AIRPORTS COMPANY
SOUTH AFRICA
AVIATION
ACADEMY

TRAINING
COURSES
DEVELOPED
FOR AFRICA
IN AFRICA
BY AFRICANS

AIRCRAFT RESCUE AND FIRE FIGHTING

TABLE OF CONTENTS

BREATHING APPARATUS

COURSE DURATION : 1 Days Training

COURSE DEPLOYMENT : Classroom / Virtual

TARGET GROUP
Fire Fighting Personnel

COURSE AIM
The aim of this is course is to enable the participant to use a self-contained breathing apparatus (SCBA) safely and effectively during emergency rescue and firefighting procedures

COURSE OBJECTIVES - UPON COMPLETION OF THIS COURSE, PARTICIPANTS WILL BE ABLE TO:
- Describe important aspects of safety.
- Demonstrate practical application as it pertains to emergency service provider operations.
- Identify the basic functions and uses of self-contained breathing apparatus
- Properly don (wear) and doff (take off) self-contained breathing apparatus
- Learn how to don and doff breathing apparatus within a reasonable time to manage the emergency.

PASS MARK: 70%

Minimum number of Attendees: 12

AMOUNT: (PER DAY; PER LEARNER) R3775,51 (Excl. VAT)

MODULE 1 : PROTECTIVE BREATHING APPARATUS LIMITATIONS
- Limitation of a wearer
- Limitation of equipment's
- Limitation of air supply

MODULE 2 : OPEN CIRCUIT/POSITIVE PRESSURE
- Method of operation
- SCBA components

MODULE 3 : MAINTENANCE AND INSPECTION
- After use maintenance
- Cylinder recharging
- Recommended daily inspection and maintenance
- Monthly inspection and maintenance – same as daily/weekly
- Defective units
- Testing schedule – Hydrostatic

BREATHING APPARATUS

MODULE 4 : DONNING AND DOFFING
- Participant preparation
- Pre -Donning inspection
- Donning (two methods)
- Operator
- SCBA Doffing
- Donning drill

MODULE 5 : CONTROLLED BREATHING TECHNIQUES
- Type of breathing techniques
- Suggested patterns

MODULE 6 : EMERGENCY PROCEDURES
- Quick fill procedure

MODULE 7 : CHANGING CYLINDERS
- Technique

MODULE 8 :PRACTICAL EXERCISE
- Obscure vision practical exercise
- Smoke environment exercise
- Maze evolution

CONTROL & WATCHROOM

COURSE DURATION : 2 Days Training

COURSE DEPLOYMENT : Classroom / Virtual

TARGET GROUP
Fire Fighting Personnel
Personnel whose duties include manning the control and watch room.

COURSE AIM
The aim of this is course is to enable the participant to gain the necessary knowledge in watch room procedures and incident reporting to effectively carry out the duties of a Watch Room Operator.

COURSE OBJECTIVES - UPON COMPLETION OF THIS COURSE, PARTICIPANTS WILL BE ABLE TO:
- Work in the control room • Handle any emergency
- Demonstrate knowledge of take over and handover watch room duties
- Demonstrate knowledge of airport facilities; and
- Carry out Watchroom communications duties during an emergency
- Log all eventualities in the occurrence book.

PASS MARK: 75%

MINIMUM NUMBER OF ATTENDEES: 12

AMOUNT: (PER DAY; PER LEARNER) R3981,13 (Excl. VAT)

MODULE 1 : WATCHROOM PROCEDURE
- Effectively deals with all emergency situations.
- Appropriate detailed recording of incidents and all routine activities.

MODULE 2 : ALERT PHASES CATEGORIZATION AND RESPONSES
- Correctly assess the alert phase of either an incident or accident
- Ensure that the appropriate phase of the Emergency Services Plan is activated.

MODULE 3 : RADIO PROCEDURES – EMERGENCY AND NON-EMERGENCY
- Initiate, maintain, and manage two-way radio communications in an orderly manner.
- Ensure that messages transmitted are easily understood.
- Avoid unnecessary radio transmissions, especially in the event of an emergency.

MODULE 4 : PHASE I (SPECIFIC TO AIRPORT)
- Enable and prepare the fire services to cope with an emergency.
- Minimize the effects of an emergency, in respect of saving lives and maintaining aircraft operations.

CONTROL & WATCHROOM

MODULE 5 : PHASE II (NOTIFY EXTERNAL EMERGENCY SERVICES)
- Teach the watch room personnel how to communicate with external emergency services
- Advise external emergency services to be on standby at their stations
- Record the notification in the occurrence book.

