



CMAS

CONFÉDÉRATION MONDIALE
DES ACTIVITÉS SUBAQUATIQUES

WORLD UNDERWATER FEDERATION

Rescue Diver Standard

Version 1

Draft CMAS Rescue Standard in proposed Standards Format
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Section A

Introduction

1. Scope and purpose

- 1.1 The CMAS Board of Directors adopted this CMAS Rescue Diver Standard, which forms the basis for the Rescue Diver Training Programmes of CMAS Federations and CDC's, upon recommendation by the CMAS Technical Committee.
- 1.2 The CMAS International Diver Certification System only provides for one grade of CMAS Rescue Diver.
- 1.3 The CMAS Rescue Diver Training Standard specifies the following:
 - 1.3.1 The competencies that a participant has to have achieved in order for a CMAS Instructor to award the CMAS Rescue Diver certification to the participant indicating that he has been assessed and has shown that he has met or exceeded the minimum requirements for certification as a CMAS Rescue Diver;
 - 1.3.2 The specific conditions under which training has to be provided; and
 - 1.3.3 The minimum training programme content requirements for instruction leading to the CMAS Rescue Diver certification.
- 1.4 The requirements of this CMAS Standard are meant to be comprehensive, but general in nature. That is, the standard presents all the required subject areas essential for CMAS Rescue Diver certification, but it does not give a detailed listing of the skills and information encompassed by each area.
- 1.5 Although the information categories are outlined in what may appear to be a logical sequence, the outline shall not be viewed as a lesson plan. That means that the order in which the information is presented in this standard, while logical as a framework for the basic requirements of the specific standard, does not necessarily define the sequence of a class lesson plan. Similarly, the requirements presented in this standard do not indicate the emphasis that should be placed upon a particular subject area, or the manner in which subjects are to be taught. Rather, course outlines, lesson plans, and other training aids prepared by CMAS Federations responsible for CMAS Rescue Diver training shall be used as guidelines for the sequencing and emphasis of course content requirements presented in these standards. Decisions as to the sequencing and the emphasis of subject matter are at the discretion of the CMAS Instructor within the requirements of the CMAS Instructor's Federation, to be made within the context of environmental factors, participant characteristics, and other relevant considerations.
- 1.6 This standard represents the minimum standard, which means that subject matter and diving skills may be added by CMAS Federations, CDC's to suit the local conditions in a specific area.
- 1.7 This CMAS Standard is applicable to all CMAS Federations and CDC's and CMAS Instructors presenting training on behalf of a Federation or a CDC.

Section B

Definitions

1.1 In these Standards, unless the context indicates otherwise –

- 1.1.1 “**Assessment of a diving casualty**” shall mean the primary and secondary assessment of the diving casualty.
- 1.1.2 “**Assisted ascent**” shall include the controlled buoyant lifting technique from behind, the controlled buoyant lifting technique from the front and the tethered buoyant lifting technique.
- 1.1.3 “**CDC**” shall mean a CMAS Diving Centre that is registered with the CMAS International Technical Committee and that is in good standing with CMAS International.
- 1.1.4 “**Certification**” shall mean a CMAS Certification Card (“C-Card”) documenting that a student has completed all requirements of a specific CMAS Diver Training Programme. This verification is issued by either CMAS International or the National Federation upon receipt of an instructor’s written confirmation of satisfactory completion of all course requirements by the participant, as documented in the participant’s Personal Log Book/Training Record.
- 1.1.5 “**CMAS Dive Leader**” shall mean an individual who is currently certified as a CMAS Three Star Diver and who is sanctioned by CMAS International and/or his National Federation to lead guided and organised open water dives and to assist a CMAS Instructor during confined and open water training.
- 1.1.6 “**CMAS National Federation**” shall mean a National Federation that is a member of the CMAS International Technical Committee and that is in good standing with CMAS International.
- 1.1.7 “**CMAS Instructor**” shall mean an individual who is currently certified and sanctioned by CMAS International and/or his National Federation to teach open water SCUBA diving and to authorize the issuance of CMAS Diver certification.
- 1.1.8 “**Competencies**” shall mean a cluster of related knowledge, skills and attitudes performed to a specific standard under specific conditions.
- 1.1.9 “**Confined water**” shall mean a swimming pool with a depth appropriate to the activity or any body of water that offers conditions similar to those of a swimming pool with regard to visibility, depth, water movement and access.
- 1.1.10 “**CPR**” shall mean cardio pulmonary resuscitation.
- 1.1.11 “**Decompression stop dive**” shall mean a dive that requires a mandatory in-water decompression stop.
- 1.1.12 “**Emergency-signalling device**” shall mean a device suitable for the venue in which open water diving is performed which can be used to attract the attention of the surface party or a search party if the diver or dive group become separated from the dive boat or surface party such as a BC integrated emergency horn, signalling mirror, safety sausage etc. or during any other emergency.

