

Large Yacht Helideck Procedures & Emergency Response Large Yacht Helideck Fire Fighting Large Yacht Helicopter Refuelling Large Yacht Helicopter Landing Officer

Introduction

This document outlines the training to meet the requirements of Large Yacht Helideck operations in accordance with Large Commercial Yacht Code Section 24.2.4, and should be read in conjunction with MGN 442:

"The officer(s) in charge of each helicopter landing area operations team should be in possession of an Offshore Petroleum Industry Training Organisation (OPITO) Approved Offshore Helicopter Landing Officer (HLO) certificate. Assistants to the Landing Officer(s) should be in possession of an OPITO Approved Offshore Helicopter Landing Assistant (HLA) certificate. All other crew assigned duties within the helicopter landing area operations team(s) should be in possession of an OPITO Approved Offshore Emergency Helideck Team Member certificate. Certification from an equivalent course approved by the Administration will also be accepted. All helicopter operations certification should be in date."

The Training Guide outlines the requirements for "an equivalent course approved by the Administration".

This document only outlines the course requirements, details of training centre requirements and approval procedures may be obtained from the MCA Seafarer Training and Certification Branch.

This document was voluntarily prepared by James Frean on behalf of the Maritime and Coastguard Agency Helideck Working Group.

October 2008 (Revised October 2011)

Contents

| Introduction | 1 |
|---|------------|
| Introduction 2 | |
| Contents 3 | |
| SECTION ONE | |
| Large Yacht Helideck Safety Training Qualification | |
| Certificate Renewal | |
| SECTION TWO | |
| Specification of Large Yacht Helideck Procedures & Emergency | |
| Training | |
| Introduction | |
| Aim | |
| Objectives | |
| Entry Standards | |
| Course Intake Limitations | |
| Staff Requirements | |
| Training Plan | |
| Assessment | |
| Guidance on conduct and structure of Large Yacht Helideck Product | |
| Emergency Response training | |
| Principles and Procedures Session | |
| Practical Session | |
| SECTION THREE | |
| Specification of Large Yacht Helideck Fire Fighting training Introduction | |
| | |
| Aim | |
| Objectives Entry Standards | |
| Course Intake Limitations | |
| Staff Requirements | |
| Training Plan | |
| Assessment | |
| Guidance on conduct and structure of Large Yacht Helideck Fire | |
| training | |
| Principles and Procedures Session | |
| SECTION FOUR | |
| Specification of Large Yacht Helicopter Refuelling training | 20 |
| Introduction | |
| Aim | |
| Objectives | 20 |
| Entry Standards | |
| Course Intake Limitations | |
| Staff Requirements | 21 |
| Training Plan | 21 |
| Assessment | |
| Guidance on conduct and structure of Large Yacht Helicopter | Refuelling |
| training | |
| Principles and Procedures Session | |
| Practical Session | 22 |
| SECTION FIVE | |
| Specification of Large Yacht Helicopter Landing Officer Training | 24 |
| Introduction | 2/ |

| Aim | 24 |
|---|----------------------|
| Objectives | 24 |
| Entry Standards | |
| Course Intake Limitations | |
| Staff Requirements | 25 |
| Training Plan | |
| Assessment | |
| Guidance on conduct and structure of Large Yacht Helico | pter Landing Officer |
| Response training | 26 |
| Principles and Procedures Session | 26 |
| Practical Session | 27 |

Section One

Large Yacht Helideck Safety Training Qualification

The Large Commercial Yacht Code requires all crew assigned duties within the helideck area to have completed safety training through an OPITO approved course or an equivalent course approved by the Administration.

The mandatory requirements for familiarisation, safety training, instruction, and the standards of competence to be achieved are described in Sections 2-5 of this document. These are to be approved by the Administration as an equivalent course as described by The Large Commercial Yacht Code, referred here from as the Large Yacht Helideck Safety Training Qualification.

The qualification of Large Yacht Helideck Safety Training comprises of 4 modules;

- Helideck Procedures & Emergency Response;
- Helideck Fire Fighting;
- Helicopter Refuelling and;
- Helicopter Landing Officer.

