



السعودية للطيران المدني Saudi Academy of Civil Aviation

# ANS TRAINING CENTER

AIR TRAFFIC CONTROL

# CONTENT

# AIR TRAFFIC CONTROL PROGRAMMES

Saudi Academy of Civil Aviation 05		
A	ANS Training Center – ATC Training	
E	Equipment and Facilities	
A	ANS Training Center – ATC Training Accreditations	
•	ATC Assistant / Basic Induction course (ICAO 051)	09
•	Aerodrome Control Rating course (ICAO 052)	11
•	Approach Control Procedural Rating course (ICAO 053)	13
•	Approach Control Surveillance Rating course (ICAO 054)	15
•	Area Control Procedural Rating course (ICAO 055)	17
•	Area Control Surveillance Rating course (ICAO 054)	19
•	Aerodrome Control Refresher Course	22
•	Aerodrome Control Refresher Course/SPP	24
•	Aerodrome Control Refresher Course/NRS	25
•	Approach Control Procedural Refresher Course	26
•	Approach Control Procedural Refresher Course/SPP	28
•	Approach Control Procedural Refresher Course/NRS	29
•	Approach Control Surveillance Refresher Course	30
•	Approach Control Surveillance Refresher Course/SPP	32
•	Approach Control Surveillance Refresher Course/NRS	33

# CONTENT

# AIR TRAFFIC CONTROL PROGRAMMES

•	Area Control Procedural Refresher Course	34
•	Area Control Procedural Refresher Course/SPP	36
•	Area Control Procedural Refresher Course/NRS	37
•	Area Control Surveillance Refresher Course	38
•	Area Control Surveillance Refresher Course/SPP	40
•	Area Control Surveillance Refresher Course/NRS	41
•	Aircraft Emergencies for Aerodrome Controller	42
•	OJT Techniques for ATCOs Course	44
•	On-the Job Training instructor (OJTI) Refresher Course	46
•	Examination Techniques for Air Traffic Controller Course	48
•	Instructor Training Course	50
•	ATS Supervisor Course	52
•	Human Factors for ATCO Course	54
•	Low Visibility Procedures for Aerodrome Controller	56
•	TIBA Safety Procedures (Uncontrolled Operations)	58
•	PBN for ATCOs Course	60
•	General Unusual Emergency Situations	62
•	CNS/ATM for air Traffic Controller	64
•	ADS-B for ATCO	66

# CONTENT AIR TRAFFIC CONTROL PROGRAMMES

•	Fixable Use of Airspace	68
•	ATC Pilot Control Unit Operator Course	70
•	Introduction to Aviation Law	72
•	Introduction to ATC	74
•	Apron Management Course	76
•	Apron Management Refresher Course	78
•	GACA Regulations for ANS	80
•	(CPDLC for ATCO's)	82
•	(Airport Communication Methods & Terminologies)	84
•	ATC Competency Assessment	86
•	Runway Incursion	88





# **Saudi Academy of Civil Aviation**

It is a leading educational entity in the Kingdom of Saudi Arabia, established in 1962 as a technical training institute in 2007 for a specialized academy offering a set of specialized diploma programs and training courses that suit the needs of the Aviation Sector and contribute to qualification and training of human resources working to support 28 airports in the Kingdom.

The programs and courses offered by the academy include the following **specializations**: Air Traffic Control - Maintenance of Aviation Systems - Fire and Rescue - Airport Operation and Safety - Aviation Security.

# **ANS Training Center – ATC Training**



ANS Training Center – ATC Training is to qualify and develop air traffic controllers manage and control aircraft on ground and in the air in order to prevent collisions, organize and expedite the flow of air traffic, and provide information and other support for pilots.

# **Equipment and Facilities**

The center depends, in the training process, on six simulated labs simulating the reality of air traffic at the highest level of technology used, as these labs are programmed to perform all the roles that may be experienced by the air traffic controller in practical life, such as weather fluctuations as well as the different aircraft types simulated in their sizes and emergency situations that may occur.

The Center also invests the resources that have been provided to support its training programs, by entering computer-based self-training technology (Computer-Based Training "CBT") to refine the student's skills and develop his capacities.



# **Specialized Courses** \_

- ATC Assistant / Basic Induction course (ICAO 051).
- Aerodrome Control Rating course (ICAO 052).
- Approach Control Procedural Rating course (ICAO 053).
- Approach Control Surveillance Rating course (ICAO 054).
- Area Control Procedural Rating course (ICAO 055).
- Area Control Surveillance Rating course (ICAO 054).

# **Center Accreditations**



Endorsed as ICAO TRAINAIR PLUS Full member



Authorized by General Authority of Civil Aviation (GACA)







# ATC Assistant / Basic Induction course (ICAO 051)

# **ATC Assistant / Basic Induction course (ICAO 051)**

#### What will you learn?

Fundamental knowledge, skills, and attitude in accordance with international and national standards and regulations to continue on to an ATC rating course - Aerodrome Control, Approach Control, or Area Control.

# Learning Activities







ectures

Group exercises

Presentation

#### Who should attend?

Prospective air traffic controllers.



## **Prerequisites**

 High school graduate (scientific branch).
 Good command of English equivalent to IELTS 5.5.



English.



#### **Duration**

8 Weeks (8 - 12 trainees).



#### **Assessment and Certification**

Approved by GACA.

#### What is covered?

- Aviation Law.
- Equipment.
- Aerodromes.
- Aircraft.
- Meteorology.
- Air Traffic Management.
- Navigation.
- Human Factor.
- Abnormal and Emergency Situations.
- Professional Environment.



# Aerodrome Control Rating course (ICAO 052)

# **Aerodrome Control Rating course (ICAO 052)**

#### What will you learn?

Fundamental knowledge, skills and attitude in accordance with international and national standards and regulations to be able acquire the aerodrome controller License.

