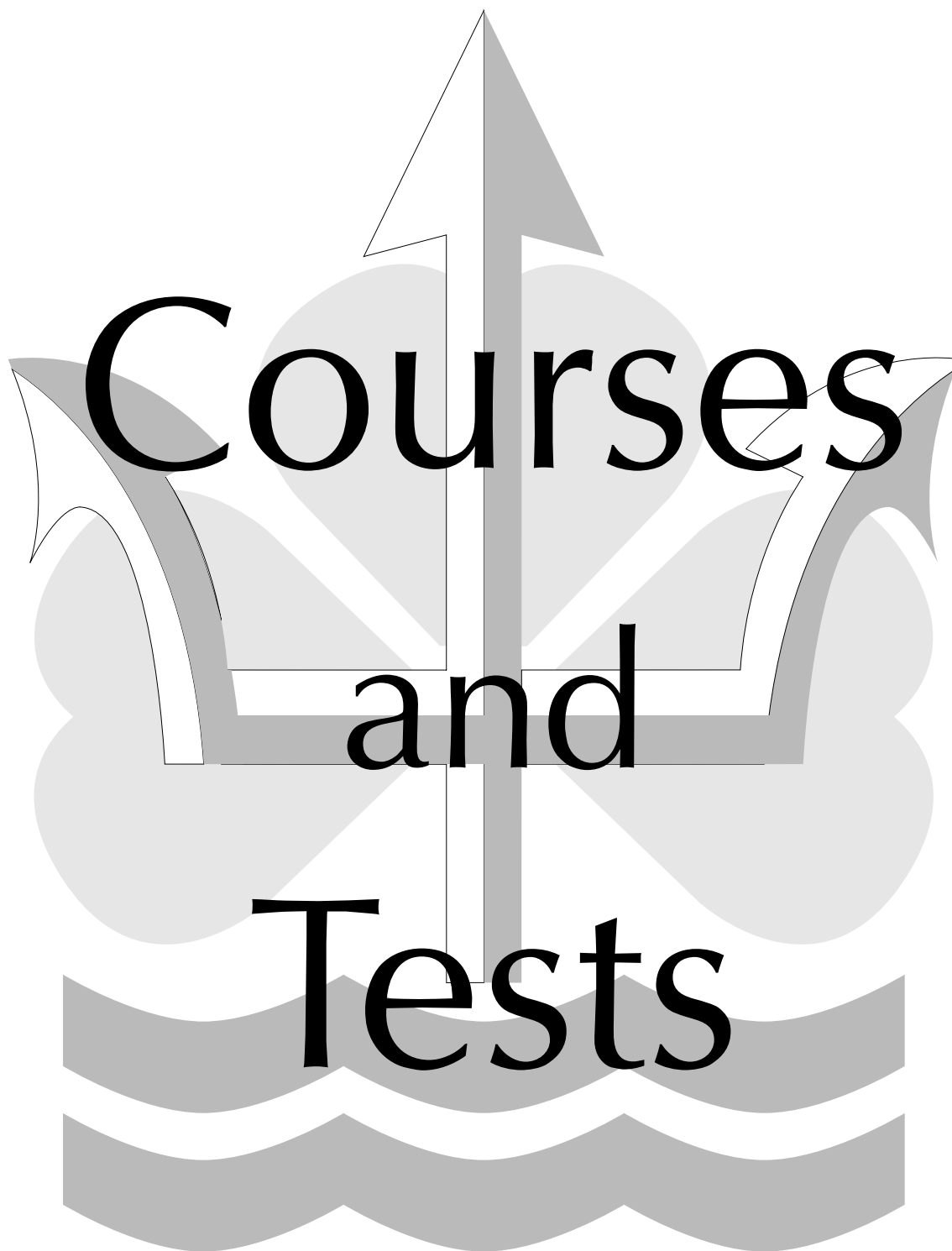


**Comhairle F6-Thuinn**  
**Irish Underwater Council**





# Major Changes since the July 2001 Edition

Dec  
2003

## 1. Nitrox Diver and Extended Range Diver Courses

Details of these new courses are included.

## 2. Drysuit Divers Course – Practical

Details of this practical (from the end of the Club Diver Full Lesson Plan on Drysuits) have been included. This is a voluntary course with no certification offered.

## 3. C.F.T. Rebreather Policy.

Details of this policy are included.

## 4. Diving Rules and Recommendations

These have been extensively reorganised and should be carefully read for new and changed rules and recommendations.

## 5. Trainee Diver (Diver \*).

Pool Scuba Training:

7. Practise the "Out of Air" exercise on a one to one basis with an instructor. Note: This does not form part of the test.

8. Practise the S.M.B. deployment exercise.

To qualify as a Trainee Diver (Diver \*) a Novice Diver must log a minimum of 5 open water training dives to a maximum depth of 10 metres. (This conforms with forthcoming European rules.)

## 6. Club Diver (Diver \*\*)

Minor change only. The candidate has to lead the rest of the dive after all the other underwater exercises have been completed.

## 7. Rescue Diver

All dropped weightbelt exercises in open water are now carried out on the surface.

## 8. Leading Diver (Diver \*\*\*)

The written dive plan has become a prerequisite and is taken at the same time as the theory papers. The rules for carry over have been clarified.

General: d. A candidate may only attempt the test once in a calendar year. Passed prerequisites will remain valid until the end of the following calendar year.

## 9. Instructor \* (Moniteur \*)

Minor changes only. A M\*\* or above should demonstrate to the M\* candidates how to give pool instruction at the first available opportunity in the pool.

The rules for carry over have been clarified. Upon successful completion of the course the candidate will also become a Diver Emergency Responder Instructor, (but cannot certify Diver Emergency Responders until a M\*\*).

## 10. Instructor \*\* (Moniteur \*\*)

An Instructor \* must also now assist at a Diver Emergency Responder Course. The M\* jury must now be the last of the six juries that the trainee Examiner is assessed on.

## 11. Instructor \*\*\* (Moniteur \*\*\*)

The candidate will be assessed and awarded a grade for Dive Leadership on each dive throughout the practical week. A new Diving Format for Leading Instructor (Moniteur \*\*\*) Practical has been devised.

## 12. All Relevant Grades

The words "Have an in date medical." (or similar) have been replaced by "Have a current certificate(s) of fitness to dive." (or similar). (This is to take into account the Medical Disclaimer Renewals.)

## 13. Gas Blender

New course.

## 14. Nitrox Instructor

New course.

## 15. Extended Range Instructor

New course.

## 16. Gas Blender Instructor

New course.

## 17. Instructor Trainer

New course.

Only major changes are listed here and are clearly indicated by a date change on the relevant page.



Rules and Recommendations .....	5
Attendance at Courses and Tests .....	8
General Instructions to Jury Presidents .....	9
Guidelines for Logging Foreign Dives .....	10
Try-A-Dive .....	11

## **Diver Courses and Tests**

Trainee Diver (C.M.A.S. Diver *) .....	12
Club Diver (C.M.A.S. Diver **) .....	14
Diver Cox'n .....	18
Diver Emergency Responder .....	24
Rescue Diver .....	25
Advanced Club Diver .....	32
Leading Diver (C.M.A.S. Diver ***) .....	33
National Diver (C.M.A.S. Diver ****) .....	40
Instructor* (C.M.A.S. Moniteur *) .....	42
Instructor** (C.M.A.S. Moniteur **) .....	48
Moniteur ** Juror Training Course .....	51
Leading Instructor (C.M.A.S. Moniteur ***) .....	52
National Instructor (C.M.A.S. Moniteur ****) .....	57
Drysuit Divers Course – Practical .....	58
Search and Recovery Diver .....	60
Use of VHF Radio .....	62
Nitrox Diver .....	63
Extended Range Diver .....	64
Gas Blender .....	66
Nitrox Instructor .....	67
Extended Range Instructor .....	68
Gas Blender Instructor .....	69
Instructor Trainer .....	70
CFT Rebreather Policy .....	71

## **Snorkel Courses and Tests**

Snorkeller Training Programmes .....	75
Junior Snorkel Diver .....	76
Intermediate Snorkel Diver .....	77
Senior Snorkel Diver .....	79
Snorkel Diver Medic .....	81
Rescue Snorkeller .....	82
Snorkel Dive Leader .....	84
Snorkel Instructor .....	85
Snorkel Examiner .....	88
Additional Achievements .....	90

## **Appendices**



# Abbreviations

Sep  
2002

<b>A.B.L.J.</b>	<b>Adjustable Buoyancy Lifejacket</b>
<b>B.C.</b>	<b>Buoyancy Compensator</b>
<b>B.D.</b>	<b>Buoyancy Device</b>
<b>B.T.</b>	<b>Bottom Time</b>
<b>C.F.T.</b>	<b>Comhairle F6-Thuinn or Irish Underwater Council</b>
<b>C.M.A.S.</b>	<b>Confederation Mondiale des Activites Subaquatiques or World Underwater Federation</b>
<b>CO<sub>2</sub></b>	<b>Carbon Dioxide</b>
<b>C.P.R.</b>	<b>Cardiopulmonary Resuscitation</b>
<b>D.O.</b>	<b>Diving Officer</b>
<b>E.A.R.</b>	<b>Expired Air Resuscitation</b>
<b>E.T.R.</b>	<b>Estimated Time of Return</b>
<b>G.P.</b>	<b>General Practitioner</b>
<b>I.A.N.T.D.</b>	<b>International Association of Nitrox and Technical Divers</b>
<b>N.D.L.</b>	<b>No Decompression Limit</b>
<b>N.S.O.</b>	<b>National Snorkelling Officer</b>
<b>N.D.O.</b>	<b>National Diving Officer</b>
<b>O<sub>2</sub></b>	<b>Oxygen</b>
<b>PPO<sub>2</sub></b>	<b>Partial Pressure of Oxygen</b>
<b>R.D.O.</b>	<b>Regional Diving Officer</b>
<b>R.G.</b>	<b>Repetitive Group</b>
<b>R.I.B.</b>	<b>Rigid Inflatable Boat</b>
<b>R.N.T.</b>	<b>Residual Nitrogen Time</b>
<b>S.I.</b>	<b>Surface Interval</b>
<b>S.M.B.</b>	<b>Surface Marker Buoy</b>
<b>S.O.</b>	<b>Snorkelling Officer</b>
<b>T.C.</b>	<b>Technical Commission</b>
<b>T.D.I.</b>	<b>Technical Diving International</b>
<b>T.O.</b>	<b>Training Officer</b>
<b>V.H.F.</b>	<b>Very High Frequency</b>
<b>V.I.P.</b>	<b>Visual Inspection Programme</b>



## Definitions

### Rules

Rules are compulsory diving practices laid down by the Technical Commission which must be observed at all times.

### Recommendations

Recommendations are to be regarded as diving practices which should be followed and may only be deviated from in exceptional circumstances.

### Bottom Time

Is the time from leaving the surface until commencing the final ascent at the recommended rate.

### Depth

Is the maximum depth reached during a dive.

### No Decompression Limit (N.D.L.)

Is the maximum time which can be spent at a given depth without mandatory stage decompression.

### Decompression Stop Time

Is the time actually spent at the stop. It does not include the time taken to ascend to it.

### Repetitive Dive

Is any dive carried out within 12 hours of a previous one.

### Repetitive Group (R.G.)

Is a measure of excess nitrogen remaining in the body after a dive.

### Surface Interval (S.I.)

Is the time from surfacing from a dive to commencing the next descent.

### Residual Nitrogen Time (R.N.T.)

Is a measure of the amount of excess nitrogen still in the body at the end of a surface interval. It is the time that a diver must consider has already been spent at the planned depth of a repetitive dive.

## Technical Commission Rules and Recommendations

### Rules

1. The minimum age for SCUBA training is fourteen (14) years.
2. All divers must undergo a diving medical examination as directed by the Medical Commission and set out in the C.F.T. Medical Form.
3. A life jacket, which may be an A.B.L.J., B.C. or Stab Jacket, must be worn on all SCUBA dives.
4. Trainee divers may only dive with qualified divers.
5. A qualified diver may not lead more than two trainees on open water dives.
6. Any diver leading a Trainee or Novice Diver must have an Alternative Air Source\*.

\*An Alternative Air Source is interpreted here as one of the following (in order of preference):

1. an independent air supply and regulator,
2. an octopus regulator,
3. an Air2 (or similar),
4. A Spare Air (or similar).

it excludes however buddy breathing or a buoyancy device mini-cylinder.

### Recommendations

#### Section A - Fitness to Dive

1. Dives to depths greater than 20 metres should only be carried out by Active Divers.
2. A diver is not considered to be an Active Diver if he/she has been laid off from diving for 13 weeks (90 days) or more.
3. Where a lay off from diving of 13 weeks or more has occurred, 3 other snorkels (minimum 30 minutes duration) should be carried out prior to SCUBA diving. The first 3 SCUBA dives should be limited to a maximum depth of 20 metres.

#### Section B - Dive Techniques and Organisation

1. Divers should never dive alone.
2. All dives in excess of 30 metres should be led by a diver of minimum Leading Diver qualification.
3. Any dive with an element of instruction must be led by an Instructor (Moniteur 1\* or above).
4. The maximum depth for Sports Divers is 45 metres. However a maximum depth of 50 metres applies when qualified as an Extended Range Diver.
5. Where dive tables are in use, their usage should be strictly in accordance with the instructions for the use of dive tables (issued by the T.C.).
6. Where dive computers are in use, their usage should be strictly in accordance with the manufacturers' recommendations and instructions.
7. Notwithstanding 5 and 6- above, adequate safety margins should be built in for exceptional conditions such as arduous or cold diving.
8. Ideally start the dive deep and work shallow, don't make 'sawtooth' profiles with repeated shallow and deep depths.
9. Ascend at 10 metres per minute, unless otherwise indicated, to minimise bubbling and enhance out gassing.
10. A safety stop must be carried out on all no-decompression dives for 3 minutes in the optimum range of 3 to 6 metres. N.B. Do NOT go shallower than 3 metres.
11. A minimum surface interval of 2 hours is recommended between all dives.
12. Delayed S.M.B.s should be deployed in areas of high boat traffic.
13. Shortened/Omitted Decompression (mandatory stops only). This is a very serious situation.
  - (1) Give victim 100% O<sub>2</sub>.
  - (2) Observe victim and buddy, contact chamber.
  - (3) No further diving for 24 hours.
  - (4) If symptoms of D.C.S. or Barotrauma present, remove immediately to chamber.

## Rules and Recommendations

14. Emergency Ascents (where the ascent rate has been exceeded significantly).

Also viewed seriously.

- (1) Give victim 100% O<sub>2</sub>.
- (2) Observe victim and buddy, contact chamber.
- (3) No further diving for 24 hours.
- (4) If symptoms of D.C.S. or Barotrauma present, remove immediately to chamber.

15. Dives requiring decompression should be avoided unless qualified to do these. If unplanned decompression does occur, with correct stops duly completed do not dive for a further 24 hours (also consider administering oxygen and observe the divers).

16. Where diving continues for several days e.g. holidays or expeditions a break of a half day should be taken every three days. This is to prevent the build up of excess nitrogen in the slow tissues. When flying after intensive diving or stage decompression diving it is recommended that you should stop diving a minimum of 24 hours before flying

17. As far as possible, Club Diving Officers should be of Leading Diver qualification or higher.

18. The Club Diving Officer, for insurance purposes, should be informed in advance of all Club diving, snorkelling or boating activities.

19. All diving accidents and incidents are to be reported to the Club Diving Officer and onwards to the R.D.O. and N.D.O. or his/her representative.

### Section C - Equipment

1. All diving equipment should be serviced and tested in accordance with manufacturers' recommendations.
2. In addition to 1 above, dive cylinders require an inspection (V.I.P.) every 2½ years and a hydrostatic test every 5 years.
3. Dive only with cylinders designed for underwater use.
4. All life jackets should have:-
  - (a) Adequate means of oral inflation.
  - (b) Alternative means of inflation.
  - (c) Automatic overpressure relief valve.
  - (d) Effective dump valve.
  - (e) Minimum available buoyancy of 14 kgs (30lbs).
5. Life jackets fitted with carbon dioxide (CO<sub>2</sub>) cylinders should not be used.
6. Air purity tests should be carried out on club compressors every six months.

### Section D - Dive Computers

1. Read and understand fully the manufacturer's instructions and recommendations before using a dive computer.
2. The dive computer is a tool and the diver controls the dive. Do not push the dive computer to extremes. Be prepared to limit dive times and/or depths and lengthen surface intervals.
3. Be aware that some dive computers do not account for physiological variations. Dehydration, alcohol consumption, strenuous exercise before, during or immediately after a dive, age, excessive fat tissue, injury, fatigue can be predisposing factors for decompression sickness. The more of these factors that apply the more conservative the computer should be used, for example reduce your N.D.L.

4. In the event of computer failure proceed directly to 6 metres and remain there for 5 minutes. If mandatory decompression was required remain at 6 metres for as long as possible, do not dive for a further 24 hours (also consider administering oxygen and observe the divers).

5. Any dives carried out within a 24 hour period must use the same computer. Also do not mix the use of computers and tables within a similar period.
6. Each person should have their own computer, if computers differ in N.D.L., while underwater, use the most conservative reading and dive accordingly.
7. When diving at altitude the computer must travel with the user at all times, and the instructions for use at altitude must be followed.

### Section E - Dive Tables

1. For intermediate depths use the next greater depth on the table (e.g. for 25 metres use 27 metres).
2. For intermediate times use the next longer time on the table (e.g. for 15 minutes at 25 metres use 18 minutes at 27 metres).
3. Avoid deep repetitive dives, ensure at least a 2 hour surface interval. Make the deepest dive first and repetitive dives progressively shallower. It is recommended that no more than 3 dives per day are made on Buehlmann Tables.
4. For strenuous and/or cold dives (where the diver feels uncomfortably cold during the dive) use the decompression and R.G. prescribed for the next longest time increment. This also means that the N.D.L. is decreased by one time increment, while keeping the R.G. of the longer time, e.g. cold/strenuous dive to 18 metres for 33 minutes, R.G. = D. Look up decompression information for 18 metres for 44 minutes, R.G. = E.
5. If the depth of the repetitive dive is an intermediate depth, then take the shallower depth for calculating Residual Nitrogen Time and the deeper depth for calculating No-Decompression Limits.  
For example:  
First dive to 27m for 17 mins, R.G. = C.  
Surface interval = 2hrs, R.G. now = A.  
Second dive to 20m (intermediate depth) apply handling rules.  
Shallower for R.N.T. = 18m column at R.G. = A gives 14 mins.  
Deeper for N.D.L. = 21m column = 34 mins N.D.L.  
therefore N.D.L. for 2nd dive = 34-14 = 20 mins.

5. Slowed Ascent (where the rate of the final ascent is less than 10m/min). Add the additional ascent time to the bottom time.

