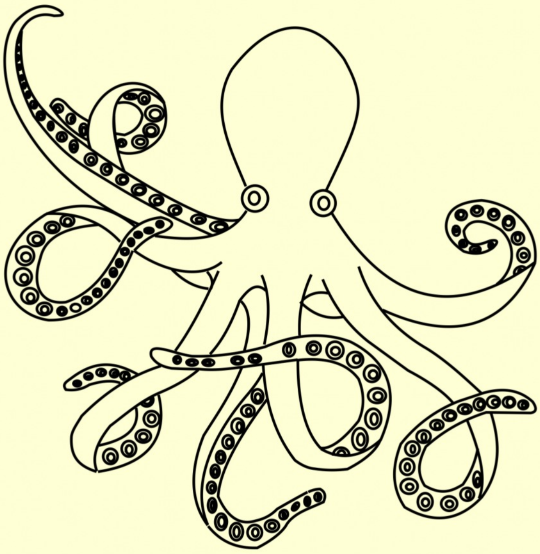

Diving & ROV specialists

Surface-Supplied Diving Handbook Series

Book #1

Overview of surface-supplied diving operations and scope of this series

June 2025

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This document is the first of eight books in the Surface-Supplied Diving Handbook Series, which is described below.

Book 1: Overview of surface-supplied diving operations and scope of this series
Book 2: Description and prevention of accidents associated to diving operations
Book 3: Legal aspects of project preparation
Book 4: Description and maintenance of surface supplied diving systems
Book 5: Managing Weather, Communications, Surface Supports & Underwater Vehicles
Book 6: Prepare and manage the dives
Book 7: Implement the MT 92 tables
Book 8: Implement the DCIEM tables

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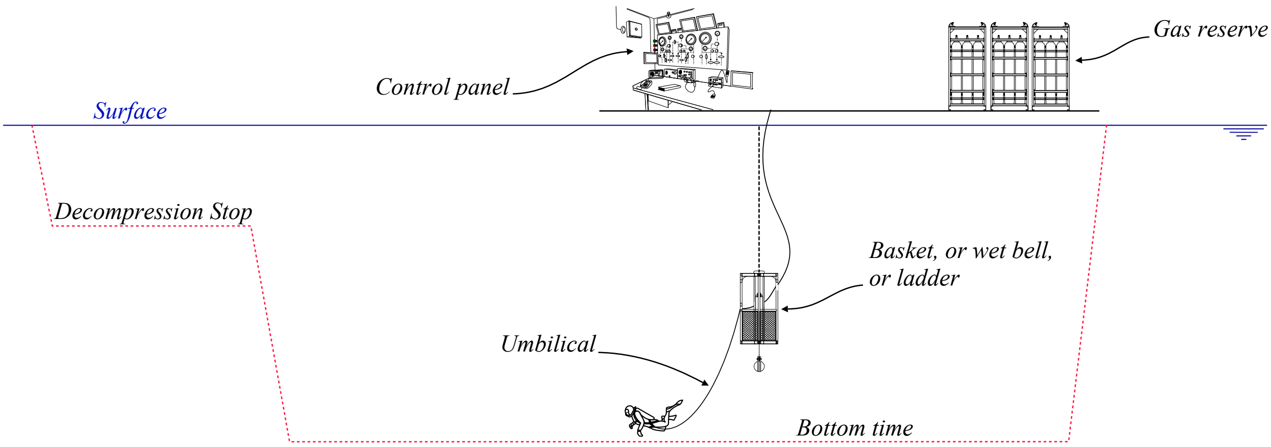
1 - Surface-supplied diving operations described in this handbook

"Surface supplied diving procedures", also called "Surface orientated diving procedures" by IMCA (International Maritime Contractor Association) and NORSOK (Norsk Sokkels Konkuranseposisjon - Norway), are incursion diving methods where the diver is deployed from the surface using systems such as ladders, baskets, and wet bells, and is supplied by gas using an umbilical by compressors and gas tanks, stored on the deck of the ship or the facility from which the diving operations are organized. This technic provides the advantage that the dive duration is not limited by the gas reserves the diver can carry and that he is not obliged to carry extra bottles. Also, even though the umbilical slightly restricts the diver's movements, it allows him not to be lost in the water and always return to its means of deployment. It also allows to keep him at a safe distance from identified hazards and not go too far from his means of deployment. In addition to breathing gas, the umbilical carries voice communications, video signals, depth control systems, electricity for the diver's light, and hot water for heating him in case of operations in cold water.



