



Australian Diver Accreditation Scheme
ADAS Offshore Diving Supervisor Scheme
Minimum Requirements for Certification



The Australian Diver Accreditation Scheme (ADAS) is the Australian national occupational diver accreditation and certification scheme. It was developed by the Commonwealth Government in 1988 to ensure that Australian occupational divers are appropriately trained and assessed as competent to safely undertake underwater work. ADAS certification is awarded to applicants who demonstrate that they meet the competencies detailed in the relevant ADAS Competence Standard and have completed the required assessment and certification process.

ADAS certification is conditional upon the certified person operating safely and sensibly within the law at all times, or where there is no specific legislation, in compliance with recognised standards and/or codes of practice.

ADAS is a Registered Training Organisation under the national Australian Quality Training Framework and all ADAS courses are accredited under the national Australian Qualifications Framework.

Diving operations in support of offshore oil and gas operations in Australian waters are subject to legislation to regulate the safety of underwater operations (the Offshore Petroleum and Greenhouse Gas Storage Act 2006 (OPGGGS Act)).

These Regulations mandate that divers and supervisors must be accredited under the Australian Diver Accreditation Scheme in order to undertake offshore diving operations.

A feature of these regulations is a legislated key role for diving supervisors and the detailing of their responsibilities in safeguarding the health and safety of divers.

Non-compliance by supervisors with the provisions of these regulations is now an offence with prescribed penalties.

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The information contained herein is given for guidance only and endeavours to reflect best industry practice. For the avoidance of doubt no legal liability shall attach to any guidance and/or recommendation and/or statement herein contained.

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ADAS Offshore Diving Supervisor Certification Scheme

1. Introduction

This document sets out the requirements of the ADAS Offshore Diving Supervisor Certification Scheme.

2. Scheme Background

In the early years of commercial diving in support of the oil industry in the North Sea, the diver in the water was normally supervised (i.e. watched over from the surface) by one of the other divers. As techniques and equipment developed, some of the more experienced divers became recognised as supervisors and many of those who demonstrated a capacity for this responsibility ceased to dive and became full time supervisors.

Legislation in Australia, UK, Norway, Canada and other countries introduced since the 1970s requires that the diving supervisor be responsible for all aspects of the diving operation which he is controlling and that he must not dive himself unless another properly appointed diving supervisor is present and has taken over responsibility for the operation. It also requires that the supervisor should have been a diver with suitable experience.

The diving contractor, who in such areas is required by law to appoint the diving supervisor in writing, relied in the past upon personal assessment as the principal method of selection, although a number of offshore contractors organised in-house examinations and training courses.

In early 1984, the UK Association of Diving Contractors (AODC – now the International Maritime Contractors Association – IMCA) started work on developing a scheme to provide an industry-wide training and certification standard. The scheme formally commenced on 1 January 1987 and provided for a ‘grandfather’ period of eighteen months (later extended to twenty-one months) during which time existing personnel were expected to have passed the examinations. Since 1 October 1988, all personnel working in the North Sea as diving supervisors and superintendents have been required to have passed the necessary examinations and be in possession of an AODC/IMCA certificate confirming this.

In 2002, the Australian Government’s Petroleum (Submerged Lands)(Diving Safety) Regulations 2002 were enacted for Australian offshore oil and gas operations. These regulations require ADAS certification for all offshore air and bell supervisors. All future offshore supervisor candidates must comply with the conditions set out in this document.

On 18 January 2007, ADAS signed a Memorandum of Understanding with IMCA under which both organisations accept that their respective offshore diving supervisor qualifications are equivalent and accept that the certifications issued by each organisation are proof of meeting the requirements to undertake supervision subject to any specific national legal requirements.

ADAS has since signed similar MOU with the Canadian national certification scheme (the Diver Certification Board of Canada) and the Netherlands national certifying authority, the Netherlands National Diving Centre.

3. Scope

The ADAS Offshore Diving Supervisor Scheme covers all offshore personnel either acting as a diving supervisor or superintendent or gaining experience in order to become one. It applies to personnel supervising dives in the water using surface orientated (air) and mixed gas/bell diving techniques (hereinafter called 'air diving' and 'bell diving' respectively). This document also addresses the role of the diving supervisor in relation to a diving operation and the qualities required of a diving supervisor.

The basic requirements in order to commence training as a diving supervisor are laid down, together with the normal route for gaining experience, leading to appointment as a diving supervisor.

