



News from DMAC – the Diving Medical Advisory Committee

Dr Olav Sande Eftedal, Chairman

Bergen International Diving Seminar

NOVEMBER 2019

Diving Medical Advisory Committee



- The Committee is an independent network of diving physicians with a particular interest in, and experience from, commercial diving operations
- The main areas of focus are:
 - diving occupational medicine;
 - the preservation of divers' health and safety;
 - the quality of diving physician training;
 - acting as medical advisory body to the commercial diving industry
- Members of the Committee receive no payment for their time – the work of the committee is voluntary
- The Committee meets 2-3 times per year

Diving Medical Advisory Committee



History

- Founded December 1975 (?) as a forum for communication between responsible parties in establishing an effective medical service for North Sea occupational divers (UK and Norway)
- DMAC received organisational support from AODC (later IMCA), but was founded as an independent organisation
- Some important topics covered by the Committee in the early years
 - workshop on the in-water hazards of cold stress
 - hazards of exposure to chemicals at pressure
 - prevention of ear infections in saturation diving
 - applying relevant parts of US Navy Diving Manual to commercial diving
 - hyperbaric evacuation of divers in saturation
 - maximum safe oxygen level for nitrox diving



Diving Medical Advisory Committee

Approximately 25 active members from Europe, US, Far East and Australia:

- doctors professionally involved in the practice of commercial diving medicine;
- representatives from relevant regulatory authorities;
- medical representatives from navies with relevant expertise;
- a medical representative of the European Diving Technology Committee (EDTC);
- a diving industry representative nominated by the International Marine Contractors Association (IMCA)

The secretarial function is provided for by IMCA

DMAC Members

The following is a list of DMAC's current members and their affiliations.

- Chairman: **Dr Olav Sande Eftedal** - Equinor (Norway)
- Vice-Chairman: **Dr Pieter-Jan van Ooij** - Royal Dutch Navy (Netherlands)
- Lt (DMO) **Francesca Bevilacqua** - Italian Navy (Italy)
- **Dr Marc Borgnetta** - Institut National de Plongée Professionnelle (France)
- **Dr Alan Bray** - South West Independent Medical Services (UK)
- **Dr Alf O Brubakk** - University of Trondheim (Norway)
- **Dr Phil Bryson** - International SOS (UK)
- **Dr Steve Forman** - Health & Safety Executive, Merseyside (UK)
- **Dr John Hjelle** - Mediteam, Stavanger (Norway)
- **Dr Bård Humborstad** - Repsol, Stavanger (Norway)
- **Dr James Wilbert Johnson** - Iqarus (UK)
- **Dr Pasquale Longobardi** - Centro Iperbarico (Italy)
- **Dr Jean Yves Massimelli** - Flash Tekk Engineering Pte Ltd (Singapore)
- **Dr WAJ (Jack) Meintjes** - University of Stellenbosch (South Africa)
- **Dr Ian Millar** (Australia)
- **Dr Stein Modahl** - Inco AS (Norway)
- **Professor Graham Page** - Aberdeen Royal Infirmary (UK)
- **Surgeon Cdr Simon Phillips** - Royal Navy, Alverstoke (UK)
- **Dr Jan Risberg** - NUI (Norwegian Underwater Intervention), Bergen (Norway)
- **Cdr Anne (Brye) Roberts** - United States Navy Underwater Medical Officer, Royal Navy, Alverstoke (UK)
- **Mr Steve Sheppard** - Helix Energy Solutions Group/IMCA (UK)
- **Dr Ruth Stephenson** - Aberdeen Royal Infirmary Hyperbaric Unit (UK)
- **Dr Maarten van Kets** - Integrated Occupational Medicine Ltd (UK)
- **Dr Roland vanden Eede** - Mensura EDPB/Mensura SEPP (Belgium)
- **Dr Stephen Watt** (retired) (UK)
- **Dr Jürg Wendling** (Switzerland)
- Secretary: **Bryan McGlinchy, IMCA**

