DECOMPRESSION TABLES AND PROCEDURES

For

Oxygen, Air, Helium-Oxygen, Nitrogen-Oxygen,
Multi-Gas Exposures, Saturation, Multi-Depth Diving

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ENVIRONMENTAL BIOMEDICAL RESEARCH DATA CENTER

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DECOMPRESSION TABLES AND PROCEDURES

SURFACE-SUPPLIED DIVING, AIR

Decompression Tables for Surface Supplied Air Diving using Surface Decompression with
Oxygen with IFEM Modification and Extensions, 70 to 220 feet (1980).

Shallow, Extended Duration Air Diving Tables 40 to 100 feet to 360 minutes, (1982).

Decompression Tables for Surface Supplied Air Diving using Surface Decompression with

Decompression Tables for Surface Supplied Air Diving involving Multi-Depth/Multi-Time
Exposures using Surface Decompression with Oxygen, 20 to 180 FSW, including special
abort and emergency procedures (1986).

Tables for Surface Decompression with Oxygen for Air Diving 30 to 170 FSW

Decompression Table for Air Diving using Standard In-Water Decompression 30 to 170
FSW (1993). Extension to 230 FSW.

Decompression Table for Air Diving using 50/50 Nitrogen/Oxygen during Decompression
30 to 170 FSW (1993). Extension to 230 FSW.

Decompression Table for Air Diving with Surface Decompression using Oxygen for 30 to

SURFACE-SUPPLIED DIVING, HELIUM-OXYGEN

Surface Decompression Tables Using Oxygen for dives of extended duration, 40 to 130
FSW, including special abort and emergency procedures (1980). (Nigeria)

Partial Pressure Tables for Surface Supplied Helium-Oxygen Diving using Surface
Decompression with Oxygen, 150 to 320 feet (1982). (IFEM Modifications to USN partial
pressure tables to eliminate requirement to breathe oxygen at 50 and 50 ft water stops)

Decompression Tables for Surface supplied Helium-Oxygen Diving using Surface

Emergency (Rescue Tables), 400 FSW (1984)
BELL DIVING, HELIUM-OXYGEN

Decompression Tables for Helium Bell Bounce Diving using Oxygen, 200 to 600 FSW including special abort, emergency, shift to saturation mode and therapy procedures (1984).

SATURATION AND SATURATION EXCURSION, HELIUM-OXYGEN

Decompression from exposure at 1200 FSW.

Decompression from limited excursions to 1200 FSW from 800 FSW and to 1600 FSW from 1200 FSW.

Unlimited duration excursions 0 to 1000 FSW.

Accelerated decompression from He-O2 saturation from depths to 1200 FSW (1987).

SATURATION AND SATURATION-EXCURSION, AIR OR NITROGEN-OXYGEN

Air saturation at 42 FSW with excursion to 100 FSW, TEKTITE I and II (1971).

Nitrogen saturation at 100 FSW.

Decompression Procedures for Normoxic Nitrogen-Oxygen Saturation Exposures, 0 to 100 feet (1973).

Shallow, Long-Duration Air Compression Exposures at 45 FSW for 4 to 8 hours (1976).


SPECIAL PURPOSE, Laboratory

Decompression schedules for investigator/support personnel involving single or multiple inert gas and oxygen exposures, 0 to 400 FSW.

Decompression schedules using oxygen and multiple inert gas sequencing (Helium, Neon, Nitrogen).

Prolonged exposure, N2-O2, 30 to 100 FSW.
SPECIAL PURPOSE, Open Sea

Decompression schedules for bell-bounce dive to 680 FSW breathing Neon-Oxygen.

THERAPY PROCEDURES for:

CONVENTIONAL DIVING

Program of intermittent O₂ use in US Navy Oxygen Treatment Tables.

Treatment Table 7A. Procedures for treatment of serious decompression sickness or air embolism using oxygen with multiple inert gas options when prior therapy has been unsuccessful (1979)

SATURATION DIVING

Procedure for treatment of decompression sickness or air embolism occurring during decompression from He-O₂ saturation or saturation excursion.

