



Safety Regulation Group

Initial Emergency Response Training Framework Document

**Reference and Guidance for Personnel at
Special Category Aerodromes**

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Aerodrome Standards Department
Civil Aviation Authority
Aviation House
Gatwick Airport South
West Sussex
RH6 0YR

Preface

The following document is intended to be a guide for Aerodrome Managers when compiling an Initial Emergency Response Training Manual. Aerodrome Managers are reminded that Training Manuals will vary from location to location, and therefore should be relevant to the role of the IER at their aerodrome. The contents of this manual should not be accepted verbatim but as an outline of what the Civil Aviation Authority (CAA) would normally expect to see within the IER Training Manual.

For the purpose of this document reference will be made to a fictitious aerodrome "North Down Airport".

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1 Introduction

This Training Manual outlines the way in which personnel nominated for Initial Emergency Response duties at North Down Airport conduct their training. It also details how their competence in role and task are maintained.

2 Manual Distribution

A copy of this Training Manual is distributed to the following:

- Aerodrome Manager
- Senior Initial Emergency Responder

3 Health and Safety Policy

The training and day to day operations of North Down IER shall, as far as is reasonably practicable, adhere to The Health and Safety at Work Act (1974) and The Management of Health and Safety at Work Regulations.

4 Safe Person Concept

The operational work of the IER is performed in a working environment which is constantly changing and can be extremely hazardous.

To maintain the effectiveness and competency of operational crews in the workplace, the IER will need to ensure that the individuals who perform operational roles are as safe as is reasonably practicable.

North Down Airport ensures the health, safety and welfare of its employees at work by providing and maintaining comprehensive and valid Risk Assessments to ensure:

- A safe working environment
- Safe work equipment
- Safe systems of work
- A competent workforce

5 Risk Assessments

Under the Health and Safety at Work Act (1974), organisations with five or more employees are to conduct risk assessments for all activities that these employees are likely to be engaged in.

There are three parts to a risk assessment, namely:

a) Hazard:

A hazard is something with the potential to cause harm (this can include substances or machines, methods of work and other aspects of work organisation).

b) Risk:

Risk is the combination of the probability (or frequency) of a hazard and the severity (or consequence) of its effects.

c) Control Measures:

Once a hazard and risk of the hazard occurring have been identified, control measures are to be introduced which will either remove the hazard or reduce it to an acceptable level. Risk assessments for all IER activities can be found in the North Down IER Risk Assessment file.

6 Methodology

The role of IER personnel has been determined by conducting a Task Identification Process (Analysis). The Task Identification Process (Analysis) identifies the role of IER at an aircraft accident/incident. A possible accident/incident scenario has been conducted to form the basis of the Task Identification Process (Analysis). The functions of each role will be identified from conducting an Identified Training Needs Process (Analysis) and defined 'Role Maps' can be developed. These will show in greater detail the assignment of the functions to each aspect of the role and to ensure that for all personnel, comprehensive training and assessment solutions underpin the aspects assigned.

The Training Needs Process (Analysis) will provide for each role the means of ensuring its component parts have sufficient practical and theoretical input and lead to the development of a comprehensive training package, ensuring that all IER personnel are able to be trained to perform their duties.

The success of the training process will be measured by formal assessment in individual and combined aspects of the role, and by evidence gained from attending any operational incidents. At all times, the identification and delivery of training requirements should be based around the *'safe person concept'*.

7 Training Policy

The Aerodrome Manager of North Down Airport is responsible for ensuring that all personnel engaged in IER duties are staffed, trained and equipped to meet the Category promulgated.