MODULE 6 : PHASE III (CALL OUT ALL EXTERNAL EMERGENCY SERVICES)
- Teach the watch room personnel how to communicate with external emergency services
- Call Out external emergency services
- Record the notification in the occurrence book.

MODULE 7 : DOMESTIC FIRE AND SPECIAL SERVICES
- Attend to the fire until the municipal fire fighters arrive
- Procedures for dealing with special services

MODULE 8 : WEATHER STANDBY
- How to decipher the messages from the ATC that are weather related
- How to follow company procedures as related to effects of poor weather conditions.

MODULE 9 : BOMB WARNINGS ON AIRCRAFT
- How to decipher the messages related to bombs
- How to follow company procedures as related to bombs on Aircrafts and in airport vicinity.

MODULE 10 : HI-JACK UNLAWFUL ACT
- How to decipher the messages from the ATC that are related to Hi Jack situations
- How to follow company procedures as related to Hi Jack situations

MODULE 11 : ACTS OF AGGRESSION – GROUND AND IN FLIGHT
- How to handle acts of aggression notifications

MODULE 12 : PROVISION AND SUPPLY OF AIRCRAFT BRAKE COOLING
- To advise the Fire Crew if there is a request for brake cooling
- Familiarization of brake cooling procedure

MODULE 13 : THE MITIGATION OF OIL/FUEL SPILLS ON THE MOVEMENT AREAS
- To advise the Fire Crew if there is a request for organic/synthetic oil/fuel spills

MODULE 14 : DE-ICING, ENGINE TESTING AND REFUELING OF AIRCRAFTS
- To advise the Fire Crew if there is a request for deicing. Engine testing and refueling of aircrafts with passengers onboard
- Familiarization of the deicing engine testing and refueling procedure.

MODULE 15 : DEFINITIONS
- Phonetic alphabet
- Applicable 3 letter code
- IATA/ICAO Definitions
- Specific Phrases and words used in the Fire and Rescue Services Manuals
- Endorsement

FIRE INSTRUCTOR COURSE

COURSE DURATION : 5 Days Training

COURSE DEPLOYMENT : Classroom / Virtual

TARGET GROUP
Senior Fire Fighting Personnel
General Facilitators and Trainers

COURSE AIM
The aim of this is course is to provide up to-date information required to meet and exceed the modern job performance requirements for fire service instructors and any other person wishing to become an instructor. This is the Train the Trainer Course aimed at preparing any trainer for training requirements.

COURSE OBJECTIVES - UPON COMPLETION OF THIS COURSE, PARTICIPANTS WILL BE ABLE TO:
- Apply training principles
- Apply assessment principles
- Understand and apply the requirements for conducting training
- Understand and apply the requirements for preparing for training
- Practice training skills to prepare for training promoted

PASS MARK: 75%

MINIMUM NUMBER OF ATTENDEES: 12

AMOUNT: (PER DAY; PER LEARNER) R3784,14 (Excl. VAT)

MODULE 1 : LEGISLATION
- Acronyms
- Understand the South African Qualifications Authority?
- Understand the South African National Qualifications Framework?

MODULE 2 : INSTRUCTIONAL CHALLENGES IN THE 21st CENTURY
- Instructor's influence
- The role of the instructor
- Qualities of a good instructor
- Traps that the instructors must avoid
- Undesirable mannerisms

MODULE 3 : COMMUNICATION
- Communication process

MODULE 4 : INSTRUCTOR ROLE
- Feedback
- Aspects that could negatively influencing the role of an instructor
- Aspects that could positively influencing the role of an instructor
- Preparing for training

FIRE INSTRUCTOR COURSE

MODULE 5 : SKILLS OF AN INSTRUCTOR
- Instructors' skills
- Demonstration skills
- Lesson plan

MODULE 6 : TRAINING AIDS
- Use of training Aids

MODULE 7 : TEST FORMATION
- Putting together a test

MODULE 8 : BODY LANGUAGE
- Having awareness of your body language
- Comparisons of behavior styles

MODULE 9 : TALKING IN MEETINGS
- Point formular

JUNIOR FIRE OFFICER

COURSE DURATION : 5 Days Training

COURSE DEPLOYMENT : Classroom / Virtual

TARGET GROUP
Firefighting Personnel (Refresher – Officers)

COURSE AIM
The aim of this is course is to enable the participant to use the information and skills required to successfully run the shift.

COURSE OBJECTIVES - UPON COMPLETION OF THIS COURSE, PARTICIPANTS WILL BE ABLE TO:
- Discuss the fire officer's role in guiding fire service personnel.
- Covers aspects of fire officers' competencies

PASS MARK: 75%

MINIMUM NUMBER OF ATTENDEES: 12

AMOUNT: (PER DAY; PER LEARNER) R3894,74 (Excl. VAT)

MODULE 1 : THE SUCCESSFUL LEADER TODAY
- The new evaluation
- What is leadership
- Role of the Junior Officer
- Qualities of Leadership
- Skills of a Junior Officer
- Principles of leadership
- The plus of leadership
- Have a purpose in life
- Meaning of communication

MODULE 2 : MAN ARE NOT MACHINES
- What is man?