#### **Learning Activities**







Lectures

Simulation Exercises

Presentation

#### Who should attend?

Prospective air traffic controllers.



## **Prerequisites**

- ATC Assistant / Basic Induction course (ICAO 051).
- Good command of English equivalent to IELTS 5.5



■ English.



#### **Duration**

■ 8 Weeks (8 – 12 trainees).



#### **Assessment and Certification**

Approved by GACA.

#### What is covered?

- Aviation Law.
- Equipment.
- Aerodromes.
- Aircraft.
- Meteorology.
- Air Traffic Management.
- Navigation.
- Human Factor.
- Abnormal and Emergency Situations.
- Professional Environment.



# **Approach Control Procedural Rating course (ICAO 053)**

# **Approach Control Procedural Rating course (ICAO 053)**

#### What will you learn?

Fundamental knowledge, skills and attitude in accordance with international and national standards and regulations to be able acquire the Approach Non- Surveillance controller License.

#### **Learning Activities**







Lectures

Simulation Exercises

Presentation

#### What is covered?

- Aviation Law.
- Equipment.
- Aerodromes.
- Aircraft.
- Meteorology.
- Air Traffic Management.
- Navigation.
- Human Factor.
- Abnormal and Emergency Situations.
- Professional Environment.

#### Who should attend?

Prospective air traffic controllers.



## **Prerequisites**

- ATC Assistant / Basic Induction course (ICAO 051).
- Good command of English equivalent to IELTS 5.5.



■ English.



## **Duration**

■ 6 Weeks (8 – 12 trainees).



#### **Assessment and Certification**



# **Approach Control Surveillance Rating course (ICAO 054)**

# **Approach Control Surveillance Rating course (ICAO 054)**

#### What will you learn?

Fundamental knowledge, skills and attitude in accordance with international and national standards and regulations to be able acquire the Approach Surveillance controller License.

#### **Learning Activities**







Lectures

Simulation Exercises

Presentation

#### What is covered?

- Aviation Law.
- Equipment.
- Aerodromes.
- Aircraft.
- Meteorology.
- Air Traffic Management.
- Navigation.
- Human Factor.
- Abnormal and Emergency Situations.
- Professional Environment.

#### Who should attend?

Prospective air traffic controllers.



# **Prerequisites**

ATC Assistant / Basic Induction course (ICAO 051).

Good command of English equivalent to IELTS 5.5.



English.



# **Duration**

■ 9 Weeks (8 – 12 trainees).



## **Assessment and Certification**



# **Area Control Procedural Rating** course (ICAO 055)

# **Area Control Procedural Rating course (ICAO 055)**

#### What will you learn?

Fundamental knowledge, skills and attitude in accordance with international and national standards and regulations to be able acquire the Area Non-Surveillance controller License.

#### **Learning Activities**







Lectures

Simulation **Exercises** 

Presentation

#### What is covered?

- Equipment.
- Aircraft.
- Abnormal and Emergency Situations.
- Meteorology.
- Air Traffic Management.
- Aviation Law.
- Navigation.
- Human Factor.
- Professional Environment.

#### Who should attend?

Prospective air traffic controllers.

# **Prerequisites**

- ATC Assistant / Basic Induction course (ICAO 051).
- Good command of English equivalent to IELTS 5.5.

# □ Course Language

English.



#### **Duration**

■ 6 Weeks (8 – 12 trainees).

#### **■** Assessment and Certification



# **Area Control Surveillance Rating course (ICAO 054)**

# **Area Control Surveillance Rating course (ICAO 054)**

#### What will you learn?

Fundamental knowledge, skills and attitude in accordance with international and national standards and regulations to be able acquire the Area Surveillance controller License

#### **Learning Activities**







Lectures

Simulation Exercises

Presentation

#### What is covered?

- Equipment.
- Aircraft.
- Abnormal and Emergency Situations.
- Meteorology.
- Air Traffic Management.
- Aviation Law.
- Navigation.
- Human Factor.
- Professional Environment.

#### Who should attend?

Prospective air traffic controllers.



#### **Prerequisites**

- ATC Assistant / Basic Induction course (ICAO 051).
- Good command of English equivalent to IELTS 5.5.

# **△** Course Language

■ English.



#### **Duration**

■ 9 Weeks (8 – 12 trainees).



#### **Assessment and Certification**

# CUSTOMIZED TRAINING



# Aerodrome Control Refresher Course

#### **Aerodrome Control Refresher Course**

#### What will you learn?

ICAO standards and recommended practices for Aerodrome Controllers in order to effectively and efficiently control air traffic within aerodrome sector.

#### **Learning Activities**









Lectures Simulation Case-

Exercises studies

Presentation

#### What is covered?

- Standard practices and procedures within aerodrome sector.
- Non-routine situations within aerodrome sector.
- Human Factors.

#### ----------------

# **Prerequisites**

- Aerodrome Control Rating course (ICAO 052).
- Good command in English equivalent to Level 4 in the ICAO English language proficiency test.



English.



#### **Duration**

3 Weeks (90 hours).

# **≡** 🖁

#### **Assessment and Certification**

Approved by GACA.

# Who should attend?

- Aerodrome Controllers.
- OJT instructors & Tower Supervisors.

## **Aerodrome Control Refresher Course / SPP**

#### What will you learn?

ICAO standards and recommended practices for Aerodrome Controllers in order to effectively and efficiently control air traffic within the aerodrome sector.

#### **Learning Activities**







Lectures

Simulation Exercises

Presentation

#### What is covered?

Standard practices and procedures within aerodrome sector

# Who should attend?

- Aerodrome Controllers.
- OJT instructors & Tower Supervisors.