The training provider shall ensure that the following processes are followed:

- All IER personnel shall receive initial training and assessment in the core competencies of their role. This shall be referred to as 'training in acquisition'.
- All IER personnel shall receive regular ongoing training and assessment in their role. This will be referred to as 'training in application'.
- A structured training programme should detail the training and assessment subjects that IER personnel are required to undertake. The training programme should also indicate the frequencies of these training and assessment subjects.
- All IER personnel should undertake realistic hot fire training at intervals that maintain their competence.
- Individual training records should be maintained for all personnel engaged in IER duties. These records may be required for inspection by the CAA.
- All training scenarios should be risk assessed to ensure the safety of all personnel involved in IER training is controlled and monitored. Records of risk assessments shall be made available.
- The training provider should audit all aspects of North Down Airport IER training on a regular basis.

8 Initial Emergency Responder - Training Provider Details

The Training Provider for North Down Airport will be Mr John Smith of Fire Training Solutions. Mr Smith was employed as a Sub-Officer with the Local Authority Fire Service for 22 years. During this time Mr Smith served a two-year period at a Central Fire Service Training Establishment, where he was involved with preparing and delivering training.

9 Aerodrome Overview

North Down Airport is a Category One aerodrome with two grassed runways, Runway 06 and Runway 24. All taxiways and apron areas are also grassed. The aerodrome is home to the North Down Fliers Association that has 15 aircraft. These aircraft include Cessna 152, PA 28 and PA 38. Fixed structures at North Down Airport include a clubhouse, two maintenance hangars, storage building/fire station and a fuelling area. The aerodrome is predominantly surrounded by arable farmland with the River Took running just outside the aerodrome boundary on the approach to Runway 06.

10 Possible Accident/Incident Scenario

A Cessna 152 is flying circuits at North Down Airport. The aircraft is being used for flying training with one instructor and one student. At the same time a PA 38 with two persons on board taxis to line up on Runway 06. As the Cessna 152 attempts to land on Runway 06 the PA 38 enters the same runway without observing the landing Cessna. The Cessna hits the PA 38 resulting in a fuel fire that begins to envelope both aircraft.

11 Identified Tasks (Analysis)

Task/Role	IER
React to crash alarm	✓
Don protective clothing	✓
Contact Air Ground Operator	✓
Drive appliance to incident	✓
Position appliance effectively	✓
Operate pumps	✓
Deploy hoses	✓
Control and extinguish fire	✓
Locate and rescue trapped people	✓
Administer First Aid	✓
Liaise Local Authority Emergency Services	✓
Secure accident site	✓
Replenish stocks of media	✓

12 Role Mapping

North Down Airport provides IER cover. There are no Managers or Supervisors specified within the IER, the table below identifies only the units and elements that are relevant to operations at North Down and can be cross-mapped to CAP 699.

Unit No	Unit Title	IER	Training Module
1	Save life at aircraft accidents and incidents	✓	2, 8
2	Extinguish fire	✓	1, 2, 3,10
3	Maintain operational readiness of resources	✓	3
4	Mobilise resources to respond to emergency	✓	6, 7, 9, 10
5	Site and position firefighting vehicles at accident/incident site	✓	3, 4, 5, 7, 10

13 Identified Training Needs

Task	Training Need	Training Module
React to crash/incident alarm	Emergency call-out procedure	9
	Response time checks	6
Don protective clothing	Manufacturer's Operational Instructions	6
Contact Air Ground Operator	Airport R/T procedures	7
Drive appliance to incident	Vehicle operation	3
	Aerodrome topography	5
Position appliance effectively	Tactics and techniques	2
Operate pump	Vehicle and equipment operation	3
Deploy hoses	Hose running	1
Control and extinguish fire	Branch handling	1
	Types of media and uses	2
	Equipment operation	3
	Prevent re-ignition and spread of fire	2
Locate and rescue trapped people	Search techniques	1
	Aircraft construction	1 & 3
Initial emergency medical aid	Assessment and treatment	8
	Casualty handling	2
	Comfort distressed people	3
Local Authority Emergency Services	Joint emergency exercises	All
	Liaison visits	10
Secure accident site	Maintain post-fire security	1
	Preservation Of Evidence	2
Replenish stocks and media	Vehicle and equipment operation	3

14 Training Facilities

As a result of the Identified Training Needs, North Down Airport has provided IER personnel with the following:

- A Cessna 152 fuselage for deployment and rescue exercise
- A metal drip tray (2.5 metres x 1 metre) for realistic fuel fires
- Theory sessions i.e. First Aid training can be conducted in the clubhouse

15 Training Programme – Acquisition of Core Skills

All personnel who form part of the IER are required to undertake an initial IER course; this will be known as 'Acquisition of Core Skills'. On successful completion of the 'Acquisition of Core Skills' programme, a certificate will be issued to the individual, which will be valid for two years. The 'Acquisition of Core Skills' programme will be delivered and assessed by Mr John Smith, Training Provider.

16 Training Syllabus – Acquisition of Core Skills

Acquisition training for IER personnel will cover the following syllabus:

- North Down Airport Safety Policies (Health and Safety at Work Act 1974)
- Hazards arising from aircraft operation and safety-related procedures
- Chemistry of Combustion
- Extinguishing Agents – Use and Methods of Application
- First Aid Fire Extinguishers
- Fire Hose

- Fire Vehicle and Equipment
- Test, Inspection and Maintenance of Equipment
- Personal Protective Equipment
- Aircraft Construction
- Aircraft Familiarisation
- Aerodrome Topography
- Fire and Rescue Procedures
- Tactics and Techniques
- Fire Vehicle Positioning, External/Internal Fires, Access, Forcible Entry, Assistance with Evacuation
- First Aid and Casualty Handling
- Emergency Procedures
- Assessment Methods - Theoretical, Practical and Oral
- Personal training records

On successful completion of the 'Acquisition of Core Skills' programme, IER personnel will enter the ongoing 'Maintenance of Skills' Training Programme.

17 Training Programme – Continuous Application of Core Skills

No	Training Module	J	F	M	A	M	J	J	A	S	O	N	D
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													

Appendix A - Training Modules

Training Module 1 – Hot Fire Exercise

Aim: For IER personnel to experience and deal with realistic fuel fires.

Objectives: At the end of the Training Module IER personnel will be able to demonstrate:

- The deployment of primary media (foam) hoses
- Correct branch handling techniques
- Extinguishing fires using primary and complementary media (dry powder only)
- Prevent re-ignition and spread of fire.

Training Module 2 – Tactics and Techniques

Aim: For IER personnel to understand the various tactics and techniques required for successfully dealing with an aircraft accident/incident.

Objectives: At the end of the Training Module IER personnel will be able to demonstrate:

- The correct positioning of the fire appliance at an aircraft accident/incident
- The correct positioning of IER personnel when dealing with an aircraft accident/incident
- Identifying different types of fires and the appropriate extinguishing agent to be used
- Stabilising/Rescuing persons from an aircraft
- How and why the preservation of evidence shall be implemented when dealing with an aircraft accident/incident.

Training Module 3 – Vehicle and Equipment Operation

Aim: For IER personnel to understand the operation of the fire vehicle and associated equipment.

Objectives: At the end of the Training Module IER personnel will be able to demonstrate:

- The correct operation of the vehicle controls i.e. lights, horns, blue lights
- The selection of the vehicle's off road capability i.e. four wheel drive, high/low ratio etc
- Safe vehicle driving techniques
- The safe operation of the vehicle's firefighting system i.e. pressure vessel
- The safe operation of complementary firefighting equipment i.e. dry powder/BCF extinguishers
- The safe operation of all items of ancillary equipment carried on the vehicle
- The correct methods for replenishing firefighting media.

Training Module 4 – Aircraft Familiarisation

Aim: For IER personnel to become familiar with the types of aircraft operating at North Down Airport.

Objectives: At the end of the Training Module IER personnel will be able to demonstrate:

- Methods of access to a Cessna 152, PA28 and PA38 aircraft
- Emergency shutdown procedures for a Cessna 152, PA28 and PA38 aircraft
- Location and terminology for various elements of aircraft construction.