MODULE 3 : THE ART OF GETTING ALONG WITH OTHERS
- Acquiring the art
- Actions are influenced
- Basic principles of human relations
- Know your men

MODULE 4 : WHAT THE FIREFIGHTER EXPECTS OF HIS OFFICER
- From cave man to modern man
- Men and common need
- Frustrations
- Providing for the needs
- More than a boss
- I want an Officer WHO…

MODULE 5 : OFFICER IN THE FIRE SERVICE
- Let's experiment
- The use of good judgement
- Command as a part of the job
- The use of authority
- Command responsibility
- Respect for the Chain-of-Command

MODULE 6 : PHASE OFFICERS MUST GAIN CONFIDENCE OF MEN
- Must earn confidence
- The results
- Gaining the right to "Command" confidence

JUNIOR FIRE OFFICER

MODULE 7 : CONTROLLING THE INCIDENT AND SUPERVISION IN THE FIRE SERVICE

- Controlling the incident
- Consider resources
- Command and controlling skills
- Approach to resolving and accident
- Major emergencies
- Supervision in the fire service

MODULE 8 : EVALUATION – DUTY OF FIRE SERVICE OFFICERS

- Evaluation of men
- Evaluation for potentials
- Evaluating the team
- Evaluation for promotion

MODULE 9 : PROBLEM SOLVING

- You and your problems
- Analysis is important
- Making your decision
- Taking action
- The cause of problems

MODULE 10 : THE JOB OF DELEGATING

- Reason for not delegating
- Effect on man
- Rules of delegating

MODULE 11 : THE FIRE OFFICER AS A TEACHER

- The new man
- The old timer
- New ways and solutions
- The Psychology of learning
- What is teaching
- Man vs animal in learning
- Why do men learn
- Principles of learning
- Methods of learning
- The process of learning
- Teaching dogs or men

MODULE 12 : DRILLING FOR RETENTION AND RECALL

- Memory is part of learning
- Remember what is important
- Memory "Hooks"
- Retention by drilling

MODULE 13 : THE DEVELOPMENT OF LEADERSHIP

- Leadership in the fire service
- Authority in the fire service
- Importance of leadership today
- Leadership entails six things
- Leadership at each level
- Selection of leadership
- Can good leadership be developed
- We can't succeed without leaders

MODULE 14 : A LOOK INTO THE PAST MAY REVEAL THE FUTURE

- What of our yesterday?
- Inefficiency of the past
- Qualifications of the past
- So what of today?
- What of the future?

MODULE 15 : SELF – ANALYSIS FOR OFFICERS

- Seven complaints and compliments
- The value of the self – analysis
- Are you worthy of promotion?

BASIC AIRCRAFT CONSTRUCTION

COURSE DURATION : 5 Days Training

COURSE DEPLOYMENT : Classroom / Virtual

TARGET GROUP
Aviation Fire Fighters, Aviation Safety Personnel

COURSE AIM
The aim of this is course is to enable the participant to understand different aircraft parts and their functions.

COURSE OBJECTIVES - UPON COMPLETION OF THIS COURSE, PARTICIPANTS WILL BE ABLE TO:
- Have a basic understanding about how aircrafts are constructed.
- Identify possible accidents and incidents that may occur
- Apply applicable procedures to be followed.

PASS MARK: 70%

MINIMUM NUMBER OF ATTENDEES: 12

AMOUNT: (PER DAY; PER LEARNER) R3944,85 (Excl. VAT)

MODULE 1 : BASIC THEORY OF FLIGHT
- Parts of an airplane
- Aircraft construction
- Landing gear
- Standard terminology
- Aerodynamics

MODULE 2 : AVIATION FUEL
- Different types of Jet fuels
- Different freezing and flash points of these jet fuels
- Countries where these different jet fuels are found
- Different aviation fuel additives
- Power boosting fluids

MODULE 3 : AIRCRAFT CONSTRUCTION
- Materials and metals used in aircraft construction
- Composite structure new aircrafts
- Tests carried out by Boeing on composite structure
- Construction of a fixed-wing aircraft
- Fuselage, Wings, Fuel Tanks and Lines
- Aircraft Engines
- APU and its functions
- Power and pressurized systems
- Hydraulics and de-icing systems
- Compressed gases found in aircrafts
- Seating
- Aircraft accesses and evacuation systems
- Fire protection systems
- Flight recorders
- Construction of Rotary wing aircrafts
- Construction of military aircrafts