Procedures for treatment of decompression sickness or air embolism occurring during decompression from N₂-O₂ saturation or saturation excursion.

AD HOC

Procedures for treatment of serious operational decompression sickness or air embolism where conventional therapy procedures have proven ineffective.
INTERNATIONAL DECOMPRESSION TABLES HELD BY DATA CENTER COMMERCIAL

SURFACE SUPPLIED, AIR

Oceaneering/Ecosystems Surface Decompression using Oxygen for Multi-Depth/Multi-Time Exposures

Oceaneering Riser Repet-Up Air Diving Procedure

Modified Procedures to US Navy Standard Air Decompression Tables adopted by the following companies:
- SubSea International
- Oceaneering International
- Taylor Diving and Salvage
- Santa Fe
- McDermott Diving Division
- MarTech

SURFACE-SUPPLIED, HELIUM-OXYGEN

Modifications to US Navy Partial Pressure Tables adopted by the following companies:
- Solus Ocean Systems
- SubSea International
- Oceaneering International
- Taylor Diving and Salvage

BELL BOUNCE, HELIUM-OXYGEN

Ocean Systems MK VII
Ocean Systems MK VIII
Ocean Systems Access
Oceaneering Alpha
Oceaneering Bravo
Oceaneering 500 Yankee
SubSea SSM7

150-450 FSW
400-650 FSW
700-900 FSW
100-400 FSW
180-400 FSW
500 FSW
250-700 FSW

BELL BOUNCE, NITROGEN-HELIUM-OXYGEN

SOSI MK IV
SOSI MK V
SOSI MK VII
Intersub (French)

250-425 FSW
400-500 FSW
400-600 FSW
60-110 MSW
**BELL BOUNCE, NEON**
Ocean Systems MK IX
Ocean Systems Crude Neon Tables

| 400-700 FSW | 570-740 FSW |

**SATURATION AND SATURATION EXCURSION, HELIUM-OXYGEN**
Ocean Systems Saturation
Ocean Systems Access
SubSea SSM7
COMEX Saturation
SubSea Saturation Excursion X-2

| 150-400 FSW | 400-1000 FSW |
| 250-750 FSW | 30-280 MSW |
| 160-1060 FSW |
INTERNATIONAL DECOMPRESSION TABLES HELD BY DATA CENTER
NAVAL

SURFACE SUPPLIED, AIR

US Navy
Standard Air 40-300 FSW
Surface Decompression using Air 40-190 FSW
Surface Decompression using O2 70-170 FSW

Canada (DCIEM)
Standard Air 20-240 FSW
Air using Oxygen in water 50-240 FSW
Surface Decompression using Oxygen 60-240 FSW

Royal Navy
Standard Air (Table 11) 12-55 MSW
Deep Air (Table 12) 54-90 MSW
Surface Decompression using Air (Table 14) 12-60 MSW
Surface Decompression using Oxygen (Table 15) 36-60 MSW

France (Ministry of Labor/COMEX)
Standard Air 12-51 MSW
Air using O2 in water 12-51 MSW
Surface Decompression using Oxygen 12-51 MSW

Norway
Standard Air 6-60 MSW
Surface Decompression using Oxygen 15-51 MSW

Switzerland (Buhlmann)
Surface Decompression using Oxygen 12-70 MSW

Italian Navy
US Navy Air Tables (converted to meters):
Standard Air 12-51 MSW
Surface Decompression with Oxygen 21-51 MSW
Surface Decompression with Air 21-51 MSW

Netherlands
Standard Air 12-51 MSW
In-water O2 15-51 MSW
Surface Decompression with Oxygen 12-51 MSW
Surface Decompression with Air 12-51 MSW
Nitrox 18-30 MSW
SURFACE-SUPPLIED, HELIUM-OXYGEN