Having substantial gas reserves and heating systems to control the cooling-off of the diver gives the possibility of performing long dives. However, the diver will be physiologically limited by the decompression to perform due to the accumulation of gas in his organism, depending on the depth and the duration of exposure. Fatigue is also a phenomenon to take into account. For these reasons, statutory instruments of countries and guidelines published by professional organizations provide limitations linked to the gas breathed and the system of deployment used. Note that the advantage of surface supplied operations is that they do not require complex equipment like the two methods described below and can be quickly organized.

Transfer Under Pressure (TUP), is usually considered a surface supplied (or surface orientated) diving procedure. This method consists of transferring the divers to the working depths using a closed bell, which is then connected to a chamber where they perform their decompression. The difference with other methods of surface-orientated diving operations is that there is no decompression phase in the water, so the divers are isolated from the external conditions, which is an advantage in rough seas.
However, as a closed bell is used, I think it is a method between incursion and saturation diving that can only be performed by people trained to use such a bell. For this reason, it is not discussed in this handbook.

For information, the principle of saturation is based on the fact that if a diver stays for a sufficiently long time at a given depth, the breathing gas which is absorbed by the diver's body will gradually reach the ambient pressure at this depth. When this state is reached, the diver is said to be in a state of saturation. As a result, the decompression will be the same regardless of the time spent at this depth, and the diver can work at the depth he is stored without the need to perform decompression stops as long as he is maintained at this pressure. Thus, the divers live in chambers kept at the bottom's pressure and are transferred to the bottom using a pressurized closed bell. The decompression is done at the very end of the project. This diving method allows to dive a long time and at depths that are unreachable using incursion dive techniques from the surface. Saturation procedures are discussed in our "saturation diving handbook".

2 - Limitations of the surface supplied procedures described

2.1 - Limitations linked to the gasses used

Five types of gas mixes are employed for surface supplied operations:

2.1.1 - Air

Air is the mixture of gases that makes up the earth's atmosphere. It consists of 78.08% nitrogen, 20.98% oxygen, 0.90 % argon, 0.03% CO2, 0.17% of other gases, and water vapour that varies depending on the area (arid areas or wetlands such as the maritime zones). To make things more simple, it is usually said that air is composed of 78% Nitrogen, 21% oxygen, and 1% of other gasses in addition to moisture.
Air can be the natural earth's atmosphere or be a synthetic gas fabricated in specific plants. It can be delivered to the divers by Low-Pressure (LP) compressors or from high-Pressure (HP) gas containers where it is stored.
The limitation arising from this gas are of three natures:

- Nitrogen is a gas that provokes narcosis, a reversible alteration in consciousness that occurs while diving at depths deeper than 30 m.
- Due to its molar mass (28.9647 g/mol) and its density (1.292 kg/m3), air becomes uncomfortable to breathe past 50 m - 60 m, and obliges efforts of the thoracic cage that quickly fatigue the diver.
- Nitrogen is also a neutral gas that is not used by the organism and accumulates in it depending on the depth and duration of exposure. As a result, decompression stops may be necessary to gradually eliminate it when returning to the surface to avoid the effects of decompression illness that may damage parts of the organism and may trigger permanent disabilities or fatalities.

To control the problems above, the designers of diving tables limit the depths and bottom times in the documents they publish. Also, work labour ministries of countries often impose a maximum operational depth and limited bottom times. It is, for example, the case with the UK-HSE, which sets a maximum operating depth of 50 m with air and maximum bottom times based on the recommendations from the report "The incidence of decompression sickness arising from commercial offshore air-diving operations in the UK sector of the North sea during 1982/83" issued in December 1997 by doctors Shields and Lee. These UK HSE limitations have also been adopted by other countries and organizations such as the International Organization of Oil and Gas producers (IOGP). Note that some states and professional organizations apply operational air diving depth limits between 50 and 60 m. As an example, such as the Association of Diving Contractors International (ADCI) authorizes air dives up to 57 msw (190 fsw).
For consistency with all organizations, the procedures recommended in this handbook are based on the guidelines recommended by the UK-HSE.

2.1.2 - Nitrox

Scientifically speaking, a "nitrox" is a mix of oxygen and nitrogen. Thus, air is a "nitrox". However, in divers' language "nitrox" means mixtures nitrogen-oxygen with a percentage of oxygen more elevated than air. They are used to reduce the decompression time that is linked to the elimination of the nitrogen dissolved in the body. Thus a diver breathing a nitrox mix at a given depth will have less stops to perform than when breathing air. Usually, the decompression to be performed is calculated by using the Equivalent Air Depth (EAD) formula which allows to evaluate the equivalent depth on the air table: (nitrogen % x absolute depth)/79 - 10 msw or (nitrogen % x absolute depth)/79 - 33 fsw. However, some decompression table sets are provided with pre calculated equivalent air depths.
Nitrox mixes have also their limitations:

- They can trigger an acute oxygen poisoning if the partial pressure of this gas is too elevated, or chronic oxygen poisoning if a mix that does not trigger acute poisoning, but with a partial pressure of O_2 above 0.5 bar, is breathed too long a time. As a result, the maximum partial pressure must be limited, and also the duration and the frequencies of exposure.
- Another limitation is that such mixes lost their efficiency as we go deeper due to the fact that the percentage of oxygen that can be used diminish with the depth. Thus, we can say that nitrox mixes are ideal for dives above 30 m, and that the advantage they provide is widely more reduced below this depth.

The decompression table designers usually limit the maximum Partial Pressure (PP) oxygen breathed in the water to values between 1.6 and 1.4 bar. Also, the maximum times of exposure are usually given in the decompression table. They may, however, consist of a specific table such as the one provided by the "Diving standards and safety manual" published by NOOA (National Oceanic and Atmospheric Administration - USA), explained in book #1.
Note that the statutory instruments of many countries limit the maximum PPO_2 to values between those indicated above. However, some countries such as the United Kingdom and organizations such as IOGP, IMCA, and the Diving Medical Advisory Committee (DMAC) strictly limit the maximum PPO_2 to 1.4 bar, which also limits the efficiency of this procedure. This limitation is based on the theoretical equation of Morrison and Reimers, but also numerous experiments that prove that 1.3 bar is a limit below which acute oxygen poisoning does not happen. For compatibility with most published procedures and standards, this handbook's recommended maximum PPO_2 is 1.4 bar, and the times of exposure are those recommended by the UK-HSE operational limits, based on the works of doctors Shields and lee.

2.1.3 - Heliox

Heliox is a binary mix of helium and oxygen (HeO_2) that is used to limit the effect of the narcosis, a reversible alteration

in consciousness that occurs while diving at depth (> 30 m) with air or mixes using nitrogen or other narcotic gasses. Thus, with such mixtures, helium merely replaces the nitrogen of nitrox mixes. Another advantage of using helium in place of nitrogen is that it is a light gas that allows breathing comfortably at the depths where air becomes difficult to breathe. Note that heliox mixtures can be used from the surface to the planned depth of work, provided that the PPO_2 of the mix is appropriately calculated not to provoke hypoxia or acute oxygen poisoning (Hypoxia is generally considered to occur when the PPO_2 is less than 160 Mb).
The main inconvenience of heliox mixtures is that because helium is a light gas, it diffuses more quickly and deeply in the tissues that compose the body and is longer to restitute. As a result, diving with heliox requires longer decompression times than with air. For example, for a dive of 30 minutes at 39 metres, 40 minutes of decompression is necessary if using a heliox mix 22-24% oxygen, and 20 minutes and 30 seconds is necessary if breathing air.
Another inconvenience of heliox mixtures is that helium has a more elevated conductivity than nitrogen. As a result, the respiratory heat loss under heliox is six times faster than in air.
Another problem of heliox mixes is the cost of helium, which is a rare gas that cannot be fabricated. Reclaim systems can be installed to recover and recycle it. However, they have the inconvenience to be expensive, occupy a not neglected space, and to require a specific training of the personnel using them.
The tables published by competent bodies are designed to control the inconveniences of helium. These controls usually consist of limitations of the bottom times and pre-calculated mixes.
Also, some governments and professional associations limit the depth and the bottom times that can be applied. As an example, the French regulations restrict the use of surface supplied heliox diving procedures to depths less than 78 m. The United Kingdom "Approved Codes of Practices (ACOPs)" are more stringent and say that closed bell diving techniques should be used when diving deeper than 50 metres. ADCI limits the maximum depth to 300 fsw (91 msw), and IMCA and IOGP restrict it to 75 metres. IMCA also limits the bottom times of dives above 50 m to bottom times, calling for less than 100 minutes of in-water decompression, and the bottom times between 50 m and 75 m to 30 minutes, while IOGP restricts the bottom times to 30 minutes whatever the depth.
Again, for compatibility reasons with the most employed procedures, the recommendation of this handbook is to limit the depth to 75 m maximum and the bottom times to those promoted by IMCA.

2.1.4 - Trimixes

As suggested by their name, trimixes involve three different gasses. Incursion diving mixes are based on oxygen + nitrogen, + helium. The advantages and inconveniences of such mixes are between air and heliox mixtures, depending on the quantity of helium in the mix.
Note that there is currently no commercial diving table from well-known competent bodies based on such mixtures. However, they have been used by militaries and are employed by high-level sportive divers, so they may be used for commercial diving in the future. Also, the French labour ministry published a trimix table for coral fishers that can be downloaded through this link: http://diving-rov-specialists.com/index_htm_files/docs-2-tables-trimix-corail-mt95.pdf.
These technics are not described in this handbook as MT92/2019 procedures do not use such mixtures.

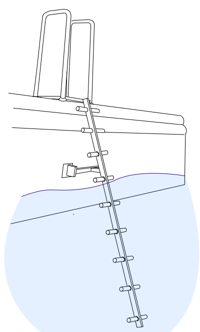
2.1.5 - Pure oxygen

Pure oxygen is used to speedup the decompression by replacing the nitrogen or the helium with oxygen during the stops at 6 m (20 fsw), 9 m (30 fsw), and 12 m (40 fsw). The inhalation of pure oxygen creates a washout which removes the nitrogen more efficiently. It has been demonstrated that systematic use of oxygen during the stops reduces the risk of decompression sickness.
The conditions for using pure oxygen are those of nitrox. However, although tables such as the US navy and DCIEM authorize the breathing of pure oxygen in the water at 30 fsw (9 msw), MT92/2019 limits it to 6 m to provide a safety margin and authorize its use at 12 m and 9 m in a wet bell. Note that NOAA (US-National Oceanic and Atmospheric Administration) also limits the oxygen in-water stops to 6 msw (20 fsw). Also, DCIEM provides an in-water decompression table with oxygen breathing at 6 m. For consistency, the in-water oxygen stops are limited to 6 msw, and deeper oxygen stops are performed in a wet bell in all our handbooks.

2.2 - Limitations linked to the deployment systems

Four means of deployment are employed for surface supplied operations. Their condition of use and limitations are decided by the statutory instruments of the countries and the professional organizations.

2.2.1 - Ladders



Ladders are the most simple means of deployment. Their advantage is that they can be installed on small boats. For this reason, they are often used for surface-orientated diving. In case in-water decompression is to be performed a stop line is installed at its direct proximity.
However, the use of ladders is limited by the problems below:

- Depending on the height of the launching station above the surface of the water, they may oblige the diver to make efforts to ascent to the deck at the end of the dive, which can trigger decompression accidents. Thus, limiting this height to 2 m is recommended.
- They are not considered suitable for performing "surface decompression", which is a method of decompression that consists of partially decompressing the diver by completing

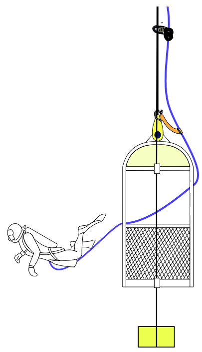
to complete the decompression in it. The main reasons for this incompatibility are that ladders do not allow for a controlled ascent as with a basket, in addition to the fact that the diver must climb the ladder and thus make efforts while he is decompressing. As a result, the surface transfer to the chamber may not be under control and, therefore, trigger a decompression accident.

- Diving using a ladder does not offer the possibility to restrict the diver's umbilical as precisely as using a basket because it is not enclosed in the deployment device. Suppose that a diver deployed from a Dynamic Positioning (DP) vessel is suddenly returned toward the surface for any reason. In that case, the umbilical length deployed during the descent or at depth is too long to prevent him from being drawn toward the active propellers and thrusters of the surface support, resulting in a high probability of fatality. Based on these considerations, all commercial diving organizations state that using ladders for diving from Dynamic Positioning (DP) vessels is highly hazardous and must be strictly forbidden.
- Because they are deployed in the splash zone of the vessel or the facility, they do not provide any protection against the waves and sudden movements of the ship that may prevent the divers from grabbing them and may cause injuries.

Note that the guidelines from NORSOK U 100 do not speak of ladders.
In addition, some clients limit the use of ladders to no-decompression dives only and thus consider that a system using a ladder is a "scuba replacement". "Scuba replacements" are portable systems that are, at the simplest, composed of three cylinders of breathing air mounted in a frame with a small control panel to which at least two divers umbilicals (Diver + standby diver) are connected. Dives with these systems are usually limited to 35 m with IMCA and 30 m with IOGP. Nevertheless, exceptions can be made to go to 50 m in special circumstances.

The procedures promoted in this handbook allow for ladders as primary means of deployment for no-decompression and decompression dives in waters where the weather and underwater conditions are continuously favorable, and only for operations are not performed in areas where the abandonment of the worksite may be necessary due to dangers linked to the facility's activity. Note that if one of these conditions is not fulfilled, the use of a ladder as primary means of deployment should be limited to no-decompression dives only.

2.2.2 - Open baskets

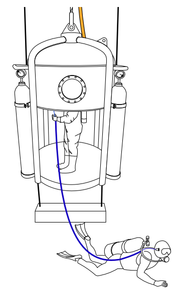


Open baskets are cages used to deploy the divers to the bottom and recover them to the deck in a controlled manner. They allow for deployments at roughest weather conditions than ladders and provide extra gas reserves to the divers (cylinders + Mouthpieces and neck dam hoses). Also, they allow restricting the divers' distance horizontally,
Open baskets are the most used deployment systems in the industry, although they are not considered the safest ones.
Note that baskets are usually designed to carry at least two divers (many models are designed for three persons) and provide divers' protections using top, lateral, and bottom grids. The divers usually enter the basket through the gate. When at depth, they go to the job site through the window on the opposite side of the gate, so the umbilicals are enclosed in it. Another means for securing the umbilicals to the basket is installing specific guide rings where the umbilicals are enclosed before starting the dive.
Even though gas reserves are provided in baskets, these deployment devices are not considered refuges where the divers can stay a long time. Also, the diver is confronted with the narcotic effect of nitrogen that increases with the depth. For these reasons, most European laws limit their use to 50 m. It is the limit also selected in this handbook.

2.2.3 - Baskets equipped with a dome

Such baskets are similar to those described above, except that the top of the device is closed by a dome that can be filled with air or heliox from its onboard gas reserves. It allows removing a helmet if necessary and thus provides a refuge that can be used for short periods.
These systems, which are between baskets and real wet bells, are less common than open baskets. It must be said that although they provide refuge and can be considered safer than open baskets, such systems are not considered by the statutory instruments of countries and professional organizations. Also, they are not regarded as wet bells because they are not supplied with gas and controlled from the surface.
For these reasons, they are considered baskets, so they are thus limited to the range allowed with such deployment devices by most national and professional organizations national and professional organizations.

2.2.4 - Wet bells



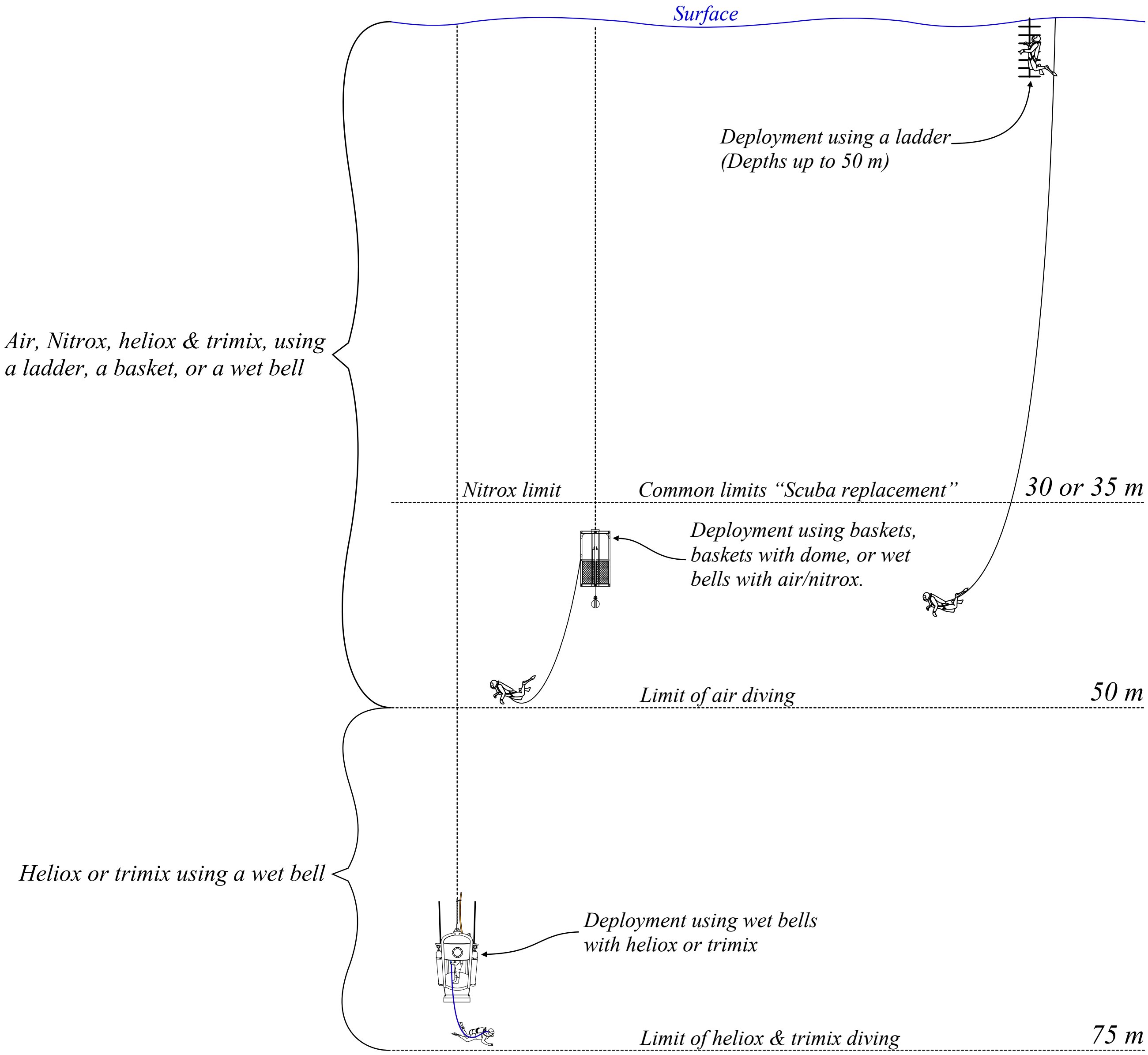
A wet bell consists of a dome sufficiently wide to accommodate two or three divers, designed to have the body parts above the belt outside the water when standing up in it or are sitting on the seats. It is supplied from the surface by the main umbilical that also carries communications, lights, video, gas analysis, depth reading systems, and hot water if necessary. The bell is provided with onboard gas reserves that must be sufficient to complete the longest decompression from the maximum depth the bell is designed for. An onboard panel allows controlling the gas to the divers and the dome. Also, an intercom allows discussion from the dome to the surface and vice versa.
Some recent bells are not provided with oxygen decompression systems. However, such methods are promoted in this handbook as they allow speeding up the decompression. For this reason, the procedures described are based on those previously recommended by COMEX.

Note that wet bells are mandatory for dives below the air dive limit up to the surface supplied heliox limits indicated before. Thus, the limits promoted in this handbook are 50 m for air diving and 75 m for heliox diving, which conforms with IMCA procedures.

2.3 - Summary of the limitations promoted in this handbook

The depth limitations selected in this handbook conform with those of IMCA that are the most implemented, even by companies not members of this association. They are less stringent than those in force in countries such as Norway. However, they are more balanced, and nothing forbids the reader from reinforcing them if necessary. Also, most people reading this document will never have access to these waters.

- Air or Nitrox diving using a ladder is limited to no-decompression dives for operations in places where the weather conditions can suddenly become unfavorable or where the abandonment of the worksite in an emergency may be necessary due to the facility's activity hazards. However, ladders can be used for decompression dives that will not be interrupted by suddenly degraded weather conditions or the urgent abandonment of the area for safety reasons. Thus, all surface-supplied operations up to to 50 m, where surface decompression is unnecessary.
- Diving with baskets is limited to 50 m, whatever is the bottom mix used. Note that if a ladder is used to launch the standby diver, the weather conditions for starting the dive are those of this means of deployment.
- Diving with a wet bell is limited to 50 m if the gas breathed is air or nitrox and 75 m if heliox and trimixes are used. Also, dives with heliox or trimix are limited to 50 m if the standby diver is deployed in a basket.



The bottom time limits are those suggested by doctors Shields and Lee in the report "The incidence of decompression sickness arising from commercial offshore air-diving operations in the UK sector of the North sea during 1982/83" issued in December 1997, and adopted by the UK Health and Safety Executive (HSE), and The International Association of Oil & Gas Producers (IOGP). The reason is that this report is based on a scientific process, and that these limits are today the most employed.

The oxygen partial pressure limit at work is 1.4 bar. It is selected according to the scientific studies indicated in the

chapter "adverse effects of hyperbaric oxygen" of Book #1, "Description and prevention of diving accidents".
This limit is also selected by NOAA (National Oceanic and Atmospheric Administration - USA). This limit of 1.4 bar replaces the previous limit of 1.6 bar, considered suitable during the eighties and nineties.

3 - Organization of the handbooks and topics discussed

3.1 - Organization of the handbooks and themes discussed

In addition to this document, which explains the diving methods discussed in this handbook series and their limitations, seven separate handbooks are provided, each describing a specific aspect of the organization of surface-supplied diving operations. Note that two decompression table sets, renowned for their reliability, are included along with the relevant documents demonstrating that these decompression procedures are suitable for underwater work.

3.1.1 - Book 2: Description and prevention of accidents associated to diving operations

This document provides information on the medical aspects of diving operations. It should be noted that this handbook is the first of the ensemble, as the procedures provided in this series are the result of the physiological effects of pressurization and water on the diver's body. Therefore, knowing them is essential for understanding the reason for the procedures described in this handbook series. This book is divided into the following main themes:

- Elements of anatomy and physiology
- Accidents linked to air & surface gas diving
- Medical tables US Navy revision 7
- Therapeutic tables COMEX
- Medical equipment checklist, recording data forms, and *UPTD tables

Note*: ESOT system has now replaced UPTD and should be implemented accordingly. However, many national bodies and companies have not yet adopted it and continue to rely on UPTDs for their calculations, which is why they are still provided.

3.1.2 - Book 3: Legal aspects of project preparation

This essential phase is often neglected by diving contractors in their company manuals and procedures, as well as in training manuals provided by professional organizations, resulting in many mistakes that people learn to avoid by experience, so after having made them. This document provides guidelines on the following themes:

- Organizations publishing rules and guidelines that influence diving operations.
- Parts of the sea under the authority of States
- Team size and responsibilities
- Documentation and certifications

3.1.3 - Book 4: Description and maintenance of surface supplied diving systems

The design and maintenance of diving systems is another aspect often neglected in national bodies and company manuals, resulting in inappropriate guidelines. This book has been designed to provide minimal information on the following themes:

- Description of the various parts of a surface supplied diving system
- Maintenance of the diving system

3.1.4 - Book 5: Managing Weather, Communications, Surface Supports & Underwater Vehicles

The themes discussed in this book are mentioned in its title. They are essential elements that should be addressed at the beginning of the diving project.

- Weather and currents
- Communications
- Working from barges or moored vessels
- Diving from Dynamic Positioning (DP) vessels
- Diving from facilities and self-elevating units
- Diving with Remotely Operated Vehicles (ROV)

Note: Contrary to what many believe, probable weather conditions are to be considered before launching the operations. This is possible by studying the documents provided by the relevant national bodies or, if nothing is available, by downloading the "Atlas of Pilot Charts" from the Section Documents/Diving and ROV Procedures/ of our website. Numerous reports suggest that this essential phase is commonly neglected by clients when preparing projects, resulting in delays and pressure on the contractor when the client project team sees things drifting outside their initial predictions, which the contractor is rarely responsible for. Similarly, "communications" are not limited to conversations between the diving supervisor and the diver but instead consist of establishing an ensemble of voice, sounds, and visual signals that must be considered during the project preparation.

3.1.5 - Book 6: Prepare and manage the dives

This book provides information on the following:

- Gas management
- Prepare the diving operations
- Diving operations

Note that the "gas management" section discusses gas mixing, storage, and usage predictions, which is an essential part of the diving project preparation. The "preparation of the diving operations" discusses task plans, equipment checklists, and other elements that must be in place immediately before launching the diving operations. The "Diving Operations" section discusses safe practices for launching and recovering divers, in addition to contingency plans to be in place to recover the divers as soon as possible in case of an undesirable event.

3.1.6 - Book 7: Implement the MT 92 tables

In addition to procedures for using the MT 92 tables, this book describes their creation and provides comparisons with other table sets that users can use to demonstrate to their clients that they selected this table set based on consistent thinking. This presentation is structured as follows:

- Structure and Enhancements of the MT 92 Diving Tables
- Implement the MT92 air standard and nitrox procedures
- After the dive
- MT92 decompression tables set ready for use in the dive control

3.1.7 - Book 8: Implement the DCIEM tables

DCIEM tables are provided in metric and imperial systems. The method for presentiong these tables is the same as the one employed for the MT 92. As a result, this book is structured as follows:

- Structure and Enhancements of the the DCIEM diving tables
- Implement the DCIEM air standard and nitrox procedures
- After the dive

3.2 - List of topics discussed in this hanbook

The list below indicates the main topics discussed in this handbook series, the books where they are mentioned, the page in each book, and the main section where they are classified.

<table>
<tr><th>Main section</th><th>Topic discussed</th><th>Book</th><th>Page</th></tr>
<tr><td rowspan="7">Elements of anatomy and physiology</td><td>Cell (human & animals)</td><td rowspan="8">Book #2</td><td>22</td></tr>
<tr><td>Skeletal system</td><td>26</td></tr>
<tr><td>Muscular system</td><td>30</td></tr>
<tr><td>Skin</td><td>35</td></tr>
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<tr><td>Circulatory and respiratory systems</td><td>44</td></tr>
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<tr><td>Accidents linked to air & surface gas diving</td><td>Hypothermia</td><td>69</td></tr>
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Main section	***Topic discussed***	***Book***	***Page***
Accidents linked to air & surface gas diving	*Cold shocks*	Book #2	*72*
	Hyperthermia		*73*
	Sinus barotrauma		*76*
	Ear barotrauma		*77*
	Teeth barotrauma		*80*
	Helmet squeeze and nips		*81*
	Adverse effects of hyperbaric oxygen		*83*
	Narcosis		*108*
	Hypoxia & anoxia		*110*
	Hypercapnia		*112*
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	Pulmonary barotrauma		*119*
	Decompression accidents		*126*
	Isobaric inert gas counterdiffusion		*160*
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	Hydrocarbons		*163*
	Hydrogen sulfide (H2S)		*168*
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	Treatment of various diseases using hyperbaric oxygen		*176*
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Main section	*Topic discussed*	*Book*	*Page*
MT92 decompression tables set ready for use in the dive control	*Simplified standard air table*	Book #7	*104*
	Standard air tables		*105*
	Air in-water oxygen decompression at 6 m		*113*
	Oxygen surface decompression		*121*
	Nitrox diving equivalent depth table		*126*
	Multilevel diving equivalent depth table		*127*
	Altitude diving equivalent depth table		*128*
	Mud diving equivalent depth table		*129*
	Successive (repetitive) dive equivalent depth table		*130*
Structure and Enhancements of the the DCIEM diving tables	*What is DCIEM?*	Book #8	*8*
	The DCIEM decompression model		*8*
	Comparison of the air in-water decompression stops with those of MT 92		*65*
	Quick comparison with the USN tables		*80*
	Reinforcement of the original procedures		*97*
	About the ascent rate of 18 m (60 ft) per minute		*100*
Implement the DCIEM air standard and nitrox procedures	*Tables standard air with in-water stops*		*102*
	Tables standard air with oxygen surface decompression		*157*
	Tables standard air with in-water oxygen decompression at 20 fsw/6 msw		*200*
	Nitrox diving procedure		*233*
After the dive	*Proximity of chamber and activities following a dive & flying after diving*		*243*