'Terminal Objectives' highlight the training needs of potential diving supervisors and the essential requirements of training courses and examination procedures provide for the certification of successful candidates.

4. Terminology, Responsibilities and Career Structure

(See figures 1, 2 and 3 on pages 10-12)

Diving Supervisor

The term 'diving supervisor' refers to a person who has relevant experience and certification and who has been formally appointed by his company. For operations in Australian waters subject to the Petroleum (Submerged Lands)(Diving Safety) Regulations 2002, supervisors are required by law to be certified by ADAS and be competent to undertake supervision of the relevant diving operation.

Both offshore air and bell diving are covered. A supervisor who is qualified to take charge of an air operation only is not qualified to take charge of a bell operation. A bell diving supervisor may be qualified to take charge of both operations, depending on his previous experience and provided that his company is satisfied as to his competence.

Any person acting as a diving supervisor, whether as an assistant, relief or second supervisor, should be fully qualified under the terms and conditions of this scheme and should be appointed in writing by his company.

Responsibilities

The supervisor's responsibilities are both legally defined and laid down in company procedures. In the unlikely event of any conflict between a country's diving regulations and company procedures, the diving regulations must take precedence. Diving supervisors are advised to clarify any such anomalies before the diving operation starts.

Generally speaking, the responsibilities of a diving supervisor are to:

- ensure the safety of the diving team and any other persons who may be engaged in the operation;
- complete the work to the satisfaction of the clients.

The Australian offshore oil and gas legislation impose specific responsibilities on the diving supervisor which are detailed in the Petroleum (Submerged Lands)(Diving Safety) Regulations 2002

Supervisor duties may be summarised as follows:

- to ensure that the diving operation is carried out in accordance with regulations and procedures, that all plant and equipment and suitable facilities (including emergency facilities) necessary for the safe conduct of the operation are available and properly maintained and certified;
- to ensure that the diving operation is carried out from a suitable and safe place; that the diving team consists of an appropriate number of suitably qualified personnel who are all medically fit (this includes being free from the influence of drugs and alcohol) and to take all reasonable precautions to ensure the safety of those engaged in the diving operation;
- to ensure that the members of the diving team are aware of the company's diving rules; that the divers' medical certificates are in order; and that all equipment is checked before the start of a diving operation in accordance with specific national regulations;
- to consult with the master of the vessel or installation manager about the conduct of the diving operation, maintain the diving operation logbook and sign divers' logbooks;
- to be present and in control while there is a diver in the water or under pressure and to report any accident or incident which led, or might have led, to serious injury..

Aim of Supervision

The aim of supervision is to get the job done safely and to the satisfaction of both the client and the employer, to which end the diving supervisor should build a successful team by considering and developing the individuals in the team. This calls for certain management and leadership skills and, in addition to initial theoretical training and offshore practical experience, a diving supervisor will be expected to have undertaken basic leadership training aimed at identifying situations which may arise and preparing the supervisor for decision making, problem solving and general management.

Responsibilities to the Company

These responsibilities will be defined in the company procedures manual and will vary from company to company. The supervisor should check these responsibilities carefully when moving to a new company. The supervisor may report directly to the project manager or operations manager, or work under a senior diving supervisor or superintendent. Offshore, the supervisor will work closely with the client or his representative. Although the client will define the work to be done, only the supervisor may take the decision to dive.

4.2 Trainee Diving Supervisor

This refers to a diver who has satisfactorily completed a diving supervisor training programme (designed to comply with this scheme) but who is gaining offshore experience prior to passing the ADAS theory examination(s) and subsequent formal appointment as a diving supervisor.

Initially, a trainee diving supervisor should only be allowed to supervise for short periods and always with a properly appointed diving supervisor present. As experience increases, these periods may be extended. However, a diving supervisor should remain in charge of the diving operation at all times and should not delegate his responsibility to the trainee.