# **Prerequisites**

Aerodrome Control Rating course (ICAO 052).

Good command in English equivalent to Level 4 in the ICAO English language proficiency test.



# Course Language

English.



#### **Duration**

One Weeks (30 hours)



#### **Assessment and Certification**

## **Aerodrome Control Refresher Course /NRS**

#### What will you learn?

This course will ensure that the knowledge and skills of the Aerodrome controllers are maintained and updated to effectively and efficiently manage traffic in abnormal and emergency situations within the Aerodrome sector in accordance with ICAO standards and recommended practice.

#### **Learning Activities**







Lectures

Simulation Exercises

Presentation

#### What is covered?

- Abnormal and emergency situations within the aerodrome sector.
- Emergency situations.
- Effective control of situations.

#### Who should attend?

- Aerodrome Controllers.
- OJT instructors & Tower Supervisors.



# **Prerequisites**

Aerodrome Control Rating course (ICAO 052).

Good command in English equivalent to Level 4 in the ICAO English language proficiency test.



# Course Language

English.



#### **Duration**

One Weeks (30 hours)



#### **Assessment and Certification**



# **Approach Control Procedural Refresher Course**

# **Approach Control Procedural Refresher Course**

#### What will you learn?

ICAO standards and recommended practices for Approach Controllers in order to effectively and efficiently control air traffic within TMA sector using no surveillance system.

#### **Learning Activities**



Lectures







Simulation Case- Pr Exercises studies

Presentation

#### What is covered?

- Standard practices and procedures within TMA sector.
- Non-routine situations within TMA sector
- Human Factors.

#### Who should attend?

- Approach Controllers.
- OJT instructors & Supervisors.



## **Prerequisites**

- Approach Control Procedural Rating course (ICAO 053).
- Good command in English equivalent to Level 4 in the ICAO English language proficiency test.

# Course Language

English.



#### **Duration**

■ 3 Weeks (90 hours).



#### 

# **Approach Control Procedural Refresher Course /SPP**

#### What will you learn?

ICAO standards and recommended practices for Approach Controllers in order to effectively and efficiently control air traffic within TMA sector using no surveillance system.

#### **Learning Activities**







Lectures

Simulation Exercises

Presentation

#### What is covered?

- Standard practices and procedures within the TMA sector.
- Aerodrome data, layout, coordination, Movement area and obstacles.
- Movement area, obstacles.
- Aviation Law.
- Aircraft performance.
- Air Traffic Management.
- Navigation and Meteorology.
- Equipment and systems.
- Operational environment.

#### Who should attend?

- Approach Controllers.
- OJT instructors & Supervisors.



# **Prerequisites**

- Approach Control Procedural Rating course (ICAO 053).
- Good command in English equivalent to Level 4 in the ICAO English language proficiency test.



# Course Language

English.



# **Duration**

One Weeks (30 hours)



## Assessment and Certification

# **Approach Control Procedural Refresher Course /NRS**

#### What will you learn?

It's will ensure that the knowledge and skills of the Approach procedural controllers are maintained and updated to effectively and efficiently manage traffic in abnormal and emergency situations within the TMA sector in accordance with ICAO standards and recommended practices.

#### **Learning Activities**







Lectures

Simulation Exercises

Presentation

#### What is covered?

- Abnormal and emergency situations.
- Procedures for abnormal and emergency situations.
- Effective control of situations.

#### Who should attend?

- Approach Controllers.
- OJT instructors & Supervisors.



## **Prerequisites**

- Approach Control Procedural Rating course (ICAO 053).
- Good command in English equivalent to Level 4 in the ICAO English language proficiency test.



# Course Language

English.



## **Duration**

One Weeks (30 hours)



#### **■ Assessment and Certification**



# Approach Control Surveillance Refresher Course

# **Approach Control Surveillance Refresher Course**

#### What will you learn?

ICAO standards and recommended practices for Approach Controllers in order to effectively and efficiently control air traffic within TMA sector using surveillance systems.

#### **Learning Activities**









Lectures

Simulation Exercises

Casestudies

Presentation

#### What is covered?

- Standard practices and procedures within TMA sector.
- Non-routine situations within TMA sector.
- Human Factors.

#### Who should attend?

- Approach Controllers.
- OJT instructors & Supervisors.



# **Prerequisites**

- Approach Control Surveillance Rating course (ICAO 054).
- Good command in English equivalent to Level 4 in the ICAO English language proficiency test.



English.



#### **Duration**

3 Weeks (90 hours).

#### **Assessment and Certification**

# **Approach Control Surveillance Refresher Course /SPP**

#### What will you learn?

ICAO standards and recommended practices for Approach Controllers in order to effectively and efficiently control air traffic within the TMA sector using surveillance systems.

#### **Learning Activities**







Lectures

Simulation Exercises

Presentation

#### What is covered?

- Standard practices and procedures within the TMA sector.
- Aviation Law, Aircraft performance, Air Traffic Management.
- Navigation and Meteorology.
- Equipment and systems.
- Professional Environment.

#### Who should attend?

- Approach Controllers.
- OJT instructors & Supervisors.

#### 9 9 1 1

# **Prerequisites**

- Approach Control Surveillance Rating course (ICAO 054).
- Good command in English equivalent to Level 4 in the ICAO English language proficiency test.

# Course Language

English.



#### **Duration**

One Weeks (30 hours)

#### **Assessment and Certification**

# **Approach Control Surveillance Refresher Course /NRS**

#### What will you learn?

It's will ensure that the knowledge and skills of the Approach Surveillance controllers are maintained and updated to effectively and efficiently manage traffic in abnormal and emergency situations within the TMA sector in accordance with ICAO standards and recommended practices.