### Section F - Children Diving

1. Divers under the age of 16 may be included in the Trainee Diver Course and achieve Trainee Diver status.
2. Divers under the age of 16 must dive within the limits of their qualification and not dive deeper than 20m.
3. Divers under the age of 16 must be directly supervised in open water by a diver who has at least Club Diver qualification plus at least one year's diving experience after such qualification.
4. Dive marshals are reminded of the Duty of Care, subject to risk assessment, to provide sites and conditions suitable for all the divers in the diving group and divers under 16 years must dive in sheltered waters.

Where divers under the age of 18 are involved, all club members must be aware of the CFT Code of Conduct for Children's Underwater Sport.

# NITROX

## Rules & Recommendations

**Definition:**

“NITROX” is oxygen enriched air i.e. a mixture that contains the gases nitrogen and oxygen only.

**Equipment:**

1. Before diving Nitrox, the C.F.T. Nitrox course or an equivalent course recognised by C.F.T. must have been successfully completed.
2. Gas mixes must ONLY be obtained from a C.F.T. recognised Nitrox Facility or qualified Blender.
3. The handling or use of oxygen and oxygen mixes higher than 50% is prohibited other than for First Aid purposes.
4. Standard scuba equipment can only be used for mixes up to Nitrox 40 i.e. a mixture containing up to 40% O<sub>2</sub>.
5. When a Nitrox mix has been obtained, the mix analysed by the diver and the cylinder suitably marked, then that cylinder must not be exchanged or loaned to any other diver while any of the gas remains within it.
6. Nitrox dedicated cylinders must be correctly labelled with an “O<sub>2</sub> cleaned” sticker for use with mixes over 40%.
7. If your Nitrox dedicated cylinder is used for standard air fills it must be O<sub>2</sub> cleaned before use with over 40% Nitrox.
8. Nitrox equipment must be professionally serviced/cleaned unless qualified to do so.

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## Rebreathers

### Rules & Recommendations

See CFT Rebreather Policy Section



## **Candidates**

When attending a Course/Test, you are required to present the following:-

1. Logbook appropriately filled in.
2. Proof of current membership of C.F.T. i.e. Membership Card.
3. Current certificate(s) of fitness to dive.
4. Active Diver Insert. Showing that you are "Dived Up" for the particular course/test.
5. Letter of recommendation from your Club Diving Officer and signature in logbook.
6. The appropriate fee.

## **Instructors**

When attending a Course requiring diving activities, and for all diving tests, you are required to present the following:-

1. Logbook.
2. Proof of current membership of C.F.T. i.e. Membership Card.
3. Current certificate(s) of fitness to dive.
4. Active Diver Insert. Showing that you are "Dived Up"\* for the particular course/test.
5. 100% attendance is required at all parts of the course (Instructor \* [Moniteur \*]).

\* "Dived Up" means that the appropriate "Work Up" dives should have taken place in the preceding weeks prior to the course or test.

Club Diver Test:- To have at least two "Work Up" dives in the previous three weeks e.g. 10m + 20m.

Rescue Diver:- Same as club diver.

Leading Diver:- To have at least three "Work Up" dives in the previous four weeks, the last one of which should exceed 30m.

Failure to comply will result in non participation at the Course/Test.



# GENERAL INSTRUCTIONS TO JURY PRESIDENTS

Sept  
2002

It is your responsibility to take the name, club and C.F.T. number of all the candidates and jury members involved in this test. Sheets are provided in duplicate for this purpose.

Results are to be filled in on the results sheet. Give one copy to the R.D.O. of the region and send the other copy to the registrar in the envelope provided.

If the candidates current membership card and C.F.T. number is not provided, that candidate will not be credited with the test.

Logbooks must be in order, including current certificate(s) of fitness to dive, regardless of what test is taking place.

All expenses must be sent to the R.D.O. within SEVEN DAYS of the test. Please instruct the jury accordingly.

All equipment used must be generally in good order and all bottles in test (V.I.P. & Hydro).

Incidents: please read the following to the jury and candidates:-

- (i) Incidents are only to be carried out on the express instructions of the Jury President.
- (ii) There are to be no in water incidents either underwater or at the surface.
- (iii) There is to be no "falling" out of boats.
- (iv) The number of incidents is to be limited so that they do not detract from the orderly running of the course.
- (v) All unapproved incidents are to be reported to the N.D.O.

The Jury President must meet all candidates for the Leading Diver Test at the end of the first day to enquire about the test from their perspective.

At the Jury President's discretion, only one single element of the test may be repeated.

Carry out an inventory of all equipment used before and after test. Organise an Instructor \*\* (Moniteur \*\*) to do this.

Course evaluation forms should be distributed to candidates at the end of the test but before any results are given. They should be completed and returned to the Jury President preferably before any results are given and forwarded to the National Diving Officer.



**CLUB DIVER:** It is recommended that all dives must be carried out in Irish or other North European waters.

**LEADING DIVER  
&  
NATIONAL DIVER:** It is recommended that a minimum of 50% of additional qualifying dives be carried out in Irish waters. Foreign dives carried out in Britain or Northern Europe to be admitted on a one for one basis. Foreign dives carried out in Southern Europe or in Tropical or semi-tropical waters to qualify on the basis of 2 foreign dives to equal one qualifying dive. For the Leading Diver, the 3 dives to 35 metres and 2 dives to 40 metres must be carried out in Irish waters.



# Try a Dive

## Recommendations for it's Organisation

Jul  
2001

### **Introduction**

No more than 20 minutes should be spent on an introductory talk about your club, C.F.T., and diving generally. Alternatively, you may prefer to show a video.

### **Registration**

Record the name, address and phone number of all candidates.

### **Instructors**

The Moniteur/Candidate ratio should be one to one.

Leading Divers or experienced Club Divers may also be used.

Helpers, Trainees, or other interested club members will be needed to help move and fit gear, and assist candidates into and out of the water.

### **Equipment**

Fins, mask, aqualung with Stab Jacket for preference, and regulator.

No weightbelts should be worn by candidates.

If a Stab Jacket is used and where buoyancy is a problem, a weight may be put into the pocket.

### **Theory**

Explain about ear clearing, exhaling, and basic signals i.e. up, down, something wrong.

### **Pool**

Allow one Instructor and candidate per lane. Enter the pool from the shallow end, and sit on the bottom breathing from the regulator until the candidate relaxes.

At the discretion of each Instructor move the candidate to the deep end or 3 metre mark at maximum.

Timing: Allow up to 5 minutes for practical theory and equipment lesson.

The total time per candidate should be no longer than 15 minutes, otherwise adequate numbers will not be dealt with.

### **At the End**

The candidate should return to the Registrar where they receive a handout pack containing equipment brochures, Club information, start date and time of your course.

All candidates should be encouraged to meet club members socially after the pool session.



A Trainee Diver is one who has completed the Trainee Diver (Diver \*) Training course and is ready to gain further experience and log qualifying dives for the Club Diver Test. Trainee Divers must always be accompanied by a diver of a higher grade.

The intention of the course is to provide the beginner with the technical information and practical skills required for scuba diving.

### ENTRY REQUIREMENTS

1. Be at least 14 years of age\*.
2. In the swimming pool complete the following:-
  - (a) Swim 200 metres freestyle without stopping.
  - (b) Swim 50 metres backstroke without stopping.
  - (c) With head submerged in the water, hold breath for 30 seconds within 5 minutes of (a) and (b) above.

### COURSE CONTENT

This comprises of a series of lectures, pool and open water snorkel and scuba training. The course is designed so that theoretical knowledge, pool snorkel/scuba activities run concurrently, along with open water snorkel training. Open water scuba activities will commence following all other instruction and on completion of the required Diving Medical.

#### Lecture Programme

Included in this series of theoretical lectures is an introduction to the program, the equipment used in diving, an introduction to the Laws of Physics and Medicine as related to diving and some techniques used for the prevention and treatment of diving accidents. Lectures as per the Club Diver (Diver \*\*) Module include the following:-

<b>Introduction</b>
Introduction to the Course and C.M.A.S.

<b>Equipment</b>
Diving Equipment

<b>Physics</b>
Introduction to Dive Physics
Effects of Pressure
Decompression
Buoyancy

<b>Techniques</b>
Hand Signals
Out of Air
Dive Tables
Cardiopulmonary Resuscitation

\*See Rules and Recommendations Section F

### **Pool Snorkel Training**

Complete the following practical pool exercises at a pace dictated by the ability of each student:-

1. Introduction to basic equipment.
2. Finning techniques.
3. Mask and snorkel clearing.
4. Methods of entry: Jump, Vertical, Silent, Step, etc.
5. Snorkel diving head first and feet first.
6. One forward and one backward roll.
7. Snorkel dive and fin 25m underwater with & without mask.
8. With face submerged, snorkel 25 metres without a mask, while breathing through a snorkel.
9. Recover mask and snorkel from bottom of pool, clear mask underwater and clear snorkel on surface.
10. Surface dive and fit fins underwater without mask.
11. Tow a snorkel diver 50 metres while giving Expired Air Resuscitation (EAR).

### **Pool Snorkel Test**

Exercises "1" through "11" are carried out without difficulty in one single pool session to the satisfaction of the Club Diving Officer.

### **Open Water Snorkel Training**

Log a minimum of 3 open water snorkels of at least 30 minutes duration each in Irish Waters, during which practise:-

1. Entries, buoyancy adjustment, finning and snorkel diving.
2. Mask and snorkel clearing.
3. Towing and EAR.
4. Group safety.
5. Finning without mask and snorkel.
6. Snorkel dive to at least 6 metres.

### **Pool Scuba Training**

1. Correct assembly/disassembly of scuba equipment.
2. Flood and clear mask underwater.
3. Remove and replace regulator mouthpiece underwater.
4. Methods of entry.
5. On the bottom of the pool, remove all scuba equipment and surface observing all safety rules. Surface dive and refit all scuba equipment.
6. Buddy breathe for three minutes and demonstrate buoyancy control.
7. Practise the "Out of Air" exercise on a one to one basis with an instructor.
8. Practise the S.M.B. deployment exercise.
9. Rescue techniques towing and E.A.R.
10. Lost mouthpiece retrieval.
11. Alternative air source sharing.
12. Finning 25m in full equipment on surface on snorkel and on regulator underwater without mask.

### **Pool Scuba Test**

Exercises "1" to "6" only are carried out without difficulty in one single pool session to the satisfaction of the Club Diving Officer.

### **Open Water Scuba Training**

Log a minimum of 5 open water training dives to a MAXIMUM depth of 10 metres, during which practise:

1. Buoyancy adjustment maintaining depth at stop.
2. Mask and mouthpiece clearing and retrieval of lost mouthpiece.
3. Buddy breathing and use of alternate air supply.
4. In open water, rescue a diver, inflate buoyancy device and tow 100 metres while giving EAR.
5. Methods of entry.

On completion of the course, a Trainee Diver (Diver\*) Certificate and Brevet will be issued. Diving Officer to request this directly from C.F.T.



A Club Diver is one who having passed the Club Diver Exam is proficient in the safe use of scuba equipment for open water diving with a buddy. He/she is permitted to dive with buddies of the same grade or higher and may lead such dives to a maximum depth of 30 metres. He/she may also, with the D.O.'s permission, lead Trainee Divers (Divers \*).

## PREREQUISITES:

1. Be 17 years of age and have a current certificate(s) of fitness to dive.
2. Hold a Trainee Diver (Diver \*) certificate for a minimum period of three months.
3. Have the Club Diving Officers recommendation to undergo the test.
4. Have logged the following dives in Irish or North European waters - minimum 15 minutes duration:
  - 4 X 10 Metres
  - 4 X 15 Metres
  - 5 X 20 Metres
  - 4 X 25 Metres
  - 3 X 30 Metres

All 30 Metre dives must be lead by at least a Leading Diver and completed only when all previous dives are logged. After the 30 metre dives have been logged, no dive in excess of 25 metres should be undertaken until the Club Diver (Diver \*\*) Test has been passed.

5. Complete the following lecture programme as per the Club Diver (Diver \*\*) Module. (For the purposes of the Club Diver test the Trainee Diver (Diver \*) and Club Diver (Diver \*\*) lecture programmes shall be included).

Physics	Physiology	Equipment	Techniques
Gas Laws	Respiration/Circulation	Dive Regulator & Cylinders	Dive Planning
	Ears & Sinus	Dry Suit	Small Boat Diving
	Burst Lung	Dive Computers	The Sea
	Hypothermia		Night Diving
	Hypoxia, Anoxia & Drowning		

6. Within two weeks of the test and in open water, snorkel 500 metres in basic equipment, and 200 metres in full equipment to the satisfaction of the Club Diving Officer.

## CLUB DIVER TEST

### EXAM

1. Assemble scuba equipment and present oneself ready to dive, properly weighted.
2. Demonstrate Buddy Check, Hand Signals, and ditching of weightbelt.
3. Demonstrate on shore use of compass.
4. Discuss a Dive Plan with Examiner. (Depth, Time, Site, Tides, Weather).
5. In 20m of water, submerge with mask in hand. Fit mask below surface and proceed to bottom.  
At bottom: Remove mask, give to examiner.  
Remove regulator, purge and replace.  
Replace mask and clear.  
Buddy breathe for 2 minutes.
6. Demonstrate buoyancy control. Slightly inflate jacket, lift one metre from bottom, maintain that elevation for thirty seconds then return to the bottom. Use jacket inflation to accomplish this.
7. Simulate a free ascent. Fin 5m. horizontally along the bottom, breathing out continuously. Regulator retained in mouth.
8. Lead the rest of the dive.
9. Tow fully equipped diver 100m (buoyancy allowed).
10. Snorkel 200m in full equipment.
11. Demonstrate CPR on land.
12. Oral examination in Dive Theory, Safety, Equipment and Tables.

## CLUB DIVER TESTING PROCEDURE

### CLUB DIVING OFFICER:

Ensure that the candidate has completed the following:-

1. Module I Training schedule.
2. A "dummy run" of the complete test.
3. The prerequisite snorkels in the allocated time.
4. A fully completed No. I logbook to include:
  - (a) Photograph glued or stapled in position and over stamped.
  - (b) Current certificate(s) of fitness to dive properly stamped and signed.
  - (c) All 20 training and prerequisite dives to be logged and signed.
  - (d) All necessary signatures filled in by Club T.O. and D.O.
  - (e) Current C.F.T. Trainee Diver (Diver \*) brevet.

If any of the above items are incomplete the test will be cancelled.

Having satisfied yourself that a diver is ready for testing, contact the R.D.O. to arrange an examiner, venue and date. No diver may be examined without the express knowledge of his/her Club D.O.

Make a cover diver or boat available if requested by the examiner or R.D.O.

Oral examination to take no longer than fifteen minutes.

# CLUB DIVER TEST

## Guidelines for Examiners

Before commencing the test, ensure that candidates' No. 1 logbooks are fully signed up and completed. Ensure that medicals are in date. Ask for C.F.T. Trainee Diver (Diver \*) brevet. NO CARDS, NO TEST. Then proceed with Tests 1-4 before leaving the shore. Tests 5 - 10 are completed in sequence. Test 11 is then demonstrated on shore with basic equipment worn. The oral test (12) is then held after the candidates have changed, and is done indoors.

### MAJOR POINTS TO NOTE:

1. Maximum of 2 candidates per examiner.
2. Hand signals used throughout must be noted for clarity and response.
3. No in water incidents. No use of emergency signals unless genuine. The "Test" signal is given before each exercise.
4. The candidate's oral dive plan shall be simple and to the point. Main factors are: Depth, Time, Site, Weather, Tides. Do not spend more than 3 minutes with each candidate in total.
5. Test 5 shall be done as follows: The candidate removes his mask at the surface and at a signal from the examiner, submerges with mask in hand either feet first or in a duck dive. Once the candidate is below the surface he may fit the mask at any depth. The mask must be checked by the examiner before proceeding any further.
6. The "Free Ascent" is done with the regulator in the mouth, the candidate breathing out. The examiner swims with the candidate, along the bottom, slightly ahead and facing towards him/her.
7. Where two or more examiners are being used, candidates are rotated between oral and practical tests.
8. Open Water Training Dives are not part of the prerequisite dives.
9. The oral test is not a marathon. It shall not be longer than 15 minutes duration.
10. Remember that you are looking for competent standards, not brilliance.

Having satisfied yourself that the candidate is of the required standard, inform him/her that they have passed and offer your congratulations. Sign and stamp the candidate's logbook with your Club stamp. Advise the R.D.O. of the successful candidates.



A holder of a Motor Boat Handling Certificate has completed a course and passed an exam in the safe and proper use of motor boats and ancillary equipment, with particular emphasis on the use of such boats by divers.

The syllabus looks at the present system of training our Boat Handlers or Cox'ns with a view to improving the method of training, raising standards and hopefully reducing the percentage of boat handling incidents. The Cox'ns should be trained prior to using the boat rather than doing the course and examination together. Some form of training is necessary prior to filling out a Boat Handling Log. Irrespective of previous training, this log should be diving related.

The responsibility of the Cox'n and the role played by him or her with the boat in a dive plan must be clearly outlined, particularly in the event of an emergency. The sequence of the syllabus is outlined as follows:

1. Introduce the boat to the Cox'n at an early stage, i.e. snorkel diver standard or interested non-diver (minimum age 16 years). The potential Cox'n must attend a course designed to teach the various basics of boat handling with an examination at the end. Throughout the course the Cox'n will learn the basic theory and practical aspects of boat handling from qualified instructors.
2. Having completed the course the Cox'n must keep a log of their diving related boat handling as an Assistant Cox'n. The log is designed to ensure they do not just log hours but encounter various conditions to test and improve their skills, knowledge and confidence.
3. Once the log has been completed he or she can go forward for the diver Cox'n examination within a period of 2 years.
4. The test will consist of an oral examination on theory as outlined in the syllabus and two practical boat handling tests.

## BOAT HANDLING COURSE

### INTRODUCTION:

In recent years the use of small boats has played a central role in the type of diving done by most divers in Ireland. It is therefore essential that divers at an early stage in their development acquire a good level of knowledge and skill in the use and limitations of small boats for diving.

### AIMS:

The aims of this course are to provide the basic knowledge and skill necessary to handle small power boats safely and correctly.

### ORGANISATION AND INSTRUCTION:

This course will be organised by the R.D.O. and the course organiser must be qualified to at least Instructor \* (Moniteur\*). The candidates will be at least 16 years of age and must have the consent of their Diving Officer to attend the course. Those assisting the course organiser should be qualified to Diver Cox'n standard. Boat Handling courses may be organised by individual clubs provided the R.D.O. is notified in advance with the following information.

- A written programme outlining the course dates and venue
- Instructors names and designated lecture topic
- A list of candidates by name and C.F.T. number
- The C.F.T. approved fee.

On receipt of this information, the R.D.O. will agree a Course organiser with the club concerned and between them the paperwork will be completed.

### Attendance:

Full attendance at all theory and practical sessions are required to successfully complete the course.

