Section 14 — Abbreviations and Glossary

Larson[1]

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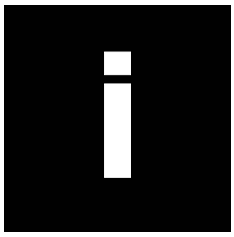
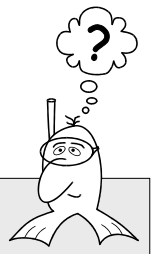


CONTENTS

REVISED BY: Active Learning Partners (Bronwen Campbell), Ian A. Milliner, and Paul Bulter **DATE & TIME:** 24-Feb-05 10:46
FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

1 ABBREVIATIONS



NTK!

The diving industry is full of these short abbreviations and acronyms. Knowing what they mean will help you to work successfully!

ABBREVIATIONS

Listed below are common abbreviations used in the occupational diving industry and by ADAS in these notes.

ABC	Airway, Breathing, Circulation
AC	Alternating Current Power
ADS	Allied Diving Services Pty Ltd.
ADSER	Allied Diving Services Employee Representative
Air	Gas mixture of approximately 20% O_2 and 80% N_2
ALARP	As Low As Reasonably Practical
AMMA	Australian Mines and Metals Association Inc.
ANX	Annexes
AS	Australian Standards
AS/NZS	Australian/New Zealand Standards
ATA	Atmospheres Absolute
ATM	Atmospheres
BIBS	Built In Breathing System
BSS	Basic Sea Survival
BT	Bottom Time
CAR	Client Authorised Representative
CDF	Commercial Diving Fundamentals
CO	Carbon Monoxide
CO2	Carbon Dioxide
CP	Cathodic Potential
CPR	Cardio Pulmonary Resuscitation
CNS	Central Nervous System
DA	Designated Authority
dB	Decibel
DC	Direct Current Power
DCI	Decompression Illness
DCIEM	Defence and Civil Institute of Environmental Medicine - (Canada)
DCS	Decompression Sickness
DDC	Deck Decompression Chamber
DMAC	Diving Medical Advisory Committee (IMCA)
DMPR	Department of Mineral and Petroleum Resources, (now DoIR, formally DME)
DMT	Diving Medical Technician
DoIR	Department of Industry and Resources
DP	Dynamically Positioned
DPI	Dye Penetrant Inspection
DPP	Diving Project Plan
DPV	Dynamically Positioned Vessel
DRABC	Danger, Response, Airway, Breathing, Circulation
DSMS	Diving Safety Management System
DSV	Dive Support Vessel
DTE	Diver Training Establishment
EAD	Equivalent Air Depth

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FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

EAN	Enriched Air Nitrox
EAR	Expired Air Resuscitation
EBT	Effective Bottom Time
ECU	Environmental Control Unit
ELCB	Earth Leakage Circuit Breakers
ERP	Emergency Response Plan
fpm/FPM	Feet per minute
FSW	Feet of Sea Water
GVI	General Visual Inspection
HAZOB	Hazard Observation
He	Helium
HLB	Hyperbaric Lift Boat
HP	High Pressure
HPNS	High Pressure Neurological Syndrome
HRC	Hyperbaric Rescue System
HRF	Hyperbaric Reception Facility
HSE UK	Health and Safety Executive United Kingdom
HUET	Helicopter Underwater Escape Training
IAW	In accordance with
IMCA	International Marine Contractors Association
JHA	Job Hazard Analysis
JSA	Job Safety Analysis
kg	Kilograms
km	Kilometres
KMB	Kirby Morgan Band Mask
kPa	Kilopascals
LARS	Launch and Recovery System
lbs	Pounds
LP	Low Pressure
lpm	Litres per Minute
LST	Life Support Technician
LSS	Life Support Supervisor
m	Metres
mb	Millibar
mm	Millimetres
MPI	Magnetic Particle Inspection
MSDS	Materials Safety Data Sheets
MSW	Metres of Sea Water
NATA	National Association of Testing Authorities
N2	Nitrogen
NITROX	Air in which the 21% O_2, 79% N_2 has been changed, usually enriched air
NORM	Naturally Occurring Radioactive Material
NTDBIRD	Northern Territory Department of Business, Industry and Resource Development
OIM	Offshore Installation Manager
O2	Oxygen
P(SL)A	Petroleum (Submerged Lands) Acts Schedule - Specific requirements as to offshore petroleum exploration and production (The current edition of the P(SL)A shall always apply).
PIC	Person in Charge
PMS	Planned Maintenance System
PPE	Personal Protective Equipment
ppm	Parts per Million
$PpCO^2$	Partial Pressure of Carbon Dioxide
PpN^2	Partial Pressure of Nitrogen
PpO^2	Partial Pressure of Oxygen
PSU	Power Supply Unit
PVHO	Pressure Vessel for Human Occupancy
QAS	Quality Assurance System
QMP	Quality Management Plan

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FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

RA	Risk Assessment
RCC	Recompression Chamber
RCD	Residual Current Device
RF	Repetitive Factor
RG	Repetitive Group
RM	Risk Management
RN	Royal Navy
ROV	Remotely Operated Vehicle
SA	Standards Australia (formally called the Standards Association of Australia)
SAA	Standards Australia (formally called the Standards Association of Australia)
SATCOM	Satellite Communications
SCUBA	Self-contained Underwater Breathing Apparatus
SDC	Submersible Decompression Chamber (Bell)
SDU	Surface Distribution System
SI or SF	Surface Interval
SMP	Safety Management Plan
SN	Safety Notice
SOP	Standard Operating Procedures
SR	(ADS) Safety Representative
SSBA	Surface Supplied Breathing Apparatus
SUB	Submarine
SUR 'D'O_2	Surface Decompression on Oxygen
SWL	Safe Working Load
TUP	Transfer Under Pressure
TV CAMERA	Television Camera
UPTD	Unit of Pulmonary Toxicity Dosage
USA	United States of America
USN	United States Navy
UT	Ultrasonic Thickness
VAC	Volts Alternating Current
WOW	Waiting On Weather

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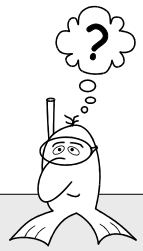
2 GLOSSARY OF DIVING AND MEDICAL TERMS



NTK!

These terms will appear throughout the notes so it is important you understand them.

GENERAL COMMENTS

Listed below are common definitions of diving and medical terms used in the occupational diving industry and by ADAS in these notes.

A

abdomen — The part of the body located between the diaphragm and the pelvis, the cavity that contains the abdominal organs (viscera).

abeam — Abreast of, or at right angles to, the fore and aft line of the vessel.

abort — To terminate a dive task or procedure ahead of schedule or before completion.

abort profile — Decompression schedule used to bring a dive safely to the surface when a dive must be aborted.

absorption — Taking in, as through pores, soaking in or up.

accepted DSMS (see also DSMS) — Accepted DSMS means a DSMS that has been accepted by the relevant Designated Authority under regulation 9 or 10 of the Petroleum (Submerged Lands)(Diving Safety) Regulations 2002.

ACFM — Actual cubic feet per metre.

acidosis — Clinical term indicating an increase in the acidity of the blood.

acoustic (auditory) nerve — The eight cranial nerve; controls hearing.

act — Act means the Petroleum (Submerged Lands) Act 1967, unless otherwise specified elsewhere in this text.

ADAS — ADAS means the Australian Diver Accreditation Scheme administered by the Department of Industry, Tourism and Resources.

adjacent area — Adjacent area has the same meaning as in section 5A of the Petroleum (Submerged Lands) Act 1967.

adrift — A ship is said to be adrift when broken away from her moorings and without means of propulsion.

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adsorption The assimilation of a gas or vapour by the surface of a solid.

aft Towards the "stern" or rear of the vessel.

ahead In front of the vessel.

air A naturally occurring gas mixture comprising approximately four-fifths nitrogen, one fifth oxygen, and various trace gases.

air embolism A pathological condition occurring in the body when bubbles of air are forced into the circulation and gain access to the arterial system, causing blockage of blood flow and leading to local hypoxia and cellular death.

air lock A small chamber with outer and inner hatches that allow divers to swim out by equalising chamber pressure with ambient sea pressure.

alkalosis Clinical term indicating an increase in the alkalinity of the blood.

alternobaric vertigo Dizziness caused by asymmetric clearing of the middle era during ascent or descent.

altitude correction Adjustment to decompression schedules necessitated by the reduced barometric pressure prevailing at altitude.

alveolar A small depression or pertinent to an alveolus.

alveoli A cluster of air sacs at the end of the bronchial trees; sockets for the teeth or any small hollows or cavities; singular from, alveolus.

alveolus A small membranous sac in the lungs in which gas exchange takes place.

ambient Pertaining to the surrounding environment.

ambient pressure The total pressure surrounding an object i.e. hydrostatic pressures plus atmospheric pressure.

anaesthesia The loss of feeling or sensation; particularly the sensation of pain.

analgesic A medication that reduces or eliminates pain.

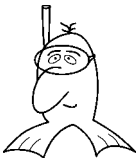
anatomy The science of the structure of the body and the relationship of its parts to one another.

aneurism A saclike enlargement of a blood vessel caused by a weakening of the cell wall.

anoxia The absence of oxygen (see: hypoxia).

apnoea A temporary cessation of breathing.

aqualung A self-contained underwater breathing apparatus in which air from a cylinder is supplied to the diver at surrounding pressure; also, scuba.



aquanaut A person trained to live and work in the water (That's you!)

argon A colourless, odourless gas which does not react chemically under standard conditions; used occasionally as a diluent gas in diving.

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FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

arrhythmia	A lack of normal rhythm, especially of the heart beat.
arteriole	The smallest artery; one that branches into the microscopic capillaries.
artificial respiration	Any means by which an alternating increase or decrease in chest volume is created, while maintaining an open airway in mouth and nose passages.
AS/NZS	AS/NZS, followed by a number, means the Australian and New Zealand Standard of that number, as existing from time to time. **NOTE:** In all cases the most up-to date standard takes precedence over those listed in this text or any other ADAS document such as diving operations manuals.
ascent	Movement in the direction of reduced pressure whether simulated or due to actual elevation in air or water.
aseptic	Free from any infection or septic material.
asphyxia	Condition characterised by decreased oxygen and increased carbon dioxide in the body as a result of interference with respiration.
aspirator	A device used to remove liquids or gases from a space by suction.
astern	Behind or in the back of the vessel.
athwartship	Across the vessel; at right angle to the fore and aft direction.
atmospheres absolute	The sum of barometric and hydrostatic pressure.
atmospheric diving system	A pressure-resistant one-man diving system that has articulated arms and sometimes legs, and is equipped with life support capability and designed to operate at an internal pressure of one atmosphere.
atmospheric pressure	Pressure exerted by the earth's atmosphere, which varies with altitude above sea level.
atom	A unit of matter; the smallest unit of an element, consisting of a nucleus surrounded by a system of electrons equal in number to the number of nuclear protons.
attended diving	Diving with a lifeline and a tender.
audiometer	An instrument used to measure hearing thresholds for pure tones at normal frequencies.
aural	Pertaining to the ear.
aural barotrauma	Damage of the eardrum or both, caused by changes in ambient pressure.
autonomic nervous system	That part of the nervous system not under conscious control.
a-v (arteriovenous) shunt	A link between an artery and a vein that may be congenital, occur spontaneously, or be created surgically. It can cause blood to flow prematurely from one vessel to another.

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FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

B

back pressure	Pressure resulting from restricting the normal flow of gas.
ballast	Weight in the form of water, lead, iron pigs or shot, used to change the displacement of a submersible vessel.
bar	An offshore ridge or, mound of sand, gravel, or other material submerged at least by high tide, especially at the mouth of a river or estuary or lying a short distance form a beach. Also a unit of measurement: 0.98692 atm
barometer	An instrument for measuring atmospheric pressure.
barometric pressure	Air or atmospheric pressure.
barotitus media	See middle ear squeeze.
barotrauma	Physiological injury or damage to the tissues caused by unequal pressures.
beam	Width at the widest point of the vessel.
bell	A tethered underwater support system providing life-support services and used to transport divers.
bend	To tie two ropes together.
bends	An imprecise colloquial term usually denoting decompression sickness with pain in the extremities (see: decompression sickness)
beta blockers	Drugs used to treat a variety of conditions, including cardiovascular problems. A prominent effect of these drugs is a reduction in heart rate, which causes, in turn, a reduction in cardiac output and oxygen consumption by the heart muscles.
bight	A loop in a rope.
bilge	The lowest inside part of the boat.
bilge keel	Small fin keels on the sides of or in lieu of the main keel.
bleeding	The appearance of fresh blood at the nose, ears or mouth, or from a wound; the reduction of pressure in a linear chamber by slightly opening a valve.
block	A pulley.
blowup	The uncontrolled ascent of a diver wearing a deep-sea diving suit or a variable-volume drysuit.
body squeeze	Squeeze caused by excessive external pressure when the diver is wearing a variable-volume dry suit with a rigid helmet, most commonly caused by falling through the water at a rapid rate, or failure of the non-return valve in the helmet exhaust system and resulting loss of air supply.
bollard	A post for securing (tying up) ropes – on vessel or jetty.

REVISED BY: Active Learning Partners (Bronwen Campbell), Ian A. Milliner, and Paul Bulter **DATE & TIME:** 24-Feb-05 10:46
FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

bottle	A hollow metal cylinder equipped with a narrow neck opening and retaining valve; used to contain compressed breathing gases. (Real divers call this a cylinder!)
bottom time	The duration of time elapsed from leaving the surface to begin a dive until beginning a direct accent to the surface.
bounce dive	A rapid dive with a very short bottom time to minimise the time required for decompression.
bow	The front end of a vessel.
Boyle's Law	At a constant temperature, the volume of gas varies inversely with the pressure.
bradycardia	Slow heartbeat, evidenced by a pulse of 60 or less beats per minute.
breath-hold dive	A dive without breathing equipment, performed while holding the breath while underwater.
breathing air	Commercially prepared or machine compressed air which is free of contaminants that would be injurious to a diver operating under pressure.
breathing apparatus	A device for delivering respirable breathing mixture, enabling the diver to breathe underwater; also called a breathing device.
breathing gas	Oxygen, or a mixture of oxygen and other gases, breathed through a supply system in diving, hyperbaric chambers, and in medical treatment.
breathing resistance	The sum of resistance to flow within the airways and breathing apparatus.
brisance	The shattering effect of a sudden release of energy, for example when an explosion occurs.
bronchi	Large tubes leading from the trachea and branching to connect to the bronchioles.
bronchiole	A very small subdivision of the lung tubes; a microscopic bronchial tube leading to the alveoli.
bronchospasm	A sudden and involuntary contraction of the bronchial tubes.
bulkhead	A vertical partition in a vessel (equivalent to a wall in a building).

C

caisson	A water tight pressure chamber used for underwater construction.
calorie	A unit of heat, the amount required to raise the temperature of 1 gram of water by 1 degree centigrade.
camber	The transverse (sideways) curve in a deck, just as a road has camber for drainage.

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carbon dioxide — CO_2, a colourless, odourless, and tasteless gas produced by the body's metabolism, which is harmful if breathed in excessive amounts.

carbon monoxide — CO, a colourless, odourless, and tasteless gas produced by partial combustion; cumulative and leading to asphyxiation when breathed.

carbon monoxide poisoning — Insufficient oxygen reaching the tissues, caused by carbon monoxide combining with haemoglobin in the blood and preventing the blood from carrying oxygen.

carboxyhaemoglobin — The compound of carbon monoxide (CO) and haemoglobin that is formed when CO is present in the body.

cardiac — Pertaining to the heart.

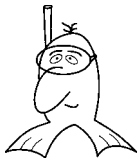
cardiopulmonary — Of the heart and blood vessels as a unified system.

cardiovascular — Of the heart and lungs as a unified system.

carotid — Relating to the principal artery extending up through the neck to the head.

catamaran — A stoutly constructed wooden or steel raft placed between ships or between ship and jetty to avoid damage to the ship or jetty.

cathodic protection — A technique designed to reduce the corrosion that occurs in seawater as a result of the presence of dissimilar metals; when cathodic protection is used, a sacrificial metal is introduced to serve as the anode (site of corrosion) which protects nearby metal parts.



CDF — Commercial diving fundamentals, the ability of a commercial diver to apply common sense to all situations. From the military term common dog f***. **(See also the obituary for common sense at the end of this glossary).**

cell — A mass of protoplasm in the body, containing a nucleus.

centigrade (C) temperature — Thermometric scale on which the interval between the freezing point and the boiling point of water is divided into 100 degrees with 0 degrees representing the freezing point and 100 degrees the boiling point.

cerebellum — The part of the hindbrain that lies below the occipital part of the cerebrum on each side, concerned with the coordination of movement.

cerebrovascular — Pertaining to the blood vessels of the brain.

cerebrum — The largest part of the brain located in the upper portion of the cranium, consisting of two cerebral hemispheres divided into lobes.

cervical spine — The upper seven vertebrate of the spine.

Charles' Law — At a constant pressure, the volume of an ideal gas varies directly with the absolute temperature.

chokes — Slang for the pulmonary symptoms of decompression sickness.

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FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

circulatory system	All the arteries and veins though which blood is pumped through the body by the heart.
clavicle	The collar bone.
closed-circuit breathing system	A breathing apparatus in which the breathing gas is recycled, carbon dioxide is removed, and oxygen is added to replenish the supply as needed.
CO	See carbon monoxide.
CO_2	See carbon dioxide.
cochlea	A snail shaped cavity in the temporal bone of the inner ear that contains the organ of hearing.
Coelenterata	A phylum of the animal kingdom comprised of hydroids, jellyfish, sea anemones, corals, and related animals. Most species are marine and all are aquatic.
combustion	The process of burning.
compressed air	Air under pressure; may be used as a breathing mixture if free from contaminants.
compression	That part of a dive involving an increase in pressure upon the diver, due either to the admission of compressed gas in a chamber or to descent in water.
compression arthralgia	Pain in the joints during compression, particularly during rapid compression to pressures greater than 10 ATA.
compression chamber	A chamber used for compression.
compression stage	One of the steps taken to compress air.
condensation	The physical process by which a vapour becomes a liquid or a solid.
conductive hearing loss	A type of auditory defect caused by impairment of the conductive mechanism of the ear; such impairments can occur when the eardrum is damaged, air passages are blocked, or movement of the bones in the inner ear is impaired.
conjunctivitis	Inflammation of the conjunctiva (mucous membrane) of the eye.
constant-volume dry suit	A dry diving suit designed to be partially inflated to prevent squeeze and to provide insulation against cold.
cornea	The transparent anterior portion of the eyeball.
coronary	Refers to structures that encircle a part or organ in a crown-like manner; for example the coronary arteries encircling the base of the heart.
Counter-diffusion	The movement of two inert gases in opposing directions through a semipermeable membrane.
cryogenics	The production of low temperatures.
cyanosis	A bluish discolouration of the skin, lips and nail beds, caused by insufficient oxygen in the blood.

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FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

D

Dalton's Law	The partial pressure of a given quantity of gas is the pressure it would exert if it alone occupied the same volume; the total pressure of a mixture of gases is the sum of the partial pressures of the components.
dan buoy	A marker buoy with a pole and a flag.
davit	A boom for lowering a lifeboat or large liferaft.
day vision	Normal vision which includes colour perception.
dead air space	Space in diving equipment and in the human respiratory system that receives minimum ventilation and where gas exchange does not take place.
decibel	A unit for measuring the relative loudness of sound.
deck decompression chamber (DDC)	A surface chamber in which persons may be subjected to pressures equivalent to or greater than those experienced when underwater, or under conditions which simulate those experienced on an actual dive.
decompression	Releasing from pressure or compression; following a specific decompression table or procedure during ascent; ascending in the water or experiencing decreasing pressure in the chamber.
decompression accident	An occurrence of decompression sickness; colloquially, a hit.
decompression arthralgia	Pain in the joints during decompression.
decompression chamber	An enclosed space used to gradually decrease pressure to which a diver is exposed, from ambient underwater pressure back to 1 atmosphere.
decompression dive	Any dive deep enough or long enough to require controlled decompression, i.e. any dive in which an ascent must include decompression stops.
decompression schedule	A specific decompression procedure for a given combination of depth and bottom time as listed in a decompression table; it is normally described as maximum depth (MSW)/bottom time (minutes).
decompression sickness	A condition caused by the formation of inert gas bubbles in the tissues and the circulatory system as a result of releasing pressure too rapidly.
decompression stop	The specific length of time which a diver must spend at a specified depth to allow for the elimination of sufficient inert gas from his body to allow him to safely ascend to the next decompression stop or the surface.
decompression table	A tabulation of decompression schedules.

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FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

deep dive A deep dive is any dive below 18 metres but not exceeding 50 metres.

NOTE: In Australian waters, it is ADAS policy, in line with AS/NZS2299 and Regulation 25 of PSL (Diving Safety) Regulations 2002, that no dive on air or mixed gas (Nitrox) be conducted below 50 metres.

dehydration A condition due to excessive water loss from the body or its parts.

demand mask A diving mask having a demand regulator which activates the gas supply by the negative pressure associated with inhalation.

demand system Diver life support equipment in which gas flows only during diver's inhalation or exhalation.

density The ratio of mass of any object to the volume of the object; in oceanography, equivalent to specific gravity.

depth The vertical distance from a specified sea level to the sea floor.

depth gauge A pressure sensitive meter used to determine depth.

depth of field Term used in photography to denote the distance between the nearest and most distant objects that will be in focus.

dermatitis Inflammation of the skin.

designated authority Designated Authority has the same meaning as in section 14 of the Act. "Designated Authority" means the Minister in the State or Territory for the particular adjacent area who is constituted as a Designated Authority under section 14 of the PSLA. (For the external territories, the Designated Authority is the Commonwealth minister). The Designated Authority may delegate any of his or her powers (except the power of delegation) to a person holding a specified office in the State, Territory or Commonwealth.

For ease of understanding and clarity in this text the Designated Authority is the "Regulator" as determined from time to time.

diaphragm A large muscle separating the chest from the abdomen; when breathing, the diaphragm pushes the intestines down to create more potential volume, thus decreasing the pressure so air from outside enters to equalise the pressure.

Can also mean the flat rubber thing in the second stage of a regulator.

diastole The period of relaxed dilation of the heart muscle, especially of the ventricles; adjective, diastolic.

diffraction The process which allows sound waves to bend around obstacles in their path.

diffusion The process by which particles of liquids, gases, or solids intermingle as a result of spontaneous movement caused by thermal agitation and, in dissolved substances, move from a region of higher to lower concentration.

digestive system The organs of the body that accomplish the assimilation of food.

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FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

displacement The weight of water displaced by a body floating in it, this weight being equal to the weight of the body.

dive An exposure to increased pressure, whether underwater or in a hyperbaric chamber.

dive boats All boats used for diving must meet the requirements of the relevant statutory body for the locality in and from which they operate.

dive control position A single, designated location which is adjacent to where a diver enters the water and from which the diving supervisor can supervise and monitor all systems and functions which relate to the life support and safety of a diver in the water.

dive flag The flag "A" from the International Code of Signals.

diver A person who has been accredited as having met the terminal objectives outlined in the relevant sections of AS2815, consistent with the work which that person is called upon to perform during a diving operation, and has been certified medically fit to dive in accordance with the Schedule of minimum examination requirements specified in AS2299, within a period of twelve months prior to the dive, and possesses a medical certificate by endorsement in his/her log book, and has not since that examination knowingly ceased to be medically fit to dive.

diver's palsy Paralysis associated with serious decompression sickness (see decompression sickness).

diver's attendant A person, whether or not a diver, who is a member of a dive team and engaged in surface assistance to the diver.

diving Diving has the meaning given by regulation 5 the Petroleum (Submerged Lands)(Diving Safety) Regulations 2002. From the regulation the meaning of diving is a person is diving if he or she:

- ✔ is in a chamber inside which the ambient pressure is equal to or higher than the hydrostatic pressure at a depth of 1 metre in seawater (whether or not the chamber is submerged in water or another liquid); or
- ✔ is submerged in water or another liquid and his or her lungs are subjected to a pressure greater than atmospheric pressure (whether or not he or she is wearing a wetsuit or other protective clothing); or
- ✔ is in a manned submersible craft that is submerged in water or another liquid; and
- ✔ diving includes diving using a snorkel and diving without the use of any breathing apparatus.

It must be noted that the Regulations are intended to apply to anyone who is undertaking diving in any normal sense of the word to undertake work of any kind subject to the provisions of the PSLA.

A person therefore is diving if they are immersed in water or any other liquid to perform work of any kind and/or is in a chamber where the pressure is greater that normal atmospheric pressure.

REVISED BY: Active Learning Partners (Bronwen Campbell), Ian A. Milliner, and Paul Bulter **DATE & TIME:** 24-Feb-05 10:46
FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

	Diving includes immersion whilst in a manned submersible craft and also whilst undertaking breath-hold diving whilst using a mask and/or snorkel and /or without any equipment at all.
diving contractor	Diving contractor means a person who enters into a contract to conduct a diving operation.
diving operation	In accordance with the PSL(Diving regulations) 2002; Diving operation means an operation consisting of 1 or more dives related to a petroleum activity. In addition operations in which a dive is conducted and includes operations by the dive team in direct support of the diver and his subsequent decompression.
diving project	Diving project means an activity consisting of one or more diving operations.
diving supervisor	A person who is appointed in writing to supervise diving operations and who is competent to do so and is trained in the recognition of diving emergencies and in the administration of first aid.
diving system	A system composed of three basic subsystems which can be used in various combinations; (1) a surface support ship or platform; (2) a deck decompression chamber which can be used to decompress divers on the surface; (3) a tethered capsule used to transport divers from the surface to an underwater work site.
donald duck effect	Changing in the quality of the voice caused by breathing light gases such as helium.
doppler bubble monitor	A device that detects moving bubbles in the circulatory system by picking up changes in the frequency of the sound emitted by moving objects.
double lock chamber	A chamber with two compartments that can be pressurised independently.
draft (draught)	The depth of the boat in the water at the deepest point of the keel.
drowning	Suffocation or strangulation in water or other liquid.
dry suit	Protective diving garment which is completely sealed to prevent water entry.
DSMS	DSMS means a diving safety management system.
dysbarism	A general term applied to any clinical condition caused by a difference between the surrounding atmospheric pressure and the total gas pressure in the various tissues and cavities of the body.
dyspnoea	Shortness of breath out of proportion to physical exertion.

E

ear drum	(see: tympanic membrane)

REVISED BY: Active Learning Partners (Bronwen Campbell), Ian A. Milliner, and Paul Bulter **DATE & TIME:** 24-Feb-05 10:46
FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

ear squeeze	A symptom complex resulting from pressure imbalance, causing symptoms ranging from pain to haemorrhage and/or rupture of the tympanic membrane of the ear.
electrocardiogram	The tracing of the electric current produced by heart muscle activity; the record produced by an electrocardiograph.
electrocardiograph	An instrument used for making records of the heart's electric currents.
electroencephalogram	A graphic record of the electrical activity of the brain (also EEG).
electron	One of the three basic components of an atom and which has a negative charge.
element	A fundamental and irreducible constituent of a composite entity.
embolism, air or gas	Gas bubbles in the circulatory system caused by gas or air passing into the pulmonary veins after rupture of the alveolar vacalature.
embolus	A foreign or abnormal object carried by the blood stream into a smaller vessel, causing its obstruction.
emergency	An emergency is any situation arising which requires immediate support and advice.
emergency ascent	Unplanned ascent to the surface under stressful conditions.
emergency buoyant ascent	Rapid ascent to the surface caused by dropping the weight belt or inflating the flotation device; the diver continuously exhales in order to avoid pulmonary barotrauma.
emergency controlled ascent	A little used term meaning ascent to the surface, using breathing apparatus, at a rate which ignores standard ascent rates or decompression stops.
emphysema	A pulmonary condition characterised by loss of lung elasticity and restriction of air movement.
emphysema, interstitial	The thinning and loss of elasticity in a space in body tissue or structure.
emphysema, mediastinal	Presence of air in the tissues in the vicinity of the heart, lungs, and the large blood vessels in the middle of the chest.
emphysema, subcutaneous	Swelling or inflammation due to abnormal presence of air in tissues just under the skin; usually appears in or near the neck.
emphysematous bullae	Blebs or air-filled blisters in the lungs caused by emphysema.
endocardium	The membrane which lines the heart chambers.
envenom	To poison or put venom into or onto something.
epicardium	The membrane that forms the outer layer of the heart wall and is continuous with the lining of the sac that encloses the heart.
epidermis	The outer epithelial layer of the skin which contains no blood vessels.

REVISED BY: Active Learning Partners (Bronwen Campbell), Ian A. Milliner, and Paul Bulter **DATE & TIME:** 24-Feb-05 10:46
FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

equivalent air depth The air breathing depth which has a nitrogen partial pressure equivalent that at the diving depth.

equivalent bottom time A hypothetical period of time taken to represent residual gas elimination time, and which is added to the bottom time of one dive to determine the decompression obligation for comparable divers.

erythema Skin redness usually due to congestion of the blood in the capillaries.

euphoria (1) A feeling of well being.
(2) An abnormal feeling of buoyant vigour and health.

eustachian tube The canal connecting the middle ear and the throat; permits the equilibration of pressure between the external and middle ears.

exceptional exposure dive Any dive in which the diver is exposed to higher partial pressures, with bottom times that are considered extreme.

excursion dive Movement of a diver either upward or downward from saturation depth; the permissible safe distance and time of the excursion dive depends on the saturation depth.

experimental diving unit US navy diving research centre, Washington, DC (also, EDU).

expiration The act of breathing out, or emitting air from the lungs (also, exhaling).

expiratory reserve volume Maximum amount of air that can be breathed out after normal exhalation.

external auditory canal The canal leading from the outer ear to the eardrum.

external ear squeeze Squeeze caused by the sealing of the space between the external ear and the eardrum during compression; can be caused by tightly fitting hood, bathing cap or ear plugs.

external otitis A superficial infection of the auditory canal; a common occurrence in habitat living, wet pot and open-sea diving; usually caused by a mould or bacterium.

exudation The passing of material, i.e. serum or pus, through the wall of a vessel and into adjacent tissues.

eye squeeze Squeeze of the eyes caused by non-pressure compensated goggles.

F

face plate Glass or plastic window in a diving helmet, constructed to provide an air space between the eyes and the water and to permit both eyes to see in the same plane; the skirt makes contour contact with the face, preserving air space; pressure may be equalised by breathing into the mask.

face plate squeeze Pressure building up in the mask on descent (also, mask squeeze).

REVISED BY: Active Learning Partners (Bronwen Campbell), Ian A. Milliner, and Paul Bulter **DATE & TIME:** 24-Feb-05 10:46
FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

face squeeze	Squeeze of the face caused by failure to compensate for increased ambient pressure.
facial nerve	The seventh cranial nerve; controls motion of the face, ear, palate and tongue.
facility	Facility has the same meaning as in the Petroleum (Submerged Lands) (Management of Safety on Offshore Facilities) Regulations 1996. Facility means any vessel or structure located in an adjacent area that is used or constructed for the recovery of petroleum or carries, contains or includes equipment for carrying out operations with a well from the vessel or structure.
Fahrenheit	(see temperature – Fahrenheit).
fathom	The term for the unit of measurement of depth in the ocean, for countries using the English system of units; equal to 1.83 metres (six feet).
fathometer	A device used to determine water depth by means of echoes reflecting off the bottom.
fins	Device attached to the feet of a diver to increase area and thrust power, speed and control in the water; also called swim fins.
flapper (flutter) valve	A soft rubber tube collapsed at one end. When ambient water pressure is greater than the air pressure within the valve, the valve remains collapsed. When air pressure is greater within the valve than the ambient water pressure, the valve opens.
floating bridge	A form of ferry which is warped from shore to shore by hauling on chains or wires laid across the bed of a channel or river.
flotation device	An inflatable vest used to assist ascent or to provide positive buoyancy; used for fine buoyancy control while submerged.
fluid	A substance having particles which easily move and change their relative position; both liquids and gases are fluids.
forced expiration reserve volume	The rate of air flow per second that can be forcefully expired after the end of the normal tidal volume.
forced expiratory volume	The volume (of the forced expiratory capacity) which can be forcibly exhaled in one second (or importance in submarine escape).
forward	The front or towards the front of a vessel.
free diving	Diving without tether, umbilical or marking device; also breath-hold diving.
freeboard	The height of the highest continuous watertight deck (usually known as the upper deck) above the waterline at any point along the hull.
full face mask	A diving mask, either supplied with breathing gas on demand or continuously and independent of respiration, which covers the eyes, nose and mouth of the diver.

REVISED BY: Active Learning Partners (Bronwen Campbell), Ian A. Milliner, and Paul Bulter **DATE & TIME:** 24-Feb-05 10:46
FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

functional residual capacity	The volume of gas remaining in the lung after normal expiration.

G

gangrene	Death of a mass of tissue, accompanied by bacterial invasion and putrefaction; usually due to blood vessel obstruction.
gangway	The opening in bulwarks or position in the ship's side by which the ship is entered or left. The term is also used to describe a passage in a ship, and sometimes used to describe the platform between ship and shore.
gas	In diving, any respirable mixture breathed by the diver.
gas chromatograph	A laboratory instrument used to identify and measure closely related chemical substances.
gas laws	Mathematical descriptions of the relationships of pressure, temperature, and volume under ideal conditions.
gastric	Of, in, or near the stomach.
gastritis	Inflammation of the stomach, usually of the lining mucosa.
gastroenteritis	Inflammation of the stomach and/or intestines.
general gas law	Boyle's and Charles' laws combined.
glaucoma	A disease of the eye caused by intense intraocular pressure due to an excess of fluid within the eye.
glossopharyngeal nerve	The ninth cranial nerve; controls sensation, motion, and taste associated with the tonsils, pharynx, middle ear and tongue.
grand mal seizure	A major convulsion that involves unconsciousness, loss of motor control, jerking of the extremities, and biting of the tongue.
groins	Timber and board constructions between high and low water marks to prevent coast erosion by the scouring action of the sea.

H

habitat	A seafloor structure, either moveable or fixed, in which divers can live for extended periods and from which they make excursion dives.
haematoma	A tumour or swelling filled with blood.
haemo	Combining form denoting relationship to blood.
haemoglobin	The oxygen-carrying coloured compound in red blood cells; it combines with oxygen, carbon dioxide, and carbon monoxide.
haemoptysis	Spitting of blood from the larynx, trachea, bronchi, or lungs.
haemorrhage	Any discharge of blood from the blood vessels.

REVISED BY: Active Learning Partners (Bronwen Campbell), Ian A. Milliner, and Paul Bulter **DATE & TIME:** 24-Feb-05 10:46
FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

half time	In diving, a half time is the time required for the tissue to absorb or eliminate 50 per cent of the equilibrium amount of inert gas.
hard hat	Common term for a diving helmet, also, protective hat worn by riggers etc.
hardwire phone	A communication link through a wire.
harness assembly	The combination of straps used to attach diving equipment to the diver.
heat conduction	The transfer of heat from one part of a body to another or from one body to another.
heliox	A breathing mixture of helium and oxygen used at depth because it has little narcotic effect, also, oxy-helium.
heliox diving	Mixed gas diving using helium as an inert diluent.
helium	A colourless, odourless gas used as a replacement for nitrogen in the gas mixture for deep-sea divers; breathing helium mixtures causes speech distortion which hinders communication.
hemiplegia	Paralysis of one side of the body.
Henry's Law	At a constant temperature, the amount of gas which dissolves in a liquid with which it is in contact, is proportional to the partial pressure of that gas.
hepatitis	Inflammation of the liver.
high pressure nervous syndrome	Neurological and physiological dysfunction that is caused by hyperbaric exposure, usually to helium.
hopcalite	A catalyst used in air compressors and breathing apparatus filters to remove carbon monoxide or other gases.
hose	Flexible pipe for conveying fluid or gas.
hot work permit	A permit required for any work which could under any circumstances cause an ignition of hydrocarbon.
hydraulic	Moved or worked by fluid pressure.
hydrostatic	Of, or relating to, liquids at rest or to the pressures they exert or transmit.
hydrostatic pressure	The pressure of a column of water acting upon a body immersed in the water, equal in all directions at a specific depth.
hyperallergenic	An adjective given to materials that are not likely to cause allergic responses in contact with the skin.
hyperbaric	1. Of, or having, a pressure or specific gravity greater than that within the body tissues of fluids. 2. Designating, or of, a pressurised (usually oxygenated) chamber, used in diving or treatment of various diseases or conditions.
hyperbaric arthralgia	A general term describing decompression arthralgia; sometimes described by divers as "no joint juice".

REVISED BY: Active Learning Partners (Bronwen Campbell), Ian A. Milliner, and Paul Bulter **DATE & TIME:** 24-Feb-05 10:46
FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

hyperbaric chamber	A chamber designed to withstand high internal pressures; used in hyperbaric experimentation, diving simulations, and medical treatment.
hyperbaric facility	The entire group of systems or sub-systems used to support a high pressure chamber or chambers; may include a wet pot or compartment to simulate an actual underwater environment.
hyperbaric oxygenation	The inhalation of oxygen at pressures above 1 atmosphere.
hypercapnia	An excess of carbon dioxide in the body's tissues; elevated carbon dioxide levels may occur in a habitat or other closed space, in a diving suit, or in breathing equipment (also, hypercarbia)
hypercarbia	(See hypercapnia).
hyperoxia	An excess of oxygen in the body tissues produced by breathing a mixture in which the inspired oxygen pressure is greater than its partial pressure in air.
hyperpnoea	An increased respiratory rate or breathing which is deeper than that seen in resting subjects. A certain degree of hyperpnoea is normal after exercise.
hypertension	High blood pressure.
hyperthermia	The elevation of body temperature above normal; in diving, may occur in hyperbaric chambers as a result of exposure to heat or failure of the body's thermoregulatory system.
hyperventilation	Increase in rate and/or volume of respiration above normal; may lead to hypocapnia; also called overbreathing.
hypocapnia	A physiological state in which the systemic arterial carbon dioxide pressure is low; symptoms may include finger tingling, muscle spasms, dizziness, loss of consciousness; commonly caused by hyperventilation (overbreathing).
hypoglossal nerve	The twelfth cranial nerve; controls the tongue.
hypotension	Lower than normal blood pressure.
hypothalamus	The nerve centre in the brain that influences certain bodily functions such as metabolism, temperature regulation, and sleep.
hypothermia	Reduction of body temperature as a result of environmental exposure to cold or failure of the body's thermoregulatory system; some hypothermia accompanies most dives; unless a diver is suitably protected, it may result in reduced performance; if exposure is prolonged or extreme, it can be fatal.
hypovolemic shock	A physiological condition that is caused by a reduction in the volume of intravascular fluid and which may cause a decrease in cardiac output.
hypoxaemia	Insufficient oxygenation of the blood.
hypoxia	Tissue oxygen pressure below normal; may be produced by breathing mixtures deficient in oxygen, by disease states, or by gases such as carbon monoxide.

REVISED BY: Active Learning Partners (Bronwen Campbell), Ian A. Milliner, and Paul Bulter **DATE & TIME:** 24-Feb-05 10:46
FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

I

ideal gas A term denoting a gas which would exactly obey the gas laws.

ideal gas law A law that defines the relationships among pressure, temperature, volume, and quantities of substance of an ideal gas.

in situ A physiological term meaning in the natural or normal place or position; confined to the site of origin without invasion of neighbouring tissues.

inert gas elimination The transfer of an inert gas (helium, nitrogen etc) under the influence of a pressure gradient from the tissues to the blood to the lungs, from which it is exhaled; also called gas washout.

inert gases Gases that exhibit stability and extremely low reaction rates; examples of inert gases are helium, argon, krypton, xenon, and sometimes, radon. These gases are called inert because they are not biologically or chemically active.

inhalation The process of bringing air into the lungs.

inner ear That portion of the ear located within the confines of the temporal bone and which contains the organs of equilibrium and hearing.

inspector Inspector means a person appointed under section 125 of the Act.

The PSLA provides for the appointment of inspectors, whose role is to undertake, within a legal framework of duties, standards and sanctions, independent assessments of the adequacy of control of work risks entailed in activities conducted under the PSLA.

Inspectors have powers under the Act, of access and entry to any relevant place, and documents, and to inspect and test any relevant equipment, and must be provided with all reasonable facilities and assistance and shall not be obstructed or hindered in the exercise of their powers without reasonable excuse.

For ease of understanding and clarity in this text the Inspector is the “Regulator” or “DA” as determined from time to time.

inspiration The act of breathing into the lungs.

inspiratory capacity The volume by which the lung can be increased by a maximum inspiratory effort followed by a normal exhalation.

inspiratory reserve volume The maximum amount of air that can be breathed in after normal inspiration.

intercooler A component of an air compressor that is designed to cool the air and to cause water and oil vapours to condense and collect as the air passes through the air/liquid separator.

internal waves Waves arising at an internal boundary that is formed between layers of water that have different densities; such as an internal boundary that occurs when a layer of warm surface water from a river runoff overlays a layer of cold or salty water.

REVISED BY: Active Learning Partners (Bronwen Campbell), Ian A. Milliner, and Paul Bulter **DATE & TIME:** 24-Feb-05 10:46
FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

intrapleural pressure	Pressure within the space between chest wall and the lungs (pleural space).
ischaemia	A lack of sufficient blood to a part of the body usually due to the obstruction of an artery.
isobaric	Relating to the process taking place without change in ambient pressure.

J

jetty	A platform built out from the shore on piles so that there is sufficient depth alongside it to berth ships.
jocking belt (jockstrap)	A strap worn by divers to prevent the diving helmet from being lifted off the shoulders, especially during entry into the water. The strap passes between the diver's legs and is attached to the front and back of the weight belt, which in tun is connected to the helmet.
jobline	Is a heavy rope running from the surface to the job, which the diver uses as a descent line.
jugular	Referring to the veins of the neck which drain the areas supplied by the carotid arteries.

K

Kelvin temperature	A thermometric scale on which the unit of measurement equals the Centigrade degree.

L

laminar flow	Non-turbulent flow of a fluid.
laryngospasm	Reflex closure of the airway.
larynx	The voice box, covered by two membranes; the vocal cords.
lee side	Downwind side.
leeway	Movement of an object through the water as a result of the force of the wind.
let go	Drop anchor in the water.
life support system	A system designed to produce a controlled environment for chamber occupants; may include capacity to supply metabolic oxygen, control temperature and humidity, and remove carbon dioxide.
lifeline	A lifeline is a rope, gas hose, communication cable or any combination thereof which is adequate in strength and suitable for recovering and lifting a diver and his equipment from the water.

REVISED BY: Active Learning Partners (Bronwen Campbell), Ian A. Milliner, and Paul Bulter **DATE & TIME:** 24-Feb-05 10:46
FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

lightweight diving mask	A full face cover through which surface supplied breathing gases are supplied to the diver; gases may flow freely through the mask or be delivered through an oronasal demand assembly.
liquid	Any substance which assumes the shape of the vessel in which it is placed without changing its volume.
live boating	Diving from a vessel that is underway.
lockout submersible	A submersible that has one compartment for the pilot and/or observer that is maintained at one atmosphere and another compartment that can be pressurised to ambient pressure so that divers can enter and exit while underwater.
longshore current	A current that is generated by waves that are deflected by the shore at an angle. Such currents run roughly parallel to the shoreline.
lungs	Two sponge-like breathing organs consisting of approximately 750 million alveoli.
lymph	A slightly yellowy fluid found in the lymphatic vessels; any clear watery fluid resembling true lymph.
lymphatic system	A system of vessels and glands, accessory to the blood vascular system, which conveys the lymph fluid throughout the body.

M

manned submersible craft	Manned submersible craft means a submersible craft that is designed to maintain its occupant, or some or all of its occupants, at or near atmospheric pressure while submerged (whether or not it is self-propelled, and whether or not it is supplied with breathing mixture by umbilical), including a craft in the form of a suit.
manometer	An instrument for measuring the pressure of liquids and gases. In its simplest form, a manometer consists of a U-tube, one end of which is open to the atmosphere and the other end of which is open to the region where the pressure is to be measured. If the pressure in the two areas is different, the liquid will be higher in one end of the tube than the other.
maximum expiratory flow rate	The rate of flow of expirate at maximum voluntary effort on the part of the subject.
maximum inspiratory flow rate	The rate of flow of inspirate at maximum voluntary effort on the part of the subject.
mayday procedure	In the event that an emergency arises, the mayday procedure steps shall be followed to provide expert advice and thus ensure swift and effective management of the situation.
media otitis	Inflammation or infection of the middle ear; in diving, often used to describe a condition where the middle ear fills with fluid.
mediastinal emphysema	(see emphysema, mediastinal)

REVISED BY: Active Learning Partners (Bronwen Campbell), Ian A. Milliner, and Paul Bulter **DATE & TIME:** 24-Feb-05 10:46
FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

mediastinum	The space between the lungs and the chest wall, underneath the sternum (breastbone) where the heart is located.
medical lock	Located in the inner lock in the hyperbaric chamber to facilitate the transfer of medical supplies, food, or other articles between occupants of the chamber and the outside support crew.
medically in-date	A diver is considered medically in-date when he/she has successfully completed a diving medical as detailed in AS/NZS2299 and the medical is no more than 12 months old.
Meniere's disease	A disease of the middle ear characterised by vertigo, sudden deafness, and symptoms of apoplexy.
messenger	Or running line is used to transfer tools and equipment along the job line to the diver.
metabolism	The physical and/or chemical changes or processes by which living substance is maintained and energy produced (adjective: metabolic).
microbe	A living organism of a very small size; the term is often used synonymously with bacterium.
middle ear squeeze	Squeeze caused by the inability to equalise the pressure in the middle ear through the Eustachian tube as the external pressure builds up against the eardrum; results in bleeding between the tympanic membrane and the middle era spaces.
midships	In the middle section of the vessel.
minute volume	The total volume of air passing in and out of the lungs in one minute.
mixed gas	A breathing medium consisting of oxygen and one or more inert gases synthetically mixed.
mixed gas dive	A dive using a mixture of gases as a breathing medium; the ratio of diluent gas to oxygen is changed to keep the partial pressure of oxygen at or near the one atmosphere level.
mole or breakwater	A long pier of heavy masonry built on the seaward side of a harbour for protection. It may be designed for berthing ships on its shoreward side, either alongside or with anchors down and wires from the stern to bollards (mooring posts) firmly embedded in it.
molecule	A stable grouping of atomic nuclei and electrons bound together by electrostatic and electromagnetic forces.
monoplace chamber	A portable, one-person hyperbaric chamber used for therapy in a hospital setting and for transport.
mooring lines	Ropes for securing (tying) a vessel to jetty, etc.
morbidity	A scientific term meaning disease or sickness.

REVISED BY: Active Learning Partners (Bronwen Campbell), Ian A. Milliner, and Paul Bulter **DATE & TIME:** 24-Feb-05 10:46
FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

mouthpiece A relatively watertight channel for the flow of breathing gas between the life-support system and the diver; consists of a flange which fits between the lips and teeth and two bits, one at either side of the mouthpiece opening, which serve to hold the teeth comfortably apart; held in place by slight pressure of the lips and teeth. Or in other words the thing you stick in your gob!!

mucosa or mucous membranes The tissues lining those body cavities and canals that are exposed to air.

multiplace chamber A pressure vessel designed to be used by more than one person at a time; usually a double lock chamber.

mushroom valve A type of poppet valve that has a disk like head attached to a stem. The stem reciprocates in a valve guide under the action of a cam that bears against the end of the stem or that operates a tappet that, in turn, bears against the valve stem.

must The use of the word "must" indicates that the statement is mandatory.

myocardium The muscular substance of the heart.

N

narcosis A state of altered mental function ranging from impairment of judgement or euphoria (false sense of well-being), to complete loss of consciousness; resembles alcohol intoxication; produced by exposure to increased partial pressures of nitrogen and certain other gases.

nasal passages Opening where air enters the body as it is breathed in; nose hairs collect dust, moist walls filter the air, and the air is warmed as it moves through the passages.

nasal septum The partition between the two nasal cavities in humans.

NATO flange A standardized flange used in transfer-under-pressure (TUP) chamber operations.

nausea An unpleasant sensation, vaguely referred to the stomach, often culminating in vomiting.

nautical mile A unit of distance designed to equal approximately 1 minute of arc of latitude; according to the National Bureau of Standards, its length is 6,080.20 feet, or approximately 1.15 times as long as the statute mile of 5,280 feet, also known as the geographical mile.

neck dam (seal) A rubber skirt that is attached to some lightweight helmets instead of a breastplate. A neck dam is tapered to fit tightly around the neck like a collar.

necrosis The localised death or decay of living tissue or a part of the body, as bone; it is the result of loss of blood supply, burning, or other severe injury.

negative buoyancy State in which the weight of the submerged body is greater than the weight of the displaced liquid, causing the body to sink.

REVISED BY: Active Learning Partners (Bronwen Campbell), Ian A. Milliner, and Paul Bulter **DATE & TIME:** 24-Feb-05 10:46
FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

negative-pressure breathing	Breathing from a mask, helmet, or the like, where the pressure of the gaseous mixture being breathed is less than the ambient pressure thus requiring an additional conscious effort to inhale.
nematocyst	A structure consisting of a flask shaped body bearing barbs and a long slender filament that can be discharged by the stinging cells of coelenterates.
neon	A colourless, odourless gas found in air (1 part in about 65,000 parts of ordinary air); has been used as a breathing gas for divers because it has minimal narcotic effect.
neoprene	An oil-resistant synthetic rubber; because of its insulation properties, is it used for diver's wetsuits.
nervous system	Brain, spinal cord, and nerves of the body.
neuritis	Inflammation of a nerve, usually accompanied by pain, tenderness, and possibly loss of sensation.
neuromuscular	Intermediate in nature between nerve and muscle; pertaining to both nerve and muscle, as neuromuscular cells.
neuron	The nerve cell body plus its processes; the structural unit of nerve tissue.
neutral buoyancy	The state in which the weight of the body is equal to the weight of the displaced liquid, so the body remains suspended in the liquid.
niggle	Mild, transient, and poorly localised symptoms of decompression sickness not requiring treatment.
night dive	Any dive conducted between sunset and sunrise.
night vision	The natural adaptation to darkness as a diver descends; includes no colour perception; when a diver remains on the bottom for a period of time, it will seem as if the light has increased.
nitrogen	A colourless, odourless, tasteless, non-toxic inert gas found in great abundance in the atmosphere; nitrogen is commonly used as a diluent with oxygen in diving gas mixtures; has a narcotic effect when breathed under pressure.
nitrogen narcosis	Narcotic effect resulting from breathing the nitrogen in compressed air at depths greater than 30 meters; also called air narcosis and "raptures of the deep".
nitrox	A breathing mixture containing nitrogen and oxygen in various concentrations.
no-decompression dive	A dive from which a diver can return directly to the surface at a controlled rate without stopping at shallow depths to allow inert gases to be eliminated from the body; also called a no-stop dive.
no-decompression limits	Specified time at given depths from which no decompression stops are required on return to the surface; also referred to as a no-stop curve and no-stop limits.

REVISED BY: Active Learning Partners (Bronwen Campbell), Ian A. Milliner, and Paul Bulter **DATE & TIME:** 24-Feb-05 10:46
FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

normal ascent rate The ascent rate used under conventional or routine conditions; this rate is in accordance with the tables or decompression computer in use at the time. It can vary from anywhere between 1 meter every 3 minutes (when using therapeutic treatment tables) to 18 meters per minute (when using standard DCIM tables).

normoxic Relating to normal partial pressures of oxygen equivalent to those found in air at 1 atmosphere.

nucleus A small spherical body within a cell; in chemistry, the central part of the atom.

nystagmus A physiological condition characterised by repeated, involuntary rapid movement of the eyes, usually in the horizontal plane but sometimes also in the vertical plane.

O

octopus rig A single hose regulator with an extra low pressure port to which an additional second stage has been fitted; double regulator is for emergency shared air breathing or in case of failure of the primary regulator.

oculomotor nerve The third cranial nerve; controls movement of the eyes.

oedema Swelling caused by fluid build-up in tissue.

oesophageal Relating to the gullet.

oesophagus The gullet; a tubular passage extending from the pharynx to the stomach.

offshore Offshore is any area covered by the P(SL)A regardless of depth.

olfactory Pertaining to the sense of smell.

omitted decompression An ascent at which a diver comes to the surface at a rate greater than that specified by the tables or computer, and without one or more decompression stops.

onshore Onshore is any area not covered by the P(SL)A regardless of depth.

operator Operator, for a diving project, means the operator (within the meaning given by the Petroleum (Submerged Lands) (Management of Safety on Offshore Facilities) Regulations 1996) of the facility (within the meaning given by those Regulations) associated with the project.

The operator of a facility is the person/company who has been formally identified by the titleholder(s) of the field in writing to the Designated Authority as being responsible for the overall management and operation of the facility. The operator may be the titleholder, a member of a joint venture partnership or a company contracted by the titleholder(s) to undertake the operation of the facility.

The operator, under Australian law, has the responsibility for preparing and submitting to the regulator the safety case for

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FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

operating a facility. The operator has a fundamental responsibility to ensure that the facility is operated in accordance with the policies, practices and procedures set out in the safety case.

The operator must undertake all reasonable actions to ensure the health and safety of those persons, including contractors, employed on the facility. These actions must include the implementation of a continuous improvement process through adequate arrangements for audits, the systematic evaluation and review of hazards to ensure that risks to personnel are reduced to the lowest level that is reasonably practicable.

For ease of understanding and clarity in this text the Operator is sometimes referred to as the "Client".

optic nerve The second cranial nerve; controls sight.

oronasal mask A breathing mask that covers and allows breathing through both the nose and the mouth.

oropharyngeal airway That part of the airway in humans that consists of the mouth and the pharynx.

osmosis The passage of a pure solvent, such as water, from a solution of lesser concentration to one of higher concentration, through a semipermeable membrane.

ostalgia Pain in a bone.

osteitis Inflammation of bone or bony tissue.

osteomyelitis Inflammation of the bone marrow.

osteonecrosis (See: dysbaric osteonecrosis, juxta-articular osteonecrosis, and medullary osteonecrosis).

osteoneuralgia Pain of a bone.

otitis Inflammation of the ear which may be marked by pain, fever, abnormalities of hearing, tinnitus, and vertigo; a very common problem in diving.

outgassing In vacuum terminology, the vaporisation of contaminants within a vacuum system as pressure is decreased; commonly refers to the decompression of a diver back to normal condition; the process of gas elimination.

oval window The upper of two membrane-covered openings in the cochlea of the inner ear.

overboard dump (discharge system) A system built into a hyperbaric chamber that transfers exhaled gases out of the chamber.

overexertion Physical condition characterised by a feeling of suffocation, inability to breathe deeply enough for comfort; working beyond the limits of fitness; also called exertion.

oxidation Induction of chemical reaction or reactions in which oxygen is added to a substance; rust.

REVISED BY: Active Learning Partners (Bronwen Campbell), Ian A. Milliner, and Paul Bulter **DATE & TIME:** 24-Feb-05 10:46
FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

oxygen	A colourless, odourless. Tasteless, and under normal situations, non-toxic gas; found free in the atmosphere; the most abundant element in the ocean; essential in cellular respiration of all living and man, but may be toxic at elevated partial pressures.
oxygen breathing	The breathing of 100 per cent oxygen; in diving, used in some closed circuit scuba and in the treatment of diving injuries; also to enhance the elimination of inert gas during the final stage of decompression.
oxygen cleaning	A method of cleaning a diving gas supply system in which high percentages of oxygen are to be used to enhance the elimination of all hydrocarbons and other potentially combustible contaminants.
oxygen high pressure	In diving, higher than normal partial pressure of oxygen within the body.
oxygen poisoning	(See: oxygen toxicity)
oxygen toxicity	Deleterious effect caused by breathing high partial pressures of oxygen; prolonged exposure can result in effects which become progressively more severe as the inspired partial pressure and/or the duration of exposure increases; depending on level and length of exposure, may cause lung damage, involvement of the central nervous system, or convulsions.
oxyhaemoglobin	Oxidised haemoglobin in the arterial blood.

P

paradoxical shivering	Uncontrollable shivering under conditions of high helium partial pressures, accompanied by a subjective feeling of warmth.
paraesthesia	Abnormal sensation without objective cause, such as numbness, pricking, etc; heightened sensitivity.
paranasal sinuses	The air filled cavities in the cranial bones accessory to the nose; the paranasal sinuses consist of the frontal, sphenoidal, ethmoidal, and maxillary sinuses.
paraparesis	Partial paraplegia.
paraplegia	Loss of function, and occasionally of sensation, of the lower body.
parenteral drug administration	Administration of drugs by a route other than oral.
paroxysmal tachycardia	Periodic beats of fast heart beats.
partial pressure	Pressure exerted by one component in a gaseous system, described by Dalton's Law; the partial pressure of a gas is equal to the product of the ambient pressure and that fraction of the total pressure in a mixture which can be ascribed to that gas.
patent	Open, as in "patent airway".
pathogenic organism	Organisms that produce disease.

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FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

pens These are bays, formed by a series of jetties or piers, for accommodating a number of small ships in berths alongside.

perception of colour underwater Conditions of lighting and water colour may cause red and blue to appear black; in clear ocean water, however, yellow and dark blue retain their colour, and in green water, red and blue-green retain theirs, to a considerable depth; proceeding towards depth, red is filtered out first, the orange, yellow, green, and blue progressively; factors other than depth affecting colours underwater include salinity, turbidity, and the degree of pollution in the water.

perfusion The flow of blood or lymph through an organ to a tissue, by which gases and chemical substances are distributed and exchanged.

pericardium The serous membrane that lines the sac surrounding the heart.

perilymph fistula A round or oval window rupture allowing the fluid (perilymph) surrounding the middle ear to escape into the inner ear; rupture of the round or oval windows is caused by stretching them beyond capacity or a sudden reversal in position, usually occurring during a forceful attempt to clear the ears (see: alternobaric vertigo).

petroleum activity Petroleum activity means operations in an adjacent area carried out under a petroleum instrument, other authority or consent under the Act or regulations including the following operations:

- ✔ a seismic or other survey;
- ✔ drilling;
- ✔ construction and installation of a facility;
- ✔ operation of a facility;
- ✔ significant modification of a facility;
- ✔ decommissioning, dismantling or removing a facility;
- ✔ construction and installation of a pipeline;
- ✔ operation of a pipeline;
- ✔ significant modification of a pipeline;
- ✔ decommissioning, dismantling or removing a pipeline;
- ✔ storage, processing or transport of petroleum;
- ✔ any other operation or work for which a petroleum instrument, other authority or consent is required under the Act or regulations.

petroleum instrument Petroleum instrument means an authority granted by instrument under the Act for the carrying out of a petroleum activity, including a permit, lease, licence, pipeline licence, access authority or special prospecting authority.

pH Measure of relative acidity and alkalinity based on a 1 to 14 scale; 7 is pure water and represents neutrality; below 7 acidity increases as hydrogen ions increase; above 7 alkalinity increases as ions decrease.

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FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

pharyngeal	Referring to the pharynx.
pharynx	The saclike tube extending from the nose and mouth to the larynx and the oesophagus; also, the throat.
phoria	Any tendency of deviation of the eyes from normal.
photophobia	Literally, a fear of light; in practice, a disinclination or ability to use the eyes in bright light.
photosensitive	Affected by light; also refers to photographic emulsions.
physics of diving	The application of physical laws and principles to underwater diving.
physiology	The science that deals with the activities and functions of the human body and its parts.
physiology of diving	The organic processes and phenomena dealing with life and the functions of organs of the human body while in a water environment.
phytoplankton	Minute marine plants that drift in the sea and are usually microscopic; either single celled or loose aggregations of a few cells.
pier	A narrow jetty built of masonry or on piles usually extending seaward at right angles to the line of the shore. It may be used as a breakwater or as berths for shipping.
piles	Baulks of steel-pointed timber or lengths of ferro-concrete which are driven into the harbour bottom and used as the foundations for the platforms of piers and jetties. Some wooden piles are used for facing the sides of stone or concrete wharves. Some piles are made of steel sections which are embedded in rock and reinforced concrete.
pinger	An underwater locating device that emits an acoustic signal.
pituitary	A gland, located in humans at the base of the brain, that influences growth, metabolism, sexual cycles, and many other bodily functions.
plane table	A surveying instrument used to locate and map topographical features.
plasma	The fluid portion of the blood.
platelet	A small, non-nucleated cell found in the body of all animals, concerned with blood coagulation and contraction of a clot; platelet loss often occurs after decompression; also, thrombocyte.
pleura	A thin watery membrane which covers the inside of the thorax and also envelopes the lungs separately, forming two closed sacs. The two layers covering the lungs and inner chest wall are held in opposition by surface tension and by positive barometric pressure inflating the lungs; these overcome the elastic recoil of the lungs.
pleurisy	Inflammation of the thin watery membrane covering the lungs and the lining of the chest cavity; also, pleuritis.

REVISED BY: Active Learning Partners (Bronwen Campbell), Ian A. Milliner, and Paul Bulter **DATE & TIME:** 24-Feb-05 10:46
FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

pneumatocysts	Hollow floats around the base of the blades or fronds of certain kelp plants that cause the fronds to float up to form a canopy.
pneumofathometer	A hollow tube, connected at the surface end to a gauge, and open at the diver's end under the surface; used to measure the water pressure at the diver's end of the hose.
pneumoguage hose	A durable, lightweight hose attached to a low-pressure air supply source on the surface and open at the diver's end; used to monitor the diver's depth; usually attached to the umbilical with the open end terminating at the diver's chest.
pneumomediastinum	(See: emphysema).
pneumonia	Inflammation of the lungs.
pneumopericardium	A condition in which gas is present in the membrane sac which contains the heart.
pneumothorax	The presence of air between the lungs and the chest wall; possible collapse of lung tissues and corresponding respiratory compromise; specifically, the result of rupture of cysts on the lung surface or dissection of gases along fascial planes to the mediastinum and thence around a lung to produce collapse.
pontoon	This may be any floating structure used as a buoyant support. It may be used in salvage work to buoy up a damaged vessel, or it may be used to support a bridge across water. In tidal waters a flat-topped pontoon is used as a landing place for boats and ferries on a muddy foreshore, or alongside piers and jetties where the range of tide is considerable; such pontoons are usually connected to the shore or jetty by a hinged bridge.
port side	The left hand side of a vessel when you are looking forward from the stern and the side on which a red light is displayed.
positive buoyancy	The state in which the weight of the displaced liquid is greater than the weight of the submerged body, so the body will float or be buoyed upwards (see buoyancy, negative buoyancy, and neutral buoyancy).
pressure	The force (or weight) distributed upon a surface of area, for example expressed as pounds per square inch (PSI) (see: absolute pressure, ambient pressure, atmospheric pressure, design pressure, gauge pressure, hydrostatic pressure, partial pressure, standard atmospheric pressure, working pressure).
profile	In diving, a graphic representation of the depth-time relationship during a dive.
prognosis	A forecast of the probable result of a disorder, the outlook for recovery.
prosthesis	A man-made replacement for a missing body part.
psig	Abbreviation for pound per square inch gauge; a term used to express the difference between absolute pressure and the specific pressure being measured.
psychosis	A disease of the mind characterised by loss of contact with reality.

REVISED BY: Active Learning Partners (Bronwen Campbell), Ian A. Milliner, and Paul Bulter **DATE & TIME:** 24-Feb-05 10:46
FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

pulmonary Pertaining to the lung, e.g. designating the artery carrying blood from the heart to the lungs and the vein carrying blood from the lungs to the heart.

pulmonary barotrauma Damage to the lung alveoli due to changes in pressure; usually a result of increased internal pressure; may result in air embolism, pneumothorax, or emphysema and is probably second only to drowning as a cause of death in diving.

pulmonary function The factors included in the act of breathing, including ventilatory mechanics (mechanics of breathing), alveolar ventilation, and gas exchange between the alveoli and the blood.

pulmonary oedema An accumulation o fluid in the lungs.

pulmonary ventilation Movement of air or respirable gas in and out of the lungs, and by extension, the movement of the inspired gas into the blood through the alveolar wall.

pulmonic Referring or relating to the lungs or the pulmonary artery.

Q

quadriparesis Partial quadriplegia.

Quadriplegia Loss of function, and occasionally sensation, from the neck or chest down.

R

Rankine temperature (See: temperature, Rankine).

rapture of the deep Euphemism for nitrogen narcosis (see: nitrogen narcosis).

rebreather A closed circuit, or semi-closed circuit, underwater breathing apparatus.

recompression Returning a diver to the highest pressure experienced (or greater if necessary) for the purposes of minimising or eliminating the effects of decompression sickness or air embolism; also, for the treatment of these; accomplished in a chamber rather than returning the diver to depth underwater.

recompression chamber An enclosed space used to rapidly increase the pressure to which a diver has been exposed, to return the diver to the ambient underwater pressure; also used when treating a diver for decompression sickness or air embolism.

refraction The effect of the bending of light rays underwater, due to the fact that water is of a different density than air; causes objects to appear larger or smaller than they are, or to be in a position other than where they are actually located.

REVISED BY: Active Learning Partners (Bronwen Campbell), Ian A. Milliner, and Paul Bulter **DATE & TIME:** 24-Feb-05 10:46
FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

regulations

Regulations means regulations made under the Act, and specifically means within this text, the Petroleum (Submerged Lands)(Diving Safety) Regulations 2002.

ADAS notes that the PSLA legislates all aspects of offshore petroleum mining. The Act itself is supplemented and extended by subordinate legislation such as regulations, directions and guidance documents.

Regulations relate to specific issues identified in an Act of Parliament and are made through the formal law making process. They are made by approval of the Governor-General without the need for the formal up-front approval of Parliament, although a process is in place to enable the Parliament to assess and then disallow subordinate legislation if it so desires.

regulator, demand

An apparatus in which the gas supply is activated by the negative pressure associated with inhalation.

relevant designated authority

Relevant Designated Authority, for a diving project, means the Designated Authority for the adjacent area in which the project is located.

remotely operated vehicle

An unmanned, tethered or untethered vehicle that is designed for underwater observation, work, or sample collection.

repetitive dive

The definition of a repetitive dive varies depending on the decompression table being used. However, for DCIM tables a repetitive dive is any dive where the repetitive factor is greater than 1.0, which means the surface interval for a repetitive dive using DCIM tables may be as great as 18 hours.

repetitive group

A letter that is used in decompression tables to designate the amount of nitrogen remaining in a diver's body for up to 18 hours after the completion of a dive.

residual air

The amount of air that remains in the lungs after a person voluntarily expels all the air possible.

residual nitrogen

Denoting a concept which describes the amount of nitrogen remaining in a diver's tissues followed by hyperbaric exposure.

residual nitrogen time

Time added to actual bottom time for calculating a decompression schedule for a repetitive dive; based on the concept of residual nitrogen.

residual volume

The volume of air which remains in the lungs after the most forceful exhalation.

respiration

The act or function of breathing; oxidation reduction process by which energy in food is transformed into other kinds of energy for the continuance of life.

respiratory minute volume

The amount of air inhaled and exhaled per minute to maintain proper body function; variable, depending on the individual and the level of exertion.

respiratory rate

The rate of breathing: normal range 10 to 20 breaths per minute; under exertion, approximately 20 times the individual's normal breath rate; an index of the degree of exertion.

REVISED BY: Active Learning Partners (Bronwen Campbell), Ian A. Milliner, and Paul Bulter **DATE & TIME:** 24-Feb-05 10:46
FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

retina	The innermost coating of the eyeball; the nerve coat of the eye made of nerve cells and fibres.
retinitis pigmentosa	In inflammation of the retina that involves all layers of the retina.
ribs	Bone and cartilage that form the chest cavity and protect its contents; tissue between ribs allows for expansion of the chest cavity.
rip current	A strong surface current that flows seaward from the shore.
Romberg's sign	A swaying of the body and an inability to stand when the eyes are closed and the feet are placed closed together; the presence of this sign indicates neurological impairment.
round window	The lower of two membrane-covered openings in the cochlea of the inner ear.
rubber suit	Partial of complete covering for a diver, primarily to insulate and preserve body heat; classified as wet and dry; wet suits, usually of foam neoprene, permit a thin layer of water to contact the diver's skin; dry-suits; a rubber sheet prevents contact with the water, but requires the additional insulation afforded by cloth underclothing or a wet suit.
rupture	The breaking apart, or bursting, under unequalised pressure of, for example, an eardrum.
running line	Or messenger is used to transfer tools and equipment along the job line to the diver.

S

samson post	A vertical post used for tying mooring lines.
saturation	The condition in which the partial pressure of a gas dissolved in a fluid is equal to its maximum partial pressure, under the existing ambient conditions of pressure and temperature.
saturation depth	The depth or pressure at which a diver's tissues are saturated; also called storage depth.
saturation dive	An exposure of sufficient duration so that the diver's tissue gases reach equilibrium with the pressure environment; once this occurs, the decompression time required at the end of a dive does not increase with additional time spent at any depth; the diver works out of a habitat or other pressurised chamber.
saturation diving system	A pressurised diving system that incorporates a life support system for long term saturation dives.
scfm	Standard Cubic Feet per Minute, defined as cubic feet per minute at standard conditions of one atmosphere and 0°c.
schedule, decompression	(See: decompression schedule).

REVISED BY: Active Learning Partners (Bronwen Campbell), Ian A. Milliner, and Paul Bulter **DATE & TIME:** 24-Feb-05 10:46
FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

scuba	Derived from the acronym for self-contained underwater breathing apparatus, now used to describe apparatus in which the inspired gas is delivered by demand regulator and exhaled into the surrounding water (open circuit), and the gas supply is carried on the diver's back.
scupper	A drain hole on a deck.
sea level pressure	Atmospheric pressure at mean sea level, either directly measured or determined from observed station pressure.
seborrheic dermatitis	An inflammatory scaling disease of the scalp, face and occasionally of other areas of the body.
self-contained diving	(See: scuba).
semi-closed scuba circuit	A self contained underwater breathing apparatus in which the breathing gas is recirculated through purifying and oxygen replenishing systems; oxygen levels are maintained by regulating the flow of gas; a portion of the exhaled air is lost to the surrounding water
semi-submersible rig	A large offshore drilling rig built on large caissons; some self propelled, ballasted to drill depth, held by anchors; allows drilling to greater depths in areas of large wave conditions.
separated gas	Describing the presence of gas in the body in the joints and between muscles where the word bubble would not be appropriate; also used by extension to describe all unspecified collections of gas, including bubbles.
sepsis	Poisoning due to gas bacillus.
sepsis intestinal	Poisoning due to ingestion of decaying food.
shall	The use of the word "shall" indicates that the statement is mandatory.
shot line	A heavy line with a heavy weight that hangs vertically below the boat which the diver uses as a descent/ascent line.
should	The use of the word "should" indicates a recommendation.
side-scan sonar	A search system in which acoustic beams are directed laterally and forward in planes perpendicular to the line of the advance of a towed transponder/receiver unit. Return signals are processed to present a picture of the sea floor on both sides of the towed unit.
silent bubbles	Gas bubbles which may be detected in the blood vessels or tissues, but which cause no signs or symptoms of decompression sickness; may be demonstrated by ultrasonic flow techniques such as Doppler; also called covert bubbles.
single hose unit	Open circuit scuba having a single intermediate pressure hose with first stage pressure reduction at the yoke (cylinder attachment) and second or ambient reduction at the mouthpiece; the exhaust is at the mouthpiece.

REVISED BY: Active Learning Partners (Bronwen Campbell), Ian A. Milliner, and Paul Bulter **DATE & TIME:** 24-Feb-05 10:46
FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

single lock chamber	A pressure chamber with only one pressurised compartment; usually having a small lock for the passage of supplies; poses a compromising restriction where interchange of personnel is required, as in the treatment of decompression sickness.
sinus	A cavity or hollow space in the skull connecting with ear, nose or throat.
sinus squeeze	A squeeze caused by blockage of the opening between one of the sinuses and the nose; may be due to a common cold or sinusitis, or due to a failure to equalise sinus pressure with ambient pressure, usually due to the presence of sinusitis accompanying the common cold.
sinusitis	Inflammation of membranes lining the sinuses.
skeletal system	The bones of the body.
snorkel	A tube in the mouth with an open end above the surface of the water, allowing the diver to breathe conformably without turning the head. Also know as the MK1 L1A1 breathing apparatus.
solubility coefficient of gases	Under experimental conditions of pressure and temperature, the volume of a gas dissolved by a unit volume of solvent.
sonar	Previously an acronym, now the word for sound navigation and ranging; the method or equipment for determining, by underwater sound techniques, the presence, location or nature of objects in the sea.
sound	The perception of vibrations transported into the ear through some form of matter; travels more rapidly through denser substances such as water; underwater hearing is affected by reverberations off the bottom, heat and salinity of the water, micro-organisms, noises from the surface, and the diver's head covering; to measure depth with a line and weight.
specific gravity	The relative weight of an object as compared to water.
specific heat	The amount of heat required to raise the temperature of a unit mass of a substance by one unit of temperature compared to the amount of energy required to raise a similar mass of water by the same amount.
spectrometer	An instrument used to measure spectra or to determine the wavelengths of various kinds of radiation from infrared to gamma.
sphygmomanometer	An instrument for measuring arterial blood pressure.
spontaneous pneumothorax	Pneumothorax without known cause (see: pneumothorax).
sport diver	One who dives, with or without scuba, for recreation? Known as a mamby, pamby or "Muppet" diver.
squeeze	An injury caused by a difference in pressure in an enclosed space within the body.
stage decompression	A decompression procedure involving decompression stops of specific duration at given depths.

REVISED BY: Active Learning Partners (Bronwen Campbell), Ian A. Milliner, and Paul Bulter **DATE & TIME:** 24-Feb-05 10:46
FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

staggers	A descriptive term given to the disequilibrium of decompression sickness when the inner ear is involved.
standby diver	A suited, or partially suited, diver ready to assist the working diver should an emergency arise.
starboard	When facing the bow, the right side of the vessel, marked by green lights at night.
stern	The back or rear of a vessel.
subcutaneous	Occurring or located beneath the skin.
subcutaneous emphysema	(See: emphysema, subcutaneous).
submersible	A one atmosphere vehicle for underwater operation.
submersible decompression chamber	A chamber that can be lowered into the water to transport divers between the surface and the work site; can be mated to the surface decompression chamber.
submersible work chamber (SWC)	A single-wall, pressure proof, helium-tight tank of steel mounted on a support frame, designed to accommodate two divers.
substernal	An adjective meaning beneath the sternum (breastbone).
suit squeeze	Injury resulting from unequal ambient pressure in a diving suit.
suits, diving	Specialised protective clothing used by divers underwater.
supersaturated solution	A solution that holds more gas than would be possible at the same temperature and pressure at equilibrium.
surface decompression	A procedure in which a portion of the in-water decompression is omitted and the diver is brought to the surface and recompressed in a chamber to complete the decompression; sometimes confused with decanting.
surface interval	The elapsed time between surfacing from a dive and the moment when the diver leaves the surface on the next dive.
surface oriented diving	Means diving operations conducted from the surface not involving a diving bell.
surface supplied	A from of diving in which the breathing gas is supplied from a compressor or cylinder(s) on the surface.
surface supply breathing apparatus (SSBA)	Is equipment supplying a diver with breathing medium through a hose from a compressor or cylinders on the surface.
swim fins	Devices worn on the feet of a diver or swimmer to increase the propulsive force of the legs.
swimmer delivery vehicle (SDV)	A type of wet submersible used for the underwater transport of divers.
symbiosis	The living together of two or more organisms in an association which is mutually advantageous.

REVISED BY: Active Learning Partners (Bronwen Campbell), Ian A. Milliner, and Paul Bulter **DATE & TIME:** 24-Feb-05 10:46
FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

symptoms Perceptible changes in body state or function that may be indicative of disease or injury; the word applies to changes perceptible to the individual himself, but is often used to include signs which are abnormalities that can be detected by an examiner or observer.

synchronisation In photography, the interval between the opening of the shutter and the burst of light from the strobe.

syndrome A group of symptoms that indicate a specific disorder; a complex of symptoms and signs that occur together.

systemic Affecting the whole body, generalised.

systole The period of heart muscle contraction, especially that of the ventricles; adjective: systolic.

systolic blood pressure The blood pressure recorded during systole (contraction of the heart).

T

tachycardia A rapid heart beat; the term usually applies to a resting heart rate above 100 beats per minute.

temperature The degree of hotness or coldness measured on a definite scale; may be measured in Celsius (centigrade), Fahrenheit, Kelvin or Rankine temperature scales.

temperature, absolute Temperature measured or calculated on a scale having absolute zero as the minimum and scale units equal in magnitude to Celsius degrees; absolute zero is the lowest temperature that could possible be reached at which all molecular activity would cease.

temperature, Celsius Thermometer scale in which water boils at 100°C and freezes at 0°C (absolute zero is 273° below Celsius zero).

temperature, Fahrenheit Thermometer scale in which water boils at 212°F and freezes at 32°F above Fahrenheit zero; absolute zero is 459.6° below Fahrenheit zero.

temperature, Rankine The Rankine scale is another absolute temperature scale, which has the same size degrees as the Fahrenheit scale. The freezing point of water is 492°R and the boiling point of water is 672°R.

temporal mandibular joint Pain in the area of the temple and the jaws. TMJ pain is often caused by grinding the jaws or gripping a mouthpiece too tightly.

tender The individual responsible for seeing that the diver receives care both topside and underwater; also called the attendant; a support vessel.

tethered diving Diving with a lifeline and a tender.

therapeutic recompression tables Are tables used for the treatment of decompression sickness and other pressure related injuries.

REVISED BY: Active Learning Partners (Bronwen Campbell), Ian A. Milliner, and Paul Bulter **DATE & TIME:** 24-Feb-05 10:46
FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

thermal balance	A state characterised by stable body temperature in which heat gain equals heat loss.
thermal stress	A condition in which the body attempts to maintain normal temperature when the surrounding temperature is either higher or lower than that of the body.
thoracentesis	A medical procedure involving puncturing of the thorax to remove accumulated fluid.
thoracic squeeze	Injury to the lung due to chest air spaces not being equalised to ambient pressure.
thorax	That portion of the body between the head and the abdomen; enclosed by the ribs in vertebrates.
thrombosis	Coagulation of the blood in some part of the circulatory system, forming a clot that obstructs circulation in that part.
thrombus	A stationary plug or clot in a blood vessel or one of the chambers of the heart.
tidal air	The volume of air inspired and expired by a person at rest.
tidal volume	The amount of gas exchanged in a respiratory cycle, measured by averaging over several breaths.
tinnitus	A ringing, roaring, or hissing sound in the ears.
tissue half time	(See: half time).
torr	A unit of pressure equal to 1/760 of an atmosphere and very nearly equal to the pressure of a column of mercury 1 millimetre high at 0°C (32°F) and standard gravity.
total bottom time	(See: bottom time).
Toynbee manoeuvre	The act of swallowing while the mouth and nose are closed.
toxaemia	General toxic condition in which poisonous products are present in the blood stream.
toxic	Poisonous.
trachea	The wind pipe, formed of cartilage rings to maintain an open airway; carries air to the bronchial tubes.
tracheobronchial	Relating to the trachea and the bronchi (see: bronchi, trachea).
tracheobronchitus	Inflammation of the trachea and the bronchi.
tracheostomy	A surgical opening into the trachea, for the introduction of a tube through which the patient may breathe.
transmural pressure	The differential between the pressure acting on the inside and outside of a surface, e.g. the tubes in the lungs, or the chambers of the heart.
transpulmonary pressure	The difference between the oral pressure and the visceral pleural cavity of the lung.

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FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

trauma	An injury or wound which may be produced by external force or by shock.
treatment depth	The depth (pressure) to which a patient is compressed during decompression treatment.
treatment mix, gas	The breathing gas mixture used in the treatment of decompression sickness.
treatment table	A collection of decompression schedules used to treat decompression sickness or air embolism; sometimes loosely used as an synonym for an individual schedule.
trimix	A gas mixture involving three gases; usually oxygen, helium, and nitrogen.
tunnel vision	The narrowing of the filed of vision; in diving, most commonly encountered in connection with oxygen toxicity.
turbidity	Reduced water clarity resulting from the presence of suspended material.
turbulence	A disturbed, or disordered, irregular motion of fluids or gases.
turbulent flow	A type of flow in which the fluid velocity at a fixed point fluctuates with time in a nearly random way; contrasts with laminar flow.
tympanic membrane	The membrane separating the external auditory canal from the middle era; also called the ear drum.

U

ulcer	An open lesion upon the skin or mucous membrane of the body.
ulcer, duodenal	An ulcer in the first section of the small intestine, between the stomach and the jejunum, due to the action of the gastric juice.
umbilical	The composite of hoses and lines supplying life support to the diver.
unit pulmonary toxicity dose	A unit of measure derived by the Institute for Environmental Medicine at the University of Pennsylvania; used for calculating the total oxygen exposure incurred during all phases of a dive, