

9.26 CMAS-ISA Dive Master Certificate Syllabus

9.26.1 Objective

The importance of the CMAS Dive Master to the overall CMAS training program and to each individual Instructor cannot be overstated. Dive Master training is the first leadership level in the CMAS progression. The rating denotes an individual who:

1. Has a high level of personal diving skill and knowledge of diving theory.
2. Is fully qualified to lead other divers on diving excursions and act as an underwater tour guide.
3. Has had significant training in how to assist an Instructor during training activities.
4. Is able to assume a role of responsibility for the welfare of other divers in the Dive Master's charge.

The goals of CMAS-ISA Dive Master training are to:

1. Enable the candidate to organise, conduct and supervise sport diving activities, both land- and boat-based.
2. Enable the candidate to effectively assist a CMAS-ISA Instructor during Diver training programs.
3. To encourage and prepare the candidate for Instructor Training.
4. To develop the candidate's theoretical diving knowledge to a level sufficient to become an Instructor.

9.26.2 Syllabus

Prescribed Manual: CMAS-ISA Dive Master Training Workbook.

It is required of the candidate to possess diving knowledge. The following handbooks are suggested alternative reading:

The CMAS-ISA One Star Sport Diver Manual.

The CMAS-ISA Two Star Sport Diver Manual.

The CMAS-ISA Three Star Sport Diver Manual.

The CMAS-ISA Oxygen Administration Manual.

The CMAS-ISA Search and Recovery Manual.

The CMAS-ISA Rescue Manual

The CMAS-ISA Decompression Tables.

The CMAS-ISA Compressor Manual.

Any comprehensive First Aid Handbook from a certified First Aid Agency.

Any other Speciality Manual.

9.26.3 Course Standards

The CMAS-ISA Dive Master course is designed to train qualified individuals as supervisory personnel. In this role, the Dive Master may either oversee general diving activities or serve as an underwater guide. The Dive Master may also fulfil important duties as an instructional assistant and may conduct Environmental Orientation dives.

9.26.4 Prerequisites

To attend the Dive Master training Course an individual must:-

1. **Minimum age for course entry is 18.**
2. Must be in possession of a medical certificate clearing the student as fit to participate in the sport of underwater diving, prior to participating in any practical training. A medical

Revision No. 1	Section 9.26	MAC Manual	Date: April 2008
----------------	--------------	------------	------------------

practitioner using the CMAS-ISA Sport Diver medical examination form must have carried out the medical examination not more than 12 months previously.

3. Be certified as a CMAS-ISA Three Star Master Diver or an equivalent rating. This prerequisite is primarily based on individual competency in various aspects of diving. This competency level within CMAS is defined by the Three Star Master Diver certification. Therefore, the term equivalency as stated in this standard is defined as proof of certification beyond entry level; and a minimum of 50 logged open-water dives documenting experience in the following areas: night, deep (30m) and navigation (as documented in the bearer's individual book).
4. Be certified as a CMAS-ISA Rescue Diver or an equivalent rating. The term equivalency as stated in this standard is defined as proof of *certification in diving rescue* from a training agency other than CMAS-ISA. The Dive Master candidate is required to undergo a Diver-Rescue Assessment. If the candidate has minor problems during this assessment, the Instructor may work with the candidate until the assessment is satisfactorily complete. If an equivalent certification is accepted, the candidate is required to submit proof of CPR and first aid training within the past three years.
5. Be certified as a CMAS-ISA Oxygen Administrator or an equivalent rating. The term equivalency as stated in this standard is defined as proof of *certification in Oxygen Administration* from a training agency other than CMAS-ISA

A person may be certified as CMAS-ISA Dive Master on completion of the following requirements.

6. The individual must attend a Dive Master Course run by an In-date CMAS Two Star Instructor or Higher (Course Convenor.)
7. The course must include the following theory lectures (as set out in the Dive Master Training Workbook):
 - 7.1. Course Orientation and the role of the Dive Master.
 - 7.2. Dive Planning.
 - 7.3. Dive Management and Control.
 - 7.4. Supervising students in training.
 - 7.5. Boat Diving.
 - 7.6. Deep Diving Supervision: Theory and Practice and Dive Tables.
 - 7.7. Supervision of Specialised Diving activities and the Dive Master as a Tour Guide.
8. Must pass a theory evaluation as set out by the Course Convenor.
9. Must pass the practical tests as set in the course sequence.
10. Plan and act, as Dive Master on at least 5 dives of which 1 must be a night dive, with no less than 4 divers in the group, to a minimum depth of 15 metres.
11. Have completed and logged at least 50 open-water dives.
12. Scoring 70% or higher on the CMAS-ISA written examination for Dive Masters.