4.2.1 Trainee Air Diving Supervisor

To qualify as a trainee air diving supervisor, a candidate must meet the following minimum criteria:

- (a) Hold an ADAS-recognised surface supplied diving qualification in compliance with the requirements of the Australian Standard AS 2815 Part 3.
- (b) Have demonstrated competence as an offshore air diver in accordance with the ADAS Competence Assessment Standard and have completed a minimum of 100 commercial dives undertaken with offshore-compatible equipment and procedures.
 - (i). At least 60 of the prerequisite dives must have been undertaken in the offshore oil and gas industry working in accordance with the Australian offshore legislation or elsewhere in compliance with the IMCA Code of Practice for Offshore Diving.
 - (ii). Up to 40 of the prerequisite dives may be equivalent onshore deep air dives undertaken with offshore-equivalent equipment and procedures.
 - (iii). Proof of dives must be demonstrated through the provision of properly certified, signed and stamped diver log books.
- (c) Have satisfactorily completed an ADAS-approved Trainee Air Diving Supervisor training course which meets the Terminal Objectives of this scheme (see page 12) and have passed the course examination. **Candidates are not eligible to attend such courses until they have complied with criteria (a) and (b) above.**
- (d) Apply for and receive ADAS Trainee Air Diving Supervisor Certificate.

4.2.2 Trainee Bell Diving Supervisor

To qualify as a trainee bell diving supervisor, a candidate must meet the following minimum criteria:

- (a) Hold an ADAS-recognised closed bell diving qualification in compliance with the requirements of the Australian Standard AS 2815 Part 4 or equivalent qualification under the ADAS reciprocal recognition arrangements. Anyone outside these arrangements who has comparable training and experience may be referred to the ADAS Executive Director for a decision by the ADAS Assessment Panel.
- (b) Have demonstrated competence as an offshore bell diver in accordance with the ADAS Competence Assessment Standard and have completed 400 lockout hours.
- (c) Have satisfactorily completed an ADAS-approved Trainee Bell Diving Supervisor training course which meets the Terminal Objectives of this scheme (see page 13) and have passed the course examination. **Candidates are not eligible to attend such courses until they have complied with criteria (a) and (b) above.**
- (d) Apply for and receive ADAS Trainee Bell Diving Supervisor Certificate. Australian Diver Accreditation Scheme – 2nd edition Rev 0.3 December 2009 4

4.3 Diving Supervisor

Having qualified and been certified as an ADAS Trainee Air or Bell Supervisor (or accepted equivalent), candidates are then required to undertake further supervised on-the-job training as detailed below and a final theory assessment. Successful completion of this additional training and assessment qualifies the trainee supervisor for substantive qualification and certification. Substantive certification authorises the candidate to undertake independent supervision duties, the main responsibilities of which are summarised above, and which may also be defined in law for the area of operation.

4.3.1 Air Diving Supervisor

Having qualified as a trainee in accordance with 4.1.1 above, personnel must additionally fulfil the following minimum requirements before being appointed in writing by a diving contractor as an air diving supervisor:

- (a) Have logged at least 200 panel hours (under direct supervision) offshore on a minimum of 100 surface dives over a minimum period of 60 days working as a trainee air diving supervisor.
- (b) Have demonstrated competence as an offshore air diver in accordance with the ADAS Competence Assessment Standard and have completed a total of 200 offshore commercial air dives.
- (c) Have been recommended by a company following satisfactory offshore reports confirming competence in accordance with the ADAS guidance on competence assurance and assessment.
- (d) Have passed ADAS examination Module 1. **N.B. Application to sit the examination must be made within three years of successful completion of the training course and at least half the required panel hours should have been obtained in the two years prior to the application being made.**
- (e) Have been certified by ADAS as an Offshore Air Diving Supervisor.

4.3.2 Bell Diving Supervisor

Having qualified as a trainee in accordance with 4.1.2 above, personnel must additionally fulfil the following minimum requirements before being appointed in writing by a diving contractor as a bell diving supervisor:

- (a) Have acted as a trainee air diving supervisor on at least 10 offshore commercial air dives.
- (b) Have logged at least 350 panel hours (under direct supervision) offshore on a minimum of 50 bell runs over a minimum period of 90 days working as a trainee bell diving supervisor.
- (c) Have logged at least 360 panel hours at any time working either as an LST or as an assistant LST.
- (d) Have been assessed in accordance with the ADAS guidance on competence assurance and assessment.
- (e) Have passed ADAS examination Modules 1 and 2. **N.B. Application to sit the examinations should be made within three years of successful completion of the training courses and at least half the required panel hours should have been obtained in the two years prior to the application being made.**
- (f) Have been certified by ADAS as an Offshore Air and Bell Diving Supervisor.