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- 1.1.13 **“Instructional Assistant”** shall mean a CMAS One Star Instructor or a CMAS Dive Leader.
- 1.1.14 **“Knowledge”** shall mean the specific information required for the participant to develop the skills and attitudes for effective accomplishment of diving tasks/duties.
- 1.1.15 **“Minimum instructional diving system”** shall mean the equipment required to be worn by the CMAS Instructor, his assistants and the students while performing the skills prescribed for both the confined and open water sections of the Altitude Diver Training Programme. This equipment includes, as a minimum, the following:
- mask
 - snorkel
 - fins
 - exposure suit (if appropriate)
 - quick release weighting system
 - cylinder and valve
 - cylinder-support system
 - buoyancy control device with low-pressure inflator system
 - regulator
 - alternate air source (could range from a simple octopus system to a duplicate breathing system with a separate breathing gas system)
 - submersible pressure gauge
 - timing device
 - depth gauge
 - cutting device (if not prohibited by legislation)
 - emergency signalling device (acoustical, optical)
- 1.1.16 **“Neurological examination”** shall mean the structured examination of a diving casualty's central nervous system, soon after the occurrence of a diving accident, in order to provide the physician with valuable information to assist with the treatment of the diving casualty.
- 1.1.17 **“No-decompression stop dive”** shall mean a dive that does not require a mandatory in-water decompression stop.
- 1.1.18 **“Open water”** shall mean any body of water significantly larger than a swimming pool offering conditions typical of a natural body of water encountered in the region.
- 1.1.19 **“Open water training dive/exercise”** shall mean a supervised, open water SCUBA training experience to fulfil the certification requirements of a CMAS Rescue Diver Training Programme and shall, as a minimum consist of the following:
- a briefing
 - preparation to dive
 - pre-dive checks
 - an appropriate method of entry into the water
 - descent procedures
 - underwater activity of at least 15 minutes at depths between 5 and 20 metres
 - an appropriate method of exit from the water
 - a debriefing
 - post dive procedures including equipment care
 - recording (logging) the dive in student's Personal Log Book.
- 1.1.20 **“Participant”** shall mean an individual that complies with the prerequisites for participation in any of CMAS Diver Training Programmes and who has formally enrolled on such a training programme

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presented by a CMAS Instructor. Synonyms for the word "participant" are "student", "candidate" or "learner".

- 1.1.21 **"Risk assessment"** shall mean the identification of hazards and who may be harmed by them.
- 1.1.22 **"Safety swimmer"** shall mean a certified diver who holds at least a CMAS Rescue Diver certification who is equipped in snorkelling equipment and who can come to the assistance of a participant during any surface rescue training dive/exercise.
- 1.1.23 **"SCUBA"** shall mean self-contained underwater breathing apparatus.
- 1.1.24 **"Skill"** shall mean an ability, learned and acquired through training, to perform actions that achieve a specific desired outcome.
- 1.1.25 **"Supervision"** as it relates to confined and open water training shall mean the prescribed level of supervision required by either the CMAS Instructor or CMAS Dive Leader in order to ensure the safety of the diving activity. The level of supervision required is prescribed as either direct or indirect supervision, which is defined as follows:
- **"Direct supervision"** shall mean visual observation and evaluation of student skill performance and student diving activities by a CMAS Instructor or CMAS Dive Leader. Direct supervision requires personal observation and evaluation of the performance of the skills required for certification. During underwater skill performance and evaluation, direct supervision requires the student to be accompanied underwater.
 - **"Indirect supervision"** shall mean the overall control, general observation, evaluation, and direction of student skill performance and student diving activities. The Instructor must be personally present at the training site and be prepared to come to the aid of a student.

Section C

CMAS Rescue Diver Training Programme

1. Purpose

1.1 The purpose of this standard is to provide the training requirements for instruction leading to the CMAS Rescue Diver certificate.

2. Aim and objectives

2.1 This training programme aims at developing the rescue skills of certified CMAS divers which will enable them to have a better understanding of the common causes of diving emergencies, how to avoid diving incidents/accidents, how to assist and/or rescue a diver during an emergency and how to manage a diving incident/accident in an effective and efficient manner.

