE SYSTEM NAV-GNSS C	This course explains navigation satellite constellations, signal structures, system errors and augmentation. GNSS limitations and vulnerabilities are considered together with a review of GPS, GLONASS, GALILEO and Beidou evolutions. On completion, participants should have an in-depth understanding of GNSS and its benefits for civil aviation. Duration: 5 days.
AREA NAVIGATION IN EUROPEAN TERMINAL CONTROL AREAS (TMAS) NAV-PRNAV-RNAV1 E	This generic e-learning module describes the use of Performance Based Navigation (PBN) in the TMA, specifically RNAV1 which within Europe is termed Precision RNAV (P-RNAV). The package addresses aircraft functionality, the benefits of RNAV SIDs/STARs, the different types of waypoint and how turn performance is affected, and a number of ATC best practices, including RTF phraseology, specifically related to RNAV operations. This package has been updated to reflect both PBN and the latest changes in the ATC Flight Plan. Duration: 1 hour 20 minutes.
PERFORMANCE BASED NAVIGATION (PBN) AWARENESS PACKAGE NAV-PBN-AWR E	This upgraded WBT provides detailed information on the 3 components of PBN: navigation applications, navigation specifications and navigation infrastructure. The WBT explains the concept, its enablers and provides detailed information on how to implement PBN. This version of the training has been fully aligned to the new PBN manual (ICAO Doc 9613 Edition 4) released in 2013. Duration: Package of 4 modules - 3 hours 40 minutes.

SURVEILLANCE

Surveillance is a key part of ATM. Radar, the mainstay of surveillance for many years, is now being supplemented by a variety of newer techniques such as ADS-B and multilateration. The key words for the future of surveillance are "performance" and "interoperability". These aspects are covered by the Surveillance Performance and Interoperability Implementing Rule (SPI IR) which is addressed in the surveillance courses that are available.

The Institute offers courses covering the principles of both traditional and new surveillance techniques. Additionally, a range of skills training is available specifically dealing with surveillance products such as ATM Surveillance Tracker and Server (ARTAS) systems, Surveillance Analysis Support System for Centre (SASS-C) software and Surveillance Data Distribution System (SDDS).

- The Surveillance Chain from Sensor to Display
- Implementation of Automatic Dependent Surveillance - Broadcast and Multilateration
- Advanced Radar Technology
- Surveillance Data Distribution System
- ARTAS: providing accurate information from several Surveillance techniques
- ARTAS: Tuning the Tracker to Optimal Performance
- ARTAS: Local ARTAS Maintenance and Operational Support - Technical Watch Operator
- Introduction to Sensor Evaluation with SASSC
- In-depth Evaluation of the Surveillance Infrastructure using SASS-C
- Solid Surveillance Planning Based on Coverage Analysis

THE SURVEILLANCE CHAIN FROM SENSOR TO DISPLAY SUR-CHAIN C	This course provides an overview - relevant for both civil and military - of the complete Surveillance Chain and of avionics relevant to surveillance. In addition surveillance aspects in SES/SESAR and Centralised Services are discussed. Duration: 5 days.
IMPLEMENTATION OF AUTOMATIC DEPENDENT SURVEILLANCE - BROADCAST AND MULTILATERATION SUR-ADSB-MLAT C	This course provides an overview of ADS-B and multilateration. Duration: 4 days.
ADVANCED RADAR TECHNOLOGY SUR-RAD-ADV C	Through a theoretical and practical session the course gives an in-depth view of the complete radar chain (primary, secondary, including Mode S), from detection to plot output. As such the course will help to understand the radar as an important contributor to safety and performance. Duration: 4 days.
SURVEILLANCE DATA DISTRIBUTION SYSTEM SUR-SDDS C	SDDS (Surveillance Data Distribution), the successor of RMCDE, is the European state-of-the-art system for Surveillance Data Distribution and as such operational in an increasing number of European States. This course leads to a basic understanding of the SDD network architecture, and to basic practical skills in configuring and managing the SDDS. Duration: 4 days.
ARTAS : PROVIDING ACCURATE INFORMATION FROM SEVERAL SURVEILLANCE TECHNIQUES SUR-ARTAS C	ARTAS is the European state-of-the-art SDPS (surveillance data processing system). It is operational in an increasing number of European states and is being implemented in a large number of other states for pre-operational evaluation. This course provides a theoretical and practical introduction to the most recent ARTAS version (currently V8). Duration: 4 days.
ARTAS : TUNING THE TRACKER TO OPTIMAL PERFORMANCE SUR-ARTAS-TRK C	ARTAS is the European state-of-the-art SDPS (surveillance data processing system). It is operational in an increasing number of European states and is being implemented in a large number of other states for pre-operational evaluation. This course provides an in-depth understanding of the ARTAS tracking algorithm and corresponding tuning. Duration: 4 days.
ARTAS: LOCAL ARTAS MAINTENANCE AND OPERATIONAL SUPPORT – TECHNICAL WATCH OPERATOR SUR-ARTAS-LTWO NEW C	ARTAS Local Maintenance and Operational Support and Technical Watch Operator training course. Duration: 4 days.

INTRODUCTION TO SENSOR EVALUATIONS WITH SASS-C SUR-VERIF-INTRO C	Surveillance Analysis Support System for Centre (SASS-C) is a software program for the evaluation and analysis of surveillance sensors. This course leads to basic skills in surveillance sensor evaluation and is designed for SASS-C users with little or no experience. The course also describes the role of SASS-C within the Single European Sky context. Duration: 3 days.
IN-DEPTH EVALUATION OF THE SURVEILLANCE INFRASTRUCTURE USING SASS-C SUR-VERIF-ADV NEW C	Surveillance Analysis Support System for Centre (SASS-C) is a software program for the evaluation and analysis of surveillance sensors. This course leads to advanced skills in surveillance sensor evaluation and is designed for experienced SASS-C users. The course also describes the role of SASS-C within the Single European Sky context. Duration : 5 days.
SOLID SURVEILLANCE PLANNING BASED ON COVERAGE ANALYSIS SUR-PREDICT C	In this course CAPTv2, a SASS-C-V7 module for coverage analysis and planning, is the enabling software tool for achieving the main objective, i.e. planning surveillance system installations, based on solid and objective coverage analysis. CAPTv2 is very user-friendly and also runs as a stand-alone tool on a Windows platform. Duration: 2 days.

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DATA PROCESSING

The data processing domain addresses all systems which process flight data and environment data in support of integrated ATM operations. The domain is therefore one of the enablers for the achievement of integration and interoperability between systems, and contributes to the strategic objectives of uniformity and capacity. The domain is a main contributor to the development of community specifications and implementing rules in the context of the mandates provided by the European Commission to EUROCONTROL in support of the Single European Sky regulation programme.

The course provides an overview of how the flight data processing system (FDPS) and the surveillance data processing system (SDPS) manage and integrate data through all phases of flight. Value Added Tools are as well looked into in order to provide a comprehensive understanding of the full data processing chain.

- Understanding the Data Processing in ATM

UNDERSTANDING THE DATA PROCESSING CHAIN IN ATM DPS-DPC	This course provides a basic foundation of knowledge and understanding of the principles used in ATM data processing (flight data processing [FDP], surveillance data processing [SDP] and added value functions) and an overview of their use in ATM operations. All data processing aspects are related to the Single European Sky (SES) implementing rules. Duration: 5 days.

AIR TRAFFIC SAFETY ELECTRONICS PERSONNEL

In recent years there has been a growing recognition of the importance of proper training and competence of engineering and technical personnel undertaking operational-safety-related tasks, commonly referred to as air traffic safety electronics personnel (ATSEP).

The EUROCONTROL Specification for Air Traffic Safety Electronics Personnel Common Core Content Initial Training, Edition 1.0, dated 27/08/2009, sets out the minimum training requirement for ATSEP basic and qualification training, designed to provide entry-level training for those wishing to follow a career which involves operational-safety-related tasks.

In order to assist air navigation service providers to meet the relevant basic training requirements, EUROCONTROL has developed an ATSEP Common Core Content (CCC) Basic Training Programme, covering the parts of the basic training requirements which are not site specific.