4.3.3 Air Diving Supervisor to Bell Diving Supervisor

A qualified air diving supervisor who has demonstrated competence in accordance with the ADAS Competence Assessment Standard and supervised a minimum of 100 offshore air dives and who wishes to progress to bell diving supervisor does not have to re-sit the air diving supervisor examination module, but must fulfil the following minimum requirements before being appointed in writing by a diving contractor as a bell diving supervisor:

- (a) All aspects of 4.1.2.
- (b) Have logged at least 150 panel hours (under direct supervision) offshore on a minimum of 20 bell runs over a minimum period of 45 days working as a trainee bell diving supervisor.

- (c) Have logged at least 360 panel hours at any time working either as an LST or as an assistant LST.
- (d) Have been recommended by a company following satisfactory offshore reports confirming competence in accordance with the ADAS guidance on competence assurance and assessment.
- (e) Have passed ADAS examination Module 2. **N.B. Application to sit the examinations should be made within three years of successful completion of the training courses and at least half the required panel hours should have been obtained in the two years prior to the application being made.**
- (f) Have been certified by ADAS as an Offshore Air and Bell Diving Supervisor.

4.4 Senior Diving Supervisor or Diving Superintendent

This is the most senior grade and is a qualified diving supervisor with considerable experience. He is appointed by the diving contractor to be in control of a major diving operation with at least one other diving supervisor reporting to him. He has the authority to forbid the start and to order the termination of any diving operation for safety reasons.

He may only order the start of a diving operation if he is acting as the diving supervisor.

He may act as a diving supervisor for part of the operation but otherwise he normally has overall responsibility, whilst any diving supervisor on duty is legally responsible for the operation for which he has been appointed.

4.5 Company Responsibility

The ADAS Offshore Diving Supervisor Certification Scheme is principally concerned with the training and experience necessary to allow an experienced diver to function safely and efficiently as a diving supervisor.

Companies should ensure that trainee diving supervisors are closely monitored offshore, encouraged to seek help and given guidance to areas requiring improvement. The company should be totally satisfied that a trainee has adequate experience and is sufficiently competent to progress to diving supervisor before putting him forward for the ADAS diving supervisor examinations.

Before his first appointment as a diving supervisor, he should complete a company familiarisation programme, followed by an assessment on the company's diving rules, manuals and safety procedures. The length of such training should depend on the diving supervisor's ability and previous experience. The satisfactory completion of the assessment should be recorded and authenticated by the company in the diving supervisor's personal logbook. Such company familiarisation programmes and confirmation of their satisfactory completion are in addition to obtaining the ADAS supervisor qualification. It is important that all diving supervisors and superintendents keep up to date with technical developments and any changes in company procedures.

It is the responsibility of the employing company to ensure that diving supervisors and superintendents are kept apprised of all new regulations and guidance and are familiar with changes in safe working practices.

These requirements apply equally to trainee diving supervisors being promoted and to diving supervisors and superintendents moving from one company to another.

