

NDAC PHOTOGRAMMETRY PROJECT

RECREATIONAL PROJECT PLAN ACoP Media Diving Projects L106 (Second Edition) CONSIDERATION DOCUMENT



NDAC PHOTOGRAMMETRY PROJECT



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Titles Published by James Neal:

Club Diver Magazine
InDepth Magazine

Titles & organisations that have published James Neal's work:

Scuba Diver Magazine
Tanked Up Magazine
Cromhall / South West Maritime Academy
Hollis
BARE
Atomic Aquatics
Zeagle
Oceanic

CONTENTS

1. Regulation 4

Duty to Ensure Compliance with these Regulations

- i. 23. Other People / duty
- ii. 24. Owners of the site should...
- iii. 26. Those indirectly involved

2. Regulation 5

The Diving Contractor

- i. 30. Competence

3. Regulation 6

Duties of diving contractor

- i. 32. The diving contractor, overall responsibility

4. Regulation 8

Diving Project Plan

- i. 36. Generic diving rules
- ii. 37. Safe Supervision by a single person
- iii. 38. Risk Assessment

5. Regulation 6

Dive Teams

- i. 46. Minimum team size

6. Regulation 13

Duties of and restrictions on persons engaged in a diving project

- i. 98. Competence

7. Regulation 12

Duties of and restrictions on divers

- i. 99. Qualifications
- ii. Recreational Diving

8. Regulation 12

Duties of and restrictions on divers

- i. 104. Diving Logs

9. Regulation 13

Duties of and restrictions on persons engaged in a diving project

- i. 106. Fitness

10. Regulation 12

Duties of and restrictions on divers

- i. 107. Medicals

11. Copy of HSE Medical

12. Useful Contacts

RECREATIONAL PROJECT PLAN ACoP Media Diving Projects L106 (Second Edition) CONSIDERATION DOCUMENT

Whilst the NDAC / DEEP Photogrammetry Project is purely a RECREATIONAL PROJECT and no member of the team is at work; due and appropriate consideration has been given to L106 (2)

Particularly:

Regulation 4

Duty to Ensure Compliance with these Regulations

23. Other people who may have a duty under this regulation would include the owners of dive site locations and the operators of vessels being used as part of the diving project.

24. Owners of a dive site should:

(a) highlight any known hazards or difficulties which could affect the safety of those engaged in the diving project, such as underwater obstructions, water intakes or discharges or possible contamination;

(b) ensure that any equipment or activities under their control do not affect the safety of the diving project.

CONTROL

Project Members are only granted access to the site when no other operational activities are taking place. All Project Members have extensive site knowledge.

The site manager will appraise the Dive Supervisor of any site changes that may affect the project.

26. The duty under this regulation also extends to diving contractors, supervisors, divers and to people indirectly involved in the diving project, such as crane operators, lorry drivers, and maintenance personnel. These people should ensure that their tasks and the way they undertake them do not affect the safety of the dive team.

CONTROL

Access to the water is restricted and well away from the daily activities that might otherwise take place. Surface Cover personnel would also ensure any third parties were kept away from the water and any diving activities.

Regulation 5 The Diving Contractor

30. 'Competence' means having a combination of training, knowledge and experience which enables a person to do the job required in a safe manner. Evidence of past experience in organising a diving project in a safe and effective manner and appropriate qualifications would be ways of demonstrating competence. The person selected will also need the authority and resources to effectively discharge these duties. The duties will remain with the employer company, which must be satisfied that the person selected will be able to perform the duties on its behalf without risk to themselves or the dive team.

CONTROL

As this is a Recreational Project, technically there is no Diving Contractor, however, all Project Members engaged in diving operations are 'Competent' and experienced to undertake the diving activities within the Photogrammetry Project and only divers suitably qualified and experienced will take part. This is of particular importance when diving below 40 metres and on any mixed gas.

Regulation 6 Duties of diving contractor

Whilst the NDAC / DEEP Photogrammetry Project is a Recreational Project, regulation 6 gives the following guidance that would be considered 'best practice' and will be followed by all of the project team members.