BASIC AIRCRAFT CONSTRUCTION

MODULE 4 : Aircraft Incidents

- Aircraft ground incidents and fires (Cabin fires; Wheel fires; Overheated/Hot brakes; Engine fires; APU fires)
- Aircraft incidents/accidents (Low speed accident; High speed accident)
- Fire-fighting techniques – incidents on the airport:
  - Approaching of the incident
  - Positioning of the Rapid Intervention vehicle
  - Positioning of the major fire-fighting vehicles
  - Application of the extinguishing agent
  - Casualty location and handling

MODULE 5 : ICAO STANDARDS AND RECOMMENDED PRACTICES

- How ARFF personnel must implement ICAO standards and recommended practices thereby help to ensure their uniform application.
- The level of protection to be provided at an airport
- Vehicles and extinguishing agents' characteristics.
- Operating procedures for dealing with an emergency.
- Precautionary measures to be taken during aircraft fueling operations
- Application and discharge, rates for extinguishing agents.
- Airport categorization and amounts of extinguishing agents.

ADVANCED AIRCRAFT CONSTRUCTION

COURSE DURATION : 5 Days Training

COURSE DEPLOYMENT : Classroom / Virtual

PREREQUISITE
Basic Aircraft Construction

TARGET GROUP
Aviation Fire Fighters who have done basic Aircraft Construction

COURSE AIM
The aim of this is course is to enable the participant to gain in depth understanding of how aircrafts are constructed including helicopters and military aircrafts.

COURSE OBJECTIVES - UPON COMPLETION OF THIS COURSE, PARTICIPANTS WILL BE ABLE TO:
- Have in-depth information as it relates to structural features of aircrafts.
- Identify different types of aircrafts and their features.
- Deal with fires on aircrafts.
- Understand the risks that come with different aircraft components

PASS MARK: 75%

MINIMUM NUMBER OF ATTENDEES: 12

AMOUNT: (PER DAY; PER LEARNER) R3901,65 (Excl. VAT)

MODULE 1 : STRUCTURAL FEATURES
- Aircraft structural Features
- Fuselage construction
- Main plane construction
- Metals used in aircraft
- Metal alloys; Behavior in a fire situation
- Unit test

MODULE 2 : FIXED WING AIRCRAFTS
- Fixed wing aircraft design
- Fixed wing aircraft construction

MODULE 3 : AIRCRAFT HYDRAULIC SYSTEM
- Aircraft hydraulic definition
- What is hydraulic system?
- Advantages of hydraulic systems
- Devices operated by hydraulics systems in aircrafts
- Emergency back-up system
- Hydraulic fluid as a fire source

MODULE 4 : METALS USED ON AIRCRAFTS
- Metals used within aircraft construction
- Cabin furnishing materials
- Aircraft electrical systems

MODULE 5 : LITHIUM-ION AIRCRAFT BATTERIES
- Lithium-Ion aircraft batteries as a Smoke/Fire risk
- Aircraft fire from battery-powered items carried on aircraft
- Lithium batteries
- Carriage of Lithium batteries as cargo
- Carriage of battery powered wheelchairs as checked baggage
- Defenses
- Emergency response

MODULE 6 : LITHIUM-ION AIRCRAFT BATTERIES
- Introduction
- Piston engines
- Gas turbine engines
- Jet engine hazards
- Engine hazard general
- Auxiliary power unit

ADVANCED AIRCRAFT CONSTRUCTION

MODULE 7 : DIFFERENT TYPES OF AIRCRAFT FIRES

- Cabin fires
- Aircraft equipment
- Fighting the fire
- Types of fires
- Basic fire-fighting principles
- Fire in the air
- Wing fire
- Tailpipe fire

MODULE 8 : AIRCRAFT FUEL, FUEL TANKS AND AIRCRAFT SYSTEMS

- Introduction
- Aviation fuel
- Military fuels
- Comparative fire hazards of aviation fuels
- Fuel tanks
- Principal types of fuel tanks
- Aircraft liquid systems

MODULE 9 : INCIDENTS INVOLVING AIRCRAFT UNDERCARRIAGES

- Introduction
- Undercarriage problems
- Hazards
- Smoke
- Smoke gases

MODULE 10 : AIRCRAFT FUMES & FIRE DETECTION AND EXTINGUISHING SYSTEMS

- Fumes detection
- Aircraft fire detection systems
- Aircraft fire extinguishing systems
- Engine fire protection
- Fire extinguishing agents
- Halon fire extinguishers
- Smoke hoods