The training may be delivered either as:

- A combined course including multiple modules. In this case, a single
 programme of training to meet all the outcomes can be designed and delivered
 in an integrated way. (Note: a course combining all 4 modules must receive
 specific approval from the Administration to account for Helideck Landing
 Assistant (HDA) experience dictated in the Entry Standards required to attend
 the Helicopter Landing Officer module); or,
- Stand alone courses, based on the requirements of the candidate for the performance of their duties.

Certificates for the completion of training must include the titles of each module completed.

The table below indicates which modules must be completed to meet the requirements to perform the assigned duties.

| | HDA | Refuelling duties* | HLO | HLO (Refuelling) |
|--|-----|--------------------|-----|---------------------|
| Helideck Procedures & | | | | |
| Emergency | • | | • | • |
| Response | | | | |
| Helideck Fire | | | | |
| Fighting | • | | · | • |
| Helicopter | | | | |
| Refuelling | | • | | |
| Helicopter Landing | | | _ | |
| Officer | | | • | |
| * Required if yacht equipped with fuelling or de-fuelling facility | | | | |

Certificate Renewal

Certificates will have a maximum validity of 2 years from date of completion of training.

SPECIMEN CERTIFICATE FOR

Large Yacht Helideck Landing Officer (only to be produced by an approved Training centre)

Certificate Number: MCA approval Certificate Number Approved Centre/Company Name , address and contact details including telephone number and e-mail address.

Large Yacht Helideck Landing Officer

This is to certify that

Name (full name and address) Date of Birth

Discharge Book Number or Other National I/D number

Has successfully completed training approved by the Maritime & Coastguard Agency, meeting the requirements laid down in: MCA Large Yacht Helideck Training for:

Large Yacht Helideck Landing Officer

On ____(*date*)____

| Agency of the | | authority of the Maritime & Coas Great Britain and Northern Irela r Transport | _ | |
|-----------------------------|---|---|---------|--|
| Signature of provide the tr | | Representative of the centre appro | oved to | |
| (Organisation |) <u>(signed)</u> | | | |
| Signature of p | erson to whom this certificat | te was issued | | |
| Enquiries con | Issuing Approved Company, address and date Enquiries concerning this certificate should be addressed to the approved company at the address above | | | |
| | | | | |
| Date | Training Organisation | Signed | | |
| | | | | |
| This certificate | e expires on(date) | | | |
| Sample Certifi | cate Format | | | |
| Certificates iss | sued should be in the followi | ing form: | | |



Section Two

Specification of Large Yacht Helideck Procedures & Emergency Response Training

<u>Introduction</u>

The correct performance of standard procedures and a swift response to emergency situations by the helideck team are the key factors in the safety of all crew and passengers on the yacht and helicopter. It should be recognised that acquiring of appropriate knowledge and training would be the key to maintaining safety and preventing incidents occurring onboard.

Aim

On completion of the training, the trainees will have an awareness of hazards associated with working in the vicinity of helicopters and on yacht helidecks.

Objectives

Trainees will be able to:

- Assist in the preparation of the helideck for flying operations
- Assist in the safe embarkation/disembarkation of helicopter passengers and crew
- Take appropriate actions in response to non-fire related emergencies

Entry Standards

Trainees must have completed four elements of STCW 95 Basic Training prior to attending this module.

- Personal Survival Technique
- Fire Prevention and Fire Fighting
- Elementary First Aid
- Personal Safety and Social Responsibilities

Course Intake Limitations

The number of trainees will depend on the number of staff and the equipment available for conducting realistic scenarios.

Practical elements are to be conducted in groups of 3.

Staff Requirements

Properly qualified personnel should carry out all training and assessments. All staff must:

- Understand the specific objectives of the training
- Be familiar with the operation of helicopters from marine helidecks
- Have knowledge, training and experience in helicopter emergency response
- Have knowledge of instructional techniques and practices
- Have an understanding of assessment methods and practices, minimum City & Guilds Train the Trainer course
- Have an understanding of the particular problems of helicopter operations on large yachts

Training Plan

In order to ensure that each trainee undertakes the necessary practical work, at least 4 hours must be devoted for practical exercises per group of 3 trainees.