32. The diving contractor has overall responsibility for the safety of the diving project. This includes ensuring that:

- (a) A suitable risk assessment and diving project plan have been prepared which identify the number of supervisors, divers and equipment needed (see 'Diving project plan and risk assessment');
- (b) The size and abilities of the dive team are sufficient to enable the diving project to be carried out safely (see 'Dive teams and associated working practice');
- (c) The place from which the diving is to be carried out is suitable and safe;
- (d) Supervisors are appointed in writing (this must be done by the diving contractor) for the diving operation which they are to supervise and are supplied with copies of their formal appointment and the part of the diving project plan relevant to their operation;
- (e) A sufficient number of suitably qualified personnel are used and are competent to undertake the tasks assigned to them (see 'Supervisors' and 'Divers and persons who dive in a diving project');
- (f) The team is medically fit to dive (see 'Medical checks');

NDAC PHOTOGRAMMETRY PROJECT



- (g) The supervisor and dive team are fully briefed on the project and aware of the contents of the diving project plan;
- (h) Suitable plant and equipment are provided and are properly maintained (see 'Diving plant' and 'Maintenance of diving plant');
- (i) Adequate arrangements exist for emergencies, including first aid and medical treatment (see 'Dive teams and associated working practice');
- (j) An up-to-date record is kept for each diving operation;

CONTROL

A suitable Risk Assessment and Project Plan have been completed and submitted to the site owners for comment, guidance and approval. Additional documents and policies have also been submitted, including, but not limited to:

- (a) Qualifications
- (b) Fit to Dive / HSE Medical
- (c) Health & Safety Policy
- (d) Standard Operating Procedures
- (e) Dive Plans
- (f) Dive Management Sheets

Furthermore:

- (a) No diving will take place below 50 metres without prior approval of a dive plan submitted at least 7 days in advance of the proposed dive(s).

Section (D)

Appointment of Supervisors in writing by the diving contractor. As this is a Recreational Project the Diving Supervisor hasn't been appointed by any 'Contractor' and as such the supervisor is James Neal who is appropriately qualified as a CMAS 3* Diver and SAA Dive Supervisor and Instructor for multiple agencies. We would look to NDAC / DEEP for any additional guidance should our interpretation of this not meet with their own.

All team members are suitably trained, competent and able to perform the tasks and roles for which they are appointed. For example: All surface cover is EFR (Emergency First Response) trained and O2 qualified. Support Divers are at least qualified to Rescue Diver level and are qualified to use the gas(es) they are diving and to the depths planned.

All team members carry at least a 'Fit to Dive' certification from a recognised agency / UKDMC Doctor or an approved AMED HSE Approved Doctor.

NDAC PHOTOGRAMMETRY PROJECT



The Project Plan and Risk Assessment will be given to all team members and a copy will be held on site and by the surface cover.

The safety boat is maintained by the site.

The surface cover will have access to the following equipment:

- (a) First Aid Kit
- (b) O2
- (c) DeFib (Either site owned or InDepth's own)
- (d) Spine Board (site owned, kept in pontoon hut)
- (e) Mobile phone

Furthermore:

- (a) Surface Cover will have access to appropriate clothing and shelter from adverse weather.

An Emergency Action Plan is included within the Project Plan and a copy is also given to the Surface Cover.

The Surface Cover also maintains the records for all dives, including gas in / out, time, depth and any incidents or near misses. The dive supervisor will report any / all near misses or incidents that should occur, no matter how small or trivial they may appear.

Regulation 8 Diving Project Plan

36. The diving project plan may refer to information from the diving contractor's own generic diving rules. This standard information should be supplemented with a site-specific risk assessment, detailing any special precautions or procedures necessary to reduce risks and listing specific emergency actions and contacts (i.e. the coastguard). A reconnaissance of the site is the best way to make the site-specific plan and assess the risks. A copy of the parts of the diving project plan relevant to their diving operation should be provided to the supervisor. Both the risk assessment and the diving project plan should be documented.

37. The diving project plan should specifically identify how the diving project is broken down into individual operations which can be safely supervised by one person. When making this decision the diving contractor should take into account the size and nature of the diving project.

CONTROL

The Project Plan that has been produced has been done so taking into account 'Best Diving Practices' as detailed by the Professional Association of Diving Instructors (PADI) as well as multiple other agencies, (SDI/TDI, IANTD, RAID, SAA). The Dive Supervisor and lead photogrammetrist has extensive knowledge of the site having dived it for over ten years and the Project Plan and Risk Assessment was developed with that knowledge.