2.2 The specific objectives of the programme are the following:

- 2.2.1 To provide the participant with an overview of the training programme and to introduce the participant to the CMAS as well as the CMAS International Diver Certification System;
- 2.2.2 To develop the participant's knowledge of the common causes of diver stress and diving emergencies;
- 2.2.3 To develop the participant's ability to more readily recognise a diving emergency or a diver in need of assistance;
- 2.2.4 To develop the participant's knowledge of rescue procedures and the treatment of diving injuries;
- 2.2.5 To introduce the participant to the value and use of first aid supplies and dive rescue equipment;
- 2.2.6 To introduce the participant to the basic principles of rescue management;
- 2.2.7 To introduce the participant to the basic principles of rescuer health and safety;
- 2.2.8 To introduce the participant to further career development opportunities;
- 2.2.9 To develop the participant's rescue skills with regard to a number of prescribed essential rescue skills that are utilised on land or in the "dry".
- 2.2.10 To develop the participant's rescue skills with regard to a number of prescribed essential rescue skills, in the safety of the confined water environment, which will enable the participant to safely utilise these skills in the open water section of the training programme; and
- 2.2.11 To develop the participant's open water rescue skills by providing the participant with the opportunity to participate and demonstrate his skills and experience during a least two (2) open water rescue training dives/exercises.

3. Classification

3.1 The CMAS Rescue Diver Training Programme is classified as an intermediate level speciality diver training programme.

4. Competencies of a certified CMAS Rescue Diver

4.1 A CMAS Rescue Diver shall be trained such that when assessed in accordance with Clause 13 of this standard, he shall be deemed to have sufficient knowledge, skill and experience to avoid diving emergencies, to recognise the common causes of diving emergencies, to lend assistance to another diver in need, to act appropriately during a diving emergency and to manage a diving incident/accident in an effective and efficient manner.

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- 4.2 A CMAS Rescue Diver is qualified to help prevent a diving emergency and, if necessary, to perform a rescue, provide basic life support and basic first aid treatment to a diving casualty and/or manage a diving incident/accident in an effective and efficient manner until such time that the diving casualty can be handed over to the Emergency Medical Services by using a variety of rescue techniques and resources.
- 4.3 The parameters within which the CMAS Rescue Diver is qualified to dive are those applicable to the other diver training certifications he already holds, unless he is accompanied by a CMAS Instructor on any open water dive.
- 4.4 Where further instruction is required this can only be provided by a suitably qualified CMAS Instructor.
- 4.5 If accompanied by a CMAS Instructor, the certified CMAS Rescue Diver may gain progressive experience beyond these parameters and develop competency in managing more challenging diving conditions (e.g. increased depth and current, reduced visibility, extreme temperatures) designed to lead to higher qualifications.
5. Target group
- 5.1 This training programme is designed for certified CMAS Divers who enjoy normal health, are reasonably fit, have a reasonable swimming ability and who have the desire to upgrade their existing diver rescue knowledge and skills.
6. Prerequisites for training
- 6.1 The CMAS Instructor shall ensure that the participant fulfils the following prerequisites to participate in this training programme:
- 6.1.1 **Age**
- 6.1.1.1 The participant shall be at least fifteen (15) years of age; there is no upper limit.
- 6.1.2 **Previous SCUBA diving certification or experience**
- 6.1.2.1 In order to enrol on the CMAS Rescue Diver Training Programme, the participant shall submit proof of the following to the CMAS Instructor:
- 6.1.2.1.1 ***Diving certifications***
- 6.1.2.1.1.1 CMAS One Star Diver Training Programme or equivalent
- 6.1.2.1.1.2 CMAS Oxygen Administration Training Programme or equivalent (where not prohibited by law)
- 6.1.2.1.2 ***Other certification***
- 6.1.2.1.2.1 Proof of a valid First -Aid and Cardiopulmonary Resuscitation (CPR) certificate (i.e. the term of validity of the certificate must be valid on the date of certification as a CMAS Rescue Diver).

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6.1.2.1.3 ***Diving experience***

6.1.2.2 The participant shall submit proof of at least twenty (20) logged open water dives.

6.1.3 **Physical Conditioning and Watermanship Evaluation**

6.1.3.1 The participant shall effectively demonstrate his basic watermanship ability by performing, to a CMAS Instructor, the following watermanship evaluation:

6.1.3.1.1 A continuous two-hundred (200) meter surface distance swim; and

6.1.3.1.2 A ten (10) minute survival swim/float without the use of mask, fins, snorkel or with any other swimming aids.

6.1.4 **Medical History/Statement**

6.1.4.1 The participant shall complete the medical history/statement form required by the CMAS Federation prior to participating in any in-water activities. Participants shall comply with all stipulations thereon before continuing with any in-water training. It is required that participants with out-of-the-ordinary medical histories be approved, without conditions or restrictions, as medically fit for diving by a licensed medical practitioner prior to engaging in in-water activities. In no event shall medical approval be accepted when the person signing the approval is the participating individual.

6.1.5 **Acknowledgment and Assumption of Risk**

6.1.5.1 Participants of this training programme shall be informed of the inherent risks of SCUBA diving in any in-water activities.

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6.1.5.2 Parental or legal guardian signature is required on the appropriate form(s) when the applicant is a minor.