Classroom work and demonstrations should be provided over a 4-hour period.

Assessment

The training must be organised so that, by demonstration trainees are able to show that they meet the requirements of column 2 of Table A in accordance with the methods for demonstrating competence in column 3 of that table and the criteria for evaluating competence in column 4.

Guidance on conduct and structure of Large Yacht Helideck Procedures & Emergency Response training

The content of the course should reflect the guidance described in the Large Yacht Helicopter Operations Handbook published by the MCA.

The duration of the course will depend on the background and prior experience of the trainees; however, the course must be delivered in a manner that allows all trainees sufficient opportunity to meet the requirements of Table A.

Practical training is best completed in teams of 3, with one trainee (or an additional instructor) acting in the HLO role during each exercise.

At least 4 hours of practical training should be allowed for each team of 3. Classroom and familiarisation/demonstration sessions should be achieved in a total of 4 hours.

Ideally, this module will be delivered as a combined course with the Large Yacht Helideck Fire Fighting module.

Principles and Procedures Session

Classroom instruction on principles and procedures regarding operations on a vacht's helideck.

Helideck team organisation

Roles and responsibilities

Helicopter

Light/Medium twin turbine, single turbine and piston engine helicopters should be discussed, with particular reference to:

Tail rotor hazard
Exhaust hazard
Low main rotor hazard
Blade sail
Rotor disc discipline
Approach routes to/from helicopter
Access to helicopter – standard and emergency
Seat belts – use of J-knife
Emergency shutdown procedures – generic
Pyrotechnic, electrical and mechanical hazards

Helideck

Preparing helideck and surrounding areas for flight operations Foreign Object Debris (FOD) Potential hazards to personnel on helideck Safe areas Access and escape routes

Preparation of equipment

Wearing of Personal Protective Equipment (PPE)

Correct stowage of helideck furniture and other ancillaries

Helideck equipment normally carried on yachts

Fixed and portable fire fighting equipment normally carried on yacht helidecks

Ground handling equipment

Use of handrails and dangers of tripping hazards

Standard Procedures

Use of Operations Manual Importance of using standard procedures Importance of training and drills Communications:

- Yacht to helicopter
- Bridge to helideck
- Helideck team hand signals

Standard helicopter approach/departure

Transfer of watch

Correct manning of helideck equipment

Correct positioning of helideck team during landing/take-off

Passenger handling

Cargo loading/unloading

Dangerous goods regulations

Securing helicopter to deck

Emergency Response

Types of emergencies

- Heavy landings
- Crash on deck
- Ditching helicopter

Prompt corrective action is taken and communicated to appropriate persons in response to actual or potentially hazardous situations

Emergency response procedures

Approaching crashed helicopter

Importance of maintaining escape route

Personal dynamic risk assessment

Passenger evacuation

Casualty extraction

Un-ignited fuel spills

Practical Session

All trainees are required to participate in practical exercises and demonstrate the competence to perform the actions listed in Column 3 of Table A.

Section Three

Specification of Large Yacht Helideck Fire Fighting training

<u>Introduction</u>

The use of correct helicopter fire-fighting techniques by the helideck team significantly improves the survivability of helicopter passengers in the event of an accident. This module complements the underlying principles taught in the Large Yacht Helicopter Procedures and Emergency Response training module. This training must be completed before undertaking duties on a helideck conducting flying operations.

<u>Aim</u>

On completion of the training, the trainees will understand the specific fire fighting techniques to be used in the event of a helicopter fire on board a large yacht

Objectives

Trainees will be able to:

- Prepare all fire fighting equipment for the helideck prior to flying operations
- Take appropriate actions in response to helicopter fire related emergencies

Entry Standards

Trainees must have completed STCW 95 Basic Training prior to attending this module and have completed or be attending concurrently the Large Yacht Helicopter Procedures and Emergency Response training module.