Air Diver to Air Diving Supervisor

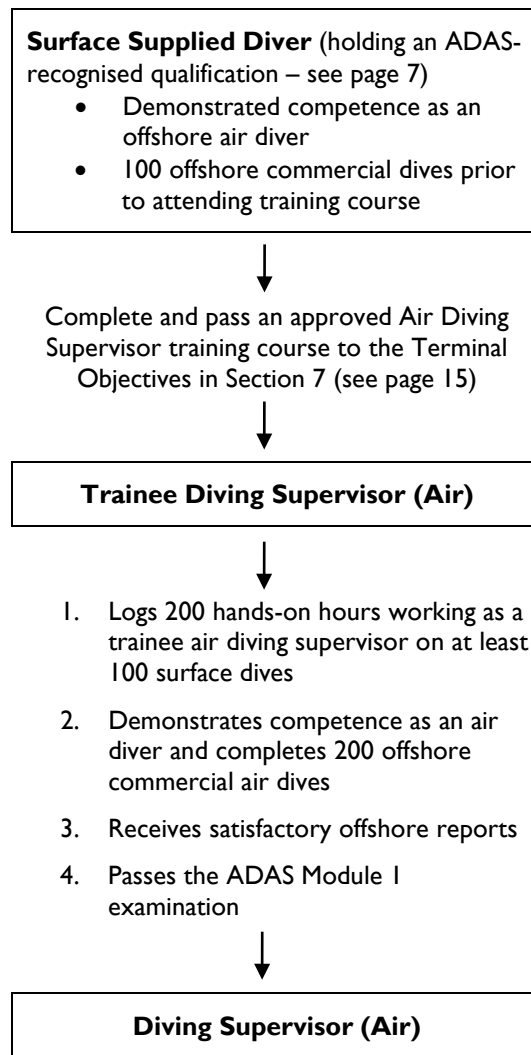


Figure 1

Bell Diver to Bell Diving Supervisor

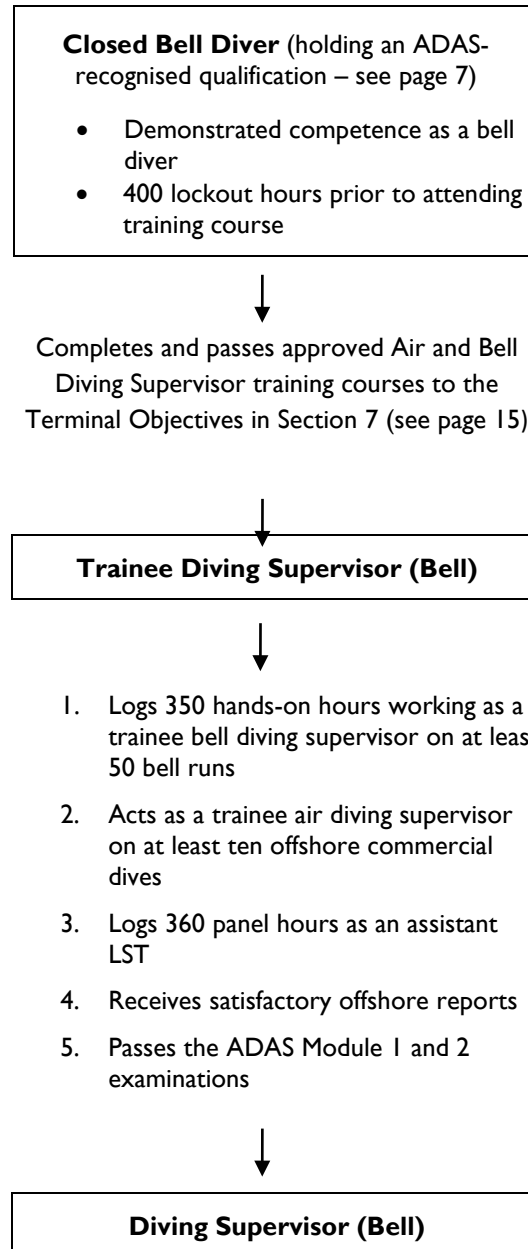


Figure 2

Air Diving Supervisor to Bell Diving Supervisor

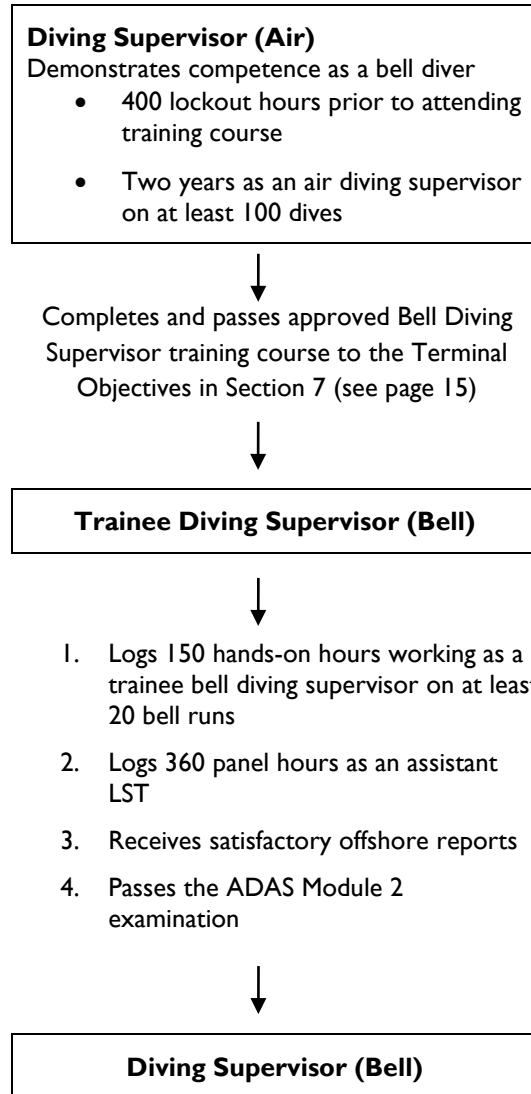


Figure 3

5. Diving Supervisor Examinations

Before applying to sit the ADAS examinations, candidates must meet all the eligibility criteria set out in section 4 above and have progressed in accordance with the scheme in the sequence set out in figure 2, 3 or 4.