7. Requirements for certification

7.1 In order to be certified as a CMAS Rescue Diver, the student shall:

7.1.1 Comply with all the prerequisites for participation in the training programme as prescribed by Clause 6 of this Standard;

7.1.2 Successfully complete the theoretical assessment as provided for in Clause 13.1 of this Standard;

7.1.3 Successfully complete the practical knowledge application assessment as provided for in Clause 13.2 of this Standard;

7.1.4 Successfully complete the confined water assessment as provided for in Clause 13.3 of this Standard; and

7.1.5 Successfully complete the open water assessment as provided for in Clause 13.4 of this Standard.

7.2 The CMAS Instructor shall have the right to withhold the participant's certification, if in the opinion of the CMAS Instructor, the participant has not performed satisfactorily in any one or more of the requirements for certification as described in Clause 7.1 of this Standard.

8. Scope of the training programme

8.1 Content

- 8.1.1 In order to accomplish the aim and objectives of the CMAS Rescue Diver Training Programme as provided for in Clause 2 of this Standard, the training programme shall consist of the following four (4) sections:
- 8.1.1.1 A **Theoretical Section**, which concentrates on certain rescue diving knowledge requirements as provided for in Clause 9 of this Standard;
- 8.1.1.2 A **Practical Knowledge Application Section**, which concentrates on the development of practical rescue skills on land as provided for in Clause 10.1.
- 8.1.1.3 A **Confined Water Section**, which concentrates on the revision of certain prescribed entry level diving skills as well as the development of the prescribed essential rescue skills, in the safety of the confined water environment, as provided for in Clause 10.2 of this Standard, in order to ensure that the participant can safely participate in the Open Water Section of the training programme; and
- 8.1.1.4 An **Open Water Section**, which consists of the completion of at least two (2) supervised open water rescue dives/exercises where the participant will be required to demonstrate the mastery of the rescue skills provided for in Clause 10.3 of this Standard.

8.2 Limitations of the CMAS Rescue Diver certification

- 8.2.1 The CMAS Rescue Diver is only certified to dive within the limits of his other diving certifications and in diving conditions and diving areas that are similar, equal or better to those in which training was received.
- 8.2.2 If diving conditions and the diving area is significantly different from those previously experienced, a CMAS Rescue Diver requires an appropriate orientation from a CMAS Instructor or CMAS Dive Leader before participating in such open water diving activity.
- 8.2.3 The following activities are beyond the level of competency of a certified CMAS Rescue Diver:
- 8.2.3.1 Any rescue technique or similar activity that is beyond the scope of this training programme and that is reserved for appropriately trained members of the Emergency Medical Services;
- 8.2.3.2 Any medical intervention or similar activity that is beyond the scope of this training programme and that is reserved for appropriately trained and certified members of the Emergency Medical Services;
- 8.2.3.3 Any medical intervention or similar activity that is beyond the scope of this training programme that is reserved for an appropriately trained and certified medical physician; and
- 8.2.3.4 Any rescue, basic life support, first aid technique or similar activity that is prohibited by law.

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9. Required theoretical knowledge

9.1 Introduction

- 9.1.1 The following information shall be made available to the participant before or during the first class meeting.
- 9.1.1.1 The aim and objectives of the CMAS Rescue Diver Training Programme (see Clause 2 of this Standard).
- 9.1.1.2 The competencies of the certified CMAS Rescue Diver (see Clause 4 of this Standard).
- 9.1.1.3 The prerequisites for participation in the training programme (see Clause 6 of this Standard).
- 9.1.1.4 The class requirements, which shall include the following:
- 9.1.1.4.1 The costs of participating in the training programme;
- 9.1.1.4.2 Medical suitability to dive as well as the importance of appropriate regular SCUBA diving medical examinations;
- 9.1.1.4.3 Insurance options/requirements in accordance with national regulations (if applicable); and
- 9.1.1.4.4 Contractual agreement, including conditions bearing on the signature, delivery and termination of the contract.
- 9.1.1.5 The scope of the training programme, which includes the following:
- 9.1.1.5.1 Content (see Clause 8.1 of this Standard); and
- 9.1.1.5.2 Limitations of eventual qualification (see Clause 8.2 of this Standard)
- 9.1.1.6 The diving related legislation and/or legal requirements applicable to the student in the country where the training programme is presented.
- 9.1.1.7 The specific equipment requirements of the participant during the training programme.
- 9.1.1.8 The local environmental considerations that will have an impact on the participant and/or the presentation of the diver training programme.
- 9.1.1.9 The means and methods of assessment of the participant's knowledge and skills (see Clause 13 of this Standard).
- 9.1.1.10 The requirements for certification/successful completion of the training programme (see Clause 7 of this Standard).
- 9.1.1.11 The specific training programme procedures and schedule.
- 9.1.1.12 The fact that records shall be kept of the participant's personal data and that these records may be passed on to the CMAS Federation and/or CMAS International. The personal data that the CMAS instructor is supposed to obtain from the participant and keep in safe-keeping for a period of at least five (5) years shall include the following:
- 9.1.1.12.1 Name, address and date of birth
- 9.1.1.12.2 Medical certification
- 9.1.1.12.3 Any previous training/certification, experience
- 9.1.1.12.4 The progress of the student

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9.1.1.12.5 Records of certification once the training has been completed

9.1.1.13 The following information about the CMAS shall be made available to the participant during the first class meeting.