Course Intake Limitations

The number of trainees will depend on the number of staff and the equipment available for conducting realistic scenarios.

Practical elements are to be conducted in groups of 3.

Staff Requirements

Properly qualified personnel should carry out all training and assessments. All staff must:

- Understand the specific objectives of the training
- Be familiar with the use of and operation of fire fighting appliances and equipment commonly found on large yacht helidecks

- Be familiar with the operation of helicopters from marine helidecks
- Have experience of aircraft fire fighting procedures
- Have knowledge of instructional techniques and practices
- Have an understanding of assessment methods and practices minimum City & Guilds Train the Trainer course
- Have an understanding of the particular problems of helicopter operations on large yachts

Training Plan

In order to ensure that each trainee undertakes the necessary practical work, at least 4 hours must be devoted for practical exercises.

Classroom work and demonstrations should be provided over a 4-hour period.

Assessment

The training must be organised so that by demonstration, trainees are able to show that they meet the requirements of column 2 of Table B in accordance with the methods for demonstrating competence in column 3 of that table and the criteria for evaluating competence in column 4.

Guidance on conduct and structure of Large Yacht Helideck Fire Fighting training

The duration of the course will depend on the background and prior experience of the trainees; however, the course must be delivered in a manner that allows all trainees sufficient opportunity to meet the requirements of Table B.

Practical training is best completed in teams of 3, with one trainee (or an additional instructor) acting in the HLO role during each exercise.

It is unlikely that this course can be delivered in less than 8 hours. At least 50% of this time should be dedicated to practical training.

Ideally, this module will be delivered as a combined course with the Large Yacht Helicopter Procedures & Emergency Response module.

Principles and Procedures Session

Classroom instruction on principles and procedures regarding fire-fighting operations on a yacht's helideck.

Fire Hazards

Revision of basic fire principles

Flammable materials:

- Jet Fuel
- Hydraulic fluid under pressure

Types of fire

- Engine fire
- Engine bay fire
- High-pressure system fire
- Electrical fire
- Battery fire
- Ignited fuel fire
- Established helicopter fire

Special hazards

- Pyrotechnics
- Flotation gear systems
- Composite materials

Fire Fighting Appliances and Equipment

Discuss the types and method of operation of appliances and equipment commonly found on large yachts

Fixed systems

Portable extinguishers

Personal Protective Equipment (PPE)

Breathing Apparatus (BA)

Fire Fighting Techniques

Preparation of fire fighting appliances and equipment Entering the helideck during incident Importance of rapid reaction to fire incident Use of correct agents Protection of passengers during evacuation Containment and extinguishment of fires Protection of team during snatch rescue attempt Importance of fire watch Fire watch during refuelling operations

Section Four

Specification of Large Yacht Helicopter Refuelling training

Introduction

All personnel who are engaged in the handling and dispensing of aviation fuel must understand that the safety of a helicopter and its passengers depends on their ability to deliver fuel that is free from contamination including water particles. It should be noted that fuel delivery system manufacturers will provide operating instructions that should be followed and as such the training offered within this manual is restricted to generic systems.

The use of correct helicopter refuelling procedures by the refuelling team significantly reduces the likelihood of an incident occurring and improves the safety of all personnel involved.

This module does not include instruction on the jet fuel storage and quality control schedules.

This training described within this module must be completed before undertaking refuelling duties on a large yacht helideck.

It is acknowledged that some large yacht jet fuelling systems will have a de-fuelling capability. Manufacturer specific training for de-fuelling must be attended before utilising this capability and is applicable only to that system.

<u>Aim</u>

On completion of the training, the trainees will understand the procedures required to ensure the safe provision of clean jet fuel to an embarked helicopter.

Objectives

Trainees will be able to:

- Prepare and operate refuelling equipment for the helideck
- Conduct fuel quality sampling and testing
- Conduct refuelling of helicopter

Entry Standards

Trainees must have completed STCW 95 Basic Training prior to attending this module.

