



OPITO APPROVED STANDARD
Tropical BOSIET/FOET to BOSIET/FOET
Bridging Elements Training

OPITO Standard Code: 5700
(To align with Tropical BOSIET/FOET)

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The contents of this document were developed by an industry workgroup facilitated and supported by OPITO. The workgroup consisted of representation from a cross section of oil and gas Industry employers, discipline experts working within the industry and members of the OPITO Approved Training network.

This standard has been verified and accepted through the governance and integrity management model for OPITO standards.

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AMENDMENTS					
AMENDMENT & DATE		PAGES	CHANGES MADE BY	CHECKED BY	APPROVED BY
1	Changed to new OPITO logo; updated header, title page & numbering scheme 04-12-2007	All	T. Wilson	P. Crowther	P. Crowther
2	Removed reference to UKOOA/OPITO EBS Video because it is out of date 12-09-08	19	T. Wilson	Iain Emslie	Iain Emslie
3	Simplified assessor qualifications 17-11-08	11	T. Wilson	J. Cameron	J. Cameron
4	Changed footer to reflect amendment numbering scheme 08-Dec 2008	All except title page	T. Wilson	J. Cameron	M. Duncan
5	Clarified duration of 'total contact time' and 'total training day' 18-Sep 2009	16	T. Wilson	P. Lammiman	M. Duncan
6	Replaced UKOOA with Oil & Gas UK	2, 8, 12, 17	L. Geddes	M. Carr	J. Cameron
7	Entire standard moved to new OPITO template 27-Aug 2010	All	M. Carr	P. Crowther	J. Cameron
Rev.3	Standard Review completed on Dec- 2011	All	M. Foo	M. Carr	P. Lammiman
1	Amended Appendix 1 to include more relevant OPITO information Revision 3 Amendment 1 23-August 2012	Appendix 1, page 20	M. Foo	M. Carr	P. Lammiman
2	Replaced Course Code with Standard Code in Title Page and amended reference to 'course identification code' with 'OPITO registration code' under section D.3 Certification - to align with other OPITO standards Revision 3 Amendment 2 10-January 2013	Title Page, page 18	M. Foo	M. Carr	P. Lammiman

Any amendments made to this standard by OPITO will be recorded above.

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Introduction and Course Description

This standard specifies the training requirement for personnel who have previously undergone training to the OPITO Tropical BOSIET/FOET standard and are required to achieve the specific requirements for workers in non-tropical operating areas.

NOTE: Training Providers wishing to deliver this Standard must hold [T-BOSIET/FOET](#) or [BOSIET/FOET](#) OPITO approval.

SECTION A The Bridging Elements Training

A.1 Target Group

Personnel who have undergone training in OPITO's **Tropical** BOSIET/FOET and require the extra elements to bridge the gap between the Tropical BOSIET/FOET and OPITO's BOSIET/FOET.

A.2 Delegate Pre-requisites

Personnel must have previously completed the OPITO Tropical BOSIET or Tropical FOET training, and hold valid certificates for these courses.

A.3 Physical and Stressful Demands of the Course

Training and/or assessment activities contained within this Standard may include physically demanding and potentially stressful elements. All personnel who participate in such activities must be physically and mentally capable of participating fully.

Therefore OPITO-approved training centres are required, as a minimum, to ensure that prior to participating in practical exercises the delegate either:

- a) Possess a valid, current offshore medical certificate **or**
- b) Possess an operator approved medical certificate, **or**
- c) Undergoes medical screening by completing an appropriate medical screening form provided by the OPITO-approved centre (a list of medical conditions which could be included in a medical screening form is available from OPITO).

The OPITO-approved Centre shall keep a record of the delegate's/candidate's declaration of fitness in accordance with their document control policy(s) or procedures.