On Completion of all requirements the Course Convenor will complete and endorse the Dive Master Student registration Form and register the Dive Master with CMAS-ISA as Dive Master

9.26.4 Membership and In-Dating

In-Date Dive Masters are CMAS-ISA members with voting rights.

In-Dating requirements for Dive Masters include submission of completed In-Date Form application and payment of annual dues. A Dive Master whose membership has lapsed may

Revision No. 1	Section 9.26	MAC Manual	Date: April 2008
----------------	--------------	------------	------------------

also be required to fulfil stipulations designated by the CMAS-ISA Instructor Training Committee.

9.26.5 Duties of the CMAS-ISA Dive Master

Only in-date CMAS-ISA Dive Masters are authorised to: -

1. Lead a group of qualified divers on any open-water dive and they are qualified for. The Dive Master may only lead a group of certified divers on any open-water dive within the following limitations:-
 - 1.1 To a depth that will not exceed the Dive Master's qualification or any diver's qualification in the group.
 - 1.2 On a dive site which the Dive Mater has dived before and is familiar with.
 - 1.3 On a Speciality dive that the Dive Master is certified for.
 - 1.4 He/She only lead a dive that does not exceed the diving qualification limits of any diver within the group.
2. Accompany 1 Star Sport Diver course students under the indirect supervision of an Instructor as follows:
 - a. During surface swims to and from the entry/exit point.
 - b. During the navigational exercises.
 - c. When remaining with the group, either on the surface or under water, while the instructor conducts a skill, such as an ascent.
- 5 Conduct Environmental Orientation dives.
- 6 Accompany students during 2 Star Sport Dives or Speciality training dives as per Section 3.1.4.8.

(Note: a CMAS-ISA Instructor must personally conduct any training/ evaluation that take place during these dives.)

Generally supervise both training and non training-related activities (by planning, organising and directing dives).
- 7 Assist a CMAS-ISA Instructor during pool and open water diver training courses.

9.26.6 Skills testing and evaluation

Practical Module 1

General

This session is intended to evaluate your in the water skills required for the CMAS -ISA Dive Master standard. All skills are evaluated for record and must be passed before proceeding with further practical exercises.

Activity/Skill Performance Objective

- **You will need to confidently perform the following minimum skills:**

- 1 Rescue another diver during a skin dive.
 - 2 Demonstrate pre dive scuba gear check for self and buddy.
 - 3 Entry, buoyancy; check, swim to and from dive are and exit with scuba.
 - 4 Distance swim 800 metres total on surface with scuba.
 - 5 Descents, underwater swimming and ascents.
 - 6 Weight belt removal and replacement on the surface and underwater.
 - 7 Scuba unit removal and replacement on the surface and under water.
 - 8 Clear mask and regulator of water.
 - 9 Regulator recovery and clearing.
 - 10 Buddy breathing with one regulator on a share basis with another diver while swimming horizontally underwater for four minutes. Each buddy in turn is to be without a mask and donor of air for two minutes during the swim. The divers are not to surface during the exercise.
 - 11 Maintain proper buoyancy using weights, breath control and BCD
 - 12 Make a simulated controlled emergency swimming ascent for a horizontal distance of 8 metres.
 - 13 Make a simulated decompression stop at 3 metres for 5 minutes.
 - 14 Recover and bring to the surface from 6 to 8 metres of water a ditched weight belt of at least 5 kg using skin dive gear.
 - 15 Swim underwater 20 metres on one breath, no dive or push off.
 - 16 Swim 400 metres non-stop, any stroke in 10 minutes or less.
 - 17 Transport another person of equal size and weight for 50 metres.
- **Skin Diving Skills** (*to be performed wearing at least a wetsuit Jacket, a weight belt adjusted for neutral buoyancy at the surface, mask, snorkel, fins, BCD; confined or open water*).
 - 1 Perform a skin dive ditch and recovery (surface dive to the bottom in about 3 metres of water remove and place on bottom mask, fins and snorkel, surface and rest briefly, dive and recover all gear on one breath. Surface with all gear in place, mask and snorkel clear of water)
 - **Scuba Diving Skills** (*wearing scuba unit in addition to minimum skin diving gear, in confined or open water*)
 - 1 **Ditch and recovery** - Descend to the bottom in 3 metres of water; remove and place on bottom, mask, snorkel and scuba unit, shut off air, swim 8 metres horizontally while exhaling, ascend exhaling, surface and rest briefly, dive, swim 8 metres horizontally and recover and don equipment, ascend breathing normally. The total exercise is to be completed with all equipment in place within five minutes).
 - 2 **Scuba Lifesaving** - Transport (using the Do-Se-Do technique, transport another scuba diver of equal size and weight for 100 meters within four minutes. The person being transported must not assist in any way. Both divers are to wear scuba and weight belts are to be retained. Breathing from the regulator is not permitted.
 - 3 Bailout (Candidate enters water at least 3 meters deep carrying mask, snorkel, fins, weight belt and scuba unit with air tuned off and regulator purged. Candidates settle on bottom, assume a stationary position and don equipment. Throughout, the candidate is to maintain control and possession of all gear. After donning all gear, candidates surface

Revision No. 1	Section 9.26	MAC Manual	Date: April 2008
----------------	--------------	------------	------------------

normally and tread water at the surface for 5 minutes without using BCD, snorkel or scuba.)