Course Intake Limitations

The number of trainees will depend on the number of staff and the equipment available for conducting realistic scenarios.

Staff Requirements

Properly qualified personnel should carry out all training and assessments. All staff must:

- Understand the specific objectives of the training
- Be familiar with the use of and operation of refuelling appliances and equipment commonly found on large yacht helidecks
- Be familiar with fuel quality sampling and testing techniques and practices
- Be familiar with the operation of helicopters
- Have knowledge of instructional techniques and practices minimum City & Guilds train the trainer course
- Have an understanding of assessment methods and practices

Training Plan

Training should be conducted through a mixture of theory and practical elements. The module should be conducted over a minimum of 3 hours with 75% of this time dedicated to demonstrations and practical exercises. Each student must carry out practical sample tests.

<u>Assessment</u>

The training must be organised so that by demonstration, trainees are able to show that they meet the requirements of column 2 of Table C in accordance with the methods for demonstrating competence in column 3 of that table and the criteria for evaluating competence in column 4.

Guidance on conduct and structure of Large Yacht Helicopter Refuelling training

The duration of the course will depend on the background and prior experience of the trainees; however, the course must be delivered in a manner that allows all trainees sufficient opportunity to meet the requirements of Table C.

Practical training is best completed in teams of 3, with one trainee (or an additional instructor) acting in the HLO role during each exercise.

The course should be delivered over a minimum of 3 hours with 75% of this time dedicated to demonstrations and practical exercises.

Principles and Procedures Session

Classroom instruction on principles and procedures regarding jet fuel sampling and testing

Importance of providing clean jet fuel Characteristics of jet fuel Fuelling system Sampling Equipment

Visual examination

- Particle contamination
- Water contamination

Refuelling procedures

- Standard
- Emergency stop

De-fuelling procedures

Fuel samples and delivery records

Practical Session

All trainees are required to participate in a practical re-fuelling exercise, and demonstrate the competence to perform the actions listed in Column 3 of Table C.

It is acknowledged that some large yacht jet fuelling systems will not have a defuelling capability. If the practical session is conducted on such a system, the certificate awarded should be annotated "refuelling operations only".

Section Five

Specification of Large Yacht Helicopter Landing Officer Training

Introduction

The correct performance of standard procedures and a swift response to emergency situations by the helideck team are the key factors in the safety of all crew and passengers on the yacht and helicopter. The Helicopter Landing Officer (HLO) is the primary link between the yacht and the helicopter and is in overall charge of the helideck during flight operations.

This training must be completed by at least one member of the helideck team before the yacht conducts flying operations.

<u>Aim</u>

On completion of the training, the trainees will have a good understanding of the organisational requirements for the operation of helicopters from large yacht helidecks.

Objectives

Trainees will be able to:

- Assist the aircraft commander in completing paperwork requirements prior to flying operations
- Act as officer-in-charge of helideck team during flying operations
- Organise and conduct onboard helicopter drills to maintain helideck team training currency

Entry Standards

Prior to attending this module, trainees must have completed the following:

- STCW 95 Advanced Fire Fighting
- HDA qualified Large Yacht Helicopter Procedures and Emergency Response and Large Yacht Helideck Fire Fighting Courses completed or equivalent as authorised by the MCA.
- Practical experience performing the duties of an HDA

Course Intake Limitations

The number of trainees will depend on the number of staff and the equipment available for conducting realistic scenarios.

Practical elements should allow the trainee to lead a team of 3 personnel. These additional 2 personnel may be trainees on the Large Yacht Helicopter Procedures and Emergency Response module.

Staff Requirements

Properly qualified personnel should carry out all training and assessments. All staff must:

- Understand the specific objectives of the training
- Be familiar with the operation of helicopters from marine helidecks
- Have knowledge of instructional techniques and practices
- Have an understanding of assessment methods and practices minimum City & Guilds Train the Trainer course
- Have an understanding of the particular problems of helicopter operations on large yachts

Training Plan

The training may be delivered as part of a new helideck trial. In order to ensure that each trainee undertakes the necessary practical work, at least 4 hours must be devoted for practical exercises.