This information, along with summary details of the type of physical activities the delegate/candidate will be asked to perform, will be given to delegates/candidates by the OPITO-approved Centre and, if applicable, to their sponsoring company as part of the joining instructions. The responsibility for declaring any current or pre-existing medical conditions that could have adverse effects to the individual's state of health while undertaking the training and/or assessment activities lies with the delegate/candidate and/or company sponsoring the delegate.

Where doubt exists regarding the fitness of any delegate/candidate, the OPITO-approved Centre should direct the individual to consult a medical officer familiar with the nature and extent of the training.

Note: Practical exercises should be designed and delivered solely to meet this standard, and must not place on the delegates any physical or mental demands other than those required to meet the Standard.

A.4 Aims and Objectives

This Training Programme is designed to bridge the differences between the **Tropical BOSIET/FOET** and the BOSIET/FOET. This includes use of aviation transit suits and emergency breathing systems (EBS) during helicopter evacuation and escape.

A.5 Learning Outcomes

During the training programme, delegates will be required to demonstrate their skills and understanding of the following key areas.

To successfully complete this training programme, delegates must be able to **demonstrate**:

- (1) Donning an aviation transit suit, aviation lifejacket and emergency breathing system equipment (EBS)¹ and conducting EBS integrity checks.
- (2) Deployment, operation and breathing from EBS in a pool utilising personal air prior to HUET exercises (delegate to experience positive and negative pressure created by the body orientation in water).
- (3) Actions following a controlled ditching on water (including deploying EBS and, on instruction from aircrew, operation of a push out window) and evacuate through a nominated exit to an aviation liferaft.
- (4) Assist others where possible in carrying out **initial** actions on boarding the aviation liferaft, to include: mooring lines, deploying the sea anchor, raising the canopy and raft maintenance.
- (5) Escaping through a window opening which is underwater, from a partially submerged helicopter (deploying, operating and breathing from EBS equipment but without operation of a push out window).
- (6) Escaping through a window opening which is underwater, from a partially submerged helicopter (deploying, operating and breathing from EBS equipment and operation of a push out window).
- (7) Escaping through a window opening which is underwater, from a capsized helicopter (*deploying and operating EBS on the surface prior to capsize and the operation of a push out window).
- (8) Inflating an aviation lifejacket and deploying a spray visor in water.

*All delegates must deploy and operate the EBS and should be encouraged to breathe from the EBS throughout the capsize exercises.

Note¹: Some manufacturers have integrated the EBS equipment into the life jacket or transit suit.

A.6 Delegate Performance Assessment

Delegates attending this training and assessment programme will be given a series of explanations and demonstrations. This will be followed by practical exercises which will allow delegates to demonstrate their knowledge, understanding and skills of their emergency response role.

Delegates will be assessed against the learning outcomes using direct observation.

Training instructors must identify any gaps in delegate's learning and make reasonable effort to address the gaps to help delegates meet the learning outcomes.

A.7 Duration and Timing of the Training Programme

The optimum 'contact time' for this training and assessment is seen as **5 hours**.

Where this training is part of a programme of longer duration the total contact time per day must not exceed 8 hours and the total training day must not exceed 10 hours. The total training day includes contact time, refreshment and meal breaks and travel between training sites where applicable.

Each module will require the trainer to explain aims, learning outcomes, timetable, assessment methods and training staff roles. The time taken for this is expected to be approximately 10 minutes for each module.

Table of Module/Element timings

Module		Element		Expected (approximate) Duration (minutes)
Introduction and Summary				20
1	Helicopter Emergencies	1.1	EBS Theory and Demonstration	30
			TOTAL	(0 hrs 50 mins)
2	EBS Familiarisation	2.1	Use of EBS	250
3	Practical Helicopter Escape	3.1	Practical Helicopter Escape techniques	
			TOTAL	(4 hrs 10 mins)
			GRAND TOTAL	(5 hrs 0 mins)

A.8 The Training Programme

The training programme provided below is designed to help delegates achieve the stated learning outcomes specified in [section A.5](#). The order in which elements of the training programme are delivered may vary. However, contents in [Appendix 1](#) must be covered prior to course commencement.