5.1 Content

Examinations in the theoretical aspects have been devised to test personnel judged by their companies to be ready for promotion to diving supervisor. There are two compulsory examination modules:

1. Air Diving Supervisor, which includes diving physics, diving physiology and knowledge of equipment and emergency procedures. Candidates must achieve a minimum of 75% in each of the three sections and must also achieve a minimum of 75% over the whole examination.
2. Bell Diving Supervisor, which includes knowledge of life support duties, chamber, bell and handling system equipment, and emergency procedures. Candidates must achieve a minimum of 75%.

Air diving supervisors must pass Module 1 and bell diving supervisors must pass both Module 1 and Module 2 in that order. Provided he has fulfilled all the other criteria, an air diving supervisor who has qualified under this scheme must pass Module 2 in order to progress to bell diving supervisor.

Candidates for bell diving supervisor may be permitted to sit both examination modules at the same time on the strict understanding that, should they fail Module 1, Module 2 will not be marked, and neither will any credit be given for a re-sit.

Additionally, each examination module will contain optional legislation sections (Module 1A, 2A etc.), which will relate to national legislation and may or may not be sat by a candidate, depending on the part of the world in which he wishes to work. Optional modules may be sat separately from the compulsory module if appropriate.

5.2 Examination Procedures and Fees

Application to sit an examination must be made in writing by the candidate's sponsoring company in accordance with the ADAS application template letter which must be signed by the company's nominated signatory (who will normally be the operations or safety manager or someone of equal or higher standing within that company) and be accompanied by copies of any documents specified on that form.

Application to sit the examination must be made within three years of successful completion of the relevant training course and at least half the required panel hours should have been obtained in the two years prior to the application being made. Applicants who do not comply with these requirements may be referred to the ADAS Certification Schemes Administrator for a decision by the Assessment Panel and it should be understood that additional training and/or offshore experience may be required.

Applications must reach ADAS at least fourteen days before the proposed date of examination. Acceptance to sit an examination is valid for one year from the date acceptance is given and, should a candidate not have sat the examination within that year, he will be required to make a fresh application. It should be understood that additional training and/or offshore experience may be required.

All candidates will be charged the current fee for each examination module and for any re-sit. Changes to the fees will be announced as they occur.

Supervision of examinations and the marking of papers will only be carried out by organisations or individuals approved by ADAS.

5.3 Examination Results

Companies will be informed as to whether their candidates have passed or failed the examinations. No marks will be revealed and under no circumstances will examination papers be returned to candidates or their sponsors after an examination.

5.4 Failure

The posts of diving supervisor and life support technician (LST) are safety critical and it is essential that candidates for these positions are able to demonstrate convincingly that they have the necessary aptitude, knowledge and skills to fulfil the roles.

- Candidates will only be allowed to sit the ADAS examination three times: an initial exam and then two subsequent resits. Candidates who fail all three attempts will be required to wait a period of two years from the date of the last failure to allow them to gain more experience before being allowed to re-enter the scheme.
Once the two-year waiting period has elapsed, candidates will then be required to re-take the full supervisor or LST training programme again as detailed in the current version of ADAS offshore diving supervisor and life support technician certification schemes, including re-attending an ADAS-approved trainee diving supervisor/assistant life support technician (ALST) training programme and fulfilling all the practical training requirements before reapplying in full again for the exam;
- Should a candidate be unsuccessful on the first occasion, he/she will be allowed an initial resit which can be booked 30 days after sitting the first exam. The delay is to allow the candidate sufficient time to study before resitting the exam;
- Should the candidate be unsuccessful following the first resit, he/she will not be permitted to re-sit the exam for a second time until a period of one-year elapses. This is to ensure that the candidate has plenty of time improve his/her skills and to learn and master all the required information and before trying the exam again. In addition, in order to book for the second resit exam, candidates will also be required to provide a certificate of completion from an ADAS-approved trainee Air or Bell Diving Supervisor training programme undertaken within the previous year.

ADAS keeps a record of all candidates who attempt examination modules and circulates such information to its international partners in the various mutual recognition scheme.