9.1.1.13.1 The CMAS as an international body for the management of underwater sport

9.1.1.13.2 The relationship between the School/Club/Federation and the CMAS

9.1.1.13.3 The CMAS International Divers Certification System

9.1.1.13.4 The position of the CMAS One Star Diver Training Programme in the CMAS International Diver Certification System

9.2 Common causes of diver stress and diving emergencies

9.2.1 The participant shall have an appropriate knowledge concerning the common causes of diver stress and diving emergencies, including the following:

9.2.1.1 Equipment related problems (Including overweighting and when it's appropriate to ditch the weighting system)

9.2.1.2 Temperature Related Problems

9.2.1.2.1 Heat exhaustion

9.2.1.2.2 Heat Stroke

9.2.1.2.3 Shock

9.2.1.2.4 Hypothermia (including rewarming procedures)

9.2.1.3 Overexertion

9.2.1.4 Panic

9.2.1.5 Pressure-related injuries

9.2.1.5.1 Decompression sickness

9.2.1.5.2 Arterial gas embolism

9.2.1.5.3 Other lung overexpansion injuries

9.2.1.6 Near drowning and drowning

9.2.1.7 Aquatic life

9.2.1.8 Environmental conditions

9.3 Identifying a dive emergency or diver in need

9.3.1 The participant shall have an appropriate knowledge concerning the identification of a dive emergency or a diver in need, both on the surface and underwater, including the following:

9.3.1.1 Recognizing signs of stress

9.3.1.1.1 Physical stress

9.3.1.1.2 Psychological stress

9.3.1.1.3 Perceptual narrowing

9.3.1.2 Recognizing characteristics of a tired diver

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9.3.1.3 Recognizing characteristics of a panicked diver

9.4 Dive rescue procedures and treatment of injuries

9.4.1 The participant shall have an appropriate knowledge concerning dive rescue procedures as well as the treatment of diving injuries, including the following:

9.4.1.1 Self rescue techniques

9.4.1.2 First Aid for common Aquatic Life injuries

9.4.1.3 Non-swimming assists/rescues

9.4.1.4 Critical Incident Stress

9.4.1.5 First aid for pressure-related injuries

9.4.1.5.1 Decompression sickness

9.4.1.5.2 Arterial gas embolism

9.4.1.5.3 Other lung overexpansion injuries

9.4.1.6 Near-drowning, drowning and treatment

9.4.1.7 Assisting a responsive diver at the surface and underwater

9.4.1.8 Surfacing an unresponsive diver

9.4.1.9 Egress with a responsive and unresponsive diver

9.4.1.10 Equipment removal considerations

9.4.1.11 In-water rescue breathing techniques for the non-breathing diver

9.4.1.12 Missing Diver procedures and considerations, including search patterns.

9.5 First aid supplies and dive rescue equipment

9.6 The participant shall have an appropriate knowledge of the value and use of first aid supplies and dive rescue equipment, including the following: the point numbers have gone astray from here, this should be point # 9.5.1

9.6.1 First Aid kit

9.6.2 Pocket mask/barrier devices

9.6.3 Emergency Oxygen

9.6.3.1 Benefits to the diver

9.6.3.2 Various oxygen delivery systems

9.6.3.3 Legality and oxygen use risks

9.6.4 Automated External Defibrillator (not compulsory and if not prohibited by law)

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9.6.5 Purpose and use of visual and audible signaling devices.

9.6.6 Special Equipment

9.4 Rescue management # 9.6.....

9.3.1 Site safety assessment

9.3.2 Scene management (including rescue team management)

9.3.3 Neurological examination procedures

9.3.4 Evacuation and professional treatment

9.3.4.1 Emergency Medical Services

9.3.4.2 Hyperbaric chamber--value to the victim of a dive accident

9.3.5 Written Emergency Action Plan preparation. Participants must prepare an Emergency Action Plan, including steps of emergency management for a dive site identified by the CMAS Instructor