#### **Learning Activities**







Lectures

Simulation Exercises

Presentation

#### What is covered?

- Abnormal and emergency situations.
- Procedures for abnormal and emergency situations.
- Effective control of situations.

#### Who should attend?

- Approach Controllers.
- OJT instructors & Supervisors.



# **Prerequisites**

- Approach Control Surveillance Rating course (ICAO 054).
- Good command in English equivalent to Level 4 in the ICAO English language proficiency test.



English.



#### **Duration**

One Weeks (30 hours)

# **≡** 🖁

#### **Assessment and Certification**



# Area Control Procedural Refresher Course

## **Area Control Procedural Refresher Course**

#### What will you learn?

ICAO standards and recommended practices for Area Controllers in order to effectively and efficiently control air traffic within En-route sector using no surveillance system.

#### **Learning Activities**









Lectures

Simulation Exercises studies

Presentation

## What is covered?

- Standard practices and procedures within En-route sector.
- Non-routine situations within En-route sector.
- Human Factors.

# Who should attend?

- Area Controllers.
- OJT instructors & Supervisors.



#### **Prerequisites**

- Area Control Procedural Rating course (ICAO 055).
- Good command in English equivalent to Level 4 in the ICAO English language proficiency test.

# 

English.



## **Duration**

3 Weeks (90 hours).

#### **≡ இ** Assessment and Certification

# **Area Control Procedural Refresher Course /SPP**

#### What will you learn?

ICAO standards and recommended practices for Area Controllers in order to effectively and efficiently control air traffic within the En-route sector without using surveillance system.

#### **Learning Activities**







Lectures

Simulation Exercises

Presentation

#### What is covered?

Standard practices and procedures within En-route sector

# Who should attend?

- Area Controllers.
- OJT instructors & Supervisors.

# **Prerequisites**

- Area Control Procedural Rating course (ICAO 055).
- Good command in English equivalent to Level 4 in the ICAO English language proficiency test.

# **Course Language**

English.



#### **Duration**

One Weeks (30 hours)

#### **Assessment and Certification**

#### **Area Control Procedural Refresher Course /NRS**

#### What will you learn?

It's will ensure that the knowledge and skills of the Area procedural controllers are maintained and updated to effectively and efficiently manage traffic in abnormal and emergency situations within Area sector in accordance with ICAO standards and recommended practices

#### **Learning Activities**







Lectures

Simulation Exercises

Presentation

#### What is covered?

- Identify abnormal and emergency situations.
- Comply Procedures for abnormal and emergency situations.
- Provide effective control of situation.

#### Who should attend?

- Area Controllers.
- OJT instructors & Supervisors.

#### **Prerequisites**

- Area Control Procedural Rating course (ICAO 055).
- Good command in English equivalent to Level 4 in the ICAO English language proficiency test.

### ☐ Course Language

English.



#### **Duration**

One Weeks (30 hours)

#### **■ Assessment and Certification**



# Area Control Surveillance Refresher Course

#### **Area Control Surveillance Refresher Course**

#### What will you learn?

ICAO standards and recommended practices for Area Controllers in order to effectively and efficiently control air traffic within En-route sector using surveillance system.

#### **Learning Activities**









Lectures

Simulation Exercises

Casestudies

Presentation

#### What is covered?

- Standard practices and procedures within En-route sector.
- Non-routine situations within En-route sector.
- Human Factors.

#### Who should attend?

- Area Controllers.
- OJT instructors & Supervisors.



#### **Prerequisites**

- Area Control Surveillance Rating course (ICAO 054).
- Good command in English equivalent to Level 4 in the ICAO English language proficiency test.

### Course Language

English.



#### **Duration**

■ 3 Weeks (90 hours).



#### **■ ରା Assessment and Certification**

#### **Area Control Surveillance Refresher Course /SPP**

#### What will you learn?

It's will ensure that the knowledge and skills of the Area surveillance Controllers are maintained and updated to effectively and efficiently control air traffic within Area Control Environment using surveillance system in accordance with ICAO standards and recommended practices.

#### **Learning Activities**







Lectures

Simulation Exercises

Presentation

#### What is covered?

- Standard practices and procedures within En-route sector.
- Aviation Law, Aircraft performance and Mereology.
- Air Traffic Management.

#### **Prerequisites**

- Area Control Surveillance Rating course (ICAO 054).
- Good command in English equivalent to Level 4 in the ICAO English language proficiency test.

## Course Language

English.



#### **Duration**

One Weeks (30 hours).

#### **■ Assessment and Certification**

Approved by GACA.

#### Who should attend?

- Area Controllers.
- OJT instructors & Supervisors.

#### **Area Control Surveillance Refresher Course /NRS**

#### What will you learn?

It's will ensure that the knowledge and skills of the Area controllers are maintained and updated to effectively and efficiently manage traffic in abnormal and emergency situations within Aea control sector in accordance with ICAO standards and recommended practices.

#### **Learning Activities**







Lectures

Simulation **Exercises** 

Presentation

#### What is covered?

- Abnormal and emergency situations.
- Procedures for abnormal and emergency situations.
- Effective control of situations

#### Who should attend?

- Area Controllers.
- OJT instructors & Supervisors.



#### **Prerequisites**

- Area Control Surveillance Rating course (ICAO 054).
- Good command in English equivalent to Level 4 in the ICAO English language proficiency test.

## Course Language

English.



#### **Duration**

One Weeks (30 hours).

#### **■ Assessment and Certification**



# Aircraft Emergencies for Aerodrome Controller

#### **Aircraft Emergencies for Aerodrome Controller**

#### What will you learn?

The required knowledge and skills for Aerodrome controllers to effectively manage aircraft emergency situations in accordance with KSA Air Traffic Services Procedures Section 29.12 & GACAR Section 11 & 12.