Practical Module 2

Night Dive Organised by Staff

General

This exercise is a staff demonstration of an organized night dive (aimed at open water diver certification level) for the Dive Master candidates. Your performance as a diver is evaluated for record.

Activity/Skill Performance Objectives

- *You need to demonstrate a level of competence and confidence during a night dive.* The dive mastering exercise is to include:
 - 1 Comprehensive dive brief aimed at first-time night divers.
 - 2 Demonstration of group control.
 - 3 Safety considerations.
 - 4 Equipment/Signals
 - 5 Safety control measures.
 - 6 Reference lights/points.
 - 7 Emergency actions
 - 8 Debrief

- You will be observed and evaluated on:
 - 1 Response to signals.
 - 2 Buddy responsibility.
 - 3 Buoyancy control.
 - 4 Overall waterman ship and self-confidence.
 - 5 Abiding by the dive plan.
 - 6 Response to instructions.
 - 7 Abiding by safety measures

Practical Module 3

Accident Management Exercise

General

This exercise is designed to assess your ability to manage a diving accident in open water. It is to be noted that the prerequisite of this course is the possession of the CMAS-ISA Rescue Diver Specialty certification it is also expected from you as the candidate Dive Master to be in possession of a current first aid/CPR and rescue qualifications.

Activity/Skill Performance Objectives

- *All candidates must be able to competently control a simulated rescue of a diving accident victim in open water.*

The evaluated accident management exercise will include:

Revision No. 1	Section 9.26	MAC Manual	Date: April 2008
-----------------------	---------------------	-------------------	-------------------------

- 1 Organization and conduct of a search for the accident victim.
- 2 Effective utilization of assistants/safety divers/bystanders.
- 3 Transportation of accident victim to shore or boat.
- 4 Care and handling of the accident victim.
- 5 Application of EAR/CPR.
- 6 Safety equipment use.
- 7 Accessing emergency systems/medical aid/authorities.
- 8 Accident management and follow-up

Practical Module 4

Pre Dive Briefing

General

This exercise is intended to develop and evaluate your briefing skills. You will need to give a minimum of one pre-dive brief for practice and one pre dive brief to be evaluated for record. The briefing is aimed at certified divers and you may be encouraged to give dive briefs on your favourite dive location.

Activity/ Skill Performance Objectives .

- *You must be able to satisfactorily prepare and present a 10 to 15 minute pre-dive brief for a group of certified divers by applying training to date.*

You will be evaluated on:

- 1 Depth of coverage.
- 2 Safety and control measures on the proposed dive.
- 3 Knowledge of dive site/Local regulations/Hazards.
- 4 Prearrangement of special equipment/signals/emergency procedures/arrival times/what to bring etc

Practical Module 5

Assisting the CMAS-ISA Instructor with Student Training

General

This exercise is designed to allow you to organize and assist a CMAS-ISA Instructor with students in their open water scuba training. The session is normally geared to problem solving and realizing the importance of student safety and control. The session may be accomplished by having the Dive Master Candidates 'act' as entry level student divers and Individuality rotate through the Dive Master role during a single dive. The exercise is evaluated for record.

Activity/Skill Performance Objectives

- *You must be able to competently organize and assist a CMAS-ISA Instructor during an open water experience for student divers.*

You will be evaluated on:

- 1 Organizational ability.
- 2 Briefing.
- 3 Responsibility to students.
- 4 Safety and control measures.

Revision No. 1	Section 9.26	MAC Manual	Date: April 2008
-----------------------	---------------------	-------------------	-------------------------

- 5 Effective problem solving.
- 6 Debriefing

Possible problems that can be imposed by 'acting' student divers may include:

- 1 Air off.
- 2 Regulator leakage.
- 3 Mask not sealing.
- 4 Too much or too little weight.
- 5 Air in BCD (overly buoyant).
- 6 Squeeze.
- 7 Unable to surface dive.
- 8 Too fast an ascent or descent.
- 9 Regulator hose twisted.
- 10 Weight belt fouled.
- 11 Missing equipment.
- 12 Snorkelling difficulty.
- 13 Not maintaining buddy contact.
- 14 Cold.
- 15 Cramp.
- 16 Straps unbuckled.
- 17 Seasickness.
- 18 Weak fin kicking.
- 19 Improper surfacing.
- 20 Skip breathing.
- 21 Apprehension.
- 22 Not paying attention to briefing/directions.
- 23 Lost weight belt.
- 24 Regulator on valve incorrectly positioned.
- 25 Anxiety

Practical Module 6

Organisation and Controlling a Shore Based Dive.