- ATSEP General
- ATSEP Communication
- ATSEP Navigation
- ATSEP Surveillance
- ATSEP Data Processing
- ATSEP Human Factors Training Material

ATSEP GENERAL ATSEP-GEN C	ATSEP-GEN provides an overview of the basic elements of Air Traffic Management, Aeronautical Information Services and Meteorology for engineers working in aviation. It is designed for those involved in operational safety related tasks in ATM and those seeking to complete a part of the minimum training requirement for ATSEP Basic Training. Duration: 2.5 days.
ATSEP COMMUNICATION ATSEP-COM C	This module covers the various means and techniques supporting end-to-end aeronautical communications. Voice and data communication networks and systems deployed for fixed and mobile exchanges are explained, together with their required quality of service. The module also covers the radio spectrum and controller working position (CWP) integration. Duration: 2.5 days.
ATSEP NAVIGATION ATSEP-NAV C	This course is designed to cover the Common Core Content (CCC) of the EUROCONTROL Specification for Air Traffic Safety Electronics Personnel Common Core Content Initial Training Edition 1.0 dated 27.8.2009 for the subject Navigation (NAV). On completion of the module, participants will have covered the Basic Training objectives. Duration: 2.5 days.
ATSEP SURVEILLANCE ATSEP-SUR C	This module provides a basic foundation and understanding of surveillance sensors and the way in which the information produced by these sensors is integrated, analysed and finally displayed. The module also covers avionics and some regulatory aspects, in both cases in relation to surveillance. Duration: 2.5 days.
ATSEP DATA PROCESSING ATSEP-DAT C	The course provides an overview of the principles used in data processing and describes their use in current and future ATM operations. It presents both core and advanced FDPS, SDPS and controller support tool functions for integrated ATS operations. Duration: 2.5 days.
ATSEP HUMAN FACTORS TRAINING MATERIAL ATSEP-HUM-P P	This training material supports classroom-based teaching of human factors objectives for the ATSEP Common Core Content Initial Training Specification. The human factors subject is part of ATSEP qualification training and as a shared subject, is relevant for all ATSEPs. Duration :16 x 50-minute periods

SAFETY MANAGEMENT

In spite of a traffic downturn over the last years, air traffic levels in Europe will increase, and the implementation of the Single European Sky will see new air navigation system technology and concepts for ATM/ANS being introduced, with increasing interactions with other fields of civil aviation such as airworthiness and aerodromes. The regulatory framework applicable to ATM/ANS requires that service providers be able to demonstrate that the system is being managed in an effective and proactive manner and that it delivers high(er) safety performance.

These courses support air navigation service providers in understanding how to safely manage their services in a manner that is compliant with the regulations in force.

The range of courses is designed to offer anything from a general awareness of the topic to specialist knowledge of specific safety management techniques.

The courses in this domain are part of a number of Training Programmes described in Part 2.

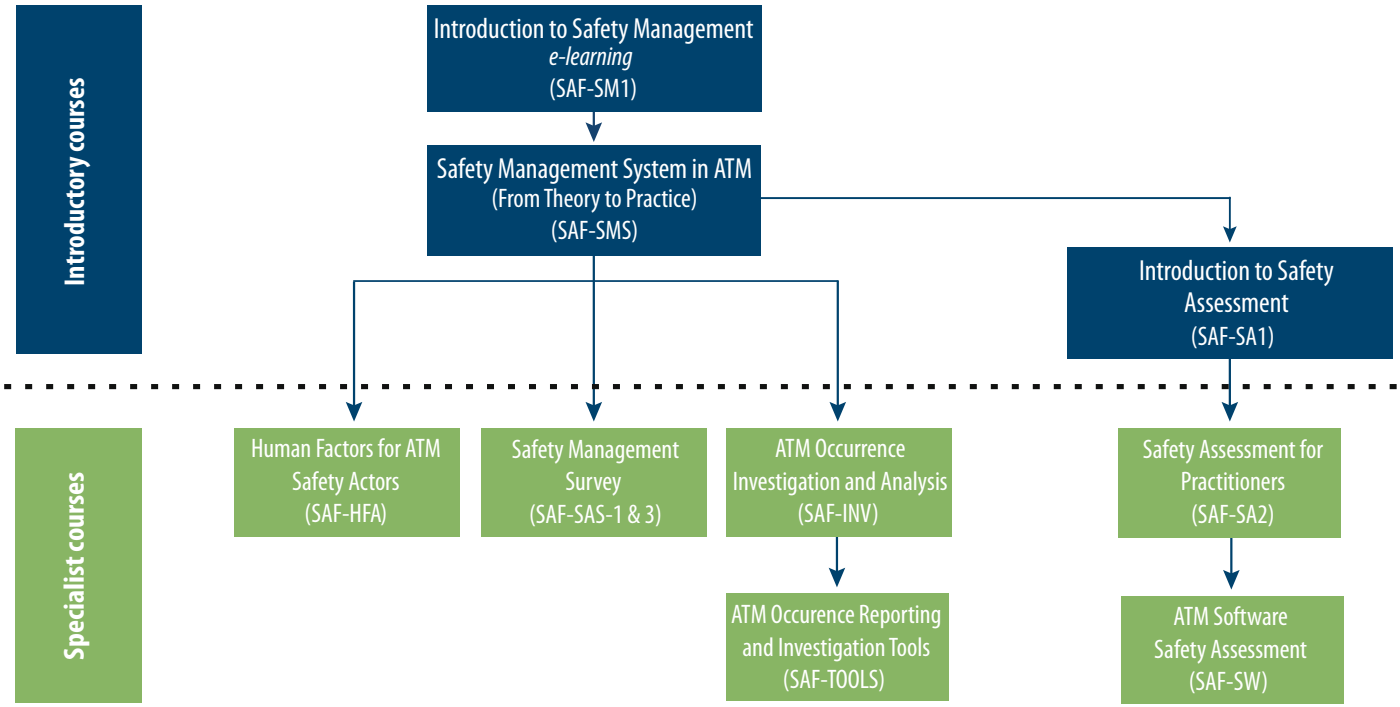
All the courses shown may be delivered on site, on request. IANS is willing, as far as possible, to tailor these courses to the specific needs of its customers.

Please note that attendance of some courses is subject to meeting pre-requisites. Participants must check these pre-requisites and ensure that they meet them before requesting registration.

- Introduction to Safety Management
- Safety Management System in ATM (from Theory to Practice)
- Introduction to Safety Assessment
- Practical Safety Assessment
- ATM Software Safety Assessment
- Human Factors for ATM Safety Actors
- ATM Occurrence Investigation and Analysis
- ATM Occurrence Reporting and Investigation Tools
- Safety Management Survey – Stage 1
- Safety Nets
- Aircraft Accident Investigation

Safety Management Process

The Safety Management Training Domain – Relationship Between SAF Courses



INTRODUCTION TO SAFETY MANAGEMENT SAF-SM1 E	One of the challenges of the ATM environment is to handle future demand and, at the same time, improve the standard of safety and services. This package describes the principles of safety management and introduces best practices of those working in the field of safety and risk management. Duration: Package of 5 modules -2 hours 30 minutes.
SAFETY MANAGEMENT SYSTEM IN ATM (FROM THEORY TO PRACTICE) SAF-SMS C	This course provides an introduction to all theoretical aspects together with the implementation issues of effective and pro-active safety management systems within air traffic management in order to improve participants' safety awareness, including understanding of safety roles and responsibilities within an organisation. Duration: 5 days.
INTRODUCTION TO SAFETY ASSESSMENT SAF-SA1 C	This course is designed for a wide audience, to provide an overview of the safety assessment process when changes are introduced to the ATM/ANS system, in the context of a quality and safety management system. It is based on the relevant Implementing Rule (IR), Acceptable Means of Compliance (AMC) and Guidance Material (GM) within the EASA framework (Regulation (EC) No 216/2008). The course also highlights the links with SESAR and interoperability. Duration: 5 days.
PRACTICAL SAFETY ASSESSMENT SAF-SA2 C	The Practical Safety Assessment course builds on the knowledge taught on the Introduction to Safety Assessment course by undertaking practical safety assessment of a real change to the ATM/ANS system. The course covers all aspects of the safety assessment, from initial planning through to in-service monitoring and survey activities. Duration: 5 days.
ATM SOFTWARE SAFETY ASSESSMENT SAF-SW C	The modern ATM system relies heavily on software systems to function efficiently. This course provides guidance on how to develop software in order to have the necessary evidence of safety assurance (EC Regulation No 482/2008). It describes the allocation of software assurance levels and the supplier-ANSP relationship with respect to software procurement. Duration: 5 days.
HUMAN FACTORS FOR ATM SAFETY ACTORS SAF-HFA C	This course covers the fundamentals of human factors and is accompanied by actual ATM operational examples. It is designed for a wide audience to improve the understanding of the human role in keeping the ATM system safe. Duration: 5 days.

ATM OCCURRENCE INVESTIGATION AND ANALYSIS SAF-INV C	The course provides the theoretical knowledge and practical skills to enable ATM unit investigators to conduct an internal ATM occurrence investigation. The course is based on best-practice systemic ATM safety investigation techniques and the efficient use and synchronised interpretation of the Systemic Occurrence Analysis Methodology guidelines. Duration: 5 days.
ATM OCCURRENCE REPORTING AND INVESTIGATION TOOLS SAF-TOOLS C	This course is designed to introduce participants to the use of the taxonomy and different tools available to support safety occurrence reporting, investigation, data analysis and data exchange developed by EUROCONTROL. Duration: 5 days.
SAFETY MANAGEMENT SURVEY-STAGE 1 SAF-SAS-1 C	Safety survey activities complement other SMS activities to help ensure the on-going safety of service provision. Whereas many aspects of an SMS focus on failure, the value of surveys is that they identify the positive factors that contribute to safety. The course will be of particular benefit to ATM staff conducting safety surveys within an SMS. Duration: 3 days followed by 2 days 3-4 months later.
SAFETY NETS SAF-NETS E	This awareness package allows you to discover safety nets and STCA, STCA implementation and STCA key messages. Duration: Package of 3 modules - 30 minutes.
AIRCRAFT ACCIDENT INVESTIGATION SAF-ACINV NEW C	The course addresses the following topics: • Aviation organization, regulatory agencies and management systems • Introduction to ICAO SARPs • Regulatory overview and Annex 14 SARPs • Investigation authorities • State obligations • Participating in an investigation • Rights and obligations of participants • Conducting an investigation • The airline advisor and expert • Airline support functions • Accident reporting • Safety recommendations • Airline go-team. Duration: 5 days.