**NOTE** - unless attendance is 100%, certification **cannot** be granted.

## COURSE CONTENT AND SCHEDULE

### PART I - THEORY LECTURES:

#### INTRODUCTION:

The course should be planned to provide for covering the theoretical aspects of the course contained hereafter. This should be completed before the practical exercises are undertaken.

These classroom sessions may be completed in a series of evening classes or on one day of a weekend course or however the course organiser sees fit.

**Lecture No. 1 - The Boat and its Equipment: M2/S1/L1** 30 mins.

Types of Craft  
Seaworthiness  
Ancillary and Safety Equipment  
Care and Maintenance of the Boat and its Equipment  
Boat Trailers

**Lecture No. 2 - Responsibilities of the Owner/Cox'n: M2/S1/L2** 30 mins.

Insurance  
Towing and the Law  
Lighting Regulations  
Harbour and Local Authority Bye-laws  
Customs of the Sea  
Salvage Laws

**Lecture No. 3 - Emergency Situations ( Part 1 ): M2/S1/L3** 30 mins.

Basic First Aid  
Man Overboard  
Towing at Sea  
Fire at Sea  
Craft Capsizing  
Rescue Agencies  
Disabled Craft

**Lecture No. 4 - Seamanship: M2/S2/L1** 30 mins.

Use of Compass at Sea  
Using Transits at Sea

**Lecture No. 5 - Emergency Situations ( Part 2 ): M2/S2/L2** 30 mins.

Use of V.H.F. Radio.  
Distress Signals  
Flares

**Lecture No. 6 - Pre-Launch Planning: M2/S2/L3** 30 mins.  
 Weather  
 Tides  
 Charts and Chartwork  
 Informing Shore Marshal  
 Boat Equipment Check List

**Lecture No. 7 - The Boat at Sea: M2/S3/L1** 30 mins.  
 Launching/Landing/Coming Alongside  
 Turning/Stopping  
 Picking up Divers  
 High Speed/Rough Weather Handling

## **PART 2 - PRACTICAL LECTURES:**

### **INTRODUCTION:**

As the aim of the course is to provide an introduction to boat handling, the candidate should spend as much time as possible actually handling the boat and putting the craft through the exercises.

**Lecture No. 8 - Outboard Engines: M2/S3/L2** 30 mins.  
 Types of engines  
 Controls  
 Safety devices  
 Fuel system/lubrication  
 Cooling system  
 Care and maintenance

**Lecture No. 9- Practical Seamanship: M2/S3/L3** 30 mins.  
 Anchors & Anchoring + Sea Anchor  
 Ropes/Shot Lines/Lazy Lines (use of)  
 Some Basic Knot Tying

Once the candidate has completed the course to the satisfaction of the R.D.O., they are now qualified as an **Assistant Cox'n**.

Assistant Cox'ns must now complete a record of their boat handling experiences, known as a **Boat Handling Log**.

## BOAT HANDLING LOG

### REQUIREMENTS:

Entries should only be made in the log after you have successfully completed the Cox'n course.

All entries must be made during boat diving operations only.

DATE	DETAILS	LOCATION	D.O. SIG.
	Assisted Cox'n (1 hour)		
	Assisted Cox'n (1 hour)		
	Assisted Cox'n (1 hour)		
	Assisted Cox'n (1 hour)		
	Rough Weather Handling		
	Rough Weather Handling		
	River Current/Tidal Drift		
	River Current/Tidal Drift		
	Covering Divers		
	Covering Divers		
	High Speed Handling		
	High Speed Handling		
	Congested Area Handling		
	Congested Area Handling		

## DIVER COX'N EXAMINATION

### INTRODUCTION:

During this examination the candidate will be expected to demonstrate that he/she has acquired the knowledge and the ability to plan and prepare a small boat for open sea diving.

The candidate must be able to handle his/her boat and crew to provide safe and reliable cover for divers in the water and, in the event of an emergency, be capable of dealing with the situation.

### PREREQUISITES:

1. Be at least 16 years of age.
2. Have completed the Cox'n course within a 2 year period.
3. Have completed the Boat Handling Log.
4. Have the written permission of his/her Diving Officer to undertake the examination.
5. Have current C.F.T. membership card.

### ORGANISATION:

When the club Diving Officer deems a person eligible to do the examination, the Regional Diving Officer should be contacted who will agree a location and date for the examination. The Regional Diving Officer then arranges for an Examiner from another club and at least Instructor \*\* (Moniteur \*\*) grade to do the assessment

Only one candidate per boat trip may be assessed.

### EXAMINATION DETAILS:

The examination will consist of three parts:

#### 1. An actual Club Dive

The Diver Cox'n will be expected to take full responsibility for the launching, operation, control and recovery of the dive boat during a normal diving day, together with the drop off, cover and pick up of divers in usual diving weather.

#### 2. Practical Skills Section

The Diver Cox'n must demonstrate the ability to operate the boat in the confines of a harbour/sheltered area. The effective handling of emergency situations must be exhibited.

#### 3. Theory

This part will include chart work, ropes/knots and theory, as per the Boat Handling Course.

**ALL THREE PARTS MUST BE PASSED IN ORDER TO BE SUCCESSFUL IN THIS EXAMINATION.**



# Boat Handling Examination

**Note to Examiner:**

The candidate should take full responsibility for the launching, operation, control and recovery of the dive boat during a normal dive day, together with the dropping off, covering and recovering of divers in usual dive weather.

**Part 1**

**Section A**

At least 9 out of the 12 requirements listed must be completed.

1. Check Boat Equipment .....
2. Complete successful launch of boat .....
3. Ensure trailer is safely parked .....
4. Notify Coast Radio and follow instructions .....
5. Organise loading of boat - people and equipment ...
6. Appoint lookouts for both journeys .....
7. Observe Marine Highway code at all times .....
8. Respect safety and comfort of passengers and equipment at all times .....
9. Correct use of hand signals and flags throughout ...
10. Organise assistance for divers when needed, and have equipment stored safely .....
11. Organise unloading of boat .....
12. Be responsible for having boat loaded onto trailer and secured for safe towing .....

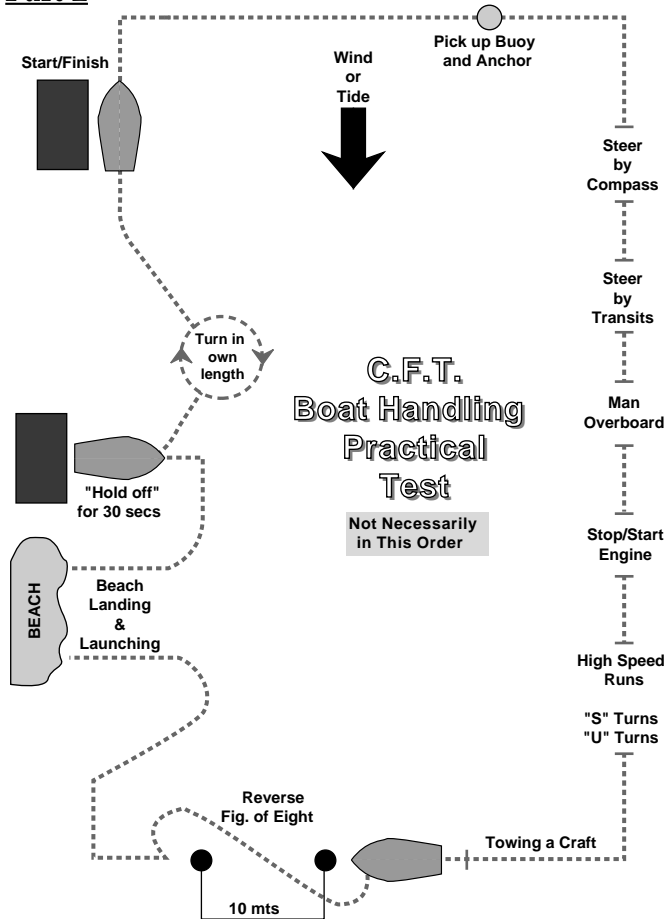
**Section B**

All 6 are mandatory

1. Have a good knowledge of the dive site, tides, currents and weather forecast.
2. Ensure engine is in neutral when dropping off and picking up divers.
3. Know the Emergency Plan and the Dive Plan, in particular the E.T.R. of dive groups.
4. Be aware of general location of divers, and be close to site when divers surface.
5. Approach divers with caution and with safety of divers and equipment uppermost.
6. Position boat correctly when picking up divers.

**Pass: Yes** \_\_\_\_\_ **No** \_\_\_\_\_

**Part 2**



**Pass: Yes** \_\_\_\_\_ **No** \_\_\_\_\_

**Part 3**

Ropes and knots, chart work and general questions from the Boat Handling Course to be assessed

Maximum - 15 minutes duration.

**Pass: Yes** \_\_\_\_\_ **No** \_\_\_\_\_

**Results**

All 3 parts must be passed in order to be successful.

Candidate: \_\_\_\_\_

C.F.T. No. \_\_\_\_\_

Pass: Yes \_\_\_\_\_ No \_\_\_\_\_

Examiner: \_\_\_\_\_

Date: \_\_\_\_\_



# Diver Emergency Responder

Sep  
2006

A holder of a Diver Emergency Responder Certificate is awarded to those who have completed a course and passed an exam in the skills required to provide first aid treatment to an injured diver.

## **INTRODUCTION**

The course is designed to educate C.F.T. members to recognise dive related injuries and to provide emergency first aid to injured divers.

## **PREREQUISITES - CANDIDATES**

1. Be at least 16 years of age (if under 18 years have written consent of Parent/Guardian).
2. Have a current C.F.T. membership card.

## **PREREQUISITES - INSTRUCTORS**

Instructors need to hold Diver Emergency Responder Instructor certificate.

## **COURSE OUTLINE**

The course comprises of a series of lectures and practical work. It is designed to be completed in one day. At the end of the course there will be a short written test. Each student is required to demonstrate proficiency in the practical techniques. This will be assessed throughout the practical sessions.

### **Lecture Schedule**

1. Course Introduction
2. Cardiopulmonary Resuscitation
3. Oxygen Theory
4. Oxygen Equipment
5. First Aid Awareness

### **Practical Schedule**

1. Cardiopulmonary Resuscitation
2. Oxygen Equipment

### **The following numbers must be adhered to -**

Maximum student to Instructor ratio is 12:1.

Maximum student to mannequin ratio is 6:1.

Maximum student to oxygen unit ratio is 6:1.

Overall maximum number of students per course is 18.



The holder of a Rescue Diver Certificate has successfully completed a course and passed an exam in the theory and practice of diver rescue, including deep rescue, self rescue, in-water resuscitation, rescue management and basic first aid.

## COURSE CONTENT

### PREREQUISITES

1. Be a Trainee One Star Diver with a minimum of 19 dives (by the logbook).
2. Be a qualified Club Diver at the time of taking the Rescue Diver Exam.
3. Have completed the C.F.T. Diver Emergency Responder course.
4. Have current certificate(s) of fitness to dive.
5. Have Club Diving Officer's written letter of approval to participate in the course.

### COURSE OUTLINE

The course consists of a series of lectures, an amount of pool work, and an amount of open water work to a depth of 20 metres.

Course Director to be a minimum Instructor \*\* (Moniteur \*\*) grade.

### LECTURE SCHEDULE

1. Stress and the Diver
2. Rescue Prevention
3. Self Rescue and Self Rescue Skills
4. Deep Rescue Methods of Lift
5. Diver Rescue Management

Practical C.P.R. and Oxygen Administration exercises should also be practised.

## COURSE GUIDELINES

It is important that the equipment used in this course is to the proper specifications.

1. Shot Line: Must be of minimum 20mm rope.  
Weighted by at least 25kg; buoyed by at least 50 litres.  
Must be kept as taut as possible when in use.  
Must be clearly marked at 15m/10m/6m/3m (especially at the 10m mark)
2. All weightbelts used must have "slip-proof" weights attached. Absolutely no exceptions.

In the case of cover divers used during the course, they must be of at least Rescue Diver grade. They will be stationed at the 6m mark for the express reason to deal with any ascents that get out of control and, if possible to act as a brake for the victim.

It must be stressed that at no time are multiple ascents and descents (so called yo-yo diving) to be condoned. If problems arise during the course, they can be corrected at another time, on another dive i.e. at club level, using club instructors. It is recommended that full proficiency in all lift methods be achieved, obviously this will require further diving at club level to achieve these aims, hence the logging of lifts after the course.

To practise a ditched weightbelt ascent to the surface would not be in accordance with diving under the new tables, but it must be clearly understood that in a real emergency, this method **MUST** be employed, because it guarantees surfacing of the victim.

Regarding the free ascent (regulator in mouth) it must be stressed that in the event of a real one, the rate of ascent would be faster than 10m/min. The candidates must be made aware of this fact.

"Dived up" is defined as having done at least 2 work-up dives in the previous 3 weeks e.g. a 10m dive and a 20m dive. This is only good diving practice.

The air-sharing exercise on dive 3 is to get the candidate used to using an alternative air system, e.g. Air 2 or Octo+ or Spare air or an octopus rig. There will be no breathing from the bag allowed. Should the instructor have no alternative air-sharing system then the candidate is allowed to buddy breathe again, as recipient this time.

The 19 dives by the book means that the candidate will have completed all the qualifying dives in depth sequence for the club diver log up to and including one 25m dive. No exceptions.

To successfully complete the course necessitates 100% participation at all lectures, pool work, and open water work. No exceptions.

## **POOL WORK**

To include instruction in the following skills.

### **Surface Rescue**

- Not to be attempted unless mask, snorkel and fins are worn.
- Shout at victim - "Ditch your belt. Inflate your jacket"

### **Underwater Rescue**

- Cautious approach, assess the situation, select option for lifting.

### **Methods of Towing**

- While giving Mouth to Snorkel, Mouth to Mouth, Mouth to Nose.
- Emphasis should be on keeping the victim ventilated, and not on towing him/her great distances.

### **Methods of Lift**

- Practise the various types of lift described in the lecture series. At the deep end of the pool the various approaches and holds can be practised.

### **Ditching Weightbelt**

- Practise ditching your own weightbelt for Self Rescue. Ensure your weightbelt is held clear from body then dropped.
- Practise ditching victim's weightbelt. Again ensure the weightbelt is held clear of body before dropping.
- A mat can be used to protect pool tiles.

## OPEN WATER WORK

### (minimum 20 metres of water)

The following techniques are to be practised on a SHOT LINE in 20m of water. The shot line must be "taut," and weighted by at least 25kg, with a large buoy, at least 50 litres capacity on the surface. It must be marked at 15/10/6/3 metres. Emphasis on practise of dropped weightbelt is essential.

Cover divers can be of "Rescue Diver" grade or higher.

### Self Rescue Techniques

Place the shot line in 20m of water. Have the line marked at 15m/10m/6m/3m. Place a cover diver at 6m mark.

- (a) Free ascent from 20m to 15m at 10m per minute, instructor slightly above candidate. Regulator in mouth at all times. Stop. Return to 20m.
- (b) From 20m, using your own buoyancy device, ascend to 6m, without use of fins. If the rate of ascent is too fast at the 10m mark, then abort ascent.
- (c) Do a safety stop at 3m for 3mins
- (d) On the surface arrange for one end of a lanyard to be attached to the boat and the other to your weightbelt. Then, with due regard to the safety of others, practise ditching your weightbelt.

*All the above can be achieved on DIVE 1*

During the surface interval, practise the various methods for the "recovery" of a victim from the water into the boat.

Also practise Shore Management skills.

### Assisted Rescue Techniques Part 1

Place the shot line in 20m of water. Have the line marked at 15m/10m/6m/3m. Place a cover diver at 6m mark.

- (a) From 20m do a wetsuit jacket lift or drysuit jacket lift to the 6m mark. If the rate of ascent is too fast at the 10m mark then abort the lift and both divers control their own buoyancy. Do not go shallower than the 3m stop.
- (b) Do a safety stop at 3m for 3mins
- (c) On the surface arrange for one end of a lanyard to be attached to the boat and the other to the instructor's weightbelt. Then, with due regard to the safety of others, practise ditching the instructor's weightbelt.

*All the above can be achieved on DIVE 2.*

### Assisted Rescue Techniques Part 2

Place the shot line in 20m of water. Have the line marked at 15m/10m/6m/3m. Place a cover diver at 6m mark.

- (a) Descend to 20m. Using the instructor's "air-sharing" system and preferably not buddy breathing ascend to 15m. Stop.
- (b) Return to 20m. Practise an "unconscious diver" lift, approach from behind, to the 6m mark. If the ascent rate is too fast at the 10m mark then abort the lift, and both divers control their own buoyancy. Do not go shallower than 3m.
- (c) Do a safety stop at 3m for 3mins

*All the above can be achieved on DIVE 3.*

## SUGGESTED TIME TABLE

1. 3 nights for lectures.    1st night    - Segment 1  
    2nd night    - Segment 2  
    3rd night    - Segment 3

With 1 night for pool work (approx. 2 hours)

With 2 days of a weekend set aside for the 3 dives, and the surface management of a rescue lesson.

2. Full time from Friday evening to Sunday night, e.g.  
 Friday evening 7 p.m. Registration, followed by 2hrs of pool work.

<b>Saturday</b>		<b>Sunday</b>	
09.00-10.30	Classroom work	09.00-11.30	Classroom work
11.00-13.30	Dive 1, tows, C.P.R.	12.00-13.30	Dive 3
13.30-14.30	Lunch	13.30-14.30	Lunch
14.30-16.00	Classroom work	14.30-17.00	Classroom work
16.30-18.00	Dive 2		

If conditions deteriorate due to weather then do dive 1 and either of the other 2 dives. It is very important that the missed section is completed in the succeeding month.

Course director to sign logbooks.

## FOLLOW UP

Log a series of lifts on a shot line and under supervision of club/group as per attached log sheet. Copy below.

### Self Rescue

	20m - 10m	Buddy	Date
1	Free Ascent		
2	Buoyant Ascent		
3	Ditched Weightbelt (on surface) N.B. Lanyard attached to weightbelt and boat		

### Assisted Rescue

	20m - 6m	Buddy	Date
1	B.D. Wetsuit Lift		
2	B.D. Drysuit Lift		
3	Unconscious Victim Lift		
4	Distressed Victim Lift		

# RESCUE DIVER EXAMINATION

## TEST REQUIREMENTS

1. Test to take place only after full completion of the rescue diver course, and to be minimum Club Diver grade.
2. Candidates examined under the jury system, with a Leading Instructor (Moniteur \*\*\*) as president.
3. Minimum depth necessary to complete the test is 20m. Marked shot line must be used. Cover divers to be used.
4. Logbooks to be up to date, including current activity cert, medical certificate(s) and C.F.T. membership card.
5. Candidate to be dived up.
6. Test to take place on completion of logging series of lifts.
7. Candidate to have completed the Rescue Diver Course within a two year period.

## STAGE I

**Deep rescue:** Place shot line in 20m of water.  
Have the line marked at 15m/10m/6m/3m.  
Place the cover diver at 6m mark.