#### **Learning Activities**









Lectures

Simulation Exercises

Casestudies

Presentation

#### What is covered?

- Radio communication failure aircraft.
- Aircraft with engine failure/Fire/Smoke.
- Hydraulic Failure Aircraft.
- Bird Hit aircraft.
- Crashed Aircraft.

#### **Prerequisites**

- Aerodrome Control Rating Course (ICAO) 052).
- Aerodrome Control Rating.
- Good command in English equivalent to Level 4 in the ICAO English language proficiency test.

### 回忆 Course Language

■ English.



#### **Duration**

■ 2 Weeks (60 hours).

#### **■** Assessment and Certification

- ICAO Standard Training Package (STP).
- Approved by GACA.

#### Who should attend?

- Aerodrome Controllers.
- OJT instructors & Supervisors.



# OJT Techniques for ATCOs Course

### **OJT Techniques for ATCOs Course**

#### What will you learn?

Will provide participants with OJTI refresher knowledge and skills to maintain the effectiveness and competency assessment system in accordance with the relevant ICAO SARPs and national regulations most effective training techniques in order to achieve the goals of OJT program.

#### **Learning Activities**







Lectures

Group exercises

Presentation

#### What is covered?

- Plan OJT.
- Conduct OJT.
- Evaluate trainees progress.
- Analyze complete training record.

#### Who should attend?

Air Traffic Controllers.

#### 0 0 0 0 0

#### **Prerequisites**

- Preferably Have at least 3 years practical experience as ATCO
- Hold a ATC valid rating
- Have Good command of English language

### Course Language

■ English.



#### **Duration**

2 Weeks (60 hours).

#### **≡** 🔋

#### **Assessment and Certification**



# On-the Job Training instructor (OJTI) Refresher Course

### On-the Job Training instructor (OJTI) Refresher Course

#### What will you learn?

The most effective training techniques in order to achieve the goals of OJT program.

#### **Learning Activities**







Lectures

Group exercises

Presentation

#### What is covered?

- General of On-the Job Training
- On the Job Training Instructor and the training Environment
- Design of Competence-Based Training and Assessment
- Apply Instructors and Assessors
- OJTI Development Programme Considerations

#### **Prerequisites**

- Completing OJT techniques for Air Traffic Controller course.
- Have Good command of English language.

### **Course Language**

English.



#### **Duration**

3 days (18 hours)

#### 

Approved by GACA.

#### Who should attend?

Air Traffic controller instructors or OJTI



# **Examination Techniques for Air Traffic Controller Course**

#### **Examination Techniques for Air Traffic Controller Course**

#### What will you learn?

The most affective techniques to design and construct tests, administer tests and test scoring in accordance with required standard.

#### **Learning Activities**







Lectures

Group exercises

Presentation

#### What is covered?

- Design tests.
- Administer a test.
- Score test.

#### Who should attend?

- Civil aviation personnel employed as Air Traffic Controllers.
- ATC and OJT instructors & supervisors.

#### **Prerequisites**

- Preferably Complete Instructor Techniques Course.
- Good command of English language preferably equivalent Level 5 as minimum in the ICAO English Language Proficiency Tests.
- Good command of PC application (Microsoft office).

### 区 Course Language

■ English.



#### **Duration**

One week (30 hours).



#### **Assessment and Certification**



# Instructor Training Course

#### **Instructor Training Course**

#### What will you learn?

All necessary skills, knowledge and desirable attitudes to deliver standardized or traditional non-standardized courses efficiently and in professional manner.

#### **Learning Activities**









Lectures

s Gr

Group Individual exercises exercises

Presentation

#### What is covered?

- Training preparation procedures.
- Techniques, methods, and tools necessary to deliver effective training.
- Evaluation of the trainees and the training.

#### Who should attend?

Ab initio and untrained instructors.



#### **Prerequisites**

- Good command of English language.
- Good command of PC application (Microsoft office).



English.



#### **Duration**

2 Weeks (60 hours).



#### **Assessment and Certification**



# **ATS Supervisor Course**

#### **ATS Supervisor Course**

#### What will you learn?

The knowledge and skills to effectively performATS supervisory role in accordance with international best practices.

#### **Learning Activities**









Lectures Group

Case studies exercises

Presentation

#### What is covered?

- Supervisory Attributes
- Team work & leadership quality
- Assessing Staff Performance
- Operational Procedures (Role & Responsibilities)

#### Who should attend?

ATS personnel who is appointed to the role of ATS Supervisor



#### **Prerequisites**

- Aerodrome/Approach Control / Area **Control Rating Courses**
- Aerodrome/Approach Control / Area **Control Rating Courses**
- Good command of English language preferably equivalent Level 5 as minimum in the ICAO English Language Proficiency Tests.



### Course Language

English



#### **Duration**

■ 1 Week (30 hours)



#### **Assessment and Certification**



# Human Factors for ATCO Course

#### **Human Factors for ATCO Course**

#### What will you learn?

A basic understanding of human factors in air traffic control services which contributes to a safer and more efficient working environment in accordance with human factors manual.

#### **Learning Activities**







Lectures

Case studies

Presentation

#### What is covered?

- Overview of Human concept, and acquire knowledge.
- Orientation of acceptance of the Rules& practices relevant ATC.
- Liaise and coordinate with colleagues and pilots.
- SHELL & REASON Models.
- Recognizing and preventing of human error.
- Threat and Error Management (TEM).

Who should attend?

- Air Traffic Controllers.
- ATC Supervisors.
- ATC instructors.

## Prerequisites

- Aerodrome/Approach Control/Area Control Rating Courses.
- Preferably possess competency Level 4 in the ICAO English Language Proficiency Requirements Tests.