To make efficient use of time and ensure effective learning there should, wherever practicable, be an integration of the three phases of explanation, demonstration and practise. Full use should be made of visual / audio visual aids and course handout material. Training staff must give practical demonstrations for all training activities which delegates are required to practise and demonstrate.

Each module must be introduced by the training staff, and include:

- (a) **Aim** – The main purpose of the module
- (b) **Learning Outcomes** – What the delegates are expected to learn
- (c) **Timetable** – Training module duration and timing
- (d) **Assessment** – how delegates will be assessed and what they will be assessed against
- (e) **Staff** - who will be delivering the training and roles of training support staff.

The training course consists of the following **module** and **elements**:

[Module 1](#) **Helicopter Emergencies**
Element 1.1 EBS Theory and Demonstration

[Module 2](#) **EBS Familiarisation**
Element 2.1 Use of Emergency Breathing System (EBS)

[Module 3](#) **Practical Helicopter Escape**
Element 3.1 Practical Helicopter Escape Techniques

MODULE 1 Helicopter Emergencies

Element 1.1 EBS Theory and Demonstration

Training staff to **explain**:

- 1.1.1 The principles of emergency breathing system equipment (EBS)
- 1.1.2 The duration of EBS
- 1.1.3 Flotation dynamics associated with EBS
- 1.1.4 Use of the Personal Locator Beacon (PLB) - In areas where personal locator beacons are used offshore, a DVD covering their use is to be shown (no practical demonstration required)

Training staff to explain and demonstrate:

- 1.1.5 Donning and operation of emergency breathing system equipment (EBS)

MODULE 2 EBS Familiarisation

Element 2.1 Use of Emergency Breathing System (EBS)

Following explanations and demonstrations by training staff: delegates to **practise** and **demonstrate**:

- 2.1.1 Donning a [*aviation transit suit](#) (of a type typically used in the region/area of training), EBS equipment and an aviation lifejacket.
- 2.1.2 Conducting integrity checks of the EBS equipment
- 2.1.3 Deploying, operating and breathing from EBS equipment at atmospheric pressure in dry conditions.
- 2.1.4 Deploying, operating and breathing from the EBS in a pool utilising personal air (must experience positive and negative pressure created by body orientation in the water).

MODULE 3 Practical Helicopter Escape

Element 3.1 Practical helicopter escape techniques

Following explanations and demonstrations by training staff: delegates to **practise** and **demonstrate**:

- 3.1.1 Dry evacuation, using a nominated exit, to an aviation liferaft from a helicopter ditched on water (including deployment of EBS equipment and, on instructions from aircrew, operation of a push out window), assisting others where possible and carrying out **initial** actions on boarding the aviation liferaft, to include: mooring lines, deploying the sea anchor, raising the canopy and raft maintenance.
- 3.1.2 Escaping through a window opening which is under water, from a partially submerged helicopter (deploying, operating and breathing from EBS equipment but without operating a push out window).
- 3.1.3 Escaping through a window opening which is under water, from a partially submerged helicopter (deploying, operating and breathing from EBS equipment and operating a push out window).
- 3.1.4 Escaping through a window opening which is under water, from a capsized helicopter (*deploying and operating EBS equipment on surface prior to capsize and operating a push out window).
- 3.1.5 Inflation of an aviation lifejacket and deployment of a spray visor on completion of exercise 3.1.4.

*All delegates must deploy and operate the EBS and should be encouraged to breathe from the EBS throughout the capsize exercises.

Note: Although push-out windows are to be fitted for the final capsize exercise, the ability of the delegate to push out the windows will be assessed during the partial submersion exercise.

SECTION B Refresher Training – Not Applicable

There is no requirement for Refresher or Further bridging courses.