Diving Medical Advisory Committee

DMAC guidance notes:

- Currently 24 documents providing guidance in matters related to diving medicine and physiology for commercial diving
- New guidance notes and revision of existing notes is initiated based on input from the diving industry and Committee members

Code	Title	Current	Date
DMAC 01	Aide-mémoire for recording and transmission of medical data to shore	Rev. 1	Jul 2015
Guide	Electronic DMAC 01 instructions - Using Comments in Adobe Reader		Aug 2015
DMAC 02	In-water diver monitoring		Feb 1979
DMAC 03	Accidents with high-pressure water jets		Jan 1981
DMAC 04	Oxygen content in open circuit bail-out bottles for heliox saturation diving	Rev. 2	May 2016
DMAC 05	Recommendation on minimum level of O ₂ in helium supplied offshore		Jan 1981
DMAC 06	The effects of sonar transmission on commercial diving activities	Rev. 1	Jun 2010
DMAC 07	Flying after diving: Recommendations	Rev. 2	Nov 2017
DMAC 08	Thermal stress in relation to diving (Report of a workshop held in March 1981)		Mar 1981
* DMAC 09	<i>Fitness to dive after neurological decompression sickness</i>		
* DMAC 10	<i>Medical standards for ADS pilots, submersible crew and passengers</i>		
DMAC 11	Provision of first aid and the training of divers, supervisors and members of dive teams in first aid	Rev. 1	Nov 2001
DMAC 12	Safe diving distance from seismic surveying operations	Rev. 1	Jul 2011
DMAC 13	Fitness to return to diving after decompression illness	Rev. 2	Nov 2017
* DMAC 14	<i>Medical equipment to be held at the site of a diving operation</i>		DMAC 15
DMAC 15	Medical equipment to be held at the site of an offshore diving operation	Rev. 4	Dec 2014
* DMAC 16	<i>Saturation chamber hygiene</i>		DMAC 26
* DMAC 17	<i>The training and refresher training of doctors involved in the examination and treatment of professional divers</i>		DMAC 29
DMAC 18	Human Immunodeficiency Virus (HIV) Infection and Acquired Immune Deficiency Syndrome (AIDS) in Commercial Diving	Rev. 1	Dec 2010
DMAC 19	The effects of water vapour on diver physiology	Rev. 1	Nov 1990
DMAC 20	Duration of bell lockouts	Rev. 1	Nov 1997
DMAC 21	Guidance on the duration of saturation exposures and surface intervals between saturations	Rev. 2	Jun 2006
DMAC 22	Proximity to a recompression chamber after surfacing		Oct 1992
DMAC 23	The use of heliox in treating decompression sickness	Rev. 1	Jun 2014
* DMAC 24	<i>Differential diagnosis</i>		
* DMAC 25	<i>Recommendations for the provision of emergency care for the seriously ill or injured diver when in saturation</i>		DMAC 28
DMAC 26	Saturation diving chamber hygiene	Rev. 1	Jan 2016
* DMAC 27	<i>An industry standard for the provision of equipment for emergency medical care in saturation diving systems</i>		DMAC 28
DMAC 28	The provision of emergency medical care for divers in saturation	Rev. 2	Dec 2014
DMAC 29	Approval of diving medicine courses	Rev. 3	Jan 2014
DMAC 29	Approval of diving medicine courses - Checklist only	Rev. 2	Mar 2019td>
DMAC 30	Management in divers of osteonecrosis at Ficat stage 1		Jan 2007
DMAC 31	Accelerated emergency decompression (AED) from saturation		Mar 2013
Workshop	Accelerated emergency decompression from saturation in commercial diving operations (Report of a workshop held in April 2011)		Mar 2013
DMAC 32	Guidance on dealing with the body of a deceased diver in saturation		Jan 2014
Workshop	Improving diver safety current medical issues (Report of a workshop held in October 2014)		Mar 2016