United States
US Navy Partial Pressure Tables
NOAA Helium-Oxygen
40-380 FSW
100-250 FSW

Canada (DCIEM)
Oxygen in water decompression
Surface Decompression using Oxygen
120-330 FSW
120-330 FSW

UK
Royal Navy Oxy-Helium Diving Tables
200-500 FSW

Germany
Navy Short Term Tables
100-200 MSW

BELL BOUNCE, HELIUM-OXYGEN-NITROGEN

French Navy
Extended Exposure Decompression Tables
164-230 FSW

SATURATION AND SATURATION EXCURSION, HELIUM-OXYGEN

United States (US Navy)
Saturation Decompression
Unlimited Duration Excursion
50-1000 FSW
150-1000 FSW

UK (Royal Navy)
Oxy-Helium Saturation Diving
50-305 MSW

SATURATION AND SATURATION EXCURSION, AIR OR NITROGEN-OXYGEN

United States
NOAA Nitrox Saturation
Habitat Diving Procedures (Hamilton et al)
to 115 FSW

Switzerland (Buhlmann)
Air-Nitrogen Saturation

China
Nitrox Saturation
6.5-36.5 MSW
SCUBA, HELIUM-OXYGEN (MIXED GAS)

United States
US Navy Helium-Oxygen Scuba

40-200 FSW

SCUBA, NITROGEN-OXYGEN

United States
US Navy Nitrogen-Oxygen Scuba
NOAA Nitrox I, II

30-160 FSW
50-150 FSW

CAISSON WORKERS, AIR

US Department of Labor (OSHA)
Kindwall-Edel (NIOSH)
State of New York
State of Pennsylvania
State of Wisconsin
Canada (DCIEM)
United Kingdom (Blackpool)
Germany
Japan

DIVING AT ALTITUDE

RECREATIONAL/SPORT

DCIEM Sport Diving Tables

30-150 FSW

Italy
Air tables (USN Standard Air, converted to meters and shortened)

Switzerland (Buhlmann)
Air

12-60 MSW
LISTING OF GOVERNMENT DIVING MANUALS HELD BY DATA CENTER

US Navy

US Navy Diving Manual,


   Vol 1 Air Diving, Revision 2, 15 December 1988.

   Vol 1 Air Diving, Revision 1, 1 June 1985.
   Vol 2 Mixed-Gas Diving, Includes Change 1 April 1982

   Original dated Sep 73, Change 1-1 Dec 75 and Change 2-1 June 78.


   Part 1 General Principles of Diving
   Part 2 Surface-Supplied Diving
   Part 3 Self-Contained Diving


Additional items:

Submarine Medicine Practice, NAVMED-P 5054, Bureau of Medicine and Surgery, Department of the Navy, 1956.
NOAA Diving Manuals


Canadian Forces Diving Manuals


Air Decompressin Procedures and Tables
Helium-Oxygen Diving Tables

Canadian Forces Air Diving Tables and Procedures, DCIEM, Department of National Defence - Canada. April 1986. (change 1 included)

Royal Navy Diving Manuals

Diving Manual, BR 2806 Ministry of Defence, Director of Naval Warfare. June 1987. (supercedes BR 2806 1972) includes air diving to 54 MSW


Netherlands National Diving Center


Norwegian Diving Tables


French Diving Tables

Proposition d’un Manuel de Procedures de Decompression a l’Air, FICHE C.E.P.M. #4723, 1987. (COMEX)
COMMERCIAL DIVING MANUALS, In use (Developments and Improvements)

Solus Ocean Systems, Bell Diving Tables

Oceaneering International, Alpha Heliox Bell Diving Tables, 1973

(Includes USN Standard Air and SSI Surface Decompression Using O2)

SubSea International, Accelerated He-O2 Saturation Decompression

(USN based HeO2 partial pressure tables)

(Includes SubSea Sur D/O2 Tables (DC), SubSea Standard Air (DC), and SubSea Air with 50/50 Nitrox Decompression (DC))