MODULE 11 : EMERGENCY EVACUATION ON LAND

- Evacuation
- Escape slides and access points

MODULE 12 : CARGO AIRCRAFT

- Cargo aircrafts
- Types of cargo carried
- Cargo compartment classifications
- Light aircraft post-crash fires
- Post- crash fires
- Post-Incident airport operations

MODULE 13 : HELICOPTERS

- Water actuated devices
- Engines and rotors
- Electrical systems
- Fuel and fuel tanks
- Fire and rescue tactics
- Autorotation

MODULE 14 : RFFS PROCEDURES FOR MILITARY AIRCRAFT EMERGENCIES

- RFFS Procedures for Military Aircraft Emergencies
- Construction
- Military identifying symbols
- Canopies, approach and positioning of appliances
- Hazards
- Access to cockpit
- Ejection

MODULE 15 : GENERAL AVIATION

- General aviation (GA)
- Construction
- Electrical systems
- Fuel and fuel systems
- Making access
- Ballistic parachute systems
- Flashover

MODULE 16 : AIRCRAFT FIREFIGHTING AND RESCUE CONSIDERATIONS

- Aircraft firefighting and rescue considerations
- Cordons
- Compressed air foam systems
- External fires
- Internal fires
- Internal firefighting and search procedures
- Fires involving the exterior and interior
- Aircraft engines – firefighting tactics and techniques

AFFETT - AIRCRAFT FIRE FIGHTING EQUIPMENT TACTIC AND TECHNIQUES

COURSE DURATION : 5 Days Training

COURSE DEPLOYMENT : Classroom / Virtual

PREREQUISITE
Fire Fighter 1 & 2

TARGET GROUP
Fire Fighters

COURSE AIM
The aim of this is course is to enable the participants to gain practical knowledge in the use of hand-operated firefighting equipment. The participants need to have attended fire fighter 1&2 courses as a prerequisite.

COURSE OBJECTIVES - UPON COMPLETION OF THIS COURSE, PARTICIPANTS WILL BE ABLE TO:
- Identify aircraft apparatus,
- Use different rescue tools,
- Extinguish agents and other relevant media.
- Safely approach an aircraft crash site.

PASS MARK: 70%

MINIMUM NUMBER OF ATTENDEES: 12

AMOUNT: (PER DAY; PER LEARNER) R3775,51 (Excl. VAT)

MODULE 1 : Aircraft Fire Fighting Tactics and Techniques
- Describe the basic firefighting tactics and techniques for aircraft emergency.
- State the priorities for action at an aircraft incident.
- State the considerations when positioning appliances and equipment.
- Recognize the associated hazards and problem areas.
- List the fire safety measures to be taken at the scene of an aircraft accident.

MODULE 2 : THE ROLE OF AN OFFICER IN CHARGE
- Define the specific responsibilities of a supervisor on route and upon arrival at an aircraft/helicopter accident or incident.
- State the action required post fire and rescue, and scene management

MODULE 3 : INCIDENTS INVOLVING HELICOPTERS
- The role of helicopters,
- The construction materials used.
- The associated hazards with helicopters.
- The correct fire-fighting tactics when dealing with a helicopter incident.

MODULE 4 : INCIDENTS INVOLVING UNDERCARRIAGE
- Explain the need for sound technical knowledge and practical competency.
- State the required tactics and techniques for dealing with incidents involving aircraft undercarriage assemblies, engines and internal fires.
- State the required action at the scene following firefighting and rescue operations.

MODULE 5 : INCIDENTS INVOLVING AIRCRAFT ENGINES
- Action on arrival at the scene.
- Hazards associated with incidents involving aircraft engines.
- Action post incident.

AFFETT - AIRCRAFT FIRE FIGHTING EQUIPMENT TACTIC AND TECHNIQUES

MODULE 6 : INCIDENTS INVOLVING INTERNAL/CABIN FIRES

- List the associated pyrotechnic hazards
- State the additional hazards
- Describe the appliance positioning considerations
- State the method of rescue from a fighter aircraft

MODULE 7 : INCIDENTS INVOLVING MILITARY AIRCRAFTS

- Risks of explosives
- Risks of ingestion
- Risks of ejection seat.

MODULE 8 : AIRCRAFT ACCIDENT SITE HAZARDS

- The Operational Environment
- How to preserve evidence

MODULE 9 : INCIDENT COMMAND

- The Operational Environment
- Generic and Operational Dynamic Risk Assessment
- Modes - tactical, transitional, offensive, and defensive mode
- How to move back to defensive mode
- Recording Of Tactical Mode
- Safety Management Systems.