### Course Language

■ English.



#### **Duration**

■ 1 Week (30 hours).



#### **Assessment and Certification**



# Low Visibility Procedures for Aerodrome Controller

#### **Low Visibility Procedures for Aerodrome Controller**

#### What will you learn?

The necessary knowledge skills and attitude to effectively control aerodrome traffic during low visibility conditions in accordance with KSA GACAR 171, ATSP-1&2 and ICAO Documents.

#### **Learning Activities**







Lectures

Simulation Exercises

Presentation

#### What is covered?

- Control aerodrome traffic on the movement area in low visibility conditions.
- Control aerodrome traffic during CAT II / III operations in low visibility conditions.
- Control special VFR traffic in low visibility conditions.

#### **Prerequisites**

- Aerodrome Control Rating (ICAO 052).
- ICAO Aviation English Language Proficiency level 4.

#### Who should attend?

Aerodrome Controllers.

## ☐ Course Language

English.



#### **Duration**

1 Week (30 hours).

#### **≡** 🖁

#### **Assessment and Certification**

- ICAO Standard Training Package (STP).
- Approved by GACA.



# **TIBA Safety Procedures**(Uncontrolled Operations)

#### **TIBA Safety Procedures (Uncontrolled Operations)**

#### What will you learn?

Effectively apply TIBA procedures (in Uncontrolled airspace) in accordance with KSA ATSP, Section 15.22 and KSA AIP, TIBA Procedures (ENR 1.4 & GEN 1.7) and KSA GACAR Section 11, Appendix-5, TIBA Operating Procedures.

#### Learning Activities









Lectures

Group exercises

Individual exercises

Presentation

#### What is covered?

- TIBA Procedures for landing aircraft.
- TIBA Procedures for departing aircraft.
- Emergency procedures in uncontrolled airspace.

#### Who should attend?

- Airlines pilots.
- Air Traffic Controllers.
- Ground Operations personnel.
- Foreign & KSA airspace users.
- General Aviation personnel.
- Flight information specialists officers (FISO).
- Airside personnel.



### **Prerequisites**

- Have successfully completed Basic Area Control Course or be a pilot or possess aviation background.
- Preferably possess competency Level 4 in the ICAO English Language Proficiency Requirements Tests.

## Course Language

English.



#### **Duration**

1 Week (30 hours).

#### **Assessment and Certification**

- ICAO Standard Training Package (STP).
- Approved by GACA.



# **PBN for ATCOs Course**

#### **PBN for ATCOs Course**

#### What will you learn?

The required Knowledge/ Skills/Attitudes (K/S/A) to achieve the acceptable level of competency in order to meet the objectives of air traffic services as prescribed by ICAO Performance Based Navigation (PBN) criteria.

#### **Learning Activities**







Lectures

Group exercises

Presentation

#### What is covered?

- Description of the Performancebased Navigation (PBN) Concept, RNAV and RNP Nav-Spec, Instrument Approaches and Flight Management Systems.
- Performance-Based Navigation (PBN) in terms of RNAV and RNP operations and functions.
- Determining of navigational aids infrastructure applicable to Performance Based Navigation (PBN) concept.
- Identifying the sequence and coordination procedure implemented according to the Performance-Based Navigation (PBN) concept.
- Interpreting conditions and restrictions for advice to aircraft as per the Performance-Based Navigation (PBN) concept.

#### Who should attend?

Air Traffic Controllers



#### **Prerequisites**

Good command of English language.



#### Course Language

English.



#### **Duration**

1 Week (30 hours)



#### **Assessment and Certification**

ICAO Standard Training Package (STP).



# **General Unusual Emergency Situations**

#### **General Unusual Emergency Situations**

#### What will you learn?

The appropriate application of abnormal & emergency procedures/guidelines to effectively handle emergency aircraft in continuation of effective Air Traffic Control in accordance with ICAO Doc.

#### **Learning Activities**









Lectures

Group exercises

Individual exercises

Presentation

#### What is covered?

- Unusual & Emergency Procedures.
- Unlawful interference.
- Strayed or unidentified aircraft.
- Bomb Threat.
- Interception of civil aircraft.
- Aircraft Emergencies (Engine failure/ Fire/ Smoke/ Hydraulic Failure / Bird Hit / Crashed Aircraft / Fuel Problem).
- Electrical Problem / Icing and fuel dumping.

#### Who should attend?

Air Traffic Controllers.



#### **Prerequisites**

- Posses a rating TWR/APP/ACC have competency Level 4 in the ICAO.
- English Langage Proficiency Tests.

### Image: The control of the control of

English.



#### **Duration**

■ 1 Week (30 hours).



#### **Assessment and Certification**



# CNS/ATM for Air Traffic Controller

#### **CNS/ATM for Air Traffic Controller**

#### What will you learn?

To gain an overview of ICAO CNS/ATM technologies and infrastructure to support the transition to a performance-based air navigation system, This course reviews the guidance material and provides you with a foundation so that you can be conversant on this subject

#### **Learning Activities**









Lectures

Group exercises

Individual exercises

Presentation

#### What is covered?

- Traditional Communication methods.
- Data linking.
- · CPDLC.
- Aeronautical Telecommunications Network.
- Global Navigation Satellite System.
- Area Navigation.
- RNAV Airspace.
- Performance Based Navigation.
- RNAV approaches.
- Surveillance.
- ADS-(B-C).
- SSR Mode S.
- Multilateration.
- Traditional ATC environment.
- Flow Management.
- Controllers Tools.
- Integrating RNAV into Approach.
- AIM.
- Static Data.
- Dynamic Data.

#### Who should attend?

Air Traffic Controllers.