Classroom work and demonstrations should be provided over a 4-hour period.

Assessment

The training must be organised so that by demonstration, trainees are able to show that they meet the requirements of column 2 of Table D in accordance with the methods for demonstrating competence in column 3 of that table and the criteria for evaluating competence in column 4.

Guidance on conduct and structure of Large Yacht Helicopter Landing Officer Response training

The content of the course should reflect the guidance described in the Large Yacht Helicopter Operations Handbook, MGN xxx)

The duration of the course will depend on the background and prior experience of the trainees; however, the course must be delivered in a manner that allows all trainees sufficient opportunity to meet the requirements of Table D.

Practical training is best completed with the trainee leading a helideck team of 2 Helideck Assistants.

At least 4 hours of practical training should be allowed for. Classroom and familiarisation/demonstration sessions should be achieved in a total of 4 hours.

This module may be delivered concurrently with other modules, with the trainee acting as the performing the HLO role. In this case, it is important that the trainees still demonstrate the competences required for each module.

Principles and Procedures Session

Classroom instruction on principles and procedures in the performance of HLO duties.

Air Department organisation

Roles and responsibilities of HLO Authority of Master and helicopter captain

Pre-arrival/departure procedures

Heads of department briefing Flight information gathering

- Weather information
- Yacht position
- Radio frequencies
- Passenger manifests

Helideck team safety briefing

Helideck preparation procedures

HLO role during flight operations

Importance of leadership Commanding the helideck area Control over personnel/passenger movements Liaison with aircrew when helicopter on deck Communications

Transfer of Watch

- Radios
- Hand signals
- Wave off

Visual checks of helicopter prior to flight

Visual check of helideck and surrounding airspace prior to helicopter arrival/departure

Co-ordination of HDAs and other personnel during emergency response

Training and currency

Training requirements for helideck team

Organising realistic helideck drills for continuous training

Accident follow-up procedures

Requirement for documenting evidence

Photographing helicopter wreck site
 Importance in not disturbing helicopter wreck (HAZMAT)
 Reporting accident to authorities

Practical Session

The practical session is best achieved with the HLO commanding 2 HDAs during the exercises. If more than 1 HLO trainee is present then the HLO role should be performed on a rotational basis.

Table A
Specification of Minimum Standard of Competence in Large Yacht Helideck Procedures and Emergency Response

| COLUMN 1 | COLUMN 2 | COLUMN 3 | COLUMN 4 |
|--|--|---|---|
| Competences | Knowledge, Understanding and Proficiency | Methods for Demonstrating Competence | Criteria for Evaluating Competence |
| Work safely in the vicinity of helicopters on a yacht helideck | Helicopter hazards Helideck hazards Approach routes to/from helicopter Communication in high noise environment | Assessment of evidence obtained from approved instruction or during attendance on an approved course. Practical demonstration of competence during non-emergency drills of helicopter passenger transfer to/from yacht. | The timing and sequence of individual's actions are appropriate to the prevailing circumstance and conditions and minimize potential risks. Takes correct action in response to hand signals. |
| Conduct standard helicopter arrival and departure procedures | Preparations for flying operations The dangers of Foreign Object Debris (FOD) Duties to be performed during standard procedures Passenger handling Cargo/baggage handling Securing helicopter on deck Ground handling helicopter | Assessment of evidence obtained from approved instruction or during attendance on an approved course. Practical demonstration of competence during non-emergency drills of helicopter passenger transfer to/from yacht. Practical demonstration of competence in helicopter ground handling and securing to deck. | The timing and sequence of individual's actions are appropriate to the prevailing circumstances and conditions and minimize potential risks to helicopter, yacht and all personnel. Takes appropriate actions in response to aircraft commander and HLO. |