MODULE 10 : MANAGING SAFETY OF OTHERS

- Safe Person Concept
- The Strategic Level
- Systematic Approach
- The Dynamic Assessment Process
- Understand the legal requirements under Health & Safety at Work regulations to carry out assessments of significant risks.
- Define the “Safe Person Concept”
- Define the process of risk assessment
- Define the “Dynamic Assessment Process”

MODULE 11 : POST CRASH HEALTH HAZARDS FROM BURNING AIRCRAFTS

- Importance of medical assessments
- Importance of reporting physical abnormality after dealing with an emergency

MODULE 12 : REFUELING AND DEFUELING RISKS

- Aircraft refueling and de-fueling accompanied by attendant hazards which must be managed sufficiently for their mitigation to acceptable levels

MARSHALLING CIVIL AIRCRAFTS AND HELICOPTERS AND REFRESHER

COURSE DURATION : 2 Days Training

COURSE DEPLOYMENT : Classroom / Virtual

TARGET GROUP
Aviation Fire Fighters, Aircraft Marshallers

COURSE AIM
The aim of this is course is to provide the participant with information on how to safely marshal civil aircraft and helicopters in accordance with safety legislation.

COURSE OBJECTIVES - UPON COMPLETION OF THIS COURSE, PARTICIPANTS WILL BE ABLE TO:
- Learn how to assist the flight crew in positioning the aircraft correctly.
- How to provide the flight crew with correct marshaling guidance information.
- Ensure that the possibility of aircraft accidental damage is always avoided.

PASS MARK: 75%

MINIMUM NUMBER OF ATTENDEES: 12

AMOUNT: (PER DAY; PER LEARNER) R3766,87 (Excl. VAT)

MODULE 1 : INTRODUCTION
- Inspect apron accordance aviation standards
- Collect information on aircraft

MODULE 2 : DUTIES OF A MARSHALLER
- Duties and responsibilities, which must be carried out by a marshaller when commencing shift as well as during shift on the apron.

MODULE 3 : CALL SIGNS OF HANDHELD RADIOS
- Explain the different types of handheld call signs..

MODULE 4 : APRON SAFETY
- Engine Runs
- Aircraft coding
- Wing clearance distances on aircraft stands
- Refueling with passengers on board and general refueling of aircraft
- Safety measure to be taken when refueling an aircraft
- Marshalling Policy

MARSHALLING CIVIL AIRCRAFTS AND HELICOPTERS AND REFRESHER

MODULE 5 : MARSHALLING SIGNALS RECOGNISED BY ICAO/SACAA

- Signals that are to be used to successfully park an aircraft
- Mandatory requirement from South African Civil Aviation Authority
- Marshalling signals
- Helicopter Marshalling signals

RUNWAY INSPECTION

COURSE DURATION : 2 Days Training

COURSE DEPLOYMENT : Classroom / Virtual

TARGET GROUP
Aviation Fire Fighters,
Aviation Safety Personnel,
Civil Maintenance,
Electrical Maintenance,
Bird and Wildlife

COURSE AIM
The aim of this is course is to enable the participants to learn how to use different methodologies and best practices to assist airport operators to counter the risks associated with runway operations and achieve a level of acceptable runway safety.

COURSE OBJECTIVES - UPON COMPLETION OF THIS COURSE, PARTICIPANTS WILL BE ABLE TO:
- Understand industry best practices with regards to runway planning, design, maintenance, and operation.
- Know how to develop an effective runway safety program, including the establishment of a Local Runway Safety Team.
- Understand how to tailor, improve, and expand on an existing runway safety program.
- Take action to prevent runway incursions and excursions.
- Apply reporting principles learnt

MINIMUM NUMBER OF ATTENDEES: 12

PASS MARK: 75%

AMOUNT: (PER DAY; PER LEARNER) R3896,47 (Excl. VAT)

MODULE 1 : INTRODUCTION
- SACAA Regulation
- The Airside
- Policies & Procedures
- Dawn & dusk inspections
- Basic safety considerations

MODULE 2 : RADIO COMMUNICATIONS
- General
- Reporting on inspection findings
- AD-HOC Runway inspections

RUNWAY INSPECTION

MODULE 3 : AERODROME OPERATIONAL ENVIRONMENT

- Abbreviations and Definitions
- Airport signs & Markings
- Basic airside safety rules
- Additional rules for driving on the aircraft maneuvering area
- Taxi rules
- Low Visibility Procedures (LVP's)
- Runway Visual Range (RVR)
- Emergency procedure in case of radio failure

MODULE 4 : CLOSING OF RUNWAYS AND TAXIWAYS

- Scheduled maintenance
- Unscheduled maintenance
- Nonscheduled runway closure for safety reasons
- Runway closure for emergency purpose
- Runway and taxiway re-opening
- Procedure general.