Risk assessment

38. When preparing the risk assessment and evaluating the dive site, the following should be taken into account:

- (a) Water conditions including wave motion, movement, temperature and visibility;
- (b) Access to and from the water/boat/platform;
- (c) Trapping and snagging hazards;
- (d) Removal of the diver from the water in an emergency;
- (e) Bottom conditions and hazards;
- (f) The use of performing artists in the project with no, or limited diving experience, and what additional safety precautions might be needed;
- (g) The method chosen for the dive, i.e. surface-supply or SCUBA and the safety reasons for the choice;
- (h) The type and quantity of breathing gas needed;
- (i) The type of diving and additional specialist equipment being used, in particular the use of equipment operated by or carrying electricity and equipment for visual effects;
- (j) Weather conditions;
- (k) The depth and planned duration of the dive;
- (l) The ability of the surface cover boat to stay on station;
- (m) Overhead restrictions preventing direct ascent to the surface;
- (n) Whether or not safety lines are being used;
- (o) The need to use appropriately competent, experienced and qualified divers in order to reduce the risk to the dive team.

39. This is not a complete list of all hazards and measures needed to control risks. An appraisal of the hazards at a specific dive site will identify the full extent of the safeguards needed to protect the safety of the dive team.

40. As a matter of safe working practice, the supervisor should keep the site specific risk assessment under review and revise it if necessary.

41. It is important that the diving contractor exchanges information with the production team on the risk assessment and appropriate control measures.

42. A risk assessment made under these Regulations will cover in part the obligation to make an assessment under the Management of Health and Safety at Work

Regulations 1999 (the Management Regulations). [7] There will be no need to repeat those aspects of the assessment, so long as they remain valid, in any other assessment that the diving contractor carries out. However, the diving contractor will need to ensure that all significant risks not covered by the diving project assessment (including risks to members of the public arising from the diving project/diving activities) are covered by the risk assessment carried out under the Management Regulations (or in any assessment required to be carried out under other specific regulations).

CONTROL

The Risk Assessment, Project Plan and all the example dive plans included in the Project Plan, were produced with this guidance in mind.

Decompression procedures

43. Decompression procedures (including the use of a decompression computer) should be appropriate for the type of diving technique undertaken and their use included in the diving project plan. For surface-orientated diving, decompression procedures should be consulted to determine whether the dive requires 'in-water' decompression. All decompression procedures should be designed to take into account the risks of a particular type of dive and should include the various rules and procedures needed in order to reduce the risk of decompression illness (DCI).

CONTROL

The Project Plan & Risk Assessment include dive plans that utilise the 'best mix' for depth to minimise any mandatory in-water decompression. Where mandatory in-water decompression is required a conservative gradient factor has been applied and all dives are planned to thirds and decompression is kept to a minimum.

The example: 50 metre dive contained within the Project Plan has a total of 28:47 minutes of deco, of which 18 minutes are at 6 metres.

Any dives below 50 metres would require prior approval and total decompression times would be kept to under an hour.

Regulation 6 Dive Teams

46. The following guide (see Figure 2) indicates a minimum team size of three for open water dives using SCUBA in benign conditions: clear water, negligible tide or current, no trapping hazard, easy entry and exit from the water, and where the task to be performed is not arduous. The dive team should be a supervisor and two divers working as a buddy pair capable of rendering assistance to each other in an emergency under water. An additional person on the surface is recommended to assist in lifting any injured diver out of the water.

CONTROL

All project dives have a minimum team of three, including two divers and surface cover.

Regulation 13

Duties of and restrictions on persons engaged in a diving project

Competence

98. In order to be a competent 'media diver', a diver should have gained a certain level of ability in using or handling or having specialist production equipment rigged on to them while they dive. This equipment includes sound, lights and cameras. Each media diver should have received sufficient relevant

NDAC PHOTOGRAMMETRY PROJECT



training and experience on how to operate and dive safely with the equipment.

CONTROL

All project divers engaged in photogrammetry / photography are suitably qualified and competent to do so. They are also suitably experienced having been engaged in such activities for a number of years to date.

Regulation 12

Duties of and restrictions on divers

Qualifications

99. HSE issues a list of approved diving qualifications suitable for diving under this ACOP. The list is available on the HSE diving website (see 'Further reading'). Divers must hold one of these qualifications before they can be engaged to dive in a diving project.

HSE approves the following additional qualifications for the class of Media Diving.