SECTION C Resources

In order that a training programme may be delivered successfully it is essential that appropriately qualified and experienced people are there to deliver and support the programme and that the appropriate facilities and equipment are in place.

C.1 Staff

Training staff must be:

- (a) Trained in instructional/lecture techniques and/or have proven instructing /teaching experience.
- (b) OPITO Centres must have an auditable training programme in place to ensure instructors keep up-to-date with relevant current offshore practices and changes. The programme must include at least two of the following: visits to offshore fixed or mobile installations, visits to heliports, visits to dry-docked rigs and meetings with relevant personnel in offshore oil and gas companies.

Assessors will be discipline experts trained and qualified in assessment techniques.

A **qualified first aid person** must be in attendance during all practical emergency breathing systems (EBS) training.

Training staff involved in **HUET diving support operations** will be trained using the OPITO-training programme entitled: '[HUET Diver](#)'.

All staff will have the appropriate competencies to conduct/assist with the element of training being undertaken.

C.2 Trainer/Delegate Ratio

The maximum number of delegates attending this programme is **16**.

The following ratios indicate the maximum number of delegates to be supervised by one Instructor at any one time during each activity. The maximum number of delegates in HUET for submersion and inversion exercises is **four**.

Unit	Session	Ratio
Helicopter Safety & Rescue	Theory & Demonstration	1: 16
	Emergency breathing system equipment familiarisation training (in pool)	1: 4
	Helicopter Underwater Escape Trainer (HUET)	1: 4 As a minimum requirement: one instructor to be nominated pool supervisor, one instructor in the HUET plus two HUET (safety) divers. Max. 4 delegates in trainer.

C.3 Facilities

It is important to ensure that the full ranges of facilities are made available to ensure delegates get the most out of their training. The following facilities criteria must be adhered to:

Administration arrangements appropriate for enrolment and certification of delegates and all aspects of the delivery of training in accordance with this standard.

Theory training area(s) so designed to enable each delegate to view, hear and participate fully in the subject matter being taught.

Practical training areas so designed to enable each delegate to individually, or as part of a team, to view, hear and practise the following:

- (a) Dry evacuation into a aviation life raft on water from a helicopter trainer.
- (b) Escape from a partially submerged helicopter trainer through an exit which is under water and use of emergency breathing system equipment.
- (c) Escape from a capsized helicopter trainer and use of a lifejacket.
- (d) Operation of emergency exits and push out windows of a type currently found on helicopters operating offshore.
- (e) Donning of an aviation transit suit, aviation lifejacket and emergency breathing system equipment.
- (f) Operation of an aviation life raft.
- (g) Operation and use of Emergency Breathing System Equipment during pool exercises
- (h) Deployment of emergency breathing system equipment during helicopter evacuation and escape training.

EBS Cleaning Facilities

The Training Centre must have stringent hygienic EBS equipment cleaning facilities.

First Aid Facilities

Appropriate first aid facilities and equipment as specified in the training centre's risk assessments, and sufficient staff, trained in the use of the facilities and equipment.

All facilities must be maintained and where appropriate, inspected and tested in accordance with current standards/legislation and manufacturers recommendations.

Risk assessments must be conducted and documented for all training facilities and equipment.

C.4 Equipment

The following equipment, of a type in use regionally on offshore oil and gas installations and helicopters involved in offshore operations, is required to meet the needs of the training programme.

- (a) Aviation lifejackets (including spray visor)
- (b) An aviation transit suit: to include actual transit suits used in region/area for helicopter transfers
- (c) Pool training suits
- (d) Aviation liferaft and ancillary equipment
- (e) Helicopter Underwater Escape Trainer(s) c/w removable exits
- (f) Emergency Breathing System (EBS) Equipment or life jackets/ transit suits with integrated EBS.
- (g) PLB Video – where applicable.

Safety Equipment appropriate to training being delivered:

- (a) Personal Protective Equipment (PPE): Appropriate to the practical exercise undertaken and as specified in the Training Centre's risk assessments
- (b) First aid equipment – see Facilities section (C.3) on first aid equipment.