MODULE 5 : RUNWAY, TAXIWAY AND APRON CLEANING AND SWEEPING

- Directive generals;
- Runways & Taxiways
- Aprons
- Procedure general
- Inspection

MODULE 6 : KNOWLEDGE AND EQUIPMENT FOR AERODROME INSPECTIONS

- What to know

MODULE 7 : COMPONENTS OF AN AERODROME INSPECTION

- Four components

MODULE 8 : RUNWAY AND TAXIWAY INSPECTION POLICY

- Details the activities to be carried out by when conducting scheduled and ad-hoc runway and taxiway inspections on operated Airports.
- Airport Maintenance Management Systems
- Classification of pavement cracking
- Pavement Classification Number (PCN)

PRE-INCIDENT PLANNING

COURSE DURATION : 2 Days Training

COURSE DEPLOYMENT : Classroom / Virtual

TARGET GROUP
Aviation Fire Fighters
Watch room attendants
Emergency Services

COURSE AIM
The aim of this is course is to enable the participants to bridge the gap between general planning and emergency response by translating specific plans into actions before aircraft accidents/incidents occur. It teaches how to craft a plan of operation so that appropriate procedures can be developed, and the necessary resources can be identified.

COURSE OBJECTIVES - UPON COMPLETION OF THIS COURSE, PARTICIPANTS WILL BE ABLE TO:
- Apply best practices that can convert data to useful information
- Organize valid data and use the same data in the airport emergency plan
- Establish a system for sharing pre-incident plans with responders
- Design and develop a complete pre-incident plan.

MINIMUM NUMBER OF ATTENDEES: 12

PASS MARK: 75%

AMOUNT: (PER DAY; PER LEARNER) R3896,47 (Excl. VAT)

MODULE 1 : TYPES OF AIRCRAFTS
- General aviation
- Commercial aviation
- Military aviation
- Aircraft by engine type
- Helicopters

MODULE 2 : TYPES OF ACCIDENTS/INCIDENTS
- Declared or undeclared
- High – or – low impact
- Survivable or non-survivable
- Fire or no fire
- Rescue and/or fire control
- Hazardous materials
- Threats

MODULE 3 : POSSIBLE ACCIDENT SITES
- Airport areas
- Off airport areas
- Terrain
- Grid maps
- Exposures

PRE-INCIDENT PLANNING

MODULE 4 : ACCIDENT SITE ACCESSIBILITY

- Roads
- Bridge/Overpasses/Underpasses
- Fences
- Terrain

MODULE 5 : EMERGENCY RESPONSE NOTIFICATION

- Primary response notification
- Secondary response (Support Personnel)
- Methods of notification

MODULE 6 : CLIMATE CONSIDERATIONS

- Winds
- Rains
- Sleet and/or snow
- Effects of water

MODULE 7 : SUPPORT AGENCIES AND MUTUAL AID ORGANIZATIONS

- Police
- Medical Services
- Military
- Mutual Aid

MODULE 8 : AVAILABLE APPARATUS AND EQUIPMENT'S

- Rescue and fire fighting
- Heavy equipment
- Special-purpose equipment

MODULE 9 : COMMUNICATIONS

- Types of systems
- Radio frequencies
- Command posts

MODULE 10 : NEWS MEDIA

- Public relations/public information officer
- Access
- Periodic updates
- State agencies

MODULE 11 : REPORTING AN ACCIDENT

- Appropriate Civil Aviation Accident Investigation Authority
- Military
- State agencies

MODULE 12 : JOINT TRAINING EXERCISES

- Planning
- Simulation
- Field application
- Critique
- Revision

PARTAC – INITIAL & REFRESHER

COURSE DURATION : 5 Days Training. 3 Days – Refresher (Covers all topics summarized)

PREREQUISITE : AVOP – Airside Vehicle Operators Permit

COURSE DEPLOYMENT : Classroom / Virtual

TARGET GROUP : Aviation Fire Fighters

COURSE AIM
The aim of this is course is to enable the participants understand and use the correct aviation phraseology when operating in the maneuvering area.

COURSE OBJECTIVES - UPON COMPLETION OF THIS COURSE, PARTICIPANTS WILL BE ABLE TO:
- Communicate with Pilots and ATC
- Apply learnt rules and behaviors' when entering the maneuvering areas
- Apply safety principles to avoid incursions.

MINIMUM NUMBER OF ATTENDEES: 12

PASS MARK: 75%

AMOUNT: (PER DAY; PER LEARNER) R3199 (Excl. VAT)

REFRESHER AMOUNT: (PER DAY; PER LEARNER) R2272 (Excl. VAT)

MODULE 1 : GENERAL OPERATING PROCEDURES
General Operating Procedures:
- Introduction
- Who, why and when we use radiotelephony language?

