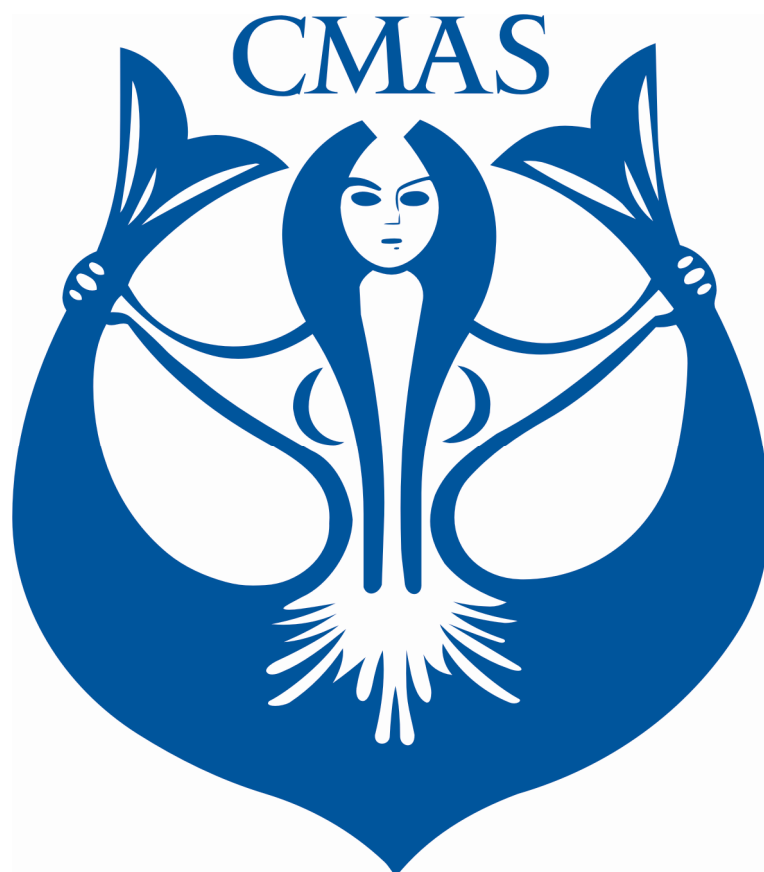


Confédération Mondiale des Activités Subaquatiques  
World Underwater Federation



UNDERWATER PHOTOGRAPHY

Standards Training

BOD 185/2014

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# CMAS UNDERWATER PHOTOGRAPHY

## SPECIALITY COURSE

### STANDARDS & TRAINING

## Standards and Objectives

Underwater photography is an artistic or realistic presentation of the underwater environment. The objective of this course is to promote underwater photography with a high level of safety and photo techniques.

## CMAS guidelines

These are the minimum requirements for the CMAS Underwater Photographer and Underwater Photo-Instructor course, which cannot be reduced for any reason. National Associations or Federations may have their specific regulations in addition to CMAS regulations to suit their national requirements such as laws and safety regulations. These specific regulations should be submitted to CMAS.

The following instructions have to be taken into account in the training courses:

1. A High level of buoyancy control and underwater motion techniques specific to Underwater Photographer.
2. Photo techniques are separated into the following categories: close-up, wide-angle, fish and creative photography.
3. The introduction of basic marine biology and the underwater ecosystem.
4. Safety guidelines and safety recommendations which are especially applicable to underwater photography.

# CMAS LEVEL I UNDERWATER PHOTOGRAPHER

## 1- OBJECTIVES

The CMAS level I photographer is able to control and understand basic settings of his/her underwater camera and the artificial lights of his/her strobe to obtain a technically correct photograph.

## 2- ENTRY REQUIREMENTS:

Minimum age: 14 years old

Minimum diver level: CMAS ★ one star diver certificate or similar with at least 15 logged dives.

## 3- COURSE CONTENT

### 3.1- Training:

The CMAS level I Underwater Photographer course consists of theoretical and practical exercises. The training level of theory and practice are described in the CMAS training standards for underwater photography. The underwater practice can be started in a swimming pool but should be completed with at least 2 dives in open water. The specific diving techniques to protect the underwater environment are to be taught also.