Aviation Transit Suits

1. Aviation transit suits for demonstration purposes must be of a type typically used in the region/area of operations.
2. Suits used throughout **pool exercises** (pool training suits) do not have to be of a type specified in the item above; they must however, as a minimum, conform to the following:
 - a) Be water-tight
 - b) Have a zip configuration for entry into the suit
 - c) Have latex or neoprene wrist and neck seals.

Emergency Breathing System

Note:

- (1) Particular attention must be paid to the hygienic maintenance of EBS equipment including random sampling third party microbiology testing. EBS units must be individually numbered to facilitate traceability.
- (2) Compressed air cylinders are **not** to be used during the EBS training.

All equipment must be maintained, and where appropriate, inspected and tested in accordance with current standards/legislation, guidance and manufacturers recommendations.

SECTION D Administration and Certification

D.1 Joining Instructions

All joining instructions must contain information which indicates that certain aspects of the course are of a physical nature and contain potentially stressful elements.

Prior to each course commencing, delegates must sign a declaration indicating they have read and understood a written statement regarding the physical and potentially stressful nature of the programme and the need for delegates to be in good health.

D.2 Periodicity

There is no requirement for further bridging courses.
Refer to T-BOSIET/FOET certificate expiry.

D.3 Certification

Persons successfully completing the bridging modules will be issued with an OPITO certificate for BOSIET or FOET and the details will be registered with the industry database.

The completion date on the BOSIET or FOET certificate shall be entered as the completion date of the **current valid tropical certification**. This is to ensure that all competencies required to be reassessed are addressed at the industry stipulated frequency.

Training Centres are responsible for issuing a certificate direct to the delegate completing the programme and to the sponsoring company (when required). Each certificate must indicate that the delegate has been assessed against and met the learning outcomes and must contain the following:

- (a) Training Centre name
- (b) Full OPITO course title stating that it is OPITO-approved
- (c) OPITO registration code
- (d) Delegate's name
- (e) Course dates
- (f) Expiry date (Four years minus one day following the date that the delegate successfully completes the course)
- (g) Unique Certificate Number (UCN) – Refer to [OPITO UCN Guidance doc.](#) for details
- (h) Training Centre Signatory.

D.4 Course Administration

Each delegate attending any OPITO-approved programme must be registered with the Central Register (CR) operated by OPITO. Registration must be made by the training centre to OPITO within one week following the course.

OPITO confirms that information on the registration form will be contained in a computerised register which will be available to employers, prospective employers and training providers in the oil and gas industry to verify training records. At all times, use of this data will be strictly in accordance with principles laid down in data protection legislation.

Glossary of Terms and Abbreviations

BOSIET	Basic Offshore Safety Induction & Emergency Training
EBS	Emergency Breathing System
FOET	Further Offshore Emergency Training
HUET	Helicopter Underwater Escape Trainer
PPE	Personal Protective Equipment
T-BOSIET	Tropical Basic Offshore Safety Induction and Emergency Training

Appendix 1 OPITO Information

The topics listed below are to be delivered as part of the introduction to this course and included in the Lesson Plans/Instructor guides/Exercise Plans. Additional introduction topics may include training centre layout and alarms, emergency actions, first aid and domestic arrangements

Mandatory OPITO Information:

- a) Medical Fitness
- b) Certification Periods
- c) CR/Vantage (provided by OPITO)
- d) OPITO Customer Service Statement (provided by OPITO)
- e) The roles of employers and training providers (provided by OPITO)
- f) What is OPITO's role in industry? (provided by OPITO)
- g) Current Global Network of training providers (provided by OPITO)
- h) Emergency Response Framework (provided by OPITO – applicable for ER Training Providers)
- i) OPITO DVD (*BOSIET/TBOSIET only*) provided by OPITO