5.5 Certificates

Individually numbered ADAS certificates bearing a photograph of the holder will be issued to successful candidates as follows:

- Module 1 only: Air Diving Supervisor
- Modules 1 and 2: Air and Bell Diving Supervisor

Certificates will be endorsed as necessary to show which, if any, optional legislation modules have been passed.

The original certificate should be in the possession of the holder at all times whilst working as a supervisor.

Any loss or theft of a certificate should be reported to ADAS as soon as possible after the event. A charge will be made for issuing replacement certificates.

The certificate does not replace the formal letter of appointment which the diving contractor may be required by law to issue. Neither does it exempt the bearer from complying with the requirements and standards in force in the country in which he is working.

6. Logbooks

The ADAS Diving Supervisor Logbook can be used by all trainee supervisors, supervisors and superintendents and, if maintained correctly, will give full details of an individual's experience as well as a brief daily work record. The logbook should be used to establish that required times have been spent at the relevant grades before promotion is considered.

Other logbooks may be acceptable, provided that the experience is correctly logged and can be easily interpreted. Australian Diver Accreditation Scheme – 2nd edition Rev 0.3 December 2009 11

7. Terminal Objectives for Trainee Diving Supervisor Courses

7.1 Trainee Air Diving Supervisor

The minimum course duration is 36 hours, including the course examination but excluding time spent on optional legislation module(s).

A trainee air diving supervisor should have sufficient theoretical, technical and operational experience to enable him to carry out his duties. It is expected that, having completed the course, he will have a necessary knowledge of the following:

(a) Diving Physics

- Basic calculations for the conversion of metric and imperial units
- Basic physical units used in diving
- Boyle's Law (calculating air volumes and diver's air consumption)
- Dalton's Law (partial pressure of gases at various depths)
- Charles' Law (the relationship between pressure changes and temperature changes)
- Archimedes' Principle (calculating the buoyancy and lifting requirements of various objects)
- Henry's Law (the effect of partial pressures on the solubility of gases in liquids and the corresponding effects on decompression)
- The principles of heat transfer by conduction, convection and radiation.

(b) Diving Physiology

- The respiratory, circulatory, basic skeletal and nervous systems of the body
- The problems of maintaining divers in thermal balance and the symptoms and treatments of hypo- and hyperthermia
- The effects of gases on the body and their limits under pressure (in particular, oxygen, carbon dioxide, carbon monoxide and nitrogen)
- The effects of pressure on the body and the principles of decompression and therapeutic procedures
- The causes and symptoms of decompression sickness and barotrauma
- The contents, requirements and maintenance of various types of diving medical kits.

(c) Leadership and Control

He/she should demonstrate an understanding of the following:

- The legislated responsibilities of diving supervisors
- The compilation and use of diving equipment checklists
- The general requirements of Permit to Work systems
- The reporting of accidents occurring in the water or on deck
- Leadership and communication, including the role of a leader, communication and possible conflicts
- Planning and organising work, including assigning work tasks and team building
- Leadership in emergency and stress situations, including symptom recognition, preventative measures, courses of action and transfer of experience.

(d) Air Diving Supervisor

He/she should be:

- Able to prepare pre- and post-dive check lists and supervise their use for all diving operations and equipment under his control
- Familiar with all relevant published codes, guidance notes, safety notices or memoranda affecting air diving operations
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- Able to keep accurate records of all operations under his control.

He/she should also have a thorough knowledge of:

- Safety on the surface, including the use of tools
- Safety in the water, paying particular reference to currents and sea states etc.
- Working methods of, and safe procedures for, commonly used tools and equipment
- The responsibilities of all members of the diving team
- Construction of valves and fittings used in air diving equipment
- Control panels and chambers, use and maintenance of built in breathing (BIBS) systems, operation and design of medical locks, including interlock systems
- Air and gas requirements, handling, purity, oxygen cleanliness and analysis
- Surface supplied diving procedures and emergencies
- Scuba limitations
- Wet bell procedures and emergencies
- Chamber and surface decompression procedures and emergencies
- Decompression and therapeutic procedures
- General safety requirements of dive support vessels used in air diving operation
- Air diving from dynamically positioned vessels.

7.2 Trainee Bell Diving Supervisor

In addition to the 36 hours spent on the trainee air diving supervisor course, the minimum course duration is 24 hours, including the course examination but excluding time spent on any optional legislation module(s).