### 3.2- Recommendations:

CMAS recommends that Underwater Photographers attend various diving specialty courses for a better understanding of photography's link to the specific underwater environment. END CONTROL OF THE TRIM

### 3.3- Examination:

Examinations are optional for the CMAS level I Underwater Photographer. The participant has to practice all the prescribed exercises of the CMAS training programme.

## 4- CERTIFICATION:

After fulfilling the requirements of this course, the participants will receive the CMAS level I Underwater Photographer Certificate which can be issued by a CMAS level I or higher Underwater Photo-Instructor.



# CMAS LEVEL II UNDERWATER PHOTOGRAPHER

## 1- OBJECTIVES

The CMAS level II Underwater Photographer should be able to understand the ideal composition and control of exposure and the balancing of natural and artificial lights for the following categories: wide angle, close-up and fish.

## 2- ENTRY REQUIREMENTS:

Minimum age: 16 years old

Minimum diver level: CMAS \*\*two star diver certificate or similar with at least 30 logged dives.

Minimum Photographer level: CMAS level I Underwater Photographer or equivalent level can be accepted by the CMAS Underwater Photo-Instructor.

Presentation of 10 photos of their own including wide-angle, close-up and fish that are well composed and technically correct.

## 3- COURSE CONTENT

### 3.1- Training:

The training level of theory and practice are described in the CMAS training standards for underwater photography. The underwater practice can be started in a swimming pool but should be completed with at least 5 dives in open water. The specific diving techniques to protect the underwater environment are to be taught also.

### 3.2- Recommendations:

CMAS recommends that Underwater Photographers attend various diving specialty courses for a better understanding of photography's link to the specific underwater environment. END CONTROL OF THE TRIM

### 3.3- Examination:

Participants have to pass a practical and a theoretical examination satisfactorily. These two examinations may be taken separately within 12 months.

## 4- CERTIFICATION:

After satisfactory graduation of this course, the participants will receive the CMAS level II Underwater Photographer Certificate which can be issued by a CMAS level I or higher Underwater Photo-Instructor.

# CMAS LEVEL III UNDERWATER PHOTOGRAPHER

## 1- OBJECTIVES

The CMAS level III Underwater Photographer should be able to understand artistic composition rules, image philosophy and know advanced underwater photographic techniques.

## 2- ENTRY REQUIREMENTS:

Minimum age: 18 years old

Minimum diver level: CMAS \*\* two star diver certificate or similar with at least 60 logged dives.

Minimum photographer level: CMAS level II Underwater Photographer.

Presentation of 20 slides of their own including wide-angle, close-up and fish that are well composed and technically correct.

## 3- COURSE CONTENT

The photographer must have made a remarkable contribution as a photographer either national or international and must after the examiner's accept of the entry requirements present 50 of his own photos to public in a satisfactory way

### 3.1- Training:

No training to this course

### 3.2- Recommendations:

CMAS recommends the attendance of various kinds of specialty courses or training including electronically photo management, slide-projection and marine biology.

CMAS recommends participation in national or international photographic competitions and/or publications in magazines with their own photographs. END CONTROL OF THE TRIM

### 3.3- Examination:

Participants have to pass the public presentation successfully.

## 4- CERTIFICATION:

After satisfactory graduation of this course, the participants will receive the CMAS level III Underwater Photographer Certificate which can be issued by one CMAS level III Underwater Photo-Instructor.

# CMAS LEVEL I UNDERWATER PHOTO-INSTRUCTOR

## 1- OBJECTIVES:

The CMAS level I Underwater Photo-Instructor is allowed to teach, plan and carry out a CMAS level I and II Underwater Photographer classes.

## 2- ENTRY REQUIREMENTS:

Minimum age: 18 years old

Minimum diver level: CMAS\*\*\* three star diver certificate with at least 80 logged dives

Minimum photographic level: CMAS level II Underwater Photographer

A presentation of 20 photos of their own including wide-angle, close-up and fish which are well composed and technically correct.

## 3- COURSE CONTENT

### 3.1- Training:

The training course has to include the following subjects:

- Teaching techniques in general
- How to prepare and use teaching material and teaching aids
- How to evaluate the student's photos
- Understanding the various kinds of camera systems available on the market.
- The elements included in the training standards for level I and II Under Water Photographers
- Knowledge on basic image editing
- Knowledge of CMAS and National Associations or Federations regulations specific to underwater photography

### 3.2- Recommendations:

CMAS recommends the knowledge of electronic photo management.