1. Where the divers are actors and performers and their associated safety divers (42) (including stunt divers and presenters) who regularly dive as part of their work, and who are taking part in a live performance or the recording of a performance(43):

Recreational

Qualifications that meet EN 14153-3/ISO 24801-344

CMAS 3*

CMAS 3* equivalent in a recreational agency/organisation whose qualifications are approved by HSE for the class of Recreational Diving

2. In Benign Pools, Tanks or Aquariums(45), which is defined as inland in Great Britain in a tank or pool artificially constructed for the purpose of swimming or diving or use as an aquarium, where the diver is in full view from the surface at all times, where no entanglement or entrapment hazards are present, with no interference from other activities, no scenery or set, and where the diver does not have any specially adapted diving equipment and/or specialist production equipment rigged on them whilst diving (the specialist production equipment rigged on the diver includes sound, lights and cameras):

Recreational

CMAS 2*

CMAS 2* equivalent in a recreational agency/organisation whose qualifications are approved by HSE for the class of Recreational Diving

Recreational Diving

The class of Recreational Diving (46) is defined as diving inland in Great Britain and inshore

NDAC PHOTOGRAMMETRY PROJECT



within United Kingdom territorial waters adjacent to Great Britain (generally 12 nautical miles from the low water line) which are covered by the Health and Safety at Work etc. Act 1974 (Application outside Great Britain) Order 2013(47) where the equipment and techniques are confined to free swimming using SCUBA in support of:

(a) the instruction and/or guidance of persons diving for recreational diving, that is diving carried out by a person for recreational purposes whilst not at work 48;

(b) recreational journalism undertaken for commissions and producing articles, including stills photography, for the recreational diving press only;

but does not include diving:

(a) where closed bell or saturation diving techniques are used;

(b) from vessels maintaining station by the use of dynamic positioning;

for which a qualification for the class of Offshore Diving is required.

HSE approves qualifications issued by the following Recreational Agencies/Organisations for divers wishing to undertake duties as a supervisor, diver, and person engaged in a diving project who dives, which duties are set out in regulations 10, 12, and 13 of the Diving at Work Regulations 1997 respectively:

American Nitrox Divers International UK Ltd - (ANDI);
Avon Protection (Avon Polymer Products Limited);
British Sub-Aqua Club - (BSAC);
Diveisc Ltd - (ISC);
DMT NASE UK;
Global Underwater Explorers (UK) Ltd - (GUE);
International Association of Nitrox and Technical Divers UK - (IANTD);
International Association of Rebreather Trainers - (IART);
International Technical Diving Agency - (ITDA);
International Technical Diving Association - (ITDA); Microdive Ltd; National Association of Underwater Instructors UK - (NAUI);
Professional Association of Diving Instructors International Ltd - (PADI);
Professional SCUBA Association International (Europe) - (PSAI);
Rebreather Association of International Divers AB - (RAID AB);
Sub-Aqua Association - (SAA);
Scottish Sub-Aqua Club - (SSAC);
SCUBA Diving International (UK) - (SDI);
SCUBA Schools International UK Ltd - (SSI);
Technical Diving International (UK) - (TDI);
Underwater Ecosystems Ltd.

8. Some recreational qualifications are acceptable for specific classes of diving. These are CMAS (Confédération Mondiale des Activités Subaquatiques (World Confederation of Underwater Activities)) qualifications or their equivalent where a particular Recreational Agency/Organisation is not a CMAS member, and also qualifications that meet EN 141533/ISO 24801-33.

NDAC PHOTOGRAMMETRY PROJECT



9. HSE has produced a table of equivalencies. Only CMAS 2*, and 3* equivalences are listed as only these are quoted in the List of Approved Diving Qualifications. Qualifications within a particular agency/organisation that are higher than those listed are therefore acceptable.

Recreational Agency/Organisation	CMAS 2* equivalence	CMAS 3* equivalence
American Nitrox Divers International UK Ltd (ANDI)	Rescue Diver	Divemaster
British Sub-Aqua Club (BSAC)	Dive Leader & Sports Diver	Advanced Diver
DMT NASE UK	Rescue Diver & Advanced Rescue Diver	Divemaster
Global Underwater Explorers (UK) Ltd (GUE)	Not applicable	All GUE qualifications
International Association of Nitrox and Technical Divers UK (IANTD)	Rescue Diver	Divemaster
International Technical Diving Agency (ITDA)	Advanced Nitrox Diver	Extended Range Nitrox Diver
National Association of Underwater Instructors UK (NAUI)	Master Scuba Diver	Divemaster
Professional Association of Diving Instructors International Ltd (PADI)	Rescue Diver	Dive Master
Professional SCUBA Association International (Europe) (PSAI)	Advanced Deep Air Level 1	Advanced Deep Air Level 2
Sub-Aqua Association (SAA)	Dive Leader & Club Diver	Dive Supervisor
Scottish Sub-Aqua Club (SSAC)	Diver	1 st Class Diver & Master Diver
SCUBA Diving International (UK) (SDI)	Rescue Diver	Divemaster
SCUBA Schools International GB Ltd (SSI)	Advanced Open Water Diver	Dive Guide
Technical Diving International (UK) (TDI)	Advanced Nitrox	Extended Range