A trainee bell diving supervisor should be capable of efficiently running all types of diving operation and of remaining in charge at all times, including emergencies. This includes a thorough knowledge of all aspects covered in a, b, c and d above; and, in addition, be:

- able to supervise and have a sound working knowledge of bell launching systems, use of guide wires and weights, cross-hauling, constant tension devices, umbilicals, etc.
- familiar with the composition, uses and mixing of breathing gas mixtures and the need for their constant monitoring
- able to supervise the operation and control of diving bells, compression chambers and ancillary equipment including the bell mating trunking and medical lock
- familiar with the principles and function of inspired gas and diver heating systems
- familiar with all relevant published codes, guidance notes, safety notices and memoranda affecting bell diving
- conversant with all methods of diver evacuation and be able to relate them to a particular work site, both in respect of divers in a diving bell and dives under pressure in a decompression chamber.

7.3 Optional Legislation Modules

Trainee diving supervisors will be expected to demonstrate an understanding of the main points of current legislation in the country concerned which is relevant to diving and to:

- the main duties of employer and employee ;
- the specific duties and responsibilities of all members of the diving team;
- the requirements of and procedures for testing, examining and certifying equipment;
- the requirements of diving operation logs;
- and of all relevant codes, guidance notes, safety notices and memoranda published by the relevant national governing bodies.

8. Country-Specific Requirements

These ADAS supervisor training and certification schemes are recognised by the Diving Inspectorate of the United Kingdom Health & Safety Executive (HSE) Offshore Safety Division (OSD) and are in conformity with the requirements of the Norwegian Petroleum Safety Authority (PSA) and NORSOK for the training and examination of diving supervisors, who are appointed in writing to control diving operations on the UK and Norwegian continental shelves; and life support technicians.

8.1 Special Requirements for Diving Supervisors in Norwegian Waters

Trainee Diving Supervisors should be aware that the NORSOK Standards for Manned Underwater Operations (U-100), revised in August 1999, set out the details of experience, which are slightly different from those of ADAS. They also call for additional training modules not included in the ADAS syllabus.

(a) The main differences are as follows:

- for Norwegian operations, all trainee diving supervisors must have the following experience of working from dynamically positioned vessels as a diver:
 - 25 air dives from a vessel on dynamic positioning for a trainee air diving supervisor
 - 25 bell dives from a vessel on dynamic positioning for a trainee bell diving supervisor
- for Norwegian operations, all diving supervisors must have taken an approved course in advanced first aid and have received management (leadership) training;
- for Norwegian operations where a DP vessel is directly engaged in the dive operation, all supervisors must have undergone an introductory DP course.

(b) The minor differences are as follows:

- NORSOK requires an air diving supervisor to have spent one year as an active trainee air diving supervisor, including 200 logged hours on the panel;
- ADAS requires an air diving supervisor to have spent at least 60 days working as a trainee air diving supervisor, including logging 200 hours on the panel.

Aspiring air diving supervisors intending to work in Norway are recommended to keep a careful log of hours spent as a trainee and, if made up to supervisor within a period of one year, to continue to log activities for the full year for the purpose of satisfying Norwegian guidelines.

9. Appendix 1

Instructions to Candidates for Examinations

1. Answer all questions by circling the letter of the answer you judge to be correct.
2. If you circle an answer in error, you may circle another answer but the original circle must be clearly crossed out. No marks will be given to any question not showing a single clear answer.
3. Any calculations may be made on the reverse side of the examination paper. No 'rough' paper for calculations will be allowed.
4. You may not ask the person who is supervising the examination any question about the examination paper.
5. Enter your name and sponsoring company on the top sheet of the examination paper.
6. You may use a non-programmable calculator during the examination. Other books, documents and programmable calculators are not permitted in the examination room. Use of such aids will result in instant failure of the examination.
7. Questions defaced with comments or qualifications will be disallowed even if the correct answer is selected.
8. Any form of communication between candidates during an examination will result in disqualification of the candidates involved.
9. You will be given a time warning approximately 15 minutes before the end of the examination. If you wish to leave as soon as you have finished, please hand your paper to the invigilator and ensure that you do not disturb the other candidates.
10. At the end of the examination, all sheets must be handed to the invigilator, whether they are complete or not. Any candidate whose examination paper is found to have pages missing after the examination will fail and will be disqualified from sitting another examination for 12 months.
- 11. Any infringement of these instructions will result in immediate failure of the examination.**