Large Yacht Helideck Safety Training (Tables)

| Respond correctly to non-fire related | Types of emergencies | Assessment of evidence obtained | Initial actions taken on becoming |
|---------------------------------------|---|---|---|
| helicopter emergencies | | from approved instruction or during | aware of emergency conform to an |
| | Hazards associated with a crashed | attendance on an approved course. | established emergency response |
| | helicopter | | procedure. |
| | · | Practical demonstration of | |
| | Techniques for shutting down a helicopter | competence during non-fire related emergency drills. | Takes appropriate actions in response to HLO direction. |
| | Personal Protective Equipment (PPE) | Practical demonstration of passenger evacuation. | Communications are clear and effective. |
| | Casualty extraction | Practical demonstration of extraction of spine related injured passenger. | Risk of further harm to self and passengers/casualties is minimized |
| | Un-ignited fuel spills | , , , , , | at all times. |

- (a) Work safely in the vicinity of helicopters on a yacht helideck: In achieving this element the candidate will be able to:
- identify helicopter and helideck hazards;
- describe safe approach routes to/from helicopter;
- take correct actions and follow instructions in high noise environment.
- (b) Conduct standard helicopter arrival and departure procedures:

In achieving this element the candidate will be able to:

- state the requirements for arrival and departure procedures;
- be aware of the danger of foreign object debris;
- perform duties during standard arrival/departure procedures including: passenger/crew handling, cargo/baggage handling, securing of helicopter on deck, handling helicopter on ground.

- (c) Respond correctly to non-fire related helicopter emergencies: In achieving this element the candidate will be able to:
- identify various types of non-fire related emergencies;
- be aware of hazards associated with a crushed helicopter;
- respond to HLO directions in shutting down a helicopter including dealing with un-ignited fuel spills;
- demonstrate passenger evacuation and casualty extraction;
- communicate in clear and effective manner;
- aware of minimising risks to self and passengers.

Table B
Specification of Minimum Standard of Competence in Large Yacht Helideck Fire Fighting

| COLUMN 1 | COLUMN 2 | COLUMN 3 | COLUMN 4 |
|--|--|---|--|
| Competences | Knowledge, Understanding and Proficiency | Methods for Demonstrating Competence | Criteria for Evaluating Competence |
| Fight and extinguish fires in relation to helicopter incidents | Flammable materials, fire hazards and the spread of fire in relation to helicopters Location and operation of all helideck fire fighting appliances and equipment Fire fighting PPE, including Breathing Apparatus Helicopter fire fighting methods | Assessment of evidence obtained from approved instruction or during attendance on an approved course, including practical demonstration on facility providing truly realistic training conditions of the ability to: Deploy fixed fire fighting systems Use of portable fire extinguishers Extinguish fires with foam, powder or other suitable agent Extinguish helicopter turbine engine fire Prevent ignition of fuel spill | The timing and sequence of individual's actions are appropriate to the prevailing circumstance and conditions and minimize potential risks to helicopter, yacht and all personnel. Extinguishment and/or containment of fire achieved using appropriate procedures and techniques. Breathing apparatus procedures and techniques comply with accepted practices and procedures. Initiation and taking of appropriate precautions to prevent/ minimise explosion hazards |
| | | Perform snatch rescue technique of survivors | |

(a) Fight and extinguish fires in relation to helicopter incidents: In achieving this element the candidate will be able to:

Large Yacht Helideck Safety Training (Tables)

- identify flammable materials;
- identify fire hazards and the spread of fire in relation to helicopters;
- identify and locate all available fire fighting appliances;
- operate all helideck fire fighting appliances;
- don and use fire fighting PPE including breathing apparatus;
- extinguish and contain fire using appropriate procedures and techniques;
- identify explosion hazards in a fire such as the CO2 gas cylinders in floatation system and initiate appropriate precautions to prevent such hazards;