HUMAN PERFORMANCE IN ATM

Human performance impacts all ATM-related aspects - at the individual, team and organisational levels. It is a driver of successful outcome of ATM tasks. This includes the management of job-related changes resulting from continuous technical and procedural improvements. As air traffic management system is highly reliant on human performance, it is essential to match organizational objectives and staff competencies as closely as possible in order to support the delivery of an effective, efficient and safe ATM system.

With that in mind, Institute addresses human performance aspects of ATM through a selection of courses that support ATM operations and incorporate human factors aspects of ATM network, Single European Sky and SESAR programmes Training we provide in this domain of our activities, supports ANSPs in complying with the latest updates to EU Commission Regulation in acquiring and maintaining their staff proficiencies (e.g. licensing) as well.

- Teamwork
- TRM in ATM
- TRM Facilitator
- Practical Training Instructor Skills for OJTI and STDI
- OJTI Blended Training Materials
- Practical Training Instructor Skills for OJTI and STDI - Refresher
- Controller Competency Assessor
- Controller Competency Assessor - Refresher
- Operational Supervisor
- Operational Supervisor - Refresher
- MEMPAC
- SAFER
- Human Factors for ATM Safety Actors
- Human Factors Case
- Integrating Human Factors in ATM Projects
- Design of ATC Simulation Excercises and Courses
- Human Factors in ATM
- Theoretical Training Instructor

TEAMWORK ATC-TEAMW	This package addresses teamwork issues in human performance, communications and the work environment as covered in the Common Core Content Basic Training syllabus for the human factors subject. Duration: Package of 5 modules – 2 hours.
TRM IN ATM HUM-TRM-A	Team Resource Management TRM is an operational safety programme. The main objective of TRM is to minimise the impact of teamwork-related errors within the ATM system. This three-day course provides an understanding of TRM, an awareness of the benefits of TRM for the operational safety culture and the methods ideally employed in TRM program. Duration: 3 days.
TRM FACILITATOR HUM-TRM-F	Team Resource Management is an operational concept for ATCOs and other ATM staff that is based on Crew Resource Management concepts used in aircraft crew/staff environments. Both TRM and CRM are procedures and training systems in a system where human error can have devastating effects. TRM as CRM is used primarily for improving air safety. The aim of this course is to provide training in practical facilitation skills. Duration: 5 days.
PRACTICAL TRAINING INSTRUCTOR SKILLS FOR OJTI AND STDI HUM-OJTI	The OJTI Training Programme provides theoretical knowledge and practical skills for radar controllers who will undertake OJTI duties. This course is open to all "would-be" OJTI's but has the added value of being a regulated course (Belgian NSA certified), for those requiring it; which includes assessments in both theory and practical OJTI skills. As of 1st of January 2015 this course is subject to a User-Pays-Principle – course registration is subject to a fee for all participants. Duration: 10 days over 2 weeks.
OJTI BLENDED TRAINING MATERIALS HUM-OJTI-B	The aim of the OJTI training course is to develop the necessary foundation skills to train student or trainee controllers in the operational (live) environment. This training material is designed to be used as part of a course which consists of e-learning training and classroom/practical training. Duration: 5 days + 5 days for practical part
PRACTICAL TRAINING INSTRUCTOR SKILLS FOR OJTI AND STDI - REFRESHER HUM-OJTI-R	This course provides experienced air traffic controller OJTIs with refresher training that highlights and reinforces the knowledge and techniques required to conduct effective on-the-job training. It is recommended that this course should be taken by suitably qualified OJTIs at least every 5 years. The course contains a practical OJTI session which is subject to examination. As of 1st of January 2015 this course is subject to a User-Pays-Principle – course registration is subject to a fee for all participants. Duration: 4 days.

CONTROLLER COMPETENCY ASSESSOR HUM-CCA C	This course is provided for air traffic controllers who will assess the competence of other controllers. The assessment task can involve the issue of a licence or new unit endorsement. As part of a local competence scheme, the assessment task can also include the renewal of an existing unit endorsement. As of 1st of January 2015 this course is subject to a User-Pays-Principle – course registration is subject to a fee for all participants. Duration: 5 days.
CONTROLLER COMPETENCY ASSESSOR - REFRESHER HUM-CCA-R NEW C	This course provides experienced air traffic controllers who are competency assessors/examiners with refresher training that highlights and reinforces the knowledge and skills required to conduct effective assessments and is compliant with ATCO Licencing regulation 2015/340. It is recommended that this course should be taken by suitably qualified assessors at least every 3 years and a valid assessor/examiner endorsement will be required for all course participants. As of 1st of January 2015 this course is subject to a User-Pays-Principle – course registration is subject to a fee for all participants. Duration : 2 days.
OPERATIONAL SUPERVISOR HUM-SUP C	This course is primarily intended to equip newly appointed ATS supervisors to perform effectively in their supervisory role. It may also be of value to experienced supervisors who wish to broaden their knowledge. Duration: 5 days.
OPERATIONAL SUPERVISOR - REFRESHER HUM-SUP-R NEW C	This course provides experienced ATC Supervisors with a refresher training that highlights, reinforces and broadens the knowledge and techniques necessary to perform effectively in their supervisory role. Duration : 3 days.
MEMPAC ATC-MEMPAC CCC E	This package provides participants with an understanding of human capabilities, the way in which we process information and our limits. It addresses perception, cognition, attention and memory as covered in the human factors section of the ATCO CCC for rating training. Duration: Package of 5 modules - 1 hours 45 minutes.
SAFER ATC-SAFER CCC E	The objective of this package is to give participants an understanding of human error and safety, and to explain the relationship between the two. Additionally, the package provides knowledge of the different types of errors that can be made, differentiates between errors and violations, and describes error-prone conditions. Duration: Package of 5 modules – 2 hours + manual and case study.
HUMAN FACTORS FOR ATM SAFETY ACTORS SAF-HFA C	This course covers the fundamentals of human factors and is accompanied by actual ATM operational examples. It is designed for a wide audience to improve the understanding of the human role in keeping the ATM system safe. Duration: 5 days.

HUMAN FACTORS CASE HUM-HFC E	This module explains how to systematically manage the identification and treatment of Human Factors issues as early as possible in a project lifecycle. Duration: 40 minutes.
INTEGRATING HUMAN FACTORS IN ATM PROJECTS HUM-HF CASE C	This course presents a practical process to address and manage Human Factors (HF) benefits and issues throughout an ATM project life-cycle. In terms of validation, this is a crucial step to ensure that a concept or a system will deliver its intended (human) performance. Duration: 4 days.
DESIGN OF ATC SIMULATION EXCERCISES AND COURSES HUM-SIM C	This course explains from both theoretical and practical perspectives the principles for creating effective ATC simulation exercises and developing ATC simulation courses. Duration: 8 days over 2 weeks.
HUMAN FACTORS IN ATM HUM-HF NEW C	Human Factors (HF) is a discipline looking at all aspects of the human being at work. Thus understanding HF in aviation activities is crucial. This course is a familiarisation course on HF fundamentals. Duration: 3 days.
THEORETICAL TRAINING INSTRUCTOR HUM-TTI C	With this course we aim at supporting you in tailoring your work presentations and/or lessons. You will be asked to prepare and deliver on two occasions, lasting about 20 min each, on any topic you choose - work related ones might be the safest choice. This course is designed to help those who are asked to classroom train others or to deliver work related presentations - to do it in the most effective way. Duration: 5 days.

EU LEGISLATION FOR THE SINGLE EUROPEAN SKY (ATM/ANS)

EU legislation for the Single European Sky is developing rapidly, and impacts more and more the way regulated parties operate: ATM/ANS service providers, the network manager, competent authorities in ATM/ANS (including NSAs), ATM/ANS system manufacturers, EASA, etc. It is therefore important to become familiar with the relevant EU legislation in force, to keep up-to-date with on-going regulatory developments, and to understand how it will affect the way you operate.

The courses in this domain are part of a number of Training Programmes described in Part 2.

All the courses shown may be delivered on site, on request. IANS is willing, as far as possible, to tailor these courses to the specific needs of its customers.

Please note that attendance of some courses is subject to meeting pre-requisites. Participants must check these pre-requisites and ensure that they meet satisfy them before requesting registration.

NB: A number of courses from other training domains address in more detail specific implementing rules (and their related AMC/GM or community specification, if any).