#### **Prerequisites**

The recommended level of language proficiency is ICAO Operational Level 4 for courses in English or the equivalent level for other languages.



#### **Course Language**

English.



#### **Duration**

■ 1 Week (30 hours).



#### **Assessment and Certification**



## **ADS-B for ATCO**

#### What will you learn?

This course will enable Surveillance Controllers to the required level of knowledge and skills of ADS-B systems in the provision of air traffic services, including in the provision of separation between aircraft, for Approach and Area Control Surveillance in accordance with international and national Standards.

#### **Learning Activities**









Lectures

Group exercises

Individual exercises

Presentation

#### What is covered?

- The uses of ATS surveillance systems capabilities.
- The uses of surveillance systems in the provision of ATC service.
- Key differences between RADAR surveillance and ADS-B surveillance.
- Key differences between RADAR surveillance and MALT surveillance.
- ADS-B regulations and procedures.
- Differences between ADS-B out and in.
- Airborne equipment required for ADS-B.

#### Who should attend?

 Approach Surveillance and Area Surveillance Controllers.



#### **Prerequisites**

- Successfully completed ICAO 054 APS or ACS.
- Possess competency Level 4 in the ICAO English Language Proficiency Requirements Tests.

### 

English.



#### Duration

■ 1 Week (30 hours).

#### **= 9**

#### Assessment and Certification



# Fixable Use of Airspace

#### **Fixable Use of Airspace**

#### What will you learn?

Civil military cooperation requirements for the development of a flexible approach to the use of airspace.

#### **Learning Activities**









Lectures

Group exercises

Individual exercises

Presentation

#### What is covered?

- International and national regulatory framework governing state aircraft operations and airspace management.
- Airspace users and their use of airspace.
- Global ATM Operational Concept.
- The components of the GATM Operational Concept.
- Civil and military inter-operability.
- The principles of airspace organization and management.

#### Who should attend?

Civil and military staff intending to implement or enhance civil-military cooperation in the domain of flexible airspace management.



#### **Prerequisites**

- Knowledge of the ICAO airspace classifications and publication of Annex 15.
- An operational background in either military or civil ATM.

#### ☐ Course Language

English.



#### **Duration**

3 days (18 hours).



#### **Assessment and Certification**



# **ATC Pilot Control Unit Operator Course**

#### **ATC Pilot Control Unit Operator Course**

#### What will you learn?

Operating the ATC Pilot Control Unit in order to provide realistic Radar and Aerodrome simulations by controlling various aircraft in accordance with the instructions received from an ATC.

#### **Learning Activities**









Lectures

Group Individual exercises exercises

dual Presentation

#### What is covered?

- Basic principles of Air law, Navigation, Aircraft performance, , Air Traffic Management and Meteorology.
- The characteristics of simulation.
- Managing the different phases of a simulation process.
- Operating ATC simulators to provide students with a realistic leaning environment.
- Comprehension and interpretation of all phrases related to air traffic control.
- Standard ICAO-Phraseology.

#### Who should attend?

 Prospective ATC Simulation Pseudo Pilots.



#### **Prerequisites**

- Computer skill.
- Preferably possess competency Level 3 in the ICAO ELPT.

### Image: The control of the control of

■ English.



#### **Duration**

6 Weeks (180 hours).



#### **Assessment and Certification**

Attendance Course Certificate.



## **Introduction to Aviation Law**

#### **Introduction to Aviation Law**

# What will you learn?

A general overview of Aviation Law.

# **Learning Activities**





Lectures

Presentation

# What is covered?

- The necessity for air law, the sources and development of aviation law.
- The key national and international aviation organizations.
- The purpose and function of ICAO.
- Methods by which ICAO notifies and implements legislation.
- The purpose and function of GACA.
- The means by which legislation is implemented, notified and updated.
- The regulatory authority responsible for licensing and enforcing legislation.
- How the regulatory authority carries out its safety regulation.
- Rules of the air.
- International and national laws governing aircraft accident.

#### Who should attend?

Anyone working in civil aviation.



# **Prerequisites**

Good command of English Language.



# **Course Language**

English.



#### **Duration**

3 Days (18 hours).



#### **Assessment and Certification**



# **Introduction to ATC**

### **Introduction to ATC**

# What will you learn?

A general overview of Air Traffic Control.

# **Learning Activities**









Lectures

Group exercises

Individual exercises

Presentation

# What is covered?

- Differences between the Air Navigation Services.
- The considerations which determine the need for the ATS.
- Differences between the ATS.
- The objectives of ATS.
- The requirement for ATC license.
- Resources required to achieve ATC objectives (Equipment, personnel, regulations, etc).
- Flight through the ATS system.

# Who should attend?

Prospective ATC Simulation Pseudo Pilots.



# **Prerequisites**

■ Good command of English Language.

# Course Language

English.



# **Duration**

One Day (6 hours).



# ■ Assessment and Certification



# **Apron Management Course**

# **Apron Management Course**

# What will you learn?

The required knowledge and skills to effectively manage traffic on the apron with an emphasis on safety and service quality in accordance with ICAO standards / KSA apron procedures.

# **Learning Activities**









Lectures

Group exercises

Simulation Exercises

Presentation

# What is covered?

- Apron Description.
- RTF facilities.
- Control of aircraft and vehicle on the apron and separation.
- Start up, push back, taxi clearances and stand allocation.
- Various airline service vehicles regulation, crossing apron or taxiways.
- Responsibilities of inspection, maintenance and cleanliness of apron.
- Marshalling services and parking needs.
- Low visibility operations.
- Procedures to cater for contingencies such as accidents, emergencies, snow clearance, diversion aircraft, flow control stand cleaning and security.
- ATS Unit/apron management coordination.
- Aircraft stand allocation.
- Aircraft parking/docking guidance system.
- Marshalling service.
- Lead Van service.
- Apron Safety (Blast precautions).
- Aircraft refueling.