- (a) Dive to 20. Carry out free ascent to 15m. Stop.
- (b) Using one of the lift options designated by the Jury President (normally the lift from behind), lift the victim from 20m to the 6m mark. Stop.
- (c) Do a safety stop at 3m/3mins.
- (d) On surfacing, support the victim and demonstrate E.A.R. for a period not less than 3 mins, after which the victim is placed in a boat. Instructor to hand in their own weightbelt.

## STAGE 2

**Shallow Rescue:** In sheltered water tow victim 100m, giving E.A.R. Land victim on shore and demonstrate Shore Management and Resuscitation skills. The tow is to stop on reaching water waist height, from there the instructor is to remove their equipment and put it in a safe place, the test then continues on the shore line.

**Oral Test:** Candidates to be examined on points taken from the lecture schedule for a minimum of 10 questions (all 10 to be answered correctly).

**Logbook:** To be stamped or endorsed by the Jury President



# Advanced Club Diver

Jul  
2001

The holder of an Advanced Club Diver Certificate is awarded to a diver who has been active within their club for a period of at least five years, and is an experienced diver. This is an honorary grade for services rendered.

## **PREREQUISITES**

1. Be a Club Diver (Diver \*\*) for five years.
2. Be a Cox'n and a Rescue Diver.
3. Have played an integral part in the Club's development over that period.
4. Be recommended by the Club Committee for this position.

## **ENTITLEMENTS**

This grade will entitle them to lead a Trainee Diver (Diver \*) to 30m.

This certificate is issued by C.F.T. free of charge when requested by the Club.



# Leading Diver (C.M.A.S. Diver \*\*\*)

Nov  
2006

The Leading Diver is the third stage in a process of diver training offered by CFT.

## PREREQUISITES

### Candidates must:

- Be over 18 years of age
- Have an in date medical record of examination as to fitness to dive before commencement of the course
- Be currently registered with CFT
- Present a completed logbook with a Club Diver certificate held for at least a year
- Hold a Rescue Diver certificate
- Hold a Diver Coxswain certificate
- Attend the Leading Diver brief

## Course

The course will be conducted by CFT qualified instructors within a club or at a centre approved by CFT. It will consist of lectures and practical exercises.

## Equivalence

Course corresponds with CMAS Diver\*\*\* and is intended to fulfil the requirements of CEN Level 3 Dive Leader EN 14153-3

## Lectures

Number	Title	Revision date	Revision number
1	Basic Chartwork & Tides	10-4-2002	1
2	Compressors	17-12-2001	1
3	Dive Computers	3-1-2002	1
4	Diving Physics	10-4-2002	1
5	Dive Planning, Organisation and Leadership	19-12-2001	1
6	Weather	3-1-2002	1
7	Speciality Diving	4-9-2004	1
8	CPR & O2	16-8-2006	3
9	Regulators & Cylinders	23-4-2001	1
10	Treatment of diving accidents	7-7-2006	1
11	Rescue Management	12-4-2002	1
12	Dive Tables	11-1-2006	1

## Practical

### Dives (Revision date: Sept 1998)

Night Dives x 2

15M x 10

20M x 10

25M x 10

30M x 12

35M x 3

40M x 2

## **Water Skills Assessment** (Revision date: November 2004)

### **Swim Tests**

1. In open water swim 200m in 8 mins and dive to 3m to recover a "body" and support for 2 mins without difficulty.
2. 20 - 10 - 20 breath holding test.

### **Snorkel Tests**

1. Fin 1,000m in basic equipment (with weight belt)
2. Make 1 snorkel dive to 10m.
3. Snorkel dive to 6m - stay on bottom for 20 secs - surface & rest for 20 secs - repeat.

### **Scuba Tests**

1. Fin 500m in full equipment.
2. To enter the water from a height of 3m, in full equipment, without surfacing proceed on compass for 50m to a fixed mark.
3. At 5m - fin 50m without mask (include the use of a weighted bottom line to help guide the diver).

## **Dive organisation training within club x7** (Revision date: November 2004)

To have led 7 scuba training groups to the satisfaction of an Instructor \*\* (Moniteur\*\*).

## **Dive organisation training outside the club x 3** (Revision date: November 2004)

To have led 3 scuba training groups to the satisfaction of an Instructor \*\* (Moniteur\*\*).

**Learning outcomes** - A Leading Diver is a diver who is capable of taking charge of a group of divers, experienced and inexperienced, plus all the equipment necessary to allow diving to take place successfully and safely.

**Knowledge** - Knowledge of all aspects of the course is gained by passing comprehensive written and practical examinations.

**Skills** – Leadership skills will be developed by participating in the course and assessed during the practical examinations.

**Competencies** - After successful completion of the course and test a Leading Diver is competent to lead divers of any grade on open water dives and to organise dive groups.

As an ongoing process there will be evaluation of understanding of the material in the lectures and recording of instruction to ensure that the candidate has fully understood the material communicated. Special attention will be paid to candidates

## **Leading Diver Test**

### **Candidates must**

1. Pass written theory examination consisting of four multiple choice sections with a pass mark in the first 1. three of 60% and 70% in Dive Tables.
  - Diving Physics
  - Diving Physiology
  - General Knowledge
  - Dive Tables
2. Pass a written dive plan prepare a Dive Plan using dive groups, boats compressors etc. and a marine chart and weather chart as provided at the exam. Pass mark is 60%
3. Submit completed Leading Diver training log to Jury President
4. Pass the practical and theory assessments of the Leading Diver examination weekend.

## The Weekend Examination

The weekend examination is one of leadership and organisational skills, with teamwork and an ability to work together being very important. You will also be examined on your handling of emergency situations efficiently and effectively.

The examination comprises two sections: Diving Practical & Diving Knowledge

### Diving Practical

There are five tests in this section;

1. The 40m Dive
2. The 20m Dive
3. The 30m Dive
4. The Emergency Situation
5. Organisational Ability

**1. The 40m Dive:** During this dive all divers dive their grades and are assumed competent. Candidates are examined under the following headings.

**Dive Leadership:** Beginning when buddies are named during the brief, continuous throughout the journey to the dive site, during the dive and back to the debrief.

**Mask and Mouthpiece removal:** The ability to undertake this confidently and smoothly is assessed.

**Signals:** The candidate is assessed for his/her susceptibility to narcosis by means of a pre-arranged signal.

**2. The 20m Dive:** Examiners are assumed to be trainees undertaking their first 20m dive, so they have undertaken approximately thirteen dives. Under examination are **dive leadership** and **safety**.

**3. The 30m Dive:** Again, it is assumed that all divers are diving their grade and are competent. **Dive leadership** is again being assessed.

NB: The use of SMB's are encouraged and therefore the deployment of an SMB will be assessed on either the 20m or the 30m dive

**4. The Emergency:** This can occur at any time during the weekend (except during a dive) and may occur more than once. The candidate will be examined on their ability to:

- Identify a diver who is suffering from a diving related problem
- Diagnose possible problems/conditions based on the symptoms presented
- Act to stabilise the victim
- Inform the emergency services
- Organise to have the victim removed from the scene and treated

The assessment will also take into account the general care shown to the victim during the emergency.

The candidate's ability to perform C.P.R. both wet and dry and administer O<sub>2</sub>. This may be part of an incident, but will also be examined in a dry location with a mannequin and O<sub>2</sub> kit.

There will be no in-water incidents during the examination.

**5. Organisational Ability:** This section deals with the candidate's 'Dive Planning' skills. It is assessed by acting as D.O. for one of the above mentioned dives for their sub-group. This involves planning and conducting the dive from start to finish, taking into account all members of the group and the objective of the dive.

### **Diving Knowledge**

There are six areas where the candidate's working knowledge and practical handling of various topics will be assessed. Again the syllabus for these is the same as for the theory paper. The topics are;

**Dive Tables & Dive Computers:** The candidate's ability to use dive tables and dive computers safely and correctly, particularly concerning all diving carried out during the weekend examination.

**Charts & Weather:** Oral test on a chart from any area and a weather map, possibly from a newspaper.

**Regulators & Cylinders:** Oral test on the candidate's working knowledge of the various component parts, inspection, care and maintenance.

**Compressors:** Oral test on the operation of a diving compressor. The candidate should also have a basic knowledge of the main parts of the compressor.

**Ropes & Knots:** The candidate will be asked to tie correctly and quickly a variety of common knots, give a brief outline of their uses and the type of ropes used.

**Boat Handling:** The candidate's boat handling skills will be assessed during the course of the weekend. If a candidate shows weakness he/she may be reassessed using part of the C.F.T. boat handling test.

### **Limitations to diving after course**

An experienced diver who has passed the Leading Diver examination is competent to lead divers of any grade on open water dives within the depth restriction of the divers' certification, to a maximum of 45m and to organise dive groups. Leading Divers will be involved in leading trainees, however, where there is any element of instruction this will only be given by a qualified instructor.

# Leading Diver Training Log



Leading Diver Candidate: \_\_\_\_\_ Club: \_\_\_\_\_

C.F.T. No. \_\_\_\_\_

### Leading Diver Brief:

Region	R.D.O.	Date

R.D.O. Seal

### Fitness & Stamina Training:

Location	Duration	Buddy	Date
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

### Specialist Lectures:

Lecture	Lecturer	Date
Dive Planning, Organisation & Leadership.		
Dive Computers.		
Dive Tables.		
Rescue Management.		
Treatment of Diving Accidents.		
Diving Physiology.		
C.P.R. / O <sub>2</sub>		
Basic Chartwork & Tides.		
Weather.		
Regulators & Cylinders.		
Dive Physics.		
Compressors.		

### Dive Organisational Training:

Location	Depth	Emergency Situation	Instructor & No.	Date
1.				
2.				
3.				
4.				
5.				
6.				
7.				

### Outside the club:

Location	Depth	Emergency Situation	Instructor & No.	Date
1.				
2.				
3.				

D.O. Sign: \_\_\_\_\_ Date: \_\_\_\_\_

Club Seal:

To be submitted to the Jury President at exam weekend.

# Examiners Guide to Leading Diver Test

## I. LAYOUT

The programme for the Test should take the following layout:

<u>Fri</u>	p.m.:	General Brief
<u>Sat</u>	a.m.:	40m Dive
	p.m.:	Oral tests Practical Tests 20m Dive
	Evening:	Jury President to meet all candidates Jury Debrief/Conference
<u>Sun</u>	a.m.:	30m Dive, simulated emergencies
	p.m.:	Jury Conference Individual debrief and notification of result Presentation of Certificates General debrief

## 2. COMMENTS FOR GUIDANCE

### (a) 40m Dive

The mask must be fully removed from the head and held briefly at arm's length. The mouth-piece is then removed and held at arm's length. Replace the mask and mouthpiece in an unhurried manner. This dive is also designed to enable the examiner to assess the susceptibility of the candidate to narcosis. This could be done by pre-arranging an irrelevant signal to be given when at 40m, as well as by observing the candidates behaviour generally at depth.

### (b) 20m Dive - Saturday

This is a free open water dive, either from shore or boat - not on shotline.

The candidate is leading a trainee diver on his first 20m dive. The dive to last for a minimum of twenty (20) minutes. SMB deployment may be assessed on this dive.

### (c) 30m Dive - Sunday

An open water dive to 30m. SMB deployment may be assessed on this dive.

(d) A reaction test to a simulated emergency can take place at any time during the weekend. (No in-water incidents).

(e) All dives can be undertaken using a dive computer and/or Nitrox (if qualified).

## 3. ORAL TESTS - To leading Diver Standard

To be carried out in warm or sheltered surroundings, and candidates encouraged NOT to be in diving suits, but warmly dressed.

The oral tests to be on the following:

- Dive Tables and Dive Computers
- Marine Charts/Tides/Weather
- Regulators and diving cylinders, maintenance and operation.

#### **4. PRACTICAL TESTS - To leading Diver Standard**

The test conditions to be as above for oral tests. The subjects to be:

- (a) Knots, roping.
- (b) Compressor operation.
- (c) C.P.R. and O<sub>2</sub> administration - Candidate to demonstrate proper procedure.
- (d) Boathandling

**N.B.** Jury President alone, to meet all candidates at the end of the first day, to enquire about the test from their perspective.



A National Diver is a very experienced diver who has logged a large number and wide variety of dives since becoming a Leading Diver. A National Diver will be capable of leading and organising divers in a broad range of diving activities.

## PREREQUISITES:

1. Be a Leading Diver for 2 years.
2. Log 100 dives, a minimum of 50% in Irish waters after becoming a Leading Diver.
3. Be recommended by the club D.O.

## LOGGING THE 100 DIVES:

1. All dives must be to a minimum of 10m.
2. Dives must be countersigned by the dive buddy.
3. Dives must be logged on the correct form.
4. When dives are completed, form must be countersigned by the D.O. and attached to the logbook.
5. The 100 dives must contain the following:

(a) Deep Dives	1 x 45m 5 x 40m 4 x 30m+
(b) Cold water dives (i.e. 1 Jan - 1 Mar) in Irish waters	2 dives
(c) Wreck dives	5 dives
(d) Fresh water dives	2 dives
(e) Night dives	5 dives
(f) Trainee dives	10 dives leading a trainee on a qualifying dive for club diver or leading diver





An Instructor I\* is a Leading Diver who has been trained and examined in the theory and practice of teaching divers and snorkellers, both in and out of the water, according to CFT's diving and snorkelling modules.

An MI\* is not qualified as an examiner, except of Snorkel and trainee divers at club level.

An MI\* may assist on suitable regional examinations under the supervision of examiners.

An MI\* may attend a Diver Emergency Responder Instructor and/or a Cox'n Instructor course, if successful can then assist in the provision of Emergency Responder and Cox'n courses.

## PREREQUISITES

1. Be an active Leading Diver (Diver \*\*\*)
2. Be 19 years of age or over
3. Have current medical as per CFT requirements
4. Letter of recommendation from the DO and RDO

## Moniteur I\* Course

### Brief

All candidates must attend a Moniteur I\* Brief where the course will be outlined. Each prospective candidate will receive a handout containing the details including the dates of the course, the study topics and assessment dates.

### COURSE OUTLINE

The course consists of two parts. Part one assesses theoretical knowledge and in-water skills prior to progressing. Part two of the course covers teaching and instruction techniques and includes an open water dive. Candidates must be successful in the theory and pool assessment prior to commencing part two.

## Part One - Theory

Candidates have a period of self study following the MI\* syllabus, to bring their knowledge up to the required standard – pitched at a knowledge level required to be an Examiner. Candidates are advised to arrange workshops and seminars for subjects they feel necessary.

### The Theory Syllabus

Candidates should have an in-depth knowledge of the subject matter required to teach the following courses and CFT Modules:

- Trainee Diver (Diver\*)
- Club Diver (Diver\*\*)
- Diver Emergency Responder
- Cox'n Diver
- Rescue Diver
- Leading Diver (Diver\*\*\*)

MI\*s should be familiar with the material covered in the Nitrox Diver, Extended Range Diver, Search and Recovery, and Gas Blending Modules. As further modules are developed these should also be studied. The level of knowledge required will enable an MI\* to organise and dive with these divers and provide necessary first aid treatment.

## Assessment

### 1. Theory

Four written papers will be taken at the end of the study period (no less than 4 weeks after the brief) under the following headings:

1. Physics – pass mark 60%
2. Physiology – pass mark 60%
3. General Knowledge – pass mark 60%
4. Decompression – pass mark 70%

Marks for papers 1, 2 and 3 can be combined to compensate, i.e. a total of 180 must be reached by combining the marks. Paper 4 must achieve a pass of not less than 70%, with no compensation allowed.

A Jury President and Jury will be appointed to oversee the marking of the papers.

### 2. Pool

All candidates will be assessed on the standard of their pool skills. All pool skills from D\* and D\*\* courses must be performed easily and confidently. The candidates will be assessed on each of the in-water skills they are asked to demonstrate – to include no less than:

- (i) Ditch and recovery of basic equipment
- (ii) Forward and backward rolls
- (iii) Towing with EAR
- (iv) Out of air exercise with buddy breathing
- (v) Ditch and recovery of full scuba equipment
- (vi) SMB deployment
- (vii) Methods of entries

A Jury President will be appointed to assess the pool skills. Help may be obtained from either the appointed Jury or local M2\*\*'s.

The written papers and the pool assessment must be passed in order to progress further.

## Part Two – Teaching

Part two of the MI\* will be directed by an M3\*\*\* as Course Director appointed by the NDO. The Course Organiser will usually be the RDO.

Part two of the course consists of a number of lectures on teaching and techniques in both the class and in-water situations. The candidates will then practice these teaching skills by giving and preparing lectures and pool instruction.

### Suggested Format

#### Weekend/session 1

##### Five-minute lecture

Each candidate will begin the course by presenting a previously self chosen topic for no more than five minutes. This will be reviewed, possibly using video, as part of the MI\* course by the course Instructors.

The first weekend/session of the course will cover all the lectures to be given to the candidates. All lectures of this first session will be presented by experienced Instructors to provide the candidates with a demonstration of teaching techniques.

##### Lectures

1. Introduction to CFT modules and standardised practical skills
2. Principles and Theory of Teaching
3. Preparation, Presentation & Planning of a Lecture
4. Visual Aids
5. In water Instruction
6. Instructor Responsibilities

##### Pool

The Course Director will organise this first pool session as a demonstration of organising and teaching in the pool to the candidates. In this first session each candidate will also instruct a group in the pool in at least one snorkelling and one scuba skill.

#### Weekend/Session 2, 3 and 4 (if required)

The following weekends/sessions will be used for completion of the instructor modules and candidates practice sessions.

##### Modules

The following modules will be given:

1. Diver Emergency Responder Instructor module
2. Cox'n Instructor module

These two modules may be taken by MI\* candidates as part of the MI\* course. They may be taken at any other time only by a qualified MI\*.

If a candidate is unsuccessful in either of these modules the rest of the Moniteur I\* can be completed and passed. However the candidate may not teach on the specific course, Emergency Responder or Cox'n until the module is successfully completed. If a candidate passes the above modules but is unsuccessful in the Moniteur I\* he/she may not teach on either of the courses.

## Candidate instructional skills

The candidates will practice their instructional skills by:

- (i) Giving lectures
- (ii) Organising and teaching in the pool
- (iii) Open water dive

(i) **Lectures** – minimum 4 per candidate

Any of the module lectures from D\*, D\*\* or Rescue can be used.

(ii) **Pool** – minimum three pool sessions (3 x one hour)

(iii) **Open water dive** – an open water dive is to be done to practice demonstrating a skill from the Diver\* or D\*\* training modules.

### Organisation

The candidates will be responsible for the organisation of the pool

### Instruction

All candidates will use the pool time to practice wet teaching techniques

## Final Assessment

An appointed Jury will examine the candidates under the guidance of a Jury President.