### 3.3- Examination:

Candidates have to successfully pass the level I Underwater Photo-Instructor course with confidence and knowledge on how to teach all the techniques mentioned.

## 4- CERTIFICATION:

After satisfactory graduation of this course run by a CMAS level II or higher Underwater Photo-Instructors, the candidate will receive the CMAS level I Underwater Photo-Instructor Certificate.

This Certification is valid for 5 years. It can be renewed with agreement of their National Association or Federation providing that the Underwater Photo-Instructor stays in active status.

# CMAS LEVEL II UNDERWATER PHOTO-INSTRUCTOR

## 1- OBJECTIVES:

The CMAS level II Underwater Photo-Instructor is allowed to teach, plan and carry out, CMAS level I and II Underwater Photographer Classes and CMAS level I Underwater Photo-Instructor courses.

## 2- ENTRY REQUIREMENTS:

Minimum age: 20 years old  
Minimum diver level: CMAS\*\*\* Three star diver certificate  
Minimum photographic level: CMAS level I Underwater Photo-Instructor  
Experience as a teacher of 10 photo courses.

## 3- COURSE CONTENT

### 3.1- Training:

The training course should include the following subjects:

- Teaching techniques in general
- Preparation and use of teaching material and teaching aids
- Correct analysis of level I and II students underwater photos
- Organization of CMAS level I Underwater Photo-Instructor courses
- Knowledge of the various kinds of camera and flash systems available on the market.
- Knowledge of electronic photo management
- The elements included in the training standards for level I and II Under Water Photographers and Level I Photo-Instructor
- Knowledge on basic image editing
- Knowledge of CMAS and National Associations or Federations regulations specific to underwater photography

### 3.2- Recommendations:

CMAS recommends that the CMAS level II Underwater Photo-Instructor participates in National or International underwater photo events (training sessions, competitions, etc.) and to pass the level III of photographer.

### 3.3- Examination:

Candidates have to successfully finish the CMAS level II Underwater Photo-Instructor course with confidence and knowledge on how to teach all the techniques mentioned.

## 4- CERTIFICATION:

After satisfactory graduation of this training course run by a CMAS level III Underwater Photo-Instructor, the candidate will receive the CMAS level II Underwater Photo-Instructor Certificate providing that their national Association or Federation photo responsible approves it.

This Certification is valid for 5 years. It can be renewed with agreement of their National Association or Federation providing that the Underwater Photo-Instructor intend to remain active and assume his duties.

# CMAS LEVEL III UNDERWATER PHOTO-INSTRUCTOR

## 1- OBJECTIVES:

The CMAS level III Underwater Photo-Instructor is allowed to teach, plan and carry out National and International CMAS level I, II and III Underwater Photographer and all CMAS level I, II and III Underwater Photo-Instructor training courses

## 2- ENTRY REQUIREMENTS:

Minimum age: 25 years old.

Minimum diver level: CMAS \*\* two star Diver Instructor.

Minimum photographic level: CMAS level II Underwater Photo-Instructor and CMAS level III Underwater Photographer

## 3- COURSE CONTENT

### 3.1- Training:

No training to this course

### 3.2- Recommendations:

CMAS recommends that the CMAS level III Underwater Photo-Instructor assume a leading role in the organization of National and International Underwater photo events (training sessions, competitions, etc.).

His duties include the following:

- a. - Promote underwater photography nationally and internationally.
- b. - Develop training aids and techniques
- c. - Plan and teach CMAS Underwater Photo-Instructor's training courses
- d. - Be active and keep an open communication with CMAS

### 3.3- Examination:

No examination to this course

## 4- CERTIFICATION:

The CMAS audio-visual commission appoints Photo-Instructors to CMAS level III Underwater Photo-Instructor. The candidate will receive the CMAS level III Underwater Photo-Instructor Certificate providing that their national Association or Federation approves it.

This Certification is valid for 5 years. It can be renewed with agreement of their National Association or Federation providing that the Underwater Photo-Instructor intend to remain active and assume his duties.

## CROSS-OVER FOR LEVEL I AND II PHOTO-INSTRUCTOR

### 1- OBJECTIVES:

The Cross-over are arranged by the CMAS Audio Visual Commission and are run by a CMAS level III Photo-Instructor. The cross-over are arranged during each World Championship in Under Water Photography and whenever needed.