9.3.6 Elements of a written report of an incident

9.3.6.1 Fact recording

9.3.7 Equipment retention following an incident

9.4 Rescuer health and safety

9.3.1 Risks to the rescuer

9.3.2 Physical conditioning

9.3.3 The need for keeping your rescue and emergency care skills up-to-date

9.4 Career development

9.4.1 The participant shall be informed of the following:

9.4.1.1 The diving opportunities open to the participant as a certified CMAS Rescue Diver

9.4.1.2 The different CMAS Diver Training Programmes that can be attended as a certified CMAS Rescue Diver.

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10. Required rescue skills

10.1 Practical Knowledge Application Section

10.1.1 The participant shall master the following skills on land:

10.1.1.1 Hazard identification

10.1.1.2 Rescue breathing and CPR

10.1.1.3 Use of a pocket mask/barrier devices

10.1.1.4 Oxygen administration techniques (where not prohibited by law)

10.1.1.5 Automated External Defibrillator (not compulsory and where not prohibited by Law)

10.1.1.6 Use of the first aid kit and other specialized equipment to treat diving injuries

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- 10.1.1.7 Assessment of a diving casualty
- 10.1.1.8 Performing a neurological examination
- 10.1.1.9 Completion of relevant accident reporting slates/documentation
- 10.1.1.10 Summoning the Emergency Medical Services by telephone/radio

10.2 **Confined water skills**

10.2.1 The participant shall demonstrate and be assessed with regard to the following skills, whilst using all the equipment he intends to use in the open water section of the training programme, in order to determine whether he requires any remedial training before continuing with the teaching of the rescue skills listed in Clause 10.2.2:

- 10.2.1.1 Pre-dive checks
- 10.2.1.2 Entry techniques
- 10.2.1.3 Regulator removal and replacement
- 10.2.1.4 Mask clearing
- 10.2.1.5 Buoyancy control
- 10.2.1.6 Exit techniques

10.2.2 The participant shall master the following rescue skills in confined water before that skill is performed in open water:

- 10.2.2.1 Use of both visual and audible signaling devices
- 10.2.2.2 Cramp release
- 10.2.2.3 Establishing buoyancy at the surface (self and for another diver)
- 10.2.2.4 Airway control
- 10.2.2.5 Supplying air to a diver simulating an out-of-air emergency (i.e. alternate air source use)
- 10.2.2.6 Overcoming vertigo
- 10.2.2.7 Responding correctly to a tired diver at the surface and underwater
- 10.2.2.8 Responding correctly to a panicked diver at the surface and underwater
- 10.2.2.9 Non-swimming assists (e.g. with a throwing bag and rope)
- 10.2.2.10 Water entry when responding to an emergency
- 10.2.2.11 Swimming assists
- 10.2.2.12 Surfacing an unconscious/incapacitated diver by at least three (3) different techniques
- 10.2.2.13 At least two methods of diver tows
- 10.2.2.14 Egresses (both responsive and unresponsive diver)
- 10.2.2.15 Responding to a diver simulating overexertion
- 10.2.2.16 Conducting underwater search patterns (if the confined water environment is suitable to the teaching of these skills)

10.3 **Open water skills**

10.3.1 The participant shall be able to demonstrate the following skills in the open water environment:

- 10.3.1.1 Cramp release
- 10.3.1.2 Establishing buoyancy at the surface (self and for another diver)
- 10.3.1.3 Airway control
- 10.3.1.4 Supplying air to a diver simulating an out-of-air emergency (i.e. alternate air source use)
- 10.3.1.5 Overcoming vertigo
- 10.3.1.6 Responding correctly to a tired diver at the surface and underwater
- 10.3.1.7 Responding correctly to a panicked diver at the surface and underwater
- 10.3.1.8 Non-swimming assists
- 10.3.1.9 Water entry when responding to an emergency

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- 10.3.1.10 Swimming assists
- 10.3.1.11 Surfacing an unconscious/incapacitated diver by at least three (3) different techniques
- 10.3.1.12 At least two methods of diver tows
- 10.3.1.13 Egresses (both responsive and unresponsive diver)
- 10.3.1.14 Responding to a diver simulating overexertion
- 10.3.1.15 Conducting at least one (1) underwater search pattern

11. Theoretical training parameters

- 11.1 The CMAS Instructor shall ensure that theoretical training is conducted in an environment that is free from significant distractions to learning, such as a dedicated classroom. Furthermore, the training venue shall provide participants with sufficient working facilities and training aids (e.g. writing surfaces, reference materials, computer, visual or audio materials) to ensure that participants are able to understand the information being presented.
- 11.2 Each participant shall be provided with relevant training material, in either printed or electronic format, that will assist him in mastering the required theoretical concepts and principles.

12. Practical training parameters

12.1 Risk assessment

- 12.1.1 The CMAS Instructor shall ensure that a risk assessment is conducted before each confined and open water dive, and shall adopt procedures to ensure that all risks are controlled as far as is reasonably possible. The following factors shall be considered as part of this assessment taking into account the capability of participants:

- 12.1.1.1 water movement (e.g. current, wave action)
- 12.1.1.2 depth
- 12.1.1.3 underwater visibility
- 12.1.1.4 pollution
- 12.1.1.5 entry/exit methods
- 12.1.1.6 restricted zones
- 12.1.1.7 suitability of the site for the planned activities
- 12.1.1.8 emergency action plan

- 12.2 The CMAS Instructor shall have the right to prevent any participant from taking part in the activity if following a risk assessment this is deemed to be in the best interest of the participant and/or of the other participants.