The final exam consists of four elements:

- (i) Presentation of module lecture
- (ii) Presentation of non-module lecture
- (iii) In-water practical instruction (confined water)
- (iv) In-water practical instruction (open water)

(i) Module lecture

The lecture should not last for more than 30 minutes (this will preclude some lectures from the module). The Course Director will choose the lecture topic for each candidate no more than 2 weeks prior to the final assessment.

(ii) Non-module lecture

The candidate will plan, prepare and present a 15-minute non-module lecture. The list of possible subjects from which the candidate may choose will be drawn up nationally and provided to the Course Director by the NDO. The candidates will choose their topics no more than 4 weeks prior to the final assessment (candidates must choose different topics).

The non-module lecture should be directed at Instructor level.

(iii) In-water practical instruction (confined water)

The candidate will be assessed instructing on one pool skill from the D\* or D\*\* training module. The Jury President will organise the pool and choose the pool skill for each candidate.

(iv) In-water practical instruction (open water)

The candidate will be assessed during an open water dive instructing on one open water exercise from the D\* or D\*\* training modules. The jury president will organise the dive and choose the exercise for each candidate. The dive can be conducted from the shore or a boat and must not exceed 10m in depth.

The candidate will be assessed doing a full dive briefing and pre-dive checks prior to the dive, and a post dive de-brief.

A simulated surface emergency should be conducted and assessed.

## Template Programme for Regional Diving Officers and Course Directors

### October: MI\* Brief

Candidates will be given a handout detailing the contents of the MI\* course, together with the topics of relevance and the suggested texts for reference.

The date for the written papers will be set at this time. The RDO and the Course Director will set the date for the pool assessment, as this will be dependant on local availability.

### November/December (no less than 4 weeks after the brief) – Written papers

The written papers will be taken on a single day and marked by a Jury, under the guidance of an M3\*\*\*.

Pool assessment must be passed before the start of the second part of the course.

### January – Part two of MI\* course

The programme must be designed to allow for each candidate to practice:

- Module lectures x 4
- Pool Briefing x 3
- Pool instruction x 3 (wet practical instruction)
- Pool organisation x 2

The programme may be designed to allow for each candidate to practice:

- Diver Emergency Responder Instructor Module (dry practical instruction)
- Cox'n Instructor Module (1 day)

### Final Assessment

Examined by Jury under a Jury President

Non- module lecture – topic no more than 4 weeks prior to final assessment

Module lecture – topic no more than 2 weeks prior to assessment

In water instruction – one skill from D\* or D\*\* chosen on the day

Open water Dive

### Suggested Programme

#### Weekend I

It will be necessary to alter the programme to accommodate pool times – however it should be noted for the candidate to get the maximum benefit from pool time the Pool/Wet Instruction Techniques lecture and Pool Briefing workshop should be completed first.

#### Saturday

Morning - Lectures

- Five-minute topics by candidates
- Introduction to CFT modules and standardised practical skills
- Principles and Theory of Teaching
- Pool/Wet Instruction techniques

Afternoon - Practical Workshop:

- Pool Briefing Techniques
- Standardised pool teaching techniques

**Sunday**

Morning - Lectures

Presentation of Lecture

Visual Aids

Diver Emergency Responder Instructor module

Instructor Responsibilities

Afternoon - Practical workshop

Pool Organisation

Use of visual aids

Lecture topics from modules handed out – 2 per candidate

**Weekend 2**

**Saturday**

Morning

Module lectures – first lecture for each candidate

Pool organisation – by candidates

Afternoon - Practical Workshop

Pool Briefing

Lecture preparation and planning

**Sunday**

Morning

Module Lectures – second lecture for each candidate

General feedback from lectures

Afternoon - Workshop

Diver Emergency Responder Instructor Module

General feedback from pool

Lecture topics from module handed out – 2 per candidate

Non-module lecture topic for final assessment chosen by candidates

**Weekend 3**

**Saturday**

Morning

Module lectures – first lecture for each candidate

Pool organisation – by candidates

Afternoon - Practical Workshop

Pool Briefing

Feed back on pool organisation

**Sunday**

Morning

Module Lectures – second lecture for each candidate

General feedback from lectures

Afternoon - Workshop

General feedback from pool

Open water instructional dive

Feedback on open water instructional dive.

Course Debrief

Lecture topics for final assessment chosen by Course Director



## I: INTRODUCTION.

### I.1 Aims and Principles

This course is designed to provide a basic introduction for CFT examiners to the principles of assessment and the way in which the CFT exam system operates.

The course assesses the ability of the candidates under four headings:

- (a) Suitability as an examiner.
- (b) The ability to organise a test.
- (c) The ability to fairly assess a candidate's performance.
- (d) Co-operation with other Moniteurs as a member of a jury

This course is a compulsory course for Instructors \* (Moniteurs \*) wishing to proceed to the level of Instructor \*\* (Moniteur \*\*). It may be taken any time after the Instructor \* certificate is awarded, but must be satisfactorily completed before a newly qualified Instructor \* is allowed to act as a Trainee Juror on Leading Diver, Instructor \* , Rescue Diver or Diver Cox'n Exams.

The basic principle underlying this course is that each participant should rehearse and develop the skills required to develop candidates for C.F.T. exams.

### I.2 Assessment

A jury of Leading Instructors (Moniteurs \*\*\*), or Instructors \*\* who have successfully completed the Juror Training Course, in the ratio of 1 juror to two candidates, will oversee this course. A Jury President will be nominated by the National Diving Officer. The jurors will assess the performance of each candidate and contribute to all briefing and debriefing sessions. Each candidate will receive a full assessment of their performance and an individual debrief at the end of the course. Candidates who do not perform adequately under the four categories listed in I.1 above will be asked to repeat the course. It is intended that self-assessment by candidates will also play an important role.

### I.3 Prerequisites

- (1) Candidates should hold the Instructor \* certificate.
- (2) Letter of recommendation from the candidate's club D.O. stating that he/she has been active within the club or C.F.T.
- (3) The candidate must hold a current Active Diver Certificate.

## 2: CONTENT

It will consist of a series of lectures and the candidates individual assessment of

1. Wetwork, (20 M)
2. Lecture.
3. Written work.

### 2.1 **Wetwork:**

The candidate, while on a dive to 20m, will assess another diver carrying out an exercise from the current C.F.T. set of courses. For example a skill from the current "Rescue Diver" course, or indeed any skill from the current list of courses.

The candidate will discuss the exercise & allocate a mark, this mark should agree, within reason, with the experienced juror's assessment, if the candidate is to pass.

### 2.2 **Lecture**

The candidate will assess a lecture, of 15 mins. duration, using the marking sheet from the Instructor's Handbook.

The candidate will take part in a discussion of the lecture & allocate a mark for same. Again, this mark must coincide with the experienced Jurors assessment, if the candidate is to pass.

### 2.3 **Written Work**

The candidate will assess the written answers from an Instructor \* (Moniteur \*) paper, in other words "correct" a paper. A full discussion will take place & a mark will be allocated to the paper. Again, this mark will coincide with the Jurors assessment, if the candidate is to pass.

## 3: ORGANISATION:

The course will run for a full day & proper safety procedures will be observed throughout the course.

## **Juror Training Course**

### **SUGGESTED AGENDA**

- 9.00 Registration.
- 9.15 Introduction:- C.F.T. Examination.  
Jury Scheme.  
Assessment Techniques.
- 10.00 Exercise Assessment:- Rescue Lift from 20 metres.
- 12.00 Discussion and Debrief
- 1.00 Lunch.
- 2.15 Jury Role Playing Discussion.
- 3.15 Lecture Assessment.
- 4.00 Written Work Assessment.
- 5.00 Debrief and Discussion.



An Instructor \*\* (Moniteur \*\*) is an experienced instructor who is qualified to teach and examine all grades of diver and may teach and examine Instructors \*.

## PREREQUISITES

1. Must hold the Instructor \* (Moniteur \*) cert. for minimum of 1 year.
2. Must have worked regularly within the club since becoming an instructor.
3. Must have assisted the R.D.O. in the organising of at least 2 courses e.g., lecture to a club etc.
4. Must have attended & attained a pass in the "Juror Training Course".
5. Must, on completion of the "Juror Training Course", be assessed as a trainee Examiner on the following juries:
  - (a) Leading Diver
  - (b) Rescue Diver
  - (c) Assist at a "Club Diver Test"
  - (d) Assist at a "Diver Cox'n Test"
  - (e) Assist at a "Diver Emergency Responder Course" (both instructing and assessing candidates).
  - (f) Instructor \* (Moniteur \*)

**Juries (a) to (e) must be attended first before the trainee Examiner is assessed on jury (f).**



This grade represents the highest level of teaching and technical competence as well as the highest diving grade. It is awarded following examination and empowers its holder to act as Jury President on C.F.T. tests, to prepare and carry out diving courses and tests under the direction of the N.D.O. and Technical Commission, be elected or nominated to the Technical Commission, and to hold the position of President of the Technical Commission (N.D.O.).

## General Requirements

A candidate presenting for this examination must

- be a capable Instructor both in water and in a class room situation.
- be proficient in the organisation necessary to lead large groups of divers safely.
- be competent in the performance of all tasks as required by each C.F.T. test.
- be competent in the organisation of all C.F.T. courses and tests as laid down in the current Courses & Tests Handbook.
- be able to deal with any emergency situation that may arise either wet or dry and to act accordingly.
- be capable of assessing the capabilities of others while acting as an examiner.

## Prerequisites

1. Be a National Diver for a minimum of one year.
2. Be an Instructor \*\* (Moniteur \*\*) for a minimum period of one year prior to starting the Leading Instructor (Moniteur \*\*\*) programme.
3. Be at least 21 years of age.
4. Have worked regularly with a club or within C.F.T. since obtaining the Instructor \*\* (Moniteur \*\*) certificate.
5. Be an Active Diver.
6. Produce a letter of recommendation from the Club Diving Officer.
7. Have notified the N.D.O. and paid the appropriate fee by the required date.

## Examination Requirements

The test will be carried out in three segments:

1. The written theory.
2. The prepared lecture and jury president role play exercise.
3. The week practical test.

**Segment I****THEORY EXAMINATION**

Candidates must have a working knowledge of the following subjects with particular relevance to diving - Physics, General Knowledge, Dive Tables, Physiology, Prevention and Treatment of Diving Accidents and all sports diving equipment.

1. There will be four papers, each of two hours duration.  
 Paper 1 Dive Tables/Prevention & Treatment of Diving Accidents.  
 Paper 2 Physics  
 Paper 3 Physiology  
 Paper 4 General Knowledge
2. Pass Mark.  
 Paper 1                    70% Compulsory Pass.  
 Papers 2,3,4,            60% each \*

\*Carry over: where a combined mark of not less than 180 is achieved, the candidate will be allowed a "carry over", provided a pass has been reached in two of these papers, and not less than 45% on the third, e.g.  $65\% + 63\% + 46\% = 174$  (not passed), whereas  $65\% + 70\% + 47\% = 182$  (a D pass).

3. No resit of papers will be allowed because of the above rule.

**Guide to the Theory Examination**

1. Each paper will be written by not less than two Leading Instructors (Moniteurs \*\*\*) one of which will be a current member of the T.C., who in conjunction with the Jury President will comprise "The Theory Sub-Committee".
2. Each paper will be of 2 hours duration, distributed 5 mins before answering can begin.
3. The papers when supplied by the writers will be complete with answers.
4. The papers may have not more than 1 compulsory question, which may have more than 1 part but not more than 4.
5. Each paper will have a choice of not more than 2 questions.
6. The questions must seek information which should be reasonably specific (not just one line answers) Except in multipart questions.
7. The marks for each question will be indicated clearly.
8. The Jury President in conjunction with the N.D.O. may demand that questions be re-written or deleted. This is to be done by the writers.
9. Where possible, corrections to the papers will be done by the Theory Sub-Committee, other members of the Jury may also be used.
10. In the event of a border line case the Jury President may ask other members of the Jury to do a second correction. If the first marking fails, and the second marking passes, the Jury President will make the final decision.
11. Only one re-mark is allowed of each paper should it be necessary.
12. In the event of an appeal by a candidate, the Theory Sub-Committee will deal with the appeal and make a decision.
13. A final appeal may be taken to the N.D.O. only after going through the Theory Sub-Committee.

**The Examination Place**

1. The room should be warm -- well lit -- and as quiet as possible.
2. Each candidate will have their own seat and writing space and be sufficiently separated.
3. Only the answer paper supplied is allowed to be used.
4. Candidates are allowed to bring their own pens -- pencils -- rulers and non-programmable calculators -- Dive Tables.
5. Where papers are being held consecutively there must be at least a 30 minute break between each paper.
6. The Jury President will notify the candidates of their results in writing.

## Segment 2

### THE LECTURE AND JURY PRESIDENT ROLE PLAYING EXERCISE

#### Prepared Lecture

1. After passing the written theory papers, candidates will be given a minimum of four weeks notice of the topic and date of delivery of the prepared lecture.
2. The lecture topic will NOT be chosen from an existing Module, but will be diving related.
3. Each lecture will be of 30 minutes with 10 minutes of questions afterwards or 40 minutes including questions and will be delivered at Leading Instructor (Moniteur \*\*\*) level.
4. The pass mark for the lecture will be 70%.
5. There will be no retake of this lecture, the candidate may carry an E from here.

#### Jury President Role Playing Exercise

1. Candidates will be presented with a "Problem Area" from a Test or Course, which they will deliberate on, and forward a solution.
2. The results for this segment, where possible, will be given out verbally at the end of this session.
3. After these results there may be a brief of all candidates to discuss the logistics of the practical week.

#### Assessment Test

Demonstrate his/her ability to assess theory papers and make the decisions required of a Jury President. This portion of the test will be carried out at the time of delivery of the Prepared lecture.

## Segment 3

### THE PRACTICAL WEEK ASSESSMENT

#### Swimming/Snorkel/Scuba Tests

These tests will take place over the period of one week. They will be organised to assess the skills and abilities of each candidate. The candidate will be assessed and awarded a grade for Dive Leadership on each dive throughout the practical week.

1. Swim 200 metres in 6 minutes. Recover a neutrally buoyant diver from 5 metres and give support on the surface for 2 minutes.
2. Breath holding test. With your face in the water, hold your breath for 20 secs, surface for 10 secs and repeat for 20 secs.
3. Snorkel dive to a depth of 15 metres.
4. Snorkel 1500 metres without difficulty.
5. Fin 1000 metres in full equipment, properly weighted.
6. The candidate will be required to demonstrate compass work during the course of the week.
7. Rescue a diver from 30 metres. This dive will be terminated at the 6 metre mark to allow for decompression stops. The rescue may be continued on the surface after that time.
8. Demonstrate a surface tow with EAR and land the victim into a boat.
9. Demonstrate alternate air use while on the move.
10. In full equipment, ascend from 30 metres without the use of fins.
11. Remove your mask and swim beside the examiner for 2 minutes.
12. Carry out a free ascent from 30 to 15 metres in not less than 1 minute. A shot line will not be used. The mouth piece will be retained in the mouth.
13. Lead a dive to 45 metres demonstrating safety. On the bottom test signals and tie a knot in a rope.
14. Ascend from 30m to 15m without using fins.
15. Instructional dive. Introduce a Trainee Diver (Diver \*) to his first 20m dive.
16. Teach a skill to a Trainee Diver under sea conditions i.e. buddy breathing, buoyancy etc.

Scuba exercises may be carried out during any dive undertaken over the week of the test. Where applicable, safety stops should be completed.

### Practical Test

1. Lead a discussion for 15 minutes on a topic, test or course as designated by the Jury President. Candidates will be given 30 minutes preparation time, after which he/she will be expected to introduce the subject for the first 5 to 6 minutes, then lead the jury into discussion for the remainder of the time.
2. Demonstrate his/her ability to assess the water skills as performed at Rescue Diver Tests and to grade them appropriately.
3. Undertake an oral examination in the following subjects: Weather & Tides, Charts, Knots & Ropes, First Aid and the Treatment of Diving Accidents, Computers, Dive Tables, Compressors, Diving Equipment. Candidates will require a working knowledge of these subjects. The oral test will not exceed 15 minutes per subject.

### General Information

The jury will be selected by the N.D.O. in conjunction with the Jury President. Jury selection must be done well in advance of the test proper as a large volume of preparatory work will be expected of them.

A C.M.A.S. representative may be invited to attend.

Candidates will be requested to nominate a spokesperson to act as liaison between the Jury President and the candidates.

Diving will alternate between hard boat and R.I.B./inflatables.

### Suggested Reading

All C.F.T. Modules

Courses and Tests Handbook.

C.F.T. Dive Tables Booklet.

Deeper into Diving by John Lippmann

Diving Medicine for Scuba Divers  
by John Lippman .

Physics. 5th Edition, by A.F. Abbott.  
A Heinemann Education Publication.

Computers. Operating Manuals.

All B.S.A.C. Dive books.

All old past diving examination papers.

## Diving Format for Leading Instructor (Moniteur \*\*\*) Practical

All diving must be done on a dive computer. Safety stops must be observed and no mandatory decompression diving.

<b>Saturday</b>		Arrival, accommodation, brief of the candidates and the jury.
<b>Sunday</b>	1000hrs brief	All prerequisites managed by the jury. 200m swim and lift. Breath hold test. Snorkel dive. 1500m snorkel. 1000m fin in full equipment. Note: in the interest of safety, the safety diver on the rope will not dive again during the day.
	1430hrs brief	20m Dive. Navigation test. Choice of: (a) Triangular course, 120° turns. (b) Square course, 90° turns. Swim without a mask for two minutes.
<b>Monday</b>	0900hrs brief	30m dive. Alternate air supply, i.e. buddy breathe or use an octopus regulator. Free ascent from 30 to 15m breathing out.
	1430hrs brief	20m dive. Teach a skill e.g. buoyancy control, examiner dives as a trainee.
<b>Tuesday</b>	0900hrs brief	30m Dive. Rescue lift 30 to 6m. Demonstrate surface management, tow and recover the victim into the boat.
	p.m.	No dive. Practical and theory tests.
	2100hrs brief	15 to 20m night dive. Last diver out by 0030hrs.
<b>Wednesday</b>	a.m.	Practical and Theory tests. Discussion session.
	1500hrs brief	45m dive. Mid-water, off a reef by app. 70m. Dive beside a shot-line, but not making contact unless absolutely necessary, examiner should place him or herself between the candidate and the shot. On a compass bearing ascend up the reef.
<b>Thursday</b>	1000hrs brief	30m dive. Ascend to 6m without the use of fins in full equipment. This dive should be an enjoyable adventurous square profile dive.
	1500hrs brief	20m instructional dive. Suggested skill is S.M.B. deployment. This will include shore instruction prior to the dive.
<b>Friday</b>	1000hrs brief	30m adventurous leadership dive. Main objectives: 1. good dive profile, 2. enjoyable. (Candidates may also be retested as necessary on any of the dives above.)
	p.m.	Jury wrap up, results, debrief.
<b>Saturday</b>		Return home.