CONTROL

The Project Supervisor / Lead Photogrammetrist holds a significant number of diving qualification that are above those detailed and includes both CMAS 2* and 3* diver and CMAS 2* instructor grades. (See Qualification List in separate document)

Regulation 12

Duties of and restrictions on divers

104. Diving logs should include as a minimum the particulars recommended in Appendix 3 of this ACOP. They should be accurate and reflect the information contained in the diving operation record.

CONTROL

All project divers log their dives and the Surface Cover logs all details separately.

Regulation 13

Duties of and restrictions on persons engaged in a diving project

Fitness

106. Divers whose medical fitness may be in doubt for any reason, for example fatigue, minor injury, recent medical treatment or who are taking any medication, must inform their supervisor. Even a minor illness, such as the common cold or a dental problem, can have serious effects on a diver under pressure, and should be reported to the supervisor before the start of a dive. Medications routinely taken may have significant side effects in hyperbaric environments. Supervisors should seek guidance from the diving contractor or the company's medical adviser if there is doubt about that person's fitness to dive.

CONTROL

All project divers are briefed and aware that they should not dive if they are feeling ill. Dive Supervisor has authority to stop anyone from diving whom he suspects isn't fit to dive.

Regulation 12

Duties of and restrictions on divers

Medicals

107. All divers at work must have a valid certificate of medical fitness to dive issued by an HSE medical examiner of divers, generally known as an Approved Medical Examiner of Divers (AMED). The certificate of medical fitness to dive is a statement of the diver's fitness to perform work underwater, and is valid for as long as the doctor certifies, up to a maximum of 12 months. A list of HSE medical examiners is available on the HSE diving website (see 'Further reading').

CONTROL

All project divers carry a 'Fit to Dive' medical appropriate for recreational diving purposes. The Project Supervisors holds a valid HSE medical. A copy of which is attached (overleaf).

NDAC PHOTOGRAMMETRY PROJECT



Health and Safety Executive

The Medical Examination and Assessment of Divers

- An HSE AMED should complete this form.
- Please place the card provided between carbonised pages before application.
- Please complete all relevant sections and tick box(es) where appropriate.
- Please retain pink copy for your records and give white copy to diver.

THIS IS A MEDICAL CERTIFICATE OF FITNESS TO DIVE FOR THE PERSON BELOW

Surname: **NEAL** Forename(s): **JAMES**
 Date of birth: **17.10.** Male Female Nationality: **BRITISH**
 Permanent address: **HEREFORDSHIRE HR9 6BL**

I understand that under the Diving at Work Regulations 1997, I must NOT dive if I know of anything, including any illness or medical condition, that makes me unfit to dive.

Diver's signature: Date: **19.11.2021**

Type of medical: Initial Annual Return to work
 Date of examination: **19.11.2021** Date of expiry: **18.11.2022** (TWENTY TWO)
 Is the diver medically fit to dive? Yes No

If diving activities are RESTRICTED (eg specific type of diving), state the diving restrictions below:

NO RESTRICTIONS.

Examining doctor (AMED) details

Name: **Dr Oliver Firth** HSE Pin No: **01-17-12**
 Address: **MB BS BSc MRCGP
HSE AMED 01-17-12
10 Seale Hill, Reigate, Surrey RH2 8HZ
+44 (0)7539 467990**
 Telephone No: **doctor@hyperdive.co.uk** Fax No: **www.hyperdive.co.uk**
 Email: **www.hyperdive.co.uk**

I confirm that I have performed the medical examination in accordance with the guidance in the current version of MA1

AMED signature: Date: **19.11.2021**

Retain for 7 years

Serial number: **163635**

USEFUL CONTACTS

HSE

Health and Safety Executive
Energy Division (Diving)
Rosebery Court
Central Avenue
St Andrews Business Park
Norwich
Norfolk
NR7 0HS

W: www.hse.gov.uk/diving/
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HSE AMEDS

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