12.3 Emergency equipment and procedures

12.3.1 **Emergency equipment**

- 12.3.1.1 For all locations where confined or open water activities take place the CMAS Instructor shall ensure the availability of the following:

- 12.3.1.1.1 A first aid kit suitable for the planned diving activities;
- 12.3.1.1.2 An emergency oxygen unit with a capacity of delivering at least 15 litres/min of

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- pure oxygen for at least 20 minutes; and
- 12.3.1.1.3 A communication system suitable for alerting the Emergency Medical Services.

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12.3.2 **Emergency procedures**

12.3.2.1 The CMAS Instructor shall ensure that, at each dive site where confined or open water diving activities take place, a documented emergency plan comprising at least the following information is available:

12.3.2.1.1 Procedures for casualty recovery, resuscitation and evacuation;

12.3.2.1.2 Procedures for the use of the emergency oxygen supply; and

12.3.2.1.3 Information about the nearest medical resources (including data about the availability of the nearest hyperbaric recompression chamber).

12.4 **Equipment**

12.4.1 The minimum equipment to be worn by a CMAS instructor, a CMAS Dive Leader and a participant while conducting confined and open water rescue training consists of the prescribed diving equipment listed in Section B under the definition of "**minimum instructional diving system**". It is however acknowledged that for certain confined and open water rescue skills training it will be impractical for the CMAS Instructor, CMAS Dive Leader and the candidates to wear the complete prescribed "minimum instructional diving system". It is therefore permissible for the CMAS Instructor, CMAS Dive Leader and the candidates not to wear the complete prescribed "minimum instructional diving system" during such activities.

12.4.2 In the event that the CMAS Instructor or the training facility by whom he is employed/on whose behalf he is presenting the training programme is providing or renting any diving equipment to the student the CMAS Instructor shall ensure:

12.4.2.1 That the diving equipment rented or provided to the student conforms to the relevant ~~International Standards as prescribed by legislation applicable in the country where the training programme is being presented;~~

Eliminato: European and/or

12.4.2.2 That the diving equipment rented to the student is subjected to an inspection prior to delivery in order to ascertain that it is fully operational;

12.4.2.3 That all diving equipment is maintained and serviced in accordance with the manufacturer's instructions, and records of maintenance, servicing and inspection is kept; and

12.4.2.4 That the student is advised on choosing the proper diving equipment taking into account the envisaged diving activity and the qualification and needs of the student (e.g. the proper fit of buoyancy control devices and suits).

12.5 **Information to be provided**

12.5.1 Prior to each confined and open water training session, participants shall have the safety provisions identified to them by the CMAS Instructor, including the following:

12.5.1.1 The identity and role of any assistants or other staff;

12.5.1.2 Emergency procedures;

12.5.1.3 Buddy/group assignments ; and

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12.5.1.4 The conduct required of the students.

12.5.2 The following additional information shall be provided to the participants before any open water training dive by the CMAS Instructor:

12.5.2.1 Information concerning the dive site, in particular hazards which could affect the safety of the dive (e.g. under-water obstructions);

12.5.2.1.1 Arrangements concerning buddy teams and/or group size; and

12.5.2.1.2 Depth and/or time limitations.

12.6 **Instructor/student ratio for practical training**

12.6.1 The **maximum** number of students for practical training is eight (8) students per CMAS Instructor. Two (2) additional students per certified CMAS Dive Leader may be added up to a maximum of twelve (12) students per CMAS Instructor. Although additional CMAS Dive Leaders may be used, no additional students may be added to the responsibility of the individual CMAS Instructor. These ratios are considered maximum and should be reduced if environmental conditions or other factors are not optimum.

12.7 **Practical knowledge application training**

12.7.1 Before participating in the practical knowledge application lessons the participant shall have demonstrated sufficient theoretical knowledge of the relevant rescue techniques.

12.7.2 Participants shall receive their initial training of each rescue skill under the direct supervision of the CMAS Instructor. Further skill development may continue under direct supervision of a certified CMAS Dive Leader and indirect supervision of the Instructor. The CMAS instructor shall conduct the final assessment to determine the satisfactory skill performance of each student.

12.8 **Confined water training**

12.8.1 Prior to the first confined water training lesson the student shall undergo the "Physical Conditioning and Watermanship Evaluation" as prescribed by Clause 6.1.3 of this Standard.

12.8.2 The participant shall **be** assessed by a CMAS Instructor and, if necessary, receive remedial training on the skills prescribed in Clause 10.2.1 of this Standard during a minimum of one (1) confined water lesson.