General

This exercise is to allow you to organize and conduct a shore dive by applying training to date. The dive must be shore-based and cannot be performed from a boat or floating platform. The exercise should be made with a minimum of direction from the staff and is evaluated for record. The session may be accomplished by having the Dive Master Candidates 'act' as certified divers and individually rotate through the Dive Master role.

Activity/Skill Performance Objectives

- *You must be able to competently organize and conduct a shore based dive for certified divers.*

The candidate must cover and be evaluated on:

- 1 Dive brief (coverage and effectiveness).
- 2 Organizational ability.
- 3 Safety and control measures.
- 4 Awareness/Solving of diver's problems.
- 5 Alertness/Avoidance of potential hazards.

Revision No. 1	Section 9.26	MAC Manual	Date: April 2008
-----------------------	---------------------	-------------------	-------------------------

6 Debriefing

Practical Module 7

Organising and controlling a Boat-Based Dive

General

This exercise is to allow you to organize and conduct a boat-based dive for certified divers by applying training to date. The exercise may be conducted similar to the shore-based dives by using the rotation system described. The dive is evaluated for record.

Activity/Skill Performance Objectives

- *You must be able to competently organize and conduct a boat-based dive for certified divers (either on a small or large vessel).*

The candidate must cover and be evaluated on:

- 1 Dive brief coverage and effectiveness.
- 2 Organizational ability.
- 3 Safety and control measures.
- 4 Awareness/Solving of diver's problems.
- 5 Alertness/Avoidance of potential problems and hazards.
- 6 Debriefing

Practical Module 8

Organising and conducting a Night Dive or Limited Visibility Dive

General

This exercise is to allow you to organise and conduct a night or limited visibility dive for certified divers by applying training to date. The dive site chosen should be an area previously dived and familiarised by the candidates. The exercise may be conducted in similar lines to the shore/boat dive and is evaluated for record. The candidate must show technique improvement as the practical session's progress,

Activity/Skill Performance Objectives

- *You must be able to competently organize and conduct a night or limited visibility dive for certified divers,*

The candidate must cover and be evaluated on:

- 1 Dive brief coverage and effectiveness.
- 2 Organizational ability.
- 3 Safety and control measures.
- 4 Awareness and solving of divers problems.
- 5 Alertness and avoidance of potential problems and hazards.
- 6 Debriefing

Practical Module 9

Organising and conducting a Dive Activity of Candidate Choice

Revision No. 1	Section 9.26	MAC Manual	Date: April 2008
----------------	--------------	------------	------------------

General

This exercise is to allow you to organize and conduct a dive of your choice for certified divers by applying training to date. The dive activity is to be significantly different from previous dives in this course. Activities may include: Environmental Orientation, Search and Recovery, Deeper Water Diving, Underwater Collecting, Non-Penetration Wreck Diving, Drift Diving, Kelp Diving, Fresh Water Diving, Colder Water Diving, Altitude Diving etc. The exercise may be conducted in similar lines to the previous dives and is evaluated for record. You will need to demonstrate technique improvement as the practical session's progress.

Activity/Skill Performance Objectives

- *You must be able to competently organize a dive that is significantly different from previous dives in this course for certified divers.*

The candidate must cover and be evaluated on:

- 1 Dive brief coverage and effectiveness.
- 2 Organizational ability.
- 3 Safety and control measures.
- 4 Awareness and solving of divers problems.
- 5 Alertness and avoidance of potential problems and hazards.
- 6 Debriefing.

Practical Module 10 (Not compulsory if certified as a Compressor Operator)

Operate a Compressor and Fill Cylinders

General

This exercise is designed to familiarize you with the procedure and safety considerations for compressor operation and cylinder filling. In many fields of diving operations, Dive Masters are required to run compressors and fill cylinders that are currently in test

Activity/Skill Performance Objectives

- *You will need to demonstrate correct compressor operation and tank-filling procedure using the system that is available on this program.*
- 1 Compressor pre-operation checks.
 - 2 Compressor operation.
 - 3 Cylinder pre-filling checks.
 - 4 Cylinder filling procedure.
 - 5 Compressor shut-down.
 - 6 Compressor log.
 - 7 Compressor maintenance