### 2- ENTRY REQUIREMENTS:

The participants must hold the knowledge and experience equal to the entry requirements described for the level I and/or II Photo-Instructor courses.

### 3- COURSE CONTENT

#### 3.1- Training:

The training course should include the following subjects:

- Knowledge of CMAS and National Associations or Federations regulations specific to underwater photography

#### 3.2- Recommendations:

CMAS recommendations can be found under the description of CMAS level I and II Photo-Instructor courses.

#### 3.3- Examination:

Candidates have to successfully show understanding of the different subjects described under CMAS level I and/or II Photo-Instructor courses. Candidates also have to demonstrate practical teaching.

### 4- CERTIFICATION:

After satisfactory graduation of the cross over run by a CMAS level III Underwater Photo-Instructor, the candidate will receive the CMAS level I or II Underwater Photo-Instructor Certificate providing that their national Association or Federation approves it.

This Certification is valid for 5 years. It can be renewed with agreement of their National Association or Federation providing that the Photo-Instructor intends to remain active

# TRAINING FOR CMAS LEVEL I UNDERWATER PHOTOGRAPHER

## ORGANISATION OF THE TRAINING

The training of CMAS level I Underwater Photographer is based on a minimum of 6 days course which can be divided.

The course can be adapted by the responsible trainer to the local training conditions (ex: swimming pool, open water) as long as the CMAS standards & training requirements for Underwater Photography Specialty Course are covered. The candidate should do a minimum of 2 photographic dives in open water of which the respect of the environment will be checked specifically.

## COURSE CONTENTS

### THEORETICAL COURSES

- Safety in diving specific to underwater photography:  
Safety rules and their relevance during photographic dives. Knowledge of problems associated with time and depth.
- Underwater environment protection:  
Knowledge of the underwater environment, associated risks and respect of the environment.
- Photography equipment:  
Description, preparation, maintenance and use of the different pieces of photographic equipment
- The flash:  
Guide number, definition and application underwater.
- Basic photography:  
Diaphragm, speed, distance, sensitivity and type of film, photo with flash, without flash. (Natural light)
- Physical aspects underwater:  
Color, distances, focal...
- Close-up photography:  
Additional lens, tubes and macro lens, depth of field.
- Discovery of image composition:  
Understanding of the main rules of image composition for wide angle photography (framing ...).

### TECHNICAL AND PRACTICAL COURSES

- Photo of diver:
  - ◆ Flash power checking (Experimental determination of the strobe guide-number).
  - ◆ Photo of diver with artificial light (Estimation of distance underwater, flash position and buoyancy).
- Static marine life:  
Lens aperture in relation to the distance to the subject. Discovery of the various angles to shoot: toward surface, bottom.
- Close-up photography:  
Relation between depth of field and close-up ratio, choice of the strobe position: front, side, top lighting.
- Marine life in motion:  
Approach to Marine life framing of moving subjects, application of photographic knowledge previously acquired.
- Wide angle photography:  
Basic rules of image composition, relation between lens aperture and shutter speed and the impact of natural light. Take some photos in natural light.
- Dive techniques:  
Training in buoyancy compensation and swimming techniques

## EVALUATION

The candidate is evaluated throughout the course (overall picture quality and the environmental care).

# TRAINING FOR CMAS LEVEL II UNDERWATER PHOTOGRAPHER

## ORGANISATION OF THE TRAINING

The training of CMAS level II Underwater Photographer is based on a minimum of 6 days course which can be divided.

An example of typical training programme is given in APPENDIX A (p 17) to this document. It can be adapted by the responsible trainer to the local training conditions (ex: swimming pool, open water) as long as the CMAS standards & training requirements for Underwater Photography Specialty Course are covered. The candidate should do minimum 5 photographic dives in open water of which the respect of the environment will be checked specifically.