This is a Leading Instructor who has been active as a teacher and examiner since being awarded that certificate.

### **Prerequisites**

Candidates may be nominated for National Instructor (Moniteur \*\*\*) after completing the following: -

1. Be a Registered member of C.F.T.
2. Be an Active Diver.
3. Have assisted on two Leading Instructor Examinations,

or

Have served in the role of President of the Technical Commission and assisted on one Leading Instructor Examination.

All nominations shall be laid before a meeting of the Technical Commission which shall decide whether or not to award the National Instructor Certificate.



# Drysuit Divers Course - Practical

Sept  
2002

This is a voluntary course for any diver unfamiliar with his/her drysuit. No certification is offered.

The student, who should be competent with scuba in the pool, should have attended the Drysuit lecture before undertaking the practical. An instructor should brief, supervise and debrief the student.

A full set of equipment is needed plus the student's own drysuit

## BRIEFING

- Correct weighting
- Buoyancy considerations
- Buoyancy changes/inversion problems

The following may take place in the pool or sheltered water:

1. Don drysuit, squat and vent
2. Enter shallow end, fit mask, snorkel, fins
3. Fin two lengths of the pool to get the feel of the drysuit on the surface
4. Fit weightbelt plus usual scuba equipment
5. Put just enough air in the drysuit to achieve comfort
6. Inflate B.C. to achieve neutral buoyancy
7. Dump B.C. and sink; re-inflate
8. Adjust weighting until above is achieved
9. Proceed to deep end on surface scuba
10. Dump B.C. for feet-first descent. On bottom add air to drysuit to regain comfort factor. Use B.C. to regain neutral buoyancy
11. On bottom, disconnect drysuit whip; reconnect, repeat
12. Short swim across pool
13. Slowly ascend, dumping both B.C. and suit to control ascent rate; inflate B.C. on surface

Repeat steps 10 through 13 until Instructor is satisfied.

When the student has completed all of the above to the satisfaction of the attending Instructor, they may then proceed to the inversion exercise.

## INVERSION EXERCISE

Over-inflate suit on the surface. Regain control and vent by **squat - roll - upright - dump**. Repeat.

Inflate suit to achieve head-down position on **surface**.

**Again, squat - roll - upright - dump.**

Use B.C. to achieve neutral buoyancy.

Care must be taken that this exercise be performed on the **surface only**.

Repeat until satisfactory.

## **FLOODED DRYSUIT**

This exercise to be performed on snorkel, and under careful supervision.

Deliberately flood drysuit by opening zip. The student can see what it is like to fin with their suit flooded.

Snorkel to bottom of pool and ascend. This exercise will increase overall confidence.

## **OPEN WATER**

Following pool/sheltered water training, an open water dive to a maximum of 10 m, under supervision and led by an Instructor may take place. Remember to adjust weightbelt for saltwater.

On the surface, before the dive, repeat the inversion exercise.

**Descent** - controlled, meaning:

Air in suit for comfort;

Air in B.C. for buoyancy control.

**The Dive** - buoyancy control, adjustments.

Dive should be well within safety limits of tables to minimise nitrogen uptake before ascent is commenced.

**Ascent** - controlled. Dump excess air from suit and B.C.

Ensure buoyancy correct for safety stop.



# Search and Recovery Diver

Mar  
2004

## PREREQUISITES

Candidates must:

1. Be a registered member of C.F.T.
2. Have a minimum qualification of Club Diver (C.M.A.S. Diver \*\*).
3. Have current certificate(s) of fitness to dive.
4. Be an Active Diver

Instructors must:

1. Be a registered member of C.F.T.
2. Have the minimum qualification of Moniteur I\*
3. Have current certificate(s) of fitness to dive.
4. Be an Active Diver
5. Be an active Search and Recovery diver.

## COURSE OUTLINE

### Notes:

1. The typical course will be undertaken over two days or equivalent. Theory can be covered in a single session. The practical must be completed to the satisfaction of the Instructor and Course Director in the allotted sessions. If this is not achieved then further practical sessions will be necessary before the certificate can be awarded. Dives should be managed in accordance with C.F.T. recommendations.
2. Solo diving may be undertaken on the course if the required equipment is available for use. If a Search team acquires suitable equipment it will be necessary for this training to take place.
3. Courses will be run in club and on demand. The minimum number required will be eight.

## LECTURE SCHEDULE (4 hours)

1. Background
2. Introduction
3. Callout
4. Safety – including Workshop on Safety Statement
5. Equipment
6. Search Methods
7. Recovery

## PRACTICAL SKILLS (12 hours minimum)

### Dry work:

1. Rope signals
2. Setting up equipment for each of the search methods
3. Rope-man from bank and boat – ensure search area is covered
4. Stand-by diver – readiness of response
5. Care and maintenance of full face masks and radio communications equipment

### Wet Work:

1. All search patterns to be attempted – individual divers playing differing roles in each search
2. Search in nil visibility – real or simulated (blacked out masks)
3. Search in still and flowing water

Practical skills can be combined to make the best use of time and resources.

## **ASSESSMENT**

1. **Written:** - A supervised written paper will be taken at the end of the theory sessions and the time allowed is one hour. Papers are issued by C.F.T.
2. **Practical:** The Instructor will assess the competence and suitability of the candidate throughout the practical sessions of the course. An assessment sheet will be used to grade each skill for the individual diver.

Successful completion of all aspects of the course will be required for certification.

The successful candidate will receive a dated certificate valid for two years. A Search and Recovery diver will require refresher training every two years to maintain status.



# USE OF V.H.F. RADIO

Nov  
2000

1. Operators must hold a Restricted Certificate of Competency in Radiotelephony (Information from the Department of Communications, Marine V.H.F. Section.)
2. V.H.F. transmission is line of sight, that is, one aerial should see the other.  
Normal communication to/from inflatables is 2.5 to 4 nautical miles.
3. Channel 16 (CH16) is the International Distress, Safety and Calling frequency.
4. **DISTRESS:** "MAYDAY" (spoken 3 times) when imminent danger to people or vessel.  
**URGENCY:** "PAN PAN" (spoken 3 times) when in need of assistance, but not life threatening. ("Pan Pan Medico" for medical assistance).  
**SAFETY:** "SECURITE" (spoken 3 times) for navigational hazards, weather warnings, or other important information to vessels.

Distress and Urgency are given on CH.16; Safety given on a working channel.

5. **TO OPERATE:** \*Hold upright approximately 4" away from mouth.  
\*Call on CH.16. When contact is made, move to agreed channel to speak further.  
This channel should not be local station in use.  
\*Speak slowly and clearly.
6. **IN EMERGENCY:** Give the following;
  - (a) Your call sign (e.g. Name of vessel).
  - (b) Location (include local landmarks).
  - (c) Nature of problem and assistance required.
  - (d) Number of personnel involved.
  - (e) Information of any location change.
7. Silence must be observed by all other users during transmissions.
8. Radio silence is observed by all stations on CH.16 for 3 minutes past every hour and half-hour, except in an emergency.
9. **IT IS FORBIDDEN:**
  - To use bad language.
  - To make unnecessary transmissions.
  - To make false or incorrect distress, safety or I.D. signals.
10. A C.F.T. VHF cert will be issued for insertion into the logbook on producing proof of passing the written Department of Communications examination.



## PREREQUISITES

Candidates must:

1. Be a registered member of C.F.T.
2. Have a minimum qualification of Club Diver (C.M.A.S. Diver \*\*).
3. Have a current certificate(s) of fitness to dive.

Instructors must:

1. Be a C.F.T./C.M.A.S. Moniteur\*\* (minimum).
2. Be a Nitrox Instructor.
3. Have carried out work-up dives.

## COURSE OUTLINE

1. The typical course will be undertaken over two days or equivalent. Theory can be covered on the first day and the dives completed on day two. Dives should be managed in accordance with C.F.T. recommendations; i.e. deeper dive to be conducted first.
2. Courses will be run regionally and on demand. The minimum number required will be eight.

## LECTURE SCHEDULE

1. Course outline
2. Introduction to Nitrox Diving
3. History and Development of Nitrox
4. Nitrox Physiology
5. Oxygen Tracking
6. Dive Tables and Equivalent Air Depths
7. Dive Planning
8. Nitrox Preparation, Storage and Analysis

## PRACTICAL SKILLS

1. Dive (10 – 20m) on Nitrox mix. Candidates must show equipment familiarisation by carrying out correct equipment checks prior to dive and good buoyancy control on the dive.
2. Dive (15 – 25m) on Nitrox mix. Candidates must show good practices from Dive 1, and also plan Dive 2 – taking into account depth, mixes, duration, tables, gas consumption and CNS%.

## ASSESSMENT

1. Written examination: - A supervised written paper will be taken at the end of the theory sessions and the time allowed is one hour. Papers are issued by C.F.T.
2. Dive: - Candidates' dive practices will be assessed during the two Nitrox dives. Qualified Nitrox divers who are also C.F.T. Instructors may assess candidates on dives but feedback will be through the Nitrox Instructor.

Successful completion of all aspects of the course will be required for certification.

On successfully completing the theory sessions, written examination and exhibiting safe dive practices, a candidate will be issued with a C.F.T. Nitrox Diver certificate and a CMAS Nitrox Diver brevet.



# Extended Range Diver

Feb  
2004

## PREREQUISITES

Candidates must:

1. Be a registered member of C.F.T.
2. Have a minimum qualification of Nitrox Diver and Rescue Diver.
3. Have a current certificate(s) of fitness to dive.
4. Have an additional 100 dives logged since qualification as Diver\*\* of which at least 10 must be Nitrox dives.
5. Carry out work-up dives. Have at least two work-up dives in the previous three weeks to depths between 30 and 40m.
6. Must be a minimum of 18 years of age.

Instructors must:

1. Be a C.F.T./C.M.A.S. Moniteur\*\* (minimum).
2. Be an Extended Range Instructor.
3. Have carried out work-up dives as above.

## COURSE OUTLINE

Courses will be run regionally and on demand. The minimum number required will be eight.

Minimum equipment required for participation on the course:

1. Secondary buoyancy device
2. Nitrox cylinder and regulator
3. Secondary depth gauge
4. Secondary Timer
5. Reel and SMB

## LECTURE SCHEDULE

1. Course Outline
2. Introduction to Extended Range Diving
3. Nitrox Overview
4. Equipment and Kit Configuration
5. Nitrox and Decompression
6. Gas Management
7. Dive Planning
8. Practical Planning Exercises

## PRACTICAL SKILLS

Shallow water (10m)

Equipment familiarity & buoyancy check

Work out Respiratory Minute Volume.

Regulator switches

Reel and S.M.B. deployment

Bottom line deployment from reel

Deep water (30 – 50m)

Dive plan

Deployment of decompression station

Reel work on bottom

Gas switch on ascent

Decompression on station

Recovery of station

**SUGGESTED SCHEDULE:**Day One - Saturday

9:30 a.m.	Course Introduction	10 mins
	Introduction to Extended Range Diving	20 mins
	Nitrox Review	60 mins
	Equipment	60 mins
12 noon	Lunch	
1 p.m.	Nitrogen and Decompression	60 mins
	Gas Management	45 mins
3 p.m.	Shallow dive	

Day Two - Sunday

10 a.m.	Dive Planning	60 mins
11 a.m.	Workshop	60 mins
12 noon	Theory Assessment	
1 p.m.	Lunch	
2 p.m.	Deep dive	
	Course debrief	

This ensures the diving is conducted within C.F.T. recommendations.

**ASSESSMENT**

## 1. Written Paper

At the end of the theory sessions, a supervised written examination will be undertaken. The maximum time allowed is one hour. The pass mark on this examination will be 80%. Examination papers will be those issued by C.F.T.

## 2. Practical Assessment

Instructors will assess candidates' dive practices on each dive. If further instruction is required the instructor will inform the R.D.O. Candidates requiring further dive practice instruction will only receive certification on completion of this.

On successfully completing the theory sessions, written examination and dives, a candidate will be issued with a C.F.T. Extended Range Diver certificate and CMAS Advanced Nitrox Diver brevet.



## PREREQUISITES

Candidates must:

1. Be a registered member of CFT
2. Have a current diving medical
3. Be a Nitrox Diver
4. Have the Club Diving Officers recommendation

Instructors must:

1. Be a Gas Blender Instructor

The course will be run over one day.

## THEORY (4 hours)

- |  |            |
|--|------------|
| 1. Introduction to course                        | 10 minutes |
| 2. Development of Gas Blending for Sports Divers | 10 minutes |
| 3. Basic Nitrox Theory – Review                  | 20 minutes |
| 4. Gas Properties                                | 20 minutes |
| 5. Blending Methods                              | 45 minutes |
| 6. Blending Theory                               | 30 minutes |
| 7. Hazards                                       | 30 minutes |
| 8. Oxygen Cleaning                               | 30 minutes |
| 9. Standards                                     | 30 minutes |

## PRACTICAL (2 hours)

The practical will be guided by the method of blending available to the Blender Instructor. Each Gas Blender will

1. Be instructed in the partial pressure method of mixing.
2. Be required to fill a cylinder, performing all tasks necessary to ensure safety and the correct final mix.

## ASSESSMENT

1. A short written test will be taken. The test is an open book exam; the pass mark is 80%. This will ensure the candidate has an understanding of the theory and techniques involved in gas blending
2. The candidates' performance during the practical will be assessed by the Instructor

Only candidates showing good safe blending practices, techniques and attitude to gas blending will be successful. A C.F.T. Gas Blender certificate will be issued for the Logbook.



## PREREQUISITES

Candidates must:

1. Be a registered member of CFT
2. Have a current diving medical
3. Be a Nitrox Diver and M2\*\* Instructor
4. Have logged a minimum of 30 nitrox dives
5. Have the Club Diving Officers recommendation to undergo the course

One-day course consisting of practical and theory. The Course Director must be an Instructor Trainer.

## THEORY

1. Aims of Nitrox course
2. Nitrox course overview
3. Practical workshop. Instructor candidates will be required to work through nitrox theory, oxygen tracking and dive planning, demonstrating sound knowledge of the nitrox course.

## PRACTICAL

1. Dive demonstrating good nitrox practices
2. Proper gas analysis & tagging demonstration.

Maximum instructor candidates to instructor is 4:1 for the dive

All nitrox cylinders brought to be properly labelled.

## ASSESSMENT

The Instructor candidate will be assessed throughout the course on their knowledge of the Nitrox course and safe dive practices. Instructor candidates will be expected to exhibit good teaching skills and the correct attitude to instruct this course. Successful candidates will receive CMAS Nitrox Instructor certification.



## PREREQUISITES

Candidates must:

1. Be a registered member of CFT
2. Have a current diving medical
3. Be a Nitrox Instructor
4. Have logged a minimum of 30 extended range dives (10 of which to be between 45 & 50 meters)
5. Have assisted on an Extended Range course
6. Have the Club Diving Officers recommendation to undergo the course

One-day course consisting of both theory and practical. The Course Director must be an Instructor Trainer.

## THEORY

1. Aims of Extended Range course
2. Extended Range course overview
3. Practical workshop. Instructor candidates will be required to work through nitrox theory, oxygen tracking and dive planning, demonstrating sound knowledge of extended range diving equipment and techniques.

## PRACTICAL

1. Demonstration of equipment required for extended range diving—Instructor candidates will be required to talk through their own equipment and configurations, identifying the advantages and disadvantages.
2. Extended range decompression dive, deploying a decompression station. Dive to be between 40 and 50 meters.
3. During the dive the instructor candidate should demonstrate reel work on the bottom and mid water SMB deployment

Maximum instructor candidates to instructor is 4:1 for the dive

## ASSESSMENT

The Instructor candidate will be assessed throughout the course on their knowledge of the Extended Range course and decompression dive practices. Instructor candidates will be expected to show an awareness of the difficulties of Extended Range diving and will require a positive attitude in order to successfully teach the course. Successful candidates will receive CMAS Advanced Nitrox Instructor certification.



# Gas Blender Instructor

Feb  
2004

## **PREREQUISITES**

Candidates must:

1. Be a registered member of CFT
2. Have a current diving medical
3. Be a Nitrox Instructor
4. Have the Club Diving Officers recommendation to undergo the course
5. Assist Blender Instructor on one Blending course

## **THEORY AND PRACTICAL**

The candidate will show good safe blending teaching practices, techniques and attitude to gas blending throughout whilst assisting on courses.

## **ASSESSMENT**

The Blender Instructor will assess the candidate throughout the course on their knowledge of the Gas Blending course and their practical skills. A C.F.T. Gas Blender Instructor certificate will be issued.



## **PREREQUISITES**

Candidates must:

1. Be a registered member of CFT
2. Have a current diving medical
3. Be a Extended Range Instructor
4. Be an M3\*\*\*
5. Have the National Diving Officers recommendation to undergo the course
6. As an Instructor must have instructed on one Nitrox course
7. As an Instructor must have instructed on one Extended Range course
8. Must assist an Instructor Trainer on one Nitrox Instructor OR Extended Range Instructor course

## **THEORY**

The Instructor Trainer candidate must have full knowledge in all areas of the Nitrox and Extended Range course to the satisfaction of the Instructor Trainers.

## **PRACTICAL**

The Instructor Trainer candidate must take part in the practical elements of both courses assisted on, showing sound, safe dive practices to the satisfaction of the Instructor Trainers.

## **ASSESSMENT**

An Instructor Trainer candidate will require recommendations from the Instructor Trainers where the candidate assisted on courses. Only those candidates that exhibit the correct attitude during the running of these courses will be successful. The Logbook will be stamped to show Instructor Trainer status.



## Safety Recommendations

The following recommendations have been produced in a bid to promote the safe integration of Semi Closed and Closed Circuit rebreathers within the club and C.F.T. as a body.

The most important thing that must be remembered is that no matter how well qualified a diver is on open circuit, a new rebreather diver becomes a diver under training and must again build and practise skills progressively, and be fully aware of all the dangers involved in going beyond the limitations of their training and experience.

Mixed gas Closed Circuit Rebreathers can be used to dive deeper and longer than the recommended limits as per the Courses and Tests book, it must be emphasised that this requires specialised training which is outside C.F.T.'s current recommendations as a recreational diving activity.

All diving activities expose us to an element of risk and rebreather diving increases that risk, therefore it must be emphasised very strongly that the guidelines laid down by the manufacturers and C.F.T. must be adhered to rigidly when diving a rebreather.

### Rebreather Divers

C.F.T. prerequisites for rebreather training are minimum Club Diver, Rescue Diver, Extended Range Diver or international equivalents recognised by C.F.T.

All training must be completed by a recognised Technical Training Agency. On completion of the course the diver should register their qualification with Head Office.

### Skills Practice

A rebreather diver should regularly practise skills taught on their rebreathing training course. Most importantly, shut down, gas switch i.e. bail out skills.

All technical knowledge regarding dive preparation, unit maintenance, and operation taught on the rebreathers course are continuously upgraded by the manufacturer and are freely available to all rebreather divers.