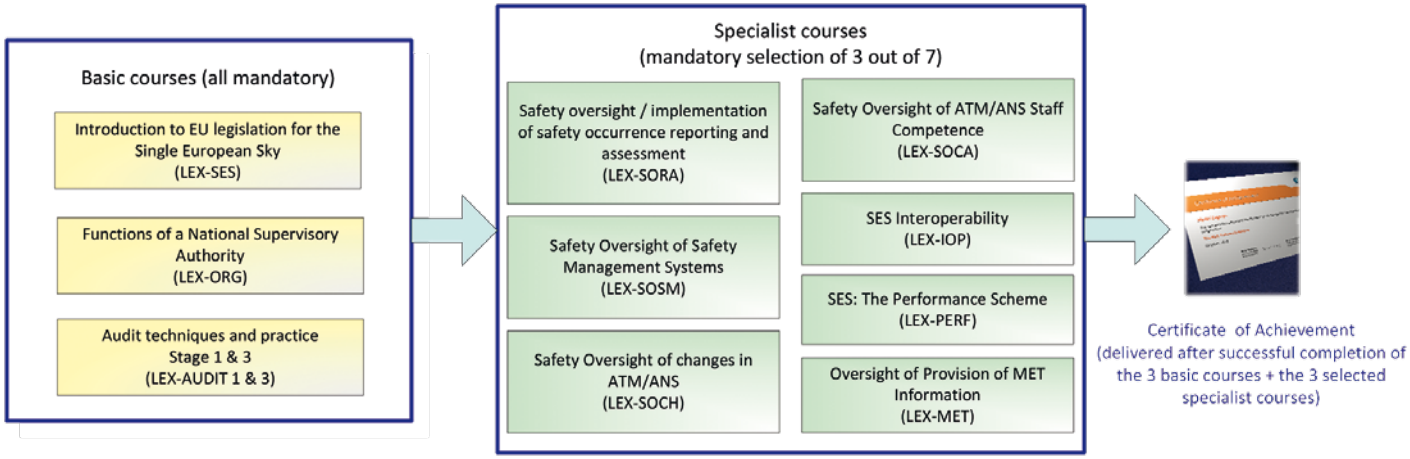
Basic courses

- Introduction to the European ATM/ANS Regulatory Framework
- Introduction to EU Legislation for the Single European Sky
- Aviation law for managers
- The EASA Basic Regulation (No 216/2008)
- Functions of a National Supervisory Authority
- Audit Techniques and Practice – Stage 1 & 3

Specialist courses

- Safety Oversight of ATM/ANS Staff Competence
- Safety Oversight of Safety Management Systems
- Safety Oversight/Implementation of Safety Occurrence Reporting and Assessment
- SES : The Performance Scheme
- SES Interoperability
- Oversight of Provision of MET information

NSA Training Initiative

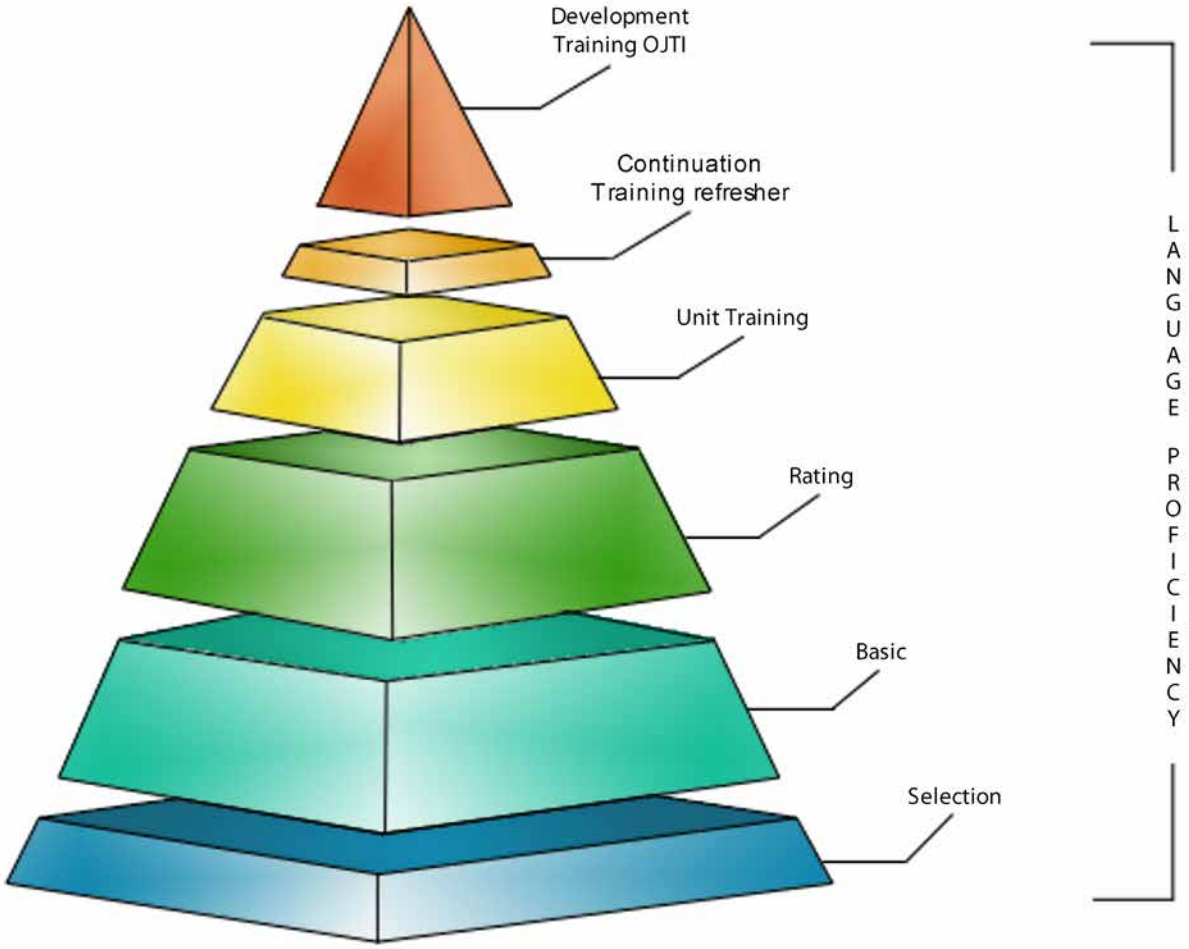


INTRODUCTION TO THE SINGLE EUROPEAN SKY FRAMEWORK LEX-SES-E (E)	This course provides an overview of EU legislation for the Single European Sky (in ATM/ANS). It describes: • the relevant EU rulemaking mechanisms • the EASA rulemaking procedure • the scope, objective and content of the Single European Sky (SES) initiative • the roles and responsibilities of the main players in SES Duration: up to 5 hours.
INTRODUCTION TO EU LEGISLATION FOR THE SINGLE EUROPEAN SKY LEX-SES (C)	This course provides an overview of EU legislation for the Single European Sky, in the field of ATM/ANS. It also describes how the regulatory developments will further affect the stakeholders involved in ATM/ANS (ATM/ANS service providers, competent authorities including NSAs, network manager, EASA, ATM/ANS manufacturers, etc.). Duration: 4 days.
AVIATION LAW FOR MANAGERS LEX-LAW (C)	This course focuses on the international legislative environment within which the aviation industry operates. Duration: 5 days.
THE EASA BASIC REGULATION (NO. 216/2008) - A TOTAL SYSTEM APPROACH TO EUROPEAN CIVIL AVIATION LEX-EASA-BR (C)	The Basic Regulation (No. 216/2008) is the cornerstone of the EU regulatory framework in civil aviation, hence an important piece of legislation to be aware of. Its scope include ATM/ANS and Aerodromes. This course covers the main requirements of the Basic Regulation (including its amendments), the EU regulatory framework, its decision making process in civil aviation, the EASA functions and tasks, and its rulemaking procedure. Duration: 2 days.
FUNCTIONS OF A NATIONAL SUPERVISORY AUTHORITY LEX-ORG (C)	This course covers the role and function of a national supervisory authority. It provides participants with an overview of the responsibilities of an NSA and discusses methods by which these responsibilities can be met. The course is designed to assist participants in identifying and implementing efficient and effective working methods. Duration: 4 days.
AUDIT TECHNIQUES AND PRACTICE – STAGE 1 LEX-AUDIT-1 (C)	This course offers sufficient understanding of the basic principles of auditing to enable participants to conduct in-depth and searching regulatory audits of ATM services as required by Commission Implementing Regulation (EU) No. 1034/2011. The course consists of three stages; all three stages MUST be followed. Duration: 5 days.
AUDIT TECHNIQUES AND PRACTICE – STAGE 3 LEX-AUDIT-3 (C)	This course offers sufficient understanding of the basic principles of auditing to enable participants to conduct in-depth and searching regulatory audits of ATM services as required by Commission Implementing Regulation (EU) No. 1034/2011. The course consists of three stages; all three stages MUST be followed. Duration: 4 days.