Table C
Specification of Minimum Standard of Competence in Large Yacht Helicopter Refuelling

| COLUMN 1 | COLUMN 2 | COLUMN 3 | COLUMN 4 |
|----------------------------------|--|---|---|
| Competences | Knowledge, Understanding and Proficiency | Methods for Demonstrating Competence | Criteria for Evaluating Competence |
| Fuel sampling and testing | Characteristics of jet fuel Use of sampling equipment | Assessment of evidence obtained from approved instruction or during attendance on an approved course, including practical demonstration. Practical demonstration of sampling techniques on various fuel samples. | Correctly identify clean and contaminated fuel samples |
| Conduct refuelling of helicopter | Procedures for refuelling helicopter Safety rules during refuelling/defuelling Emergency stop procedures Fuel documentation | Assessment of evidence obtained from approved instruction or during attendance on an approved course, including practical demonstration | The timing and sequence of individual's actions are appropriate to the prevailing circumstance and conditions and minimize potential risks to helicopter, yacht and all personnel |

(a) Fuel sampling and testing:

In achieving this element the candidate will be able to:

- Be aware of jet fuel characteristics;
- identify clean and contaminated fuel samples.
 - (b) Conduct refuelling of helicopter:

In achieving this element the candidate will be able to:

• identify procedures for refuelling a helicopter;

- explain the safety rules during refuelling/defuelling;
- follow emergency stop procedures; correctly deal with fuel documentation.

Table D – Specification of Minimum Standard of Competence for Large Yacht Helicopter Landing Officer

| COLUMN 1 | COLUMN 2 | COLUMN 3 | COLUMN 4 |
|--|--|---|---|
| Competences | Knowledge, Understanding and Proficiency | Methods for Demonstrating Competence | Criteria for Evaluating Competence |
| Preparing for flying operations | Pre-flying operations documentation Structured yacht/aircrew briefing Structured briefing/debriefing of helideck team Co-ordinate preparation of helideck and surrounding areas | Assessment of evidence obtained from approved instruction or during attendance on an approved course, including practical demonstration. | Clear and accurate briefings prior to flight serial Complete helideck preparation in accordance with procedures |
| HLO duties during standards and emergency procedures | Role of HLO Leadership of helideck team Communication: Helideck to Bridge Helideck to helicopter Helideck team Standard procedures Emergency procedures | Assessment of evidence obtained from approved instruction or during attendance on an approved course. Practical demonstration of competence during non-emergency drills of helicopter passenger transfer to/from yacht. Practical demonstration of competence in helicopter ground handling and securing to deck. | the prevailing circumstance and conditions and minimize potential risks to helicopter, yacht and all personnel. Initial actions on becoming aware of emergency conform to an established emergency response procedure. Communications are clear and |
| | | Practical demonstration of competence during emergency drills. Practical demonstration of passenger | effective. Risk of further harm to self, helideck |

Large Yacht Helideck Safety Training (Tables)

Page 35 of 37

| | | evacuation. | minimised at all times. |
|---|---|---|---|
| | | Practical demonstration of extraction of spine related injured passenger | |
| Management of helideck facilities and personnel | Responsibilities of Master, helicopter commander, HLO and HDA | Assessment of evidence obtained from approved instruction or during attendance on an approved course. | Short written exam covering points in column 2. |
| | Training requirements | | Pass mark 75% |
| | System testing requirements and procedures | | |
| | Post-accident procedures | | |
| | Continuous training planning for helideck team | | |

- (a) Preparing for flying operations:
- In achieving this element the candidate will be able to:
- demonstrates the use of pre-flying operations documentation;
- provide structured briefing to yacht/aircrew and helideck team;
- complete helideck preparations in accordance with procedures.
 - (b) HLO duties during standards and emergency procedures:
 - In achieving this element the candidate will be able to:
- direct the team and take actions appropriate to the prevailing conditions;
- describe the factors to be considered in minimising potential operations risks to helicopter, yacht and all personnel;

- communicate clearly and effectively with team, helicopter and bridge;
- explain standard procedures;
- take initial actions on becoming aware of an emergency;
- follow an established emergency response procedure.
 - (c) Management of helideck facilities and personnel: In achieving this element the candidate will be able to:
- be aware of the responsibilities of the master and helicopter commander;
- explain the responsibilities of HLO and HDA;
- describe training requirements;
- explain system testing requirement and procedures;
- explain post-accident procedures;
- describe training plans for helideck team.