Most units are modular and can be upgraded with the latest spec at minimum cost.

### Pre-Dive Checks

Pre-dive checks should be conducted in accordance with the unit specification and training, this includes breathing from the unit for at least two minutes before entering the water.

### Cylinder Pressures

The same rules apply to rebreathers as with open circuit scuba equipment. The dive should begin with sufficient amount of gas to carry out the planned dive in all cylinders. Divers shall return to the surface with not less than fifty bars reserve in any cylinder.

Contents gauges and PPO<sub>2</sub> levels should be regularly monitored throughout the dive.

### Buoyancy

Rebreather divers must ensure that they have sufficient buoyancy to support them on the surface and at depth with full configuration of kit i.e. redundancy cylinders. Sufficient redundancy must also be considered in the event of a flooded breathing loop.

**Buddy Diving**

It is recommended that the buddy of a rebreather diver is at least an experienced Club Diver.

It is important to ensure that the buddy of a rebreather diver is familiar with the unit so that in the event of a problem the buddy can assist their partner. Although not necessary, it is preferable if the buddy has trained as a rebreather diver or has completed the try dive on the unit in a swimming pool.

Proper buddy checks on gas and PPO<sub>2</sub> levels must be maintained throughout the dive

**Breathing**

Many open circuit divers practise skip breathing. This practice tends to cause CO<sub>2</sub> build-up and is very dangerous when applied to rebreathers. It is strongly recommended that rebreather divers breath freely and normally, i.e. keep the flow going in the loop, this will increase the CO<sub>2</sub> scrubbing.

**Alternative Air Source**

It is recommended that all rebreather divers should carry an Alternative Air Source.

This should be a minimum of 3 litre, 230 bar cylinder, which must be fully charged before each dive

The drysuit inflation hose should be connected to this cylinder and not the diluent cylinder.

The Alternative Air Source should allow the diver or his buddy to support an unplanned assisted ascent at any stage of the dive. This Alternative Air Source can be air or Nitrox depending on the planned dive, and have its Maximum Operating Depth clearly marked, with its own regulator assembly.

This cylinder should be carried off board and should have sufficient capacity to provide a supply of gas to allow bailout for the diver or the buddy.

An open circuit regulator maybe connected to the oxygen cylinder of a Closed Circuit Rebreather or Semi Closed Rebreather. If one is attached then the second stage must be clearly marked and have an isolator device fitted, i.e. slider shut off valve or similar.

The diluent cylinder of a Closed Circuit Rebreather could be depleted by changes in depth, mask clearing or having been used for previous dives. A fully redundant off board Alternative Air Source should ensure that there is sufficient gas available if the rebreather diver or buddy has a problem with equipment on the dive.

**Diluent**

C.F.T. recommend that the diluent gas in a rebreather is air.

**Descent**

The recommended set point of O<sub>2</sub> must be set prior to entering the water, and again on reaching target depth.

When diving the rebreather in order to prevent task loading its important that descent is done slowly. This is to enable diluent addition, buoyancy control and the control of the PPO<sub>2</sub> in the breathing loop.

**Bubble Check (Leak Check)**

Bubble checks must be performed to identify any source of leakage and must be carried out no deeper then six metres.

**Ascent**

Before commencement of the final ascent, the O<sub>2</sub> set point must be adjusted.

As with scuba the recommended rate of ascent is 10 metres per minute.

A slow controlled ascent is important in order to avoid a drop in the PPO<sub>2</sub> in the breathing loop, which can cause hypoxia. Fast ascents may beat the O<sub>2</sub> injection system.

It is also important to allow proper venting of the breathing loop in order to avoid becoming positively buoyant. Therefore it is recommended that whenever possible to return to a shot line for ascent. Shot lines have been described as the divers "Ladder".

### **Delayed Surface Marker Buoy**

C.F.T. recommend that an S.M.B. must be carried by all rebreather divers. In the event of not being able to get back to the shot line the deployment of an S.M.B. is a clear indication of position and intent to surface.

The S.M.B. if possible should have an independent means of inflation.

### **Repetitive Diving**

It is important for rebreather divers that particular attention is taken regarding their O<sub>2</sub> uptake. It is essential to ensure that the National Oceanic and Atmospheric Association's oxygen exposure table is strictly adhered to as with Nitrox Diving.

### **Cover Divers**

It is recommended that divers covering rebreather divers must be familiar with rebreathers. It is also recommended that they be qualified to at least Club Diver level.

### **Dive Planning and Organisation**

When a rebreather diver(s) are in the group it is very important that the dive plan and emergency plan are gone through thoroughly so that in the event of an accident/incident everyone knows exactly what to do. This should be normal practice but more attention is required because of the nature of the group.

Dive Plan to include – **Abort, Dive Plan and Over Run.**

### **Stage Decompression**

Stage decompression diving should not be practised unless the diver has completed C.F.T.'s Extended Range Diver course.

**All dives on the rebreather must not exceed 50 metres.**

If stage decompression is planned it must be carried out using a recognised decompression tool i.e. ProPlanner, V-Planner, Abyss or C.F.T. Buehlmann tables.

The diver must have a bail out plan and carry with him an adequate bail out supply of gas to enable him to cope with any emergency situation that may arise.

This plan should represent the worst-case decompression requirement of the buddy pair.

This type of diving must be carried out on a shot line with a properly set up deco station and surface support as per C.F.T. Extended Range course.

### **Dive Site**

Diving involving hard work by the diver i.e. heavy seas, strong tidal conditions must be avoided by rebreather divers. This is because of the danger of a CO<sub>2</sub> build up in the breathing loop of the unit.

### **Boats**

When covering divers on rebreather's the boat cox'n must pay particular attention when manoeuvring the boat as rebreather divers produce very few bubbles if any. The cox'n should stay at a safe distance from the actual dive site in case of an unplanned ascent by the rebreather diver. Rebreathers are "Life Support Equipment" and must be treated with respect on the dive boat.

Rebreather divers should deploy a S.M.B. before their ascent unless they are returning via a shot line.

### **Care and Maintenance**

Particular attention must be paid to O<sub>2</sub> cells. It is important that these must be dried off removing any condensation build up after every dive. The manufacturer's recommendation regarding the changing of O<sub>2</sub> cells at intervals must be followed.

It is recommended that in the event of one cell failing then all three should be changed because the other two are near the end of their life span.

C.F.T. recommends that the unit's **Hood (Brain)** should be serviced at least every 18 months by the manufacturer.

### **CO<sub>2</sub> Absorbent material**

It is imperative that the manufacturer's recommendation regarding the type of absorbent material and duration is followed to the letter.

### **Hygiene**

It is important to disinfect the breathing loop in accordance with the manufacturer's recommendations using the proper solution.

The breathing loop must be thoroughly washed and disinfected after each dive to avoid severe lung infection. There is no middle ground or compromise, it must be carried out.

**We only have one set of lungs...**



## SNORKEL GRADES

1. Junior Snorkel Diver
2. Intermediate Snorkel Diver
3. Senior Snorkel Diver
4. Rescue Snorkeller
5. Snorkel Dive Leader
6. Snorkel Instructor
7. Snorkel Examiner

## OTHER GRADES

1. Motor Boat Handling Certificate
2. Snorkel Diver Medic

The section called “ADDITIONAL ACHIEVEMENTS” spans all grades.

## RULES

1. A Medical Disclaimer must be signed by the candidate (or parent/guardian if candidate is under 18 years of age). This must be signed once a year.  
If the candidate does have a medical condition or is undergoing treatment he/she must fill in the C.F.T. Snorkel Medical Form and thereafter every three years.
2. All novice snorkellers aged 6 to 10 years in open water must wear a snorkelling vest.

## RECOMMENDATIONS

1. A qualified Junior Snorkeller or novice snorkeller aged 11 and upwards in open water should wear a snorkelling vest at the D.O./S.O.'s discretion.
2. The use of weightbelts in children aged 6 to 10 years should be avoided where possible. If they are used, the snorkeller must demonstrate the release of the weightbelt to the satisfaction of the D.O./S.O.

### Special Note:

1. As an alternative to the formal test, snorkellers may be examined on a continual assesment basis by Instructors or Examiners (where stipulated in the Courses & Test Book). The range and standard of skills and theory covered in a continual assessment must reflect that of the formal exam. Where examination is by the jury system, this can still be carried out on a continual assesment basis by arrangement with the N.S.O.

## WHAT CONSTITUTES AN “ACTIVE SNORKELLER”?

1. Medical Disclaimer signed within the past year.
2. Has snorkelled within the past 10 weeks.

The second condition does not apply to Junior or Intermediate Grades. If a snorkeller has become “inactive” he/she is required to complete a minimum of three snorkels of at least 30 minutes duration in order to regain “active” status.



# Junior Snorkel Diver

Nov  
2003

Has achieved a basic snorkelling standard.

**Must be accompanied, in open water by a snorkeller of at least Senior Snorkel grade.**

## **ENTRY REQUIREMENTS**

1. Must have written consent from parent or guardian to undertake snorkel diving.
2. Sign medical disclaimer. Parent/guardian to do so. Complete medical form if necessary.
3. Swim 25m freestyle without stopping.
4. Swim on back for 15m.
5. Hold breath underwater for 10 seconds within 5 minutes of "3" and "4".
6. The S.O. / D.O. and the Parent/Guardian must be confident to recommend the snorkeller for the grade. This must be in writing and should be kept with the logbook.

## **COURSE CONTENT.**

This comprises a series of lectures and pool work designed to give a solid foundation in snorkelling. Open water snorkels are optional and do not form part of the Junior Snorkel Test. The Instructors should make Juniors aware of general pool safety.

### **Lecture Programme**

1. Introduction to the course, the club, and C.M.A.S.
2. Hand signals.
3. Snorkel equipment.
4. Snorkel techniques.
5. Introduction to underwater physics.
6. Marine identification.

### **Pool Snorkel Training**

Complete the following pool exercises at a pace dictated by the ability of each student:

1. Introduction to basic equipment.
2. Finning techniques.
3. Mask and snorkel clearing.
4. Surface diving.
5. Methods of entry - Silent, Step, Jump, Forward roll, Backward roll.
6. Snorkel 25m with mask on forehead (eyes and nose submerged, snorkel in mouth).

### **Pool Snorkel Test**

Exercises "2" through "6" are carried out without difficulty.

Oral examination based on lectures given.

**Test to be administered by at least a Snorkel Instructor.**

On completion of the course and test a C.M.A.S. Certificate will be awarded.



# Intermediate Snorkel Diver

Nov  
2003

He/she has developed a greater range of pool skills and acquired a greater depth of theory. The Intermediate Snorkeller has ample time to pursue the goals laid out in the section Additional Achievements. (The section Additional Achievements is open to all grades.)

**The Intermediate Snorkel Diver must be accompanied, in open water, by a snorkeller of at least Senior Snorkel grade.**

## **ENTRY REQUIREMENTS**

1. Must have written consent of parent or guardian to undertake snorkel diving.
2. Sign medical disclaimer. Parent/guardian to do so.
3. Swim 150m freestyle without stopping
4. Swim on back for 25m.
5. Hold breath underwater for 20 seconds within 5 minutes of "2" and "3" above.
6. The S.O. / D.O. and the Parent/Guardian must be confident to recommend the snorkeller for the grade. This must be in writing and should be kept with the logbook.

## **COURSE CONTENT**

This comprises of a further series of lectures from the Snorkel Manual. New skills and exercises are introduced in the pool training. Both lectures and pool training must include work covered in the Junior Snorkel Diver course.

### **Lecture Programme**

Junior snorkel requirements plus:

1. Effects of pressure.
2. Buoyancy.
3. Respiration and circulation.
4. Ears and sinuses.
5. First Aid Awareness.
6. C.P.R.

### **Pool Snorkel Training**

Junior snorkel requirements plus:

1. One forward and one backward roll.
2. Surface dive to bottom of pool without mask.
3. Fin up to 15m underwater with and without mask.
4. Ditch and recovery of mask and snorkel. (Mask and snorkel fitted underwater, mask and snorkel cleared before surfacing.)
5. Ditch and recovery of fins. Fins to be fitted before surfacing.

### **Pool Snorkel Test**

Exercises "1" through "5" to be carried out without difficulty as well as all aspects of the Junior course.

Oral examination based on lectures from the Junior and Intermediate courses.

**Test to be administered by at least a Snorkel Instructor.**

**Open Water Snorkel Training**

1. Log 5 snorkel dives in Irish waters of at least 20 minutes duration.
2. Practise entries, buoyancy adjustment, finning and snorkel diving.
3. Mask and snorkel clearing.
4. Group safety.
5. Snorkel dive to 2 metres.

On completion of course, pool snorkel test and open water training a C.M.A.S. certificate will be awarded.



# Senior Snorkel Diver

Nov  
2003

A Senior Snorkel Diver is proficient in open water snorkelling with a buddy. He/she is permitted to snorkel dive with buddies of the same grade or higher and may lead trainees, with the D.O.'s or S.O.'s permission.

## **ENTRY REQUIREMENTS**

1. Must have written consent of parent/guardian to undertake snorkel diving (if under 18 years of age).
2. Sign medical disclaimer (signed by parent/ guardian if under 18 years of age).
3. Swim 200m freestyle without stopping.
4. Swim on back for 50m.
5. Hold breath underwater for 30 seconds within 5 minutes of "2" and "3" above.
6. The S.O. / D.O. and the Parent/Guardian must be confident to recommend the snorkeller for the grade. This must be in writing and should be kept with the logbook.

## **COURSE CONTENT**

The course consists of the remaining lectures from the Snorkel Module. Pool work concentrates on perfecting all required skills, increasing fitness and developing safety skills. Both lectures and pool work must include all work covered in the Junior and Intermediate Snorkel Dive levels.

### **Lecture Programme**

Junior and Intermediate requirements plus:

1. Hypoxia, Anoxia and Drowning.
2. Hypothermia.
3. Snorkel Planning.
4. The Sea.
5. Using Small Boats.

### **Pool Training**

Junior and Intermediate requirements plus:

1. Towing while administering EAR (25m).
2. Ditch and recovery of all equipment (all fitted underwater in one breath).
3. Three forward rolls (in one breath) and three backward rolls (in one breath).
4. Fin 25m underwater with and without mask.
5. Demonstrate C.P.R. on the bank.

### **Pool Snorkel Test**

Exercises "1" through "5" to be completed without difficulty as well as all aspects from Junior and Intermediate course.

Oral examination based on lectures from the Junior, Intermediate and Senior courses.

**Examiner to be at least Snorkel Instructor.**

**Open Water Snorkel Training**

Log 10 open water snorkel dives of at least 30 minutes duration each in Irish Waters.

Practise the following:

1. Entries, buoyancy, finning and snorkel diving.
2. Mask and snorkel clearing.
3. Towing and EAR.
4. Group safety.
5. Finning without a mask and snorkel.
6. Snorkel dive to 6m.
7. Swim 100m without mask, snorkel or fins.

**Open Water Training**

Exercises 2-7 to be completed without difficulty, to the satisfaction of at least a Snorkel Instructor.

On successful completion of course, test and open water training a C.M.A.S. certificate will be awarded.



This course forms part of the Rescue Snorkeller course but can be taken at any stage prior to this as long as the prerequisites are met.

## **PREREQUISITES FOR CANDIDATES**

1. Candidates must be a registered Snorkeller with C.F.T.
2. Minimum age for practical oxygen administration allowed is 12 years. This is a restriction on the use of cylinders containing pressurised oxygen.
3. Have written consent of parent or guardian if under 18 years of age.

## **PREREQUISITES FOR INSTRUCTORS**

Instructors need to hold a Diver Medic Instructor certificate.

## **COURSE OUTLINE**

The course comprises of a series of lectures and practical work. It is designed to be completed in one day, but can be given as appropriate to different age groups. At the end of the course there will be a short written test. Each student is required to demonstrate proficiency in the practical techniques. This will be assessed throughout the practical sessions.

### **Lecture Schedule**

1. Course Introduction.
2. Cardiopulmonary Resuscitation.
3. Oxygen Theory.
4. Oxygen Equipment.
5. First Aid Awareness.

### **Practical Schedule**

1. Cardiopulmonary Resuscitation.
2. Oxygen Equipment.

The following numbers must be adhered to –

Maximum student to Instructor ratio is 12:1.

Maximum student to mannequin ratio is 6:1.

Maximum student to oxygen unit ration is 6:1.

Overall maximum number of students per course is 18.



The holder of this certificate has successfully completed a course and passed an examination in the theory and practice of snorkel rescue, including self and buddy rescue, in-water resuscitation, rescue management and first aid awareness.

## **PREREQUISITES**

1. Be an active Senior Snorkeller with a minimum of 15 snorkels of at least 30 minutes duration (not including those logged for Senior Snorkel examination).
2. Have written consent of parent/guardian to undertake snorkel diving (if under 18 years of age).
3. Sign medical disclaimer (signed by parent/guardian if under 18 years of age).
4. Have your club D.O/S.O's approval.

## **COURSE OUTLINE**

The course consists of a series of lectures, pool work and open water work.

### **Lecture Programme**

1. Snorkel Diver Medic Course.
2. Snorkel Rescue.
3. Hypothermia (from Snorkel Module).
4. Buoyancy (from Snorkel Module).
5. Shallow Water Blackout.

### **Pool Training**

Instruction in the following skills:

1. Buoyancy control.
2. Towing while administering EAR.
3. Lift - retrieving snorkeller from pool bottom. (Underarm grasp and pull to surface.)
4. C.P.R. - administering on the bank.
5. Combination of 3, and 2, in that order for a distance of 50m.

### **Open Water Training**

Instruction in the following techniques:

1. Achieve positive buoyancy.
2. Lift victim to surface.
3. Towing while administering EAR for a distance of 300m.
4. Land victim and administer C.P.R.
5. Swim 200m without mask, snorkel or fins.

### **NOTE ON TOWING WHILE ADMINISTERING EAR**

Options open to the snorkeller in light of new style of snorkel on the market.

1. Traditional EAR through snorkel if it's a J tube snorkel.
2. Mouth to nose. Remove mask, seal mouth and breathe into nose if shotgun style snorkel.

Candidate will be expected to practise skills and techniques learnt on the course in order to become proficient in all exercises.

**Rescue Snorkeller Test**

Examination to take place on one day not more than 4 weeks after the course and will cover all pool and open water exercises in the course. All exercises to be completed satisfactorily. An oral test based on the lectures covered in the course will be given.

**Examiner to be at least Snorkel Examiner.**

On successful completion of test a C.M.A.S. certificate will be awarded.



An experienced snorkeller who has passed the Snorkel Dive Leader Examination is competent to lead snorkellers of any grade on open water snorkels and is capable of organising snorkel groups. Snorkel Dive Leaders will be involved in leading Trainee Snorkellers.