MODULE 2 : SPEECH TECHNIQUE
- General
- Radiotelephone
- Phonetic language
- Numerals
- Time
- Standard speech abbreviations

MODULE 3 : RADIOTELEPHONY CALLSIGNS
- Airside callsigns
- Aircraft callsigns
- Callsigns confusion

MODULE 4 : COMMUNICATION WITH GROUND VEHICLE OPERATORS
- Establishment of contact
- Continuation of communication
- Standard phrases
- Acknowledgement of messages
- Airside read back of messages
- Conditional clearance
- Test transmissions

MODULE 5 : CONTROL OF SURFACE TRAFFIC
- Prior to transmitting
- Priority on the maneuvering area
- Crossing runways
- Stopbars

PARTAC – INITIAL & REFRESHER

MODULE 6 : SPEEDS
• Speed limit as per local aerodrome regulations

MODULE 7 : BIRD AND WILDLIFE CONTROL
• Bird control at airports

MODULE 8 : EMERGENCIES
• Radio failure on the maneuvering area
• Becoming lost/uncertain of position on the maneuvering area
• Vehicle breakdown on the maneuvering area

MODULE 9 : RUNWAY VISUAL RANGE (RVR)
• Observing techniques

MODULE 10 : LOW VISIBILITY OPERATIONS (LVO)
• Apply and adopt the Low Visibility Operations SOP's
• Control of aerodrome surface traffic in conditions of low visibility

MODULE 11 : JETBLAST AND PROPWASH HAZARDS
• How to maintain safe distance behind a taxiing aircraft
• How to maintain safe distance from the propwash

MODULE 12 : RUNWAY AND TAXIWAY MARKINGS
• Day markings
• Night markings
• Stop bars and lead-on lights
• Runway guard lights.

MODULE 13 : SURFACE MARKINGS
• Understanding different surface markings
• Understanding meanings of colors

MODULE 14 : APRONS MARKINGS
• Understanding different apron markings
• Understanding meanings of colors

MODULE 15 : SIGNAGE
• Understanding how to interpret different signage on the airfield
• Understanding different signage categories e.g., mandatory, warning etc.

MODULE 16 : MISCELLANEOUS GROUND MARKINGS
• Understanding how to interpret different ground markings

MODULE 17 : INSPECTION OF RUNWAYS
• How to perform a runway inspection
• How to follow instructions from the ATC
• How to do a read back to the ATC instruction

MODULE 18 : PREVENTING RUNWAY INCURSIONS
• Situational awareness
• General runway incursion prevention

FIRE FIGHTER - AIRCRAFT SIMULATOR TRAINING (PRACTICAL)

COURSE DURATION : 4 Days

PREREQUISITE : NA

COURSE DEPLOYMENT : Classroom / Virtual

TARGET GROUP : Aviation Fire Fighters

COURSE DEPLOYMENT
Practical (Delegates required to bring own PPE)

COURSE AIM
The aim of this is course is to enable the participants help the participants to demonstrate competency in fighting any aircraft fires.

COURSE OBJECTIVES - UPON COMPLETION OF THIS COURSE, PARTICIPANTS WILL BE ABLE TO:
Give the firefighters practical skills that will help them should there be a fire to the aircraft and understand the dangers involved in handling different aircraft fires.

MINIMUM NUMBER OF ATTENDEES: 12

PASS MARK: 100%

AMOUNT: (PER DAY; PER LEARNER) R2657 (Excl. VAT)
(NB: Price does not include Simulator and Simulation requirements e.g., Petrol)

MODULE 1 : WHEEL FIRE
- Practical on how to safely deal with wheel fires
- Risks involved when dealing with the wheel fires
- How to approach different wheel fire scenarios

MODULE 2 : ENGINE FIRES
- Practical on how to safely deal with engine fires
- Risks involved when dealing with the engine fires
- How to approach different engine fire scenarios

MODULE 3 : GALLEY FIRES
- Practical on how to safely deal with galley fires
- Risks involved when dealing with the galley fires

FIRE FIGHTER - AIRCRAFT SIMULATOR TRAINING (PRACTICAL)

MODULE 4 : CABIN FIRES
- Practical on how to safely deal with cabin fires
- Risks involved when dealing with the cabin fires

MODULE 5 : Aircraft Overheated brakes
- Practical on how to safely deal with overheated brakes
- Risks involved when dealing with the overheated brakes
- How to approach overheated brakes assembly

MODULE 6 : CABIN SEARCH AND RESCUE
- Practical on how to conduct a thorough search and rescue inside a cabin
- Risks involved when conducting a cabin search and rescue operation

NOTES

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