Training Module 5 – Aerodrome Topography including 1000 metre area

Aim: For IER personnel to become familiar with the topography of North Down Airport, including the 1000 metre area adjacent to the thresholds of each runway.

Objectives: At the end of the Training Module IER personnel will be able to demonstrate an understanding of:

- Runway and taxiway locations
- Holding points
- Emergency Service RVP
- Crash gates
- On airfield hazardous areas
- Access to 1000 metre areas including any hazards/obstacles
- The aerodrome crash map grid system.

Training Module 6 – Response Time Test

Aim: For IER personnel to demonstrate the ability to achieve response time requirements as laid down in CAP 168.

Objectives: At the end of the Training Module IER personnel will be able to demonstrate:

- The ability to respond to the crash alarm
- The correct donning of personal protective equipment
- Utilising the airfield crash map to identify selected areas
- Responding in the fire vehicle to a selected location within two minutes not exceeding three minutes in optimum visibility and surface conditions.

Training Module 7 – R/T Procedures

Aim: For IER personnel to be efficient in the use of R/T.

Objectives: At the end of the Training Module IER personnel will be able to demonstrate:

- The correct terminology to be used as laid down in CAP 413
- An ability to use R/T to enter active runways
- Using R/T to send and receive emergency messages.

Training Module 8 – First Aid

Aim: For all IER personnel to be efficient in basic First Aid.

Objectives: At the end of the Training Module IER personnel will be able to demonstrate:

- Stabilisation
- Cardio Pulmonary Resuscitation (CPR)
- An ability to deal with bleeding
- An ability to deal with broken bones
- An ability to deal with burns
- The recovery position
- Casualty handling techniques
- Comforting distressed casualties.

Training Module 9 – Emergency Procedures

Aim: For IER personnel to be familiar with North Down Airport Emergency Procedures

Objectives: At the end of the Training Module IER personnel will be able to identify:

- Where Emergency Procedures can be found
- The different levels of emergency i.e. aircraft accident, full emergency etc
- How the Emergency Plan is instigated
- The role of IER personnel in an emergency
- The pre-determined attendance (PDA) of the Local Authority Emergency Services
- The location of the RVP

Training Module 10 - Local Authority Emergency Services Visits to Aerodrome

Aim: To develop an environment of understanding and cooperation between North Down Airport IER personnel and Local Authority Emergency Services.

Objectives: Local Authority Emergency Services shall visit North Down Airport on a basis agreed in conjunction with the aerodrome to address the following:

- Aerodrome operations
- Aerodrome topography including 1000 metre area
- Emergency Orders
- Tabletop exercises
- Full and partial practical exercises.

Appendix B - Assessment Process

The assessment process aims to ensure that all IER personnel are proven competent in their role and task that has been identified by North Down Airport.

The assessment process for IER personnel at North Down Airport has three components, namely:

- 1 Direct Observation – This is where the Assessor can visually verify that the candidate being assessed is achieving the criteria laid down for a particular training module.
- 2 Verbal Questioning – The Assessor can utilise verbal questioning techniques to clarify the candidates' knowledge of a particular subject.
- 3 Written tests – The Assessor will use a written test paper to ascertain the candidates' knowledge on certain subjects.

Mr John Smith will conduct all assessments as part of the ongoing training programme. The results of the assessments will be recorded on personal training records. Assessments will either be recorded as C = Competent or FTR = Further Training Required.

Mr Smith is a pilot with the North Down Fliers Association and will normally be available to conduct the monthly assessment process.

- **Recording Methodology**

All training, i.e. acquisition and application of core skills, together with assessments, shall be recorded on personal training records. All IER personnel should have individual training records for each training module. The Assessor should verify that training and assessment have taken place by signing the records.

- **Example of a Personal Training Record**

North Down Airport IER Personal Training Record		Training Module No 5	
Name -		Aerodrome Topography inc 1000 metre areas	
Date	Remarks	Assessor Name & Signature	C or FTR

C = Competent
FTR = Further Training Required