Diving Medical Advisory Committee



DMAC guidance notes:

- The documents are published as a guidance for the industry and are not meant to be used as industry standard

8.1.3	Surface-supplied offshore gas and oil diving The following industry guidance documents shall be followed when planning and conducting surface-supplied diving operations in support of gas and oil operations in waters regulated by the National Energy Board (NEB), Canadian Newfoundland Labrador Offshore Petroleum Board (CNLOPB), or the Canadian Nova Scotia Offshore Petroleum Board (CNSOPB): a) International Marine Contractors Association (IMCA) Guidance Notes: 1 DESIGN D 023 — Surface Supplied (Air) Diving Systems; 2 DESIGN D 040 — Mobile/Portable Surface Supplied Systems; and 3 DESIGN D 048 — Surface Supplied Diving Operations using Nitrox; b) International Marine Contractors Association (IMCA) — Safety Notices; c) United Kingdom Health and Safety Executive (HSE), Offshore Safety Division — Operations and Safety Notices; d) Diving Medical Advisory Council (DMAC) — Guidance Notes;
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**CANADIAN ASSOCIATION OF DIVING CONTRACTORS
DIVE OPERATIONS SELF - AUDIT FORM
PUBLIC DOMAIN RELEASE
(Version Control # CSA-SA2016.04)**

The Diving Medical Advisory Committee

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Approval of Diving Medicine Courses

DMAC 29 Rev. 3 – March 2019

Supersedes DMAC 29 Rev.2, which is now withdrawn

- DMAC 29 contains **requirements** for diving medicine courses to be approved by DMAC/EDTCmed
 - Level 1 - Medical assessment of divers (Medical Examiner of Divers)
 - Level 2D - Medical management of diving accidents and illnesses (Diving Medical Physician)
- Revised March 2019 to include computer based training



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Safe Diving Distance from Seismic Surveying Operations

DMAC 12 Rev. 2 – October 2019

Supersedes DMAC 12 Rev 1 which is now withdrawn

- Where diving and seismic activity are scheduled to occur within a **distance of 45km** (28 miles), it would be good practice for all parties to be made aware of the planned activity where practicable
- Where diving and seismic activity will occur within **a distance of 30km** (18.6 miles) a joint risk assessment should be conducted, between the clients/operators involved and the seismic and diving contractors
- Links to databases for seismic operations included: the UK Kingfisher Bulletin and the Norway SAM-X database



Diving Medical Advisory Committee

Other DMAC guidance documents that have been updated recently are

- DMAC 07 Flying after Diving: Recommendations (2017)
- DMAC 13 Fitness to Return to Diving after Decompression Illness (2017)



Diving Medical Advisory Committee

Medical Equipment to be Held at the Site of an Offshore Diving Operation

DMAC 15 Rev. 4 – December 2014

Supersedes DMAC 15, DMAC 15 Rev. 1, Rev. 2 and Rev. 3, which are now withdrawn

DMAC 15 is under revision



Diving Medical Advisory Committee

The Provision of Emergency Medical Care for Divers in Saturation

DMAC 28 Rev. 2 – December 2014

*Supersedes DMAC 28 and DMAC 28 Rev. 1, which are now withdrawn
DMAC 28 also superseded DMAC 25 and DMAC 27.*

DMAC 28 is under revision



Diving Medical Advisory Committee

- All DMAC guidance documents and the list of DMAC/EDTC-approved courses available at

<http://dmac-diving.org/>



International Marine Contractors Association

Improving performance in the marine contracting industry

www.imca-int.com

The logo for the Diving Medical Advisory Committee (DMAC) is a dark teal circle with the letters 'DMAC' in white, outlined font. It is set against a background of several overlapping, semi-transparent light teal circles of varying sizes.

DMAC

The Diving Medical
Advisory Committee

www.dmac-diving.org