SAFETY OVERSIGHT OF ATM/ANS STAFF COMPETENCE LEX-SOCA C	This course is provided for NSA staff who are involved in the oversight of competence schemes for ATM personnel. It may also be relevant to those working for other ATM regulatory bodies or ANSPs whose work brings them into contact with the NSA concerning arrangements for verifying the competence of ATM personnel. Duration: 5 days.
SAFETY OVERSIGHT OF SAFETY MANAGEMENT SYSTEMS LEX-SOSM C	This course provides assistance to participants in conducting effective regulatory oversight of ATM service provider organisations' safety management systems (SMS). The course focuses on providing an in-depth understanding of the relevant requirements and on the way in which an NSA can conduct effective and efficient regulatory oversight of a service provider's formal SMS. Duration: 5 days.
SAFETY OVERSIGHT OF CHANGES IN ATM/ANS LEX-SOCH C	The course focuses on the role that a national supervisory authority (NSA) must perform in order to provide proper oversight of air traffic management service providers making such changes. Duration: 5 days.
SAFETY OVERSIGHT / IMPLEMENTATION OF SAFETY OCCURRENCE REPORTING AND ASSESSMENT LEX-SORA C	Part of the NSA Training Initiative, the course is designed to support the implementation of the reporting and assessment of ATM safety occurrences at ANSP and State level. Duration: 4 days.
SES : THE PERFORMANCE SCHEME LEX-PERF C	This course explains the Performance Scheme regulation and is designed to assist participants in complying with this regulation. On completion, participants should have an in-depth understanding of the Performance scheme and of the role of all stakeholders when addressing this scheme. Duration: 3 days.
SES INTEROPERABILITY LEX-IOP C	This course is designed for staff working for the National Supervisory Authorities (NSA), Air Navigation Service Providers (ANSP) and industry who are following the course to acquire awareness of SES interoperability and the necessary ANSP – NSA interactions. Duration: 4 days.
OVERSIGHT OF PROVISION OF MET INFORMATION LEX-MET NEW C	The aim is to provide a comprehensive course on:- The structure of meteorological information services provision and the role in the ATM system.- The regulatory framework.- The role of NSA's in meteorological services oversight.- Practical experience organising oversight on meteorological information services. Duration: 2 days.

BCY
ADS

Structure of Air Traffic Controller Training



ATC TRAINING

The EUROCONTROL Training Institute has developed a wealth of resources and solutions to support stakeholders' ATCO training. From small, focused modules of training to fully developed multimedia packages, we offer content and solutions for all phases of ATC training that will reduce your development times and improve the effectiveness of your training.

In each section of this chapter you will find a description of the resources and services available for a different phase of training. Depending on the phase of the training, resources may include:

- student support content (e.g. student notes, self-study e-learning modules, revision tests, etc.);
- instructor support content (e.g. training plans, instructors' notes, classroom presentations, exam questions, etc.);
- specifications, guidelines and guidance material.

For more information on the products or the access policy, please contact:
ians.partnership@eurocontrol.int

- ATC Basic Training
- ATC Rating Training
- ATC Unit Training
- ATC Refresher Training
- ATC Development Training
- Aircraft Performance Database

ATC BASIC TRAINING

In this section you will find a series of training resources intended for use in ATC basic training. These resources have the primary objective of teaching parts of the ATCO Common Core Content Initial Training and as such have been aligned to the Common Core Content for Air Traffic Control training objectives.

In addition to the materials presented, EUROCONTROL also offers:

- exercises developed for the Radar Skills Trainer which can be used for basic training. Refer to the page on the Radar Skills Trainer for more information;
- several guidelines and specifications and various study materials for developing basic training and learning about best practices. These publications are available via the training publications catalogue in the EUROCONTROL Training Zone.

INTRODUCTION TO ATM GEN-ATM-INTRO E	This course will provide participants with an overview of how European Air Traffic Management system works today. Duration: 2 hours.
ATCO BASIC TRAINING MATERIAL ATC-I-BASIC-P CCC P	This is a training material that can be used for the delivery of ATC BASIC training aligned to the ATCO Common Core Content basic syllabus. It includes training documents, training event plans, classroom presentations and self-study and self-test elements for participants. The training material covers the following subjects: INTRB, LAWB, ATMB, METB, NAVB, ACFTB, HUMB, EQPMB, PENVB and practical training. Duration: The actual duration varies depending on the items used.
ATCO BASIC FIS BLENDED TRAINING MATERIAL ATC-I-BASIC-FIS-B CCC B	This training material covers the CCC objectives of the ATCO basic training sub-topic Flight Information Service, which comes under Air Traffic Management. It supports both classroom-based training and self-study. It will enable ATCO ab-initio students to describe the basic principles of the flight information service and to issue information to aircraft. Duration: 2 x 45-minutes. lessons, plus 3 hours self-study.
SEA PATROL ATC-I-SEAP E	This game is intended to teach students how to determine radar headings and introduce them to the idea of developing techniques for assessing range from the screen, in a fun way. It also hints at the need to take speed into account when vectoring aircraft. The game is intended for use before students begin part task training or simulation. Duration: Depends on how many times the game is played!
HEADING GAMES ATC-I-HDG E	The objective of these games is to help ATCO students develop the skill of correctly determining and adjusting the heading. Acquiring this skill early will help ab-initio students to make faster progress during subsequent practical ATC training simulations. Duration: Depends on how many times the games are played!
SAY AGAIN? THE PHRASEOLOGY DATABASE ATC-PHRA CCC E	This database is used by participants to improve the use of standard phraseology by indicating correct syntax and by explaining when a particular phrase could be used. Duration: This is a database, so the duration depends on the degree of usage.

ACAS ATC-ACAS	The objective of this module is to provide an overview of the airborne collision avoidance system (ACAS), a description of the responsibilities of both flight crew and air traffic controllers during a TCAS resolution advisory encounter, and an understanding of the TCAS II logic and its operation. Duration: 1 hour 15 minutes.
ATCO BASIC METEOROLOGY ATC-I-BASIC-MET	The aim of this package is to provide the essential meteorological knowledge required by ATCOs for basic training. It focuses on the meteorological information relevant to the aviation environment and the impact of weather phenomena on aviation. Duration: Package of 9 modules - 10 hours.
ATCO BASIC NAVIGATION ATC-I-BASIC-NAV	This package explains the operation of navigation aids and the ways they are used in the aviation environment. It covers the NDB, DME, VOR, ILS, GNSS, ADS, INS and FMS. The package is suitable for use as a teaching aid for the ATCO CCC basic training objectives for the area of navigation. Duration: Package of 9 modules - 7 hours.
ATCO BASIC AIRCRAFT ATC-I-BASIC-ACFT	This is a self-study course covering the objectives of the ATCO Common Core Content basic training subject Aircraft. It covers the topics of and includes progress assessments for the principles of flight, engines, instruments, aircraft categories and data. Duration: Package of 8 modules - 26 hours.
ATCO BASIC HUMAN FACTORS TRAINING MATERIAL ATC-I-BASIC-HUM-P	This human factors training material supports classroom-based teaching of Subject 7 of the ATCO Common Core Content basic syllabus, which covers an introduction to human factors, professional conduct, human performance, stress, ergonomics and automation, teamwork, communication and human error. Duration: 10 x 60-minutes. classroom-based lessons.
SAFER ATC-SAFER	The objective of this package is to give participants an understanding of human error and safety, and to explain the relationship between the two. Additionally, the package provides knowledge of the different types of errors that can be made, differentiates between errors and violations, and describes error-prone conditions. Duration: Package of 5 modules – 2 hours + manual and case study.
TEAMWORK ATC-TEAMW	This package addresses teamwork issues in human performance, communications and the work environment as covered in the Common Core Content Basic Training syllabus for the human factors subject. Duration: Package of 5 modules – 2 hours.
ATCO BASIC EQUIPMENT AND SYSTEMS ATC-I-BASIC-EQPS	The objective of this package is to provide ATC students with necessary information on radio theory, voice communication, principles of direction finding and radar theory. Duration: Package of 4 modules - 3 hours.

ATCO BASIC AIRQUESTION TESTS ATC-I-BASIC-AIRQ	The EUROCONTROL AirQuestion database is a reliable source of questions (and answers) for the ATCO CCC basic training assessments. It was created by the EUROCONTROL IANS Training Development and Harmonisation Unit in cooperation with the ATC Unit and the Member States. Duration: This is a database of questions, so the duration depends on the degree of usage.

ATC RATING TRAINING

In this section you will find a series of training resources intended for use in ATC rating training. These resources have the primary objective of teaching parts of the ATCO Common Core Content Initial Training and as such have been aligned to the Common Core Content for Air Traffic Control training objectives.

Several guidelines and specifications and various study materials are also available for developing rating training and learning about best practices. These publications are available via the training publications catalogue in the EUROCONTROL Training Zone.