### Who should attend?

- Prospective Apron Controller/Manager.
- Bays Planner.
- Aviation Personnel involved in Apron duties.



# **Prerequisites**

Good command of English Language.



# **Course Language**

English.



# **Duration**

10 Weeks.



#### **Assessment and Certification**

Certificate of achievement.



# **Apron Management Refresher Course**

# **Apron Management Refresher Course**

# What will you learn?

The updated knowledge and skills to effectively manage traffic on the apron with an emphasis on safety and service quality in accordance with ICAO standards/KSA apron procedures.

# **Learning Activities**







Lectures

Simulation Exercises

Presentation

#### What is covered?

- RTF facilities.
- Control of aircraft and vehicle on the apron and separation.
- Start up, push back, taxi clearances and stand allocation.
- Various airline service vehicles regulation, crossing apron or taxiways.
- Responsibilities of inspection, maintenance and cleanliness of apron.
- Marshalling services and parking needs.
- Low visibility operations.
- Procedures to cater for contingencies such as accidents, emergencies, snow.
- Clearance, diversion aircraft, flow control stand cleaning and security.
- ATS Unit/apron management coordination.
- Aircraft stand allocation.
- Aircraft parking/docking guidance system.
- Marshalling service.
- Lead Van service.
- Apron Safety (Blast precautions).
- Aircraft refueling.

### Who should attend?

Apron Controller / Manager.



# **Prerequisites**

- Apron Management Course.
- Good command of English language.



# **Course Language**

■ English.



#### **Duration**

2 Weeks.



#### **Assessment and Certification**



# **GACA Regulations for ANS**

# **GACA Regulations for ANS**

# What will you learn?

Thorough knowledge of new ANS GACARs to meet their safety obligations related to the provision of ANS services within the legal & regularity framework of the General Authority of Civil Aviation (GACA).

# **Learning Activities**







Lectures

Group exercises

Presentation

# What is covered?

- Course Introduction & Sources of aviation legislation (Public & private).
- Aviation Safety Regulations (GACARs).
- ANS specific GACA.

# Who should attend?

- ANS managerial posts.
- ANS supervisors.
- Operational ANS staff.



# **Prerequisites**

Good command of English Language.



# Course Language

■ English.



# **Duration**

2 Days.

### **■ ♀ Assessment and Certification**



# **CPDLC** for ATCO's

#### **CPDLC** for ATCO's

# What will you learn?

It describes the main principles, and the basics of CPDLC aviation operations including related phraseology and provide background information for understanding the safety issues related to this technology.

# **Learning Activities**







Lectures

Group exercises

Presentation

# What is covered?

- The data link communication services.
- The Future Air Navigation System (FANS) 1/A.
- The Aircraft Communications Addressing and Reporting System (ACARS).
- The use of CPDLC.
- The basics of CPDLC messaging and operation.
- The advantages and disadvantages of CPDLC.
- Apply the standardized Phraseologies related to CPDLC.
- Apply the procedures for reverting from CPDLC to voice.

#### Who should attend?

- Air Traffic Controllers.
- Pilots.

# **■** Assessment and Certification

Certificate of achievement.

# 

■ English.



#### **Duration**

3 Days.



# **Airport Communication Methods & Terminologies**

# **Airport Communication Methods & Terminologies**

# What will you learn?

The required communication Knowledge, skill and attitude to effectively perform their jobs in accordance with ICAO (annex 10) and ICAO DOC 8400.

### **Learning Activities**







Lectures

Group exercises

Presentation

#### What is covered?

- Identify Communication Modes and Terminologies effectively.
- Use the phonetic alphabets and numbers in messages transmitted and received through voice communications.
- Apply the different communications techniques and strategies.
- Apply Communication phraseologies used in voice communications correctly.
- Apply two-way communications between operation vehicles, Tower Control, using Standard communications procedures.
- Identify types of airport emergencies and fire and rescue communication system.
- Identify the standard ICAO Message Format for the aeronautical fixed service Assessment.

#### Who should attend?

 All new employees who will work in airport operations environment (airside and landside).

# Course Language

English.



# **Duration**

■ 5 Days.

# **=** 9

#### **Assessment and Certification**

Certificate of achievement.



# **ATC Competency Assessment**

# **ATC Competency Assessment**

# What will you learn?

To train a team of competent Assessors for ATS Unit and ATSTO to implement a more effective competency assessment system in accordance with the relevant ICAO SARPs and national regulations.

# **Learning Activities**







Lectures

Group exercises

Presentation

# What is covered?

- Assess an integrated performance in a competency-based environment and, at the same time, evaluate the performance of separate competencies.
- Conduct assessment by gathering evidence of competent performance.
- Debrief the trainees in a manner that will aid their progress in future.

#### Who should attend?

 Air Traffic Controllers fulfilling the criteria to become an Assessor for ATS Unit and ATSTO as per norms defined by Aviation Regulator.



■ English.



**Duration** 

■ 3 Days.



# **Runway Incursion**

# **Runway Incursion**

# What will you learn?

The knowledge and skills necessary to enhance maintain safety of the air traffic controller in accordance with Air Traffic Management (PANS-ATM, Doc 4444)

# **Learning Activities**







Lectures

Group exercises

Presentation

# What is covered?

- Define Runway Incursion
- Identify the Contributory factors
- know establishing a Runway Incursion Prevention Programme
- State the recommendations for the prevention of Runway Incursions
- Classify the severity of Runway Incursions

# Who should attend?

Air Traffic Controllers

# Course Language

■ English.



# **Duration**

2 Days.