12.8.3 Participants shall receive their initial training of each rescue skill under the direct supervision of the CMAS Instructor. Further skill development may continue under direct supervision of a certified CMAS Dive Leader and indirect supervision of the Instructor. The CMAS instructor shall conduct the final assessment to determine the satisfactory skill performance of each student.

12.9 **Open water training**

12.9.1 Before participating in the open water training dives the participant shall have demonstrated sufficient theoretical knowledge and rescue skills in confined water to be able to perform the open water rescue dives/exercises in the prevailing conditions.

12.9.2 An open water training rescue dive/exercise shall comprise of the activities as provided for in

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the definitions in Section B, Clause 1.1.19 of this Standard and shall be directly supervised by a CMAS Instructor.

- 12.9.3 Participants to be certified shall complete at least two (2) open water rescue dives/exercises under the direct supervision of a CMAS Instructor at depths between nine (9) to twenty (20) meters. All assisted ascent exercises shall be terminated at a depth of 6 meters and shall be directly supervised by the CMAS Instructor.
- 12.9.4 All rescue skills in open water shall be taught, directly supervised and evaluated by a CMAS Instructor, who shall be in the water during each open water training dive. The CMAS Instructor shall be in direct control of the students throughout all open water rescue training activities.
- 12.9.5 All open water training dives shall be conducted during normal daylight hours.
- 12.9.6 No open water training dive shall be conducted in any overhead environment where direct vertical access to the surface is not possible. Open water training dives shall therefore not be conducted in under-water caves, inside wrecks or below ice.
- 12.9.7 No more than two (2) open water training dives may be conducted on a given day.
- 12.9.8 The safe supervision of participants is the sole responsibility of the CMAS Instructor. The CMAS Instructor shall lower the instructor/ participant ratio as provided for in Clause 12.6 of this Standard where environmental conditions are less than ideal, for example where underwater visibility is poor or where there is significant water movement. The CMAS Instructor may also use additional aids to improve safety such as ascent lines, surface support stations or Instructional Assistants and safety swimmers. Where Instructional Assistants are used they shall comply with the requirements as prescribed by Clause 1.1.13 of the definitions in Section B of this Standard.
- 12.9.9 The CMAS Instructor shall limit the number of participants on open water rescue training dives/exercises so that either the CMAS Instructor or a CMAS Dive Leader is able to establish physical contact with every participant at any time during the open water dive.
- 12.9.10 The CMAS Instructor shall cancel or abort the open water training dive if environmental conditions, equipment problems or a participant's physical or mental condition make this necessary.

13. Assessment

13.1 **Knowledge**

- 13.1.1 The participant shall demonstrate to the CMAS Instructor knowledge of rescue diving principles and practices by taking and passing an oral or written examination. This examination shall test rescue diving theoretical knowledge according to Clause 9 and knowledge of rescue skills according to Clause 10 of this Standard.

13.2 **Practical knowledge application**

- 13.2.1 The participant shall demonstrate to the CMAS Instructor his mastery of the rescue skills, as prescribed in Clause 10.1 of this Standard, during one or more practical knowledge application lessons.

13.3 **Confined water rescue skills**

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13.3.1 The participant shall demonstrate to the CMAS Instructor his mastery of the confined water rescue skills, as prescribed in Clause 10.2 of this Standard, during one or more of the confined water lessons.

13.4 **Open water rescue skills**

13.4.1 The participant shall demonstrate to the CMAS Instructor his mastery of the open water rescue skills, as prescribed in Clause 10.3 of this Standard, during at least two (2) open water rescue training dives/exercises.

13.4.2 Each one of the open water rescue training dives/exercises shall consist of the activities as prescribed in Clause 1.1.19 of the definitions in Section B.

14. Instructor and Instructional Assistant requirements

15.1 This training programme may only be presented by a CMAS Instructor with a minimum of a CMAS Two Star Instructor grading who also holds a CMAS Rescue Diver certification that complies with the requirements as prescribed by Clause 1.1.5 of the definitions in Section B of this Standard.

15.2 The CMAS Two Star Instructor may be assisted by a CMAS One Instructor who must also hold a CMAS Rescue Diver certification and that complies with the requirements as prescribed by Clause 1.1.7 of the definitions in Section B of this Standard or by a CMAS Dive Leader who must also hold a CMAS Rescue Diver certification and that complies with Clause 1.1.5 of the definitions in Section B of this Standard.

15. Certification

15.1 Upon successful completion of the training programme the participant shall be awarded with a CMAS Rescue Diver C-card.

16. Quality Assurance

16.1 Both CMAS International and a CMAS Federation shall have the right to institute any such quality assurance measures that they deem appropriate in order to ensure that all CMAS Rescue Diver Training is conducted throughout the world in accordance to the minimum requirements of this Standard.