REFRESHER TRAINING FOR AIR TRAFFIC CONTROLLERS: HYDRAULIC FAILURE ATC-R-HYDF	This course may form part of an ATC Refresher training programme for Area Surveillance Controllers. Its main objective is to refresh and/or enhance ATCO knowledge and awareness on what to expect from an aircraft experiencing hydraulic problems. It includes considerations which will enable them, not only to provide as much support as possible to the aircraft concerned, but also maintain the safety of other affected aircraft. The course is made up of a short introductory section, the effects and impacts on hydraulics failure, air traffic controllers actions when dealing with hydraulics failure, an analysis of four potential outcomes for a given scenario and three case studies. Duration: 2 hours.
REFRESHER TRAINING FOR AIR TRAFFIC CONTROLLERS: STABILISED APPROACHES ATC-R-STAP	This course may be used as part of an ATC Refresher training programme for Approach Surveillance Controllers. The main objective of the module is to refresh and enhance air traffic controller knowledge of the factors that contribute to stabilised/unstabilised approaches and to refresh practical skills for ensuring that ATC actions are compatible with pilot requirements for achieving stable approaches. The module is made up of a short introductory section, three practical scenarios, each focussed on different aspects of the ATC contribution to stabilised approaches and ends with a summary of the main learning points. Duration: 2 hours.
SAY AGAIN? THE PHRASEOLOGY DATABASE ATC-PHRA	This database is used by participants to improve the use of standard phraseology by indicating correct syntax and by explaining when a particular phrase could be used. Duration: This is a database, so the duration depends on the degree of usage.
ATCO ACS AIRCRAFT BLENDED COURSE MATERIAL ATC-I-ACS-ACFT	The training material covers all the CCC objectives of ACS (RAD) Area Control Surveillance Rating with Radar syllabus Subject 6: Aircraft which includes self-study and self-test elements. Classroom presentations, Speaker's Notes and Training Event Plans for Instructors are provided. Duration : 5 x 50-minute sessions.

ATCO RATING HUMAN FACTORS TRAINING MATERIAL ATC-I-RAT-HUM-P	This training material supports classroom-based teaching on human factors for any of the rating syllabuses in the ATCO Common Core Content Specification. The material covers psychological factors, stress, human error, social and organisational factors, medical and physiological factors, working knowledge, working methods, working environment, collaborative work and safety management. Duration: 18 x 60-minute sessions.
MEMPAC ATC-MEMPAC	This package provides participants with an understanding of human capabilities, the way in which we process information and our limits. It addresses perception, cognition, attention and memory as covered in the human factors section of the ATCO CCC for rating training. Duration: Package of 5 modules - 1 hour 45 minutes.
SAFER ATC-SAFER	The objective of this package is to give participants an understanding of human error and safety, and to explain the relationship between the two. Additionally, the package provides knowledge of the different types of errors that can be made, differentiates between errors and violations, and describes error-prone conditions. Duration: Package of 5 modules – 2 hours + manual and case study.
UNUSUAL AND EMERGENCY SITUATIONS ATC-UNINC	This module helps ATCOs to understand the characteristics or circumstances of 15 selected unusual or emergency situations. It provides background information about how these situations may arise and their effect on aircraft and crew. The focus is on urgent and essential actions which ATCOs should take to manage the situation and assist the aircrew. Duration: 4 hours.

ATC UNIT TRAINING

Unit training is, as the name indicates, ATCO training that is specific to a unit's local requirements. Consequently, there is a limited amount of common training content and solutions for this phase of training. There are, however, several EUROCONTROL publications that can support units in developing their training and learning about best practices in unit training. These publications contain general information, guidance materials and specifications, and are available via the training publications catalogue in the EUROCONTROL Training Zone.

ATC REFRESHER TRAINING

EUROCONTROL offers a number of training resources which can be used by air navigation service providers as part of the continuation training necessary to keep ratings and unit endorsements valid. Guidelines and study materials are available to ATC units for developing refresher training and learning about best practices. These publications are available via the training publications catalogue in the EUROCONTROL Training Zone.

REFRESHER TRAINING FOR AIR TRAFFIC CONTROLLERS : HYDRAULIC FAILURE ATC-R-HYDF	This course may form part of an ATC Refresher training programme for Area Surveillance Controllers. Its main objective is to refresh and/or enhance ATCO knowledge and awareness on what to expect from an aircraft experiencing hydraulic problems. It includes considerations which will enable them, not only to provide as much support as possible to the aircraft concerned, but also maintain the safety of other affected aircraft. The course is made up of a short introductory section, the effects and impacts on hydraulics failure, air traffic controllers actions when dealing with hydraulics failure, an analysis of four potential outcomes for a given scenario and three case studies. Duration: 2 hours.

REFRESHER TRAINING FOR AIR TRAFFIC CONTROLLERS: STABILISED APPROACHES ATC-R-STAP E	This course may be used as part of an ATC Refresher training programme for Approach Surveillance Controllers. The main objective of the module is to refresh and enhance air traffic controller knowledge of the factors that contribute to stabilised/unstabilised approaches and to refresh practical skills for ensuring that ATC actions are compatible with pilot requirements for achieving stable approaches. The module is made up of a short introductory section, three practical scenarios, each focussed on different aspects of the ATC contribution to stabilised approaches and ends with a summary of the main learning points. Duration: 2 hours.
ACAS ATC-ACAS CCC E	The objective of this module is to provide an overview of the airborne collision avoidance system (ACAS), a description of the responsibilities of both flight crew and air traffic controllers during a TCAS resolution advisory encounter, and an understanding of the TCAS II logic and its operation. Duration: 1 hour 15 minutes.
SAY AGAIN? THE PHRASEOLOGY DATABASE ATC-PHRA CCC E	This database is used by participants to improve the use of standard phraseology by indicating correct syntax and by explaining when a particular phrase could be used. Duration: This is a database, so the duration depends on the degree of usage.
ALL CLEAR? AIR-GROUND COMMUNICATIONS FOR CONTROLLERS AND PILOTS ATC-R-ALCL E	The objectives of this training package are to refresh air traffic controllers' knowledge of issues surrounding air-ground communication, with a focus on human behaviour in relation to expectation bias, and to provide hints and tips relating to the way improved knowledge of how humans operate can help controllers improve communications with colleagues and flight crews. Duration: 40 minutes.
POSITION HANDOVER ATC-R-HDVR E	This module provides awareness of the importance of good position handovers and aims to decrease the frequency of incidents and accidents which occur due to poor handovers. Duration: 1 hour.
LEVEL BUST ATC-R-LVLB E	The aim of this module is to increase the awareness of pilots and ATCOs of the fundamental causes of level busts and to suggest means by which they can be prevented. It highlights a number of different issues which have been identified as prime sources of level busts or are relevant to making a situation safe again. Duration: 1 hour.
MACH NUMBER TECHNIQUE ATC-R-MACH E	The objectives of this module are to refresh understanding of the use of speed control in the upper airspace, the implications of this on aircraft performance and the limitations imposed on flight crews, and to provide a number of practical suggestions. Duration: 1 hour 45 minutes.
AREA NAVIGATION IN EUROPEAN TERMINAL CONTROL AREAS (TMAS) NAV-PRNAV-RNAV1 E	This generic e-learning module describes the use of Performance Based Navigation (PBN) in the TMA, specifically RNAV1 which within Europe is termed Precision RNAV (P-RNAV). The package addresses aircraft functionality, the benefits of RNAV SIDs/STARs, the different types of waypoint and how turn performance is affected, and a number of ATC best practices, including RTF phraseology, specifically related to RNAV operations. This package has been updated to reflect both PBN and the latest changes in the ATC Flight Plan. Duration: 1 hour 20 minutes.

RUNWAY INCURSIONS ATC-R-RWYINC E	The objective of this module is to raise awareness among air traffic controllers regarding the factors leading to runway incursions, and to suggest ways of reducing the probability of these occurring. Duration: 50 minutes.
UNUSUAL AND EMERGENCY SITUATIONS ATC-UNINC E	This module helps ATCOs to understand the characteristics or circumstances of 15 selected unusual or emergency situations. It provides background information about how these situations may arise and their effect on aircraft and crew. The focus is on urgent and essential actions which ATCOs should take to manage the situation and assist the aircrew. Duration: 4 hours.

ATC DEVELOPMENT TRAINING

In this section you will find a series of training courses intended for use in ATC development training. These courses are focused mainly towards on–the-job training as part of development training. Please refer to the Human Performance domain for other classroom courses supporting ATC development training.

In addition to the materials presented, EUROCONTROL also offers:

- Radar Skills Trainer and exercises developed for the Radar Skills Trainer which can be used for on–the-job training. Please refer to the page on the Radar Skills Trainer for more information;
- several guidelines and specifications and various study materials to support development training. They include guidelines on OJT syllabuses and management training for operational ATM supervisors. These publications are available via the training publications catalogue in the EUROCONTROL Training Zone.

PRACTICAL TRAINING INSTRUCTOR SKILLS FOR OJTI AND STDI HUM-OJTI C	The OJTI Training Programme provides theoretical knowledge and practical skills for radar controllers who will undertake OJTI duties. This course is open to all "would-be" OJTI's but has the added value of being a regulated course (Belgian NSA certified), for those requiring it; which includes assessments in both theory and practical OJTI skills. As of 1st of January 2015 this course is subject to a User-Pays-Principle – course registration is subject to a fee for all participants. Duration: 10 days over 2 weeks.
OJTI BLENDED TRAINING MATERIALS HUM-OJTI-B B	The aim of the OJTI training course is to develop the necessary foundation skills to train student or trainee controllers in the operational (live) environment. This training material is designed to be used as part of a course which consists of e-learning training and classroom/practical training. Duration: 5 days + 5 days for practical part.
PRACTICAL TRAINING INSTRUCTOR SKILLS FOR OJTI AND STDI - REFRESHER HUM-OJTI-R C	This course provides experienced air traffic controller OJTIs with refresher training that highlights and reinforces the knowledge and techniques required to conduct effective on-the-job training. It is recommended that this course should be taken by suitably qualified OJTIs at least every 5 years. As of 1st of January 2015 this course is subject to a User-Pays-Principle – course registration is subject to a fee for all participants. The course contains a practical OJTI session which is subject to examination. Duration: 4 days.