## **PREREQUISITES**

1. Be an active Senior Snorkel Diver.
2. Hold a Rescue Snorkeller Certificate.
3. Have written consent of parent/guardian to undertake snorkel diving (if under 18 years of age).
4. Sign medical disclaimer (signed by parent/guardian if under 18).
5. Have club D.O/S.O's written recommendation.

Snorkel Diver Leader to complete following before presenting for test:-

### Open Water Training

Complete and log 15 open water snorkels in Irish waters (not less than 30 minutes duration).

### Organisational Training

Plan and lead 5 Open Water Snorkel Training groups to the satisfaction of an Instructor. This is to include giving briefs and debriefs.

## **SNORKEL DIVE LEADER TEST**

### **Oral tests**

Oral examination in

- (a) snorkel dive planning,
- (b) sea conditions,
- (c) safety,
- (d) general snorkelling knowledge,
- (e) Senior Snorkel Diver lecture series.

### **Open Water Test**

1. Fin 1,000m in open water.
2. Complete 3 snorkel dives to 10m within 10 minutes.
3. Tow an inert body 100m, land and demonstrate E.A.R./C.P.R.
4. Lead snorkellers on a snorkel dive of duration 10-15 minutes. Include brief and debrief.

### **Examiner to be at least Snorkel Examiner.**

On successful completion of test a C.M.A.S. certificate will be awarded.



A Snorkel Instructor has been trained and examined in the theory and practice of teaching snorkellers, both in and out of the water, according to C.F.T.'s various training modules. A Snorkel Instructor is qualified to teach all grades except Snorkel Examiner, and is able to examine up to and including Senior Snorkel Diver grade.

## PREREQUISITES

1. Be a qualified active Snorkel Dive Leader.
2. Sign medical disclaimer.
3. Have D.O/S.O's written recommendation to attend course and test.
4. Attend a C.F.T Snorkel Instructors Course.
5. Must be at least 18 years of age.
6. Must have logged a minimum of 20 snorkels of 30 minutes duration since becoming a Snorkel Dive Leader.

The intention of this course is to provide the Snorkel Dive Leader with a basic knowledge of the techniques of wet and dry instruction which will enable him/her to provide training up to and including Snorkel Dive Leader standard. Candidates must demonstrate sound practical technique in all aspects of the pool work required by the trainee snorkeller, rescue snorkeller and leading snorkeller grade.

This certificate grades the holder as C.M.A.S. Snorkel Instructor.

All lectures prepared by candidates during the course will be based on the Snorkel Module.

## INSTRUCTOR COURSE SYLLABUS

### Lecture Programme (4 hours)

Utilisation of pool space.

Pool side briefing (and Open water briefing).

First Aid Awareness.

C.P.R.

Preparation and presentation of lectures.

Principles and theory of teaching.

Visual aids.

Dive planning.

### Pool Work (4 hours)

Pool - Assessment of candidates pool work.

Pool - Practical teaching of snorkel techniques as outlined in the Snorkel Module (with particular emphasis on safety and use of hand signals).

## WHAT CANDIDATES SHOULD BRING TO THE EXAM

Letter of recommendation from D.O./S.O.

Current C.F.T. card

Logbook (and snorkel insert)

Exam fee

Note: It is recommended that a qualified snorkel instructor who is inactive for a year or more assist an active instructor for the duration of a snorkel course before returning to full time instruction.

## ORGANISERS GUIDE TO THE SNORKEL INSTRUCTORS COURSE

This guide will assist the organiser of the Snorkel Instructor course to formulate a training programme to the required standard. At the end of the course each candidate will have a basic knowledge of the techniques of wet and dry snorkel instruction which will enable them to provide training up to and including Snorkel Dive Leader standard and examination up to and including Senior Snorkel Diver standard.

The course has 4 hours of pool instruction, plus 5 hours of theory instruction (to include student demonstration lectures).

Course dates may be set with the agreement of the N.S.O. The course must be run under the guidance of the N.S.O.

## COURSE PREREQUISITES

1. The candidate must be recommended by his/her club Diving Officer/Snorkelling Officer.
2. The Organiser must ensure that the Candidate is proficient in all pool snorkel techniques. This should be tested on the first night. If the candidate is not proficient in these techniques, he/she should be encouraged to perfect them and to make him or herself available the next time such a course is being run.
3. The candidate must pay the course fee, and submit his/her Logbook and current C.F.T. card to the Organiser on the first night of the course.

## CONSTRUCTION OF A PROGRAMME

1. The syllabus lists the lectures and practical work.
2. A balance should be struck between lecture room work on "heavy" subjects, and those which make less demands on candidates.
3. Candidates should be afforded the opportunity to deliver lectures.
4. Lectures given by candidates must come from the Snorkel Module. Candidates must lecture on as wide a variety of topics as the course will allow. Coaching, criticism and analysis should be a feature of these sessions, but should be short, constructive and supportive in content.

## VISUAL AID EQUIPMENT

1. Candidates should be encouraged to use an Overhead Projector, computer or flip charts to enhance lectures.
2. It is not desirable to force candidates to use the type of visual aids in lecture training which are not generally available to them after the course.

## DISCIPLINE

1. A high standard of discipline is required of potential instructors. Time keeping should be given special attention. A roll of attendance should be kept.
2. A 100% attendance is expected from all candidates.

## NUMBER OF CANDIDATES

1. The minimum number of candidates should be 4, while the optimum figure of 12 is suggested. Local availability of space and qualified instructors will obviously decide the final figure.
2. The candidates should be broken into panels of 4 at an early stage. Where possible, there should be a mixture of candidates from different clubs. Panels should be rotated frequently.
3. Panel activities will also include pool activities.
4. Panels so formed will not form part of the final test.

## DURATION OF THE PROGRAMME

1. Local conditions will obviously help to dictate the programme. In general, continuity should be maintained. Consideration should be given to those who have undertaken journeys.
2. Suggestions for the total duration of a programme are as follows:
  - four weekly sessions of two hours each.
  - weekend attendance of two days duration.

## EXAMINATION

1. The examination should be held as soon after the end of the course as is practical.
2. The examining Jury President will be appointed by the N.S.O.
3. The N.S.O. may appoint the Jury, or may nominate the Jury Director to do so.
4. Both jury and candidates will agree the test centre.
5. The number of candidates dictates the duration of the examination.
6. Written papers will be of a standard that will ensure an in-depth knowledge of the theory of lectures they will be required to give to the Trainee Snorkellers and Rescue Snorkellers to assist them reach their prospective grades.
7. Candidates will be notified of their lecture topic, not less than one, or more than three weeks prior to the test. In all cases the lectures will be contained in the Snorkel Module.
8. Where the standard has been met, a C.M.A.S. Instructor certificate will be issued.
9. The Jury President must send a written report, together with the results, to the N.S.O. and a list, containing the names of successful candidates to the Registrar.
10. The examination consists of:
  - A one hour written paper. (pass mark 60%).**
  - Presentation of a 15 minute lecture.**
  - Pool exam - teach two snorkel techniques to students.**

It is recommended that within 6 months of completion of the examination the newly qualified Snorkel Instructor presents a snorkelling class for examination.

It is also strongly recommended that the trainee instructor work with a qualified instructor at club level prior to and during his/her training.

## GENERAL

1. It will be the privilege of the N.S.O. or his/her representative, to visit the course and examination while in progress in order to monitor the standard on offer.
2. It is desirable that an adequate supply of the syllabus and course programme be available prior to the commencement of the course. Each candidate must be given a copy so that he/she clearly understands what is required of them.



An experienced Instructor who is qualified to teach and examine all grades of snorkellers.

## **PREREQUISITES**

1. Must hold the Snorkel Instructor Certificate for a minimum of one year.
2. Must have worked regularly within the club since becoming a Snorkel Instructor and must produce a letter from the club D.O./S.O. stating that he/she has been active within the club or C.F.T.
3. Must have assisted in organising at least 2 snorkel courses to the satisfaction of the N.S.O.

## **REQUIREMENTS**

1. Must have attended and attained a pass in the Juror Training Course.
3. Must, on completion of the Juror Training Course, be assessed as a Trainee Examiner on two Snorkel Instructor Juries as well as having examined Junior Snorkeller, Senior Snorkeller, Snorkel Rescuer and Snorkel Dive Leader (or an acceptable combination) to the satisfaction of an Examiner.

## **SNORKEL EXAMINER - JUROR TRAINING COURSE**

### **INTRODUCTION**

#### Aims and Principles

The aim of this course is to assess the ability of the candidates under four headings:

- (a) Suitability as an examiner.
- (b) The ability to organise a test.
- (c) The ability to fairly assess a candidate's performance.
- (d) Co-operation with other instructors as a member of a jury.

This course is a compulsory course for Snorkel Instructors wishing to proceed to the level of Snorkel Examiner. It may be taken any time after the Snorkel Instructor certificate has been awarded, but must be satisfactorily completed before a newly qualified instructor is allowed to act as a trainee juror.

The basic principle underlying this course is that each participant should rehearse and develop the skills required to prepare candidates for C.F.T. examinations.

### **ASSESSMENT**

The N.S.O. will oversee this course. A Jury President will be nominated by the N.S.O. The jurors will assess the performance of each candidate and contribute to all briefing and debriefing sessions. Each candidate will receive a full assessment of their performance at an individual debrief at the end of the course. Candidates who do not perform adequately under the four categories listed above will be asked to repeat the course. It is intended that self-assessment by the candidates will also play an important role.

### **CONTENT**

It will consist of a candidate's individual assessment of

1. Wetwork
2. Lecture
3. Written work

**1. Wetwork**

The candidate will assess another Snorkel Diver carrying out an exercise from the current Snorkel Module. The candidates will discuss the exercise and allocate a mark. The mark should agree, within reason, with the experienced juror's assessment if the candidate is to pass.

**2. Lecture**

The candidate will assess a lecture, of 15 minutes duration, using the marking sheet from the Instructors Handbook. The candidate will take part in a discussion of the lecture and allocate a mark for same. Again, this mark must coincide with the experienced juror's assessment, if the candidate is to pass.

**3. Written work**

The candidate will assess the written answers from a Snorkel Instructors paper, in other words "correct a paper". A full discussion will take place and a mark will be allocated to the paper. Again, this mark must coincide with the Jurors' assessment, if the candidate is to pass.

**ORGANISATION**

The course will run for a full day and proper safety procedures will be observed throughout the course.

**JUROR TRAINING COURSE**  
**Suggested Agenda**

- |       |   |
|-------|---|
| 9:00  | Registration.   |
| 9:15  | Introduction: - C.F.T. Examination.<br>Jury Scheme.<br>Assessment Techniques. |
| 10:00 | Exercise Assessment.  |
| 12:00 | Discussion and Debrief.   |
| 1:00  | Lunch.  |
| 2:15  | Jury Role-Playing Discussion.   |
| 3:15  | Lecture Assessment.   |
| 4:00  | Written Work Assessment.  |
| 5:00  | Debrief and Discussion.   |



## **PROJECT WORK**

A number of projects can be given to or chosen by the snorkeller. A period of time may be given for completion of each project. The completed work may be presented to the club in lecture or any other chosen form. Suitable work may be sent to the editor of *SubSea*. The editor may include such projects in future issues of *SubSea*. Suitable work may also be submitted to the N.S.O. for publication on the Web page.

### **Suggested Project Topics:**

1. Marine identification.
2. Safety at sea.
3. Health and snorkelling.
4. Fun and snorkelling.
5. Environmental awareness.
6. Snorkelling through art.
7. Marine Habitats.

## **LECTURES**

A number of lectures outside the course content may be given.

### **Suggested Lectures/Discussions**

1. Pool rules and pool safety.
2. Weather.
3. Navigation.
4. Tides and Currents.
5. Rules of the sea.
6. Knots and ropes.
7. Briefs/Debriefs.
8. Compass work.
9. Marine identification.
10. Group Safety, Buddy System.
11. Dive site behaviour.
12. Other snorkelling activities (octopush, u/w photography etc).

## **OTHER AWARDS**

Water Safety Awards.  
First Aid Awards.



# Examinee Course/Test Evaluation

Dear Candidate

Please assist us in C.F.T. to improve our ability to run courses and tests for you the members by answering the following questions. All information will be used statistically and the results will not be personalised in any way.

**Please tick one box only for each question or category.**

Course/Test \_\_\_\_\_ Date \_\_\_\_\_ Region \_\_\_\_\_

## Information

Did you receive information about the course/test beforehand?

YES

NO

Do you agree that the information was sufficient for you to be prepared?

TOO MUCH

ADEQUATE

TOO LITTLE

## Instruction

Was the instruction given during the course or before the test good enough?

EXCELLENT

ADEQUATE

POOR

Did you receive instruction from club instructors, other instructors, C.F.T. courses?

CLUB INSTRUCTORS

OTHER INSTRUCTORS

C.F.T. COURSES

## Examination

Are you satisfied with the performance of examiners?

YES

PARTIALLY

NO

Please state which areas you were not happy with.

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## Equipment

Was the equipment used on the courses/test suitable and in good working order?

EXCELLENT

ADEQUATE

POOR

Details \_\_\_\_\_

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Briefly, what other comments or suggestions do you have which you think will improve the quality of C.F.T. Courses & Tests?

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# Leading Diver Assessment Form

## Assessment of Diving Officer's Brief and Debrief.

**Candidate:** \_\_\_\_\_ **C.F.T. No:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Club:** \_\_\_\_\_

**Introduction:** Introduction, Roll call, Everyone okay, Location of dive, Weather & Tides, Dive groups, Leaders, Cox'n, Cover cox'ns, Ascent rate, Assistant D.O.

**Dive Info:** Site details, Alternative site, Currents, tides, eddies etc. Max. depth, Max. N.D.L./Table dive, Ascent rate, 3 - 6 m safety stop.

**Exercise/test:** What to expect to be told during various briefs by candidates.

**20m Dive only:** Purpose of dive. Leading a trainee on his/her's first 20m dive.  
New depth therefore deeper, colder, narcosis awareness.  
Increased air consumption, regular gauge and signal checks.  
Buoyancy control, properly weighted.  
Buddy contact, do not go below dive leader.

**30m Dive only:** Purpose of dive. Leadership of an open water dive to 30m.  
New depth therefore deeper, colder, narcosis awareness.  
Increased air consumption, regulator, gauge and signal checks.  
Buddy contact, do not go below dive leader.

**40m Dive only:** Purpose of dive. Determine dives susceptibility to Narcosis.  
Exercise: Mask off and regulator out together at 40m.  
Narcosis check (previously agree type with candidate before dive)  
Buoyancy control, never go below dive leader.  
Descend and ascend with dive leader, 3min stop at 3 - 6m.

**Safety:** Buddy check, Equipment familiarization, Hand signals, Separation procedure, Recall signals, VHF working channel, Emergency plan, Oxygen location, Emergency vehicle, Shore marshal, Check in/out, E.T.R.  
Questions (within reason).

**Debrief:** Roll call, Safety check, Problems/incidents, Dive completed Check depth/times, R.G. group, Fill out log sheet, Questions Instruct/correct/reprimand, Compressor duty, Boat out of water.

**D.O. Organizational Ability:** \_\_\_\_\_ **Grade:** \_\_\_\_\_ **Pass: Yes** \_\_\_\_\_ **No** \_\_\_\_\_



# Leading Diver Assessment Form

## Wet Assessment 40m Dive Leadership

**Candidate:** \_\_\_\_\_ **C.F.T. No:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Club:** \_\_\_\_\_

Personal equipment checks. Buddy check before getting on boat and before entering the water.

Hand signals during decent, Gauge check frequently.

Contact with buddy during descent/ascent, dive leader descends first.

Buddy not to go below dive leader at any stage.

Observation of buddy during dive with signals and equipment checks.

Depth of dive 37- 40m, Minimum of 37m must be achieved and 40m not to be exceeded.

**Exercise**, Remove mask, purge regulator, and fit mask. Mask is to be handed to instructor but instructor is not to take it, candidate to maintain hold of mask all through exercise.

Narcosis check (check to be pre-arranged prior to dive with the candidate).

Correct ascent rate, 3 - 6m stop for 3 minutes.

Safe return to boat, De-kit/buddy check. Buddy check/observation on journey.

**Instructor comments & notes** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Wet assessment 40m Dive.	Grade.	Pass: Yes	No
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**Examiner:** \_\_\_\_\_ **Number:** \_\_\_\_\_



# Leading Diver Assessment Form

## Wet Assessment 20m Dive Leadership

**Candidate:**

**C.F.T. No:**

**Date:**

**Club:**

Personal equipment checks.

Buddy check before getting on boat and before entering the water.

Hand signals check before dive. Hand signals during dive.

Frequently check contents gauge.

General observation of trainee, behaviour, depth and buoyancy checks.

Depth of dive 17- 20m. Minimum of 17m must be achieved and 20m not to be exceeded.

Leadership/guidance of trainee for minimum 20 mins.

Deeper part of dive first.

Correct ascent rate, 3 - 6m stop for 3 minutes.

Safe return to boat, Assist trainee on entering boat, De-kit and buddy check.

Buddy check/observation on return journey.

Dive leader should endeavour to make the dive "Interesting and Enjoyable" for the buddy.

**Instructor comments & notes**

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**Wet assessment 20m Dive.**

**Grade.**

**Pass: Yes**

**No**

**Examiner:**

**Number:**



# Leading Diver Assessment Form

## Wet Assessment 30m Dive Leadership

**Candidate:**

**C.F.T. No:**

**Date:**

**Club:**

Personal equipment checks.

Buddy check before getting on boat and before entering the water.

Hand signals during descent, Gauge check frequently.

Observation of buddy during dive with signals and equipment checks.

Depth of dive 27 - 30m, Minimum of 27m must be achieved and 30m not to be exceeded.

Leadership/guidance of buddy for minimum 20 mins.

Maintain constant contact with buddy.

Deeper part of dive first.

Correct ascent rate, 3 - 6m stop for 3 minutes,

Safe return to boat, De-kit/buddy check.

Buddy check/observation on journey.

**Instructor comments & notes**

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**Wet assessment 30m Dive.**

**Grade.**

**Pass: Yes**

**No**

**Examiner:**

**Number:**



# Leading Diver Assessment Sheet

**Jury President:**

**Location of Test:**

**Date:**

<b>Candidate Name</b>	<b>Overall Assessment</b>
40m Dive	
20m Dive	
30m Dive	
D.O. Organisational Ability	
Dive Tables	
Set-up incident	
Emergency C.P.R.	
Charts, Tides, Weather	
Regulators and Cylinders	
Compressor Operation	
Ropes and Knots	
Boat Handling	



# Candidate Leading Diver Results Sheet

**Candidate:**

**Date:**

40 metre dive leadership and exercise

20 metre dive leadership

30 metre dive leadership

Diving Officer organizational ability

Handling of set up incident

## **Oral Tests**

Dive Tables

Charts, tides and weather

Regulators and dive cylinders

## **Practical Tests**

Emergency C.P.R.

Compressor operation

Ropes and knots

Boat handling

## **Overall Assessment and Recommendations**

**Signed by Jury President:**