## COURSE CONTENTS

### THEORETICAL COURSES

- Safety in diving specific to underwater photography:  
Safety rules and their relevance during photographic dives. Knowledge of problems associated with time and depth.
- Underwater environment protection:  
Knowledge of the underwater environment, associated risks and respect of the environment.
- Photography equipment:  
Description, preparation, maintenance and uses of the different pieces of photographic equipment
- Flash multi power:  
Guide-number applied to multi-power strobe with one or two flash
- Advanced image composition:  
Advanced knowledge of the artistic composition and organization of the visual elements of a picture
- Optics and depth of field:  
Presentation of the different focal lengths, the depth of field and application to «Hyper focal».
- Natural light:  
Use of the light meter, interest in use of the natural light (without flash)
- Balancing natural and artificial light:  
Combination of artificial and natural light in a picture.
- Underwater lighting:  
Lighting coverage depending on the lens and the use of one or two flash, Color temperature, different type of lighting sources
- Color language:  
Learning the symbolic and aesthetic meaning of color.
- Creative photography & advanced photography techniques:  
Double exposure, half-half, color filter, slave strobe, computer, .etc.

### TECHNICAL AND PRACTICAL COURSES

- Photo of diver:
  - ◆ Experimental determination of the strobe guide-number at different power setting.
  - ◆ Photo of diver with blue background.
- Natural light
- Static Marine life
- Close-up Photography
- Marine life in motion
- Wide Angle photography
- Critical analysis and reframing of images:



- Critic analyses of an image and reframing of a picture
- Dive techniques:  
Training in buoyancy compensation and swimming techniques

## EVALUATION

- Theoretical exam:
  - \* Questions to check the understanding of theoretical courses
- Practical examination:
  - \* At the end of the Course, The candidate is evaluated on the quality of 15 slides taken during the Course (5 wide angle, 5 close-up and 5 fish pictures). The evaluation is based on the ability of the candidate to master the balancing of natural and artificial light and image composition of the picture.

# TRAINING FOR CMAS LEVEL I UNDERWATER PHOTO-INSTRUCTOR

## ORGANISATION OF THE TRAINING

The training of CMAS level I Underwater Photo-Instructor is based on a minimum of 6 days course which can be divided.

## COURSE CONTENTS

### THEORETICAL AND PRACTICAL COURSES

- Picture analysis: theory and practical applications
- Picture analysis on PC
- Various underwater camera systems & artificial lights
- Theory of picture processing and picture manipulation on PC
- Teaching techniques
- Presentation skills in front of an audience
- Structure of a lecture.
- Audio-visual tools
- Knowledge of CMAS and national rules specific to underwater photography
- Plan and carry out a CMAS level I Underwater Photo-Instructor course

### EVALUATION

- Presentation of a CMAS level I Underwater Photo-Instructor theoretical course prepared before the training session.
- Presentation of a technical and practical course level I prepare during the training session.
- Image analysis of slides projected with a level I of photography.

# TRAINING FOR CMAS LEVEL II UNDERWATER PHOTO-INSTRUCTOR

## ORGANISATION OF THE TRAINING

The training of CMAS level II Underwater Photo-Instructor is based on a minimum of 6 days course which can be divided.

## COURSE CONTENTS

### THEORETICAL AND PRACTICAL COURSES

- Learning to train all levels.
- Picture analysis: theory and practical applications (level I and II).
- Revision on skill presentation in front of a class, on how to structure a course and use of audio-visual aids.
- Theory of picture processing and picture manipulation on PC
- Training and organizing classes for level I and II Underwater Photographers.
- Training and organizing courses for level I Underwater Photo-Instructors.
- The various kinds of camera and flash systems available on the market.
- CMAS and National Association or Federation regulations specific to underwater photography

### EVALUATION

- Presentation of a theoretical course level II, prepared before the training course
- Presentation of a technical and practical course level II, prepared during the course and illustrated with slides taken on site.
- Picture analysis, during slides projections and on a light table, of level I and II Underwater Photographers.
- Organization, presentation and running of training courses to be given to level I Underwater Photo-Instructor
- Running of the organization of the training course during one day.

# APPENDIX A

## NUMBERING SYSTEM OF THE CERTIFICATES

XXX/Y00/ZZ/88/999999

XXX = Country's Olympic acronym

Y = F for Federation, I for Instructor, O for OCC

00 = Federation, Instructor or OCC Number, given by CMAS HQ

ZZ = Card holder's DIVING CERTIFICATE Level

88 = Year issued

999999 = SEQUENTIAL NUMBER

6 positions (0 mandatory)

To initialize to 000001 on January 1<sup>st</sup> of each year

Underwater Photographer Underwater Photo-Instructor