CONTROLLER COMPETENCY ASSESSOR HUM-CCA C	This course is provided for air traffic controllers who will assess the competence of other controllers. The assessment task can involve the issue of a licence or new unit endorsement. As part of a local competence scheme, the assessment task can include the renewal of an existing unit endorsement. As of 1st of January 2015 this course is subject to a User-Pays-Principal – course registration is subject to a fee for all participants. Duration: 5 days.
CONTROLLER COMPETENCY ASSESSOR - REFRESHER HUM-CCA-R NEW C	This course provides experienced air traffic controllers who are competency assessors/examiners with refresher training that highlights and reinforces the knowledge and skills required to conduct effective assessments and is compliant with ATCO Licencing regulation 2015/340. It is recommended that this course should be taken by suitably qualified assessors at least every 3 years and a valid assessor/examiner endorsement will be required for all course participants. As of 1st of January 2015 this course is subject to a User-Pays-Principle – course registration is subject to a fee for all participants. Duration: 2 days.
OPERATIONAL SUPERVISOR HUM-SUP C	This course is primarily intended to equip newly appointed ATS supervisors to perform effectively in their supervisory role. It may also be of value to experienced supervisors who wish to broaden their knowledge. Duration: 5 days.
OPERATIONAL SUPERVISOR - REFRESHER HUM-SUP-R NEW C	OPERATIONAL SUPERVISOR - REFRESHER course provides experienced ATC Supervisors with a refresher training that highlights, reinforces and broadens the knowledge and techniques necessary to perform effectively in their supervisory role. Duration : 3 days

AIRCRAFT PERFORMANCE DATABASE

The Aircraft Performance Database allows users to search for one or more aircraft and view associated data, including: recognition, ICAO/IATA type designators, aircraft performance data for all stages of flight and other supplementary information.

Version 3 of the Aircraft Performance Database is compatible across different browsers and devices. It comes in a desktop and mobile version.

The desktop version offers two additional features when accessed from the EUROCONTROL Training Zone. Students can create user specific custom groups and allocate aircraft to them according to individual needs. Additionally, a self-test is provided for students to follow their individual progress over time. The feedback provided is very precise (question based) and is directing students to areas requiring further study. Questions are randomly selected from a pool of more than 500, making the tests reliable and effective while at the same time interesting and challenging for students. Both these features support the individual learning process.

To access the Aircraft Performance Database, go to https://contentzone.eurocontrol.int/aircraftperformance/. To take full advantage of the new version, log in the EUROCONTROL Training Zone through the "Aircraft Performance Database [ATC-PFDB]" course; available in the ATC Initial Training folder of the Training Catalogue.

Eurocontrol APD

Training Services and Tools

4

SELECTION : FEAST – FIRST EUROPEAN ATCO SELECTION TEST

FEAST Service

The First European ATCO Selection Test (FEAST) service provides a cost-effective set of tools to assist recruiters with selecting the most suitable candidate for ATC training. The service also provides full implementation support and a helpdesk service to air navigation services and training providers.

The FEAST service is currently in use in more than 40 European civil and military organisations. It assesses the knowledge, skills and abilities of applicants for the ATCO job. The aim is to improve the quality of selection decisions, contribute to the cost efficiency of the overall recruitment and selection process and to increase the success rate in training. Since the release of FEAST in 2004, more than 50,000 air traffic controller candidates have been tested using the FEAST tool.

The tests are delivered over the internet in a way that enables users to carry out online testing of applicants in a secure and confidential way. Tests are administered and marked automatically and the results are stored in a central database that users can consult at all times.

Licence agreements and non-disclosure agreements with users govern access to FEAST. For more information please e-mail the FEAST service team at feast-service@eurocontrol.int

As of 1st of January 2015 FEAST is provided subject to a User-Pays-Principle – the license agreement is based on a fee per tested candidate.

To support the use and administration of FEAST by its users, the Institute offers training courses for users and for administrators as a prerequisite to accreditation. Refresher training is also available.

FEAST - ROMA ADMINISTRATOR TRAINING (INCLUDING TESTS) FEAST-ROMA-ADM-T C	This training module offers a full training on the FEAST Administrator role. The course is suitable for staff which is newly appointed to the FEAST Administrator role. The role of the FEAST Administrator is to assure quality in selection procedures, to prepare, organise and supervise testing sessions. The course offers a familiarization with all FEAST tests, including the administration of the DART, the MULTI-PASS test and the FPQ test. Furthermore, the training course covers best practice in the test administration of FEAST and offers a familiarisation and practical training on ROMA, the software platform that hosts the majority of the FEAST tests and the database. Accreditation as a FEAST administrator is a prerequisite for the FEAST user role. Duration: 2 days.
FEAST - ROMA ADMINISTRATOR TRAINING (NO TESTS) FEAST-ROMA-ADM-NT C	This course refers only to already accredited FEAST Administrators or Users. The training is designated for FEAST Administrators who are interested in refresher training or who would like to prepare for the transition to the ROMA candidate assessment system. This Administrator training is based on ROMA, the software platform that hosts the majority of the FEAST tests and the FEAST database. The course will train participants in the use of ROMA. The course will cover candidate registration and reporting and as well as the management of the candidate recruitment workflow. It does not offer a familiarization with the FEAST tests. The role of the FEAST administrator is to assure quality in selection procedures, to prepare, organise and supervise testing sessions. Duration: 1 day.

FEAST - USER TRAINING FEAST-USER C	This course is designed firstly as a refresher course for accredited FEAST users. It is also intended for those who will be newly appointed in their organization in a FEAST role and who are now required to undergo accreditation training in order to use FEAST. FEAST users take an active part in the selection decision in their organization. The course provides a detailed knowledge of the FEAST system, understanding of psychometrics, test interpretation and the use of test results. The use and interpretation of FEAST 1, FEAST DART and MULTI-PASS is covered in this course.. Duration: 1 day.
FEAST PERSONALITY QUESTIONNAIRE FEAST-FPQ C	The FPQ course provides training on the use of the FEAST Personality Questionnaire (FPQ). The FPQ was developed and is specifically designed for the selection of ab initio students and allows the assessment of personality characteristics relevant in the training of ATC students. The training gives an introduction to personality assessment methods and provides an overview on the background and design of the FPQ tool. Using practical examples participants learn how to interpret scores and how to use the tool as part of their selection system. The FPQ training is accompanied by an optional second day of training, the Basic Interview Skills training. The optional training module is offered for FEAST users with little experience in interviewing and for those with no experience in the use of personality questionnaires in interviews. The Interviews Skills training places particular emphasis on the use of the FPQ during the job interview. Participants who are interested in this optional second training module need to register for the FEAST-SelSk course in addition. Accreditation as a FEAST user is a prerequisite for participation to this course. Duration: 1 day.
BASIC INTERVIEWING SKILLS AND USE OF THE FPQ FEAST-SELSK C	This course gives a concise introduction to developing and using interviewing skills and techniques for ab-initio selection. It is aimed at those who participate in ATC selection interview boards and panels. In addition, the course focuses on the use of the FPQ in the job interview. Practical examples demonstrate how the FPQ can be applied to give the recruiter additional valuable information for the interview process. Duration: 1 day.
BEHAVIOURAL OBSERVATION SCALE FEAST-BOS C	The BOS course offers training on the use of the BOS form as a tool for validating the FEAST selection tests. It reviews the purpose and method of validating the FEAST tests, completion of the BOS form, and best practice and advice for those who will be involved in the planning and implementation of BOS assessments. ATC training personnel who wish better understand FEAST validation are also welcome. Duration: ½ day.

ELPAC – ENGLISH LANGUAGE PROFICIENCY FOR AERONAUTICAL COMMUNICATION

ELPAC is an ICAO Aviation English language proficiency test designed specifically for ATC controllers and commercial pilots to meet the ICAO language proficiency requirements. The ELPAC test was developed by EUROCONTROL and is maintained and managed together with our partners, the ZHAW Zurich University of Applied Sciences and ENOVATE. The ELPAC test is fully recognized by ICAO for being in conformance with ICAO standards and recommendations for language proficiency requirements (see https://www4.icao.int/aelts).

The ELPAC test was initially only available to EUROCONTROL Member States. Since 2013 the ELPAC test is available for Air Operators, Air Navigation Service Providers, Civil and Military Aviation Authorities and Training Organisations.. We strongly believe that ELPAC can support various organisations in meeting the ICAO language proficiency requirements. In particular, the implementation model of the ELPAC test is attractive in that it is delivered locally by operational experts and language experts. As a result, ELPAC will support an organisation in reaching the required standards, while at the same time fostering a culture of awareness and commitment to these standards.

To support the effective use of the ELPAC test by organisations that have signed an ELPAC licence agreement, EUROCONTROL offers a number of courses to train nominated ELPAC test administrators, markers and examiners in the use of the test and in their role as ELPAC test examiner and assessor to prepare them for accreditation by their regulatory authority. EUROCONTROL also offers periodic refresher courses for accredited markers and examiners. For experienced ELPAC examiners ELPAC Level 6 examiner courses are being organised on request.

As of 1st of January 2015 ELPAC is provided subject to a User-Pays-Principle – the ELPAC license agreement includes a fee per tested candidate.

ELPAC ACCREDITATION COURSE ELPAC-ACR C	EUROCONTROL organises regular one-week training and accreditation courses for organisations that have signed an ELPAC licence agreement with Eurocontrol. The course provides training for staff intending to work with the ELPAC test and to become test administrators, Paper 1 markers and Paper 2 examiners. Duration: 5 days.
ELPAC RREFRESHER COURSE ELPAC-REF C	EUROCONTROL organises refresher courses for ELPAC test administrators, markers and examiners. The course provides an excellent opportunity to review and practise the required examining standards and to share experience and benchmark with markers and examiners from other organisations. Duration: 2 days.
ELPAC LEVEL 6 EXAMINER COURSE ELPAC –L6E C	EUROCONTROL organises accreditation courses for experienced ELPAC examiners wishing to become ELPAC Level 6 examiners. ELPAC Level 6 examiners are trained to use ELPAC to assess the language proficiency of air traffic controllers up to ICAO Level 6. During the course the emphasis is put on examining skills at ICAO level 6 and assessing a candidate at ICAO level 6. Duration: 2 ½ days.

RST - RADAR SKILLS TRAINER

The radar skills trainer (RST) is an advanced tool that:

- enables users to perform pre-simulation (task practice and skill acquisition);
- provides a realistic environment for training in OJTI skills;
- includes exercises to support basic controller training and OJTI training.

How does it work?

The RST works on the basis of objective measurement. For any given exercise, a combination of predetermined objectives and airspace designs serves as a scenario for teaching specific skills.

The RST simulates the controller working position (CWP) and the pilot working position (PWP). Trainers can utilise the Exercise Preparation Tool (EPT) to create teaching exercises or use the exercise scenarios supplied with the software.

A replay function is provided, to both instructors and students, so that exercises may be analysed at a later stage. In practice the student completes the exercises and receives a debriefing from the programme. The trainer can then review the exercise using the replay function and debrief the student on techniques and other items.

A networked course management system (CMS) version, offers additional facilities for managing the delivery of exercise scenarios to a group of students and to monitor their progress.

"Radar Skills Trainer (RST) - Open Window" [ATC-RST] is a short module that contains a number of practical exercises delivered over the web from the EUROCONTROL servers. It aims to show current and potential RST users how the RST web version can be used in ATC training.

Access:

The RST is available as a standalone tool installed on a PC or for use via the EUROCONTROL Training Zone.

The RST is available free of charge to organisations in the EUROCONTROL Members States which have signed an RST license agreement. The RST is also available to organisations worldwide subject to a license agreement and a yearly license fee.

For more information on the Radar Skills Trainer, visit http://trainingzone.eurocontrol.int/rst.htm or e-mail the development team at vladimir.bubalo@eurocontrol.int.

RADAR SKILLS TRAINER (RST) - OPEN WINDOW ATC-RST	This is a short module that contains a number of practical exercises delivered over the web from the EUROCONTROL servers. It aims to show current and potential RST users how the RST web version can be used in ATC Training. Duration: 3 hours

SIMULATION FACILITIES

The EUROCONTROL Institute of Air Navigation Services has spare ATC simulator capacity available. The following simulators are available:

- The Flexible Luxembourg Training Platform (FLTP) is an advanced en-route training ATC simulator. It has 14 controller working positions that can be configured in various sector configurations and any airspace given the necessary lead times.
- The aerodrome simulator is composed of two tower control suites and one exercise supervisor suite. Currently the following airports can be simulated: Stuttgart (Germany), Findel (Luxembourg), Malaga (Spain) and Roissy CdG (France).

Both simulators can be operated by your own staff whilst supported by technical staff from EUROCONTROL.

For more information, please contact ians.partnership@eurocontrol.int.

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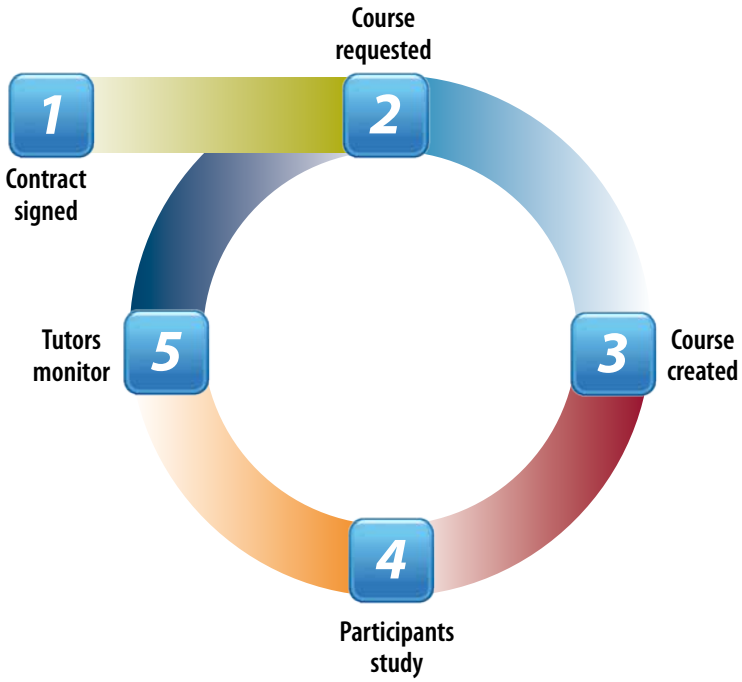
Luxembourg

Access to Training Content for Organisations

5

The diagram below shows the usual process for using Training Zone as an organisation:



In practice, this works as follows:

- The contract is signed.
- The training provider's training manager designs a course, chooses instructors and participants, and submits this to the EUROCONTROL Training Zone Operations desk.
- The Operations desk inputs the course into Training Zone, and notifies the training manager.
- The training provider's students can now study the course.
- In the meantime, the training provider's instructors monitor the students' progress.

EUROCONTROL TRAINING ZONE FOR ORGANISATIONS

The EUROCONTROL Training Zone is a digital learning environment that supports classroom and e-learning training.

EUROCONTROL offers the use of the Training Zone to training organisations. This enables a training provider to create, manage, and administer e-learning or blended training for its students. The training provider defines the training content of their course, assigns students and instructors to their courses. During the training delivery, the assigned instructors can monitor the student's progress. EUROCONTROL provides assistance and offers a technical helpdesk to all users.

The use of Training Zone by training organisations is subject to a contract between the training provider and EUROCONTROL

For more information on the EUROCONTROL Training Zone, contact us by email at: trainingzone.operations@eurocontrol.int.

LICENSE AGREEMENTS

Organisations can use training material developed by EUROCONTROL and deliver them using their own local instructor.

Much of the training material developed is available on request. The training material can be used in its original form and delivered by local staff or incorporated into other training courses to serve local needs.

These arrangements are administered through license agreements which guarantee fair use of the training material amongst the stakeholders. If you are interested in licensing any of EUROCONTROL's training material, please contact us by email at: ians.partnership@eurocontrol.int.

TRAINING PARTNERSHIP

Third parties can develop and deliver training courses that are hosted at the Institute in Luxembourg.

We can include in our training portfolio courses that third parties have developed and delivered. The criteria for including such courses are that the courses should take place at the Institute, they should be of pan-European interest, and they should be a mature product, delivered in English. Of course, they should also be delivered to the satisfaction of the students. If you have a course that meets these criteria and could be delivered at the Institute, then please contact ians.partnership@eurocontrol.int.

EXTERNAL (ON-SITE) COURSES

EUROCONTROL regularly delivers courses on-site in response to requests received from training organisations, administrations or companies to provide external (on-site) training on an area closely linked to the EUROCONTROL training expertise and missions at their places of work. EUROCONTROL aims to meet all acceptable requests subject to training experts' availability and internal demands.

For more information, please contact the Course Reservation Office at ians.reservation@eurocontrol.int or for Network Operations-related training please contact the secretariat at nm.fmpcourse@eurocontrol.int.

SUPPORT FOR IMPLEMENTATION

The EUROCONTROL Training Institute has unique expertise in the field of harmonised training and innovative training methodologies. It can help you design or improve your training, ensure compliance with the latest regulation, achieve certification and implement new training methods in accordance with your local requirements.

For more information on availability, please contact ians.partnership@eurocontrol.int.

WORKSHOPS AND MEETINGS

The Institute of Air Navigation Services provides facilities for the organisation of ATM-related events, meetings, workshops and conferences for the benefit of the aviation community.

For more information, please contact the Course Reservation Office at ians.reservation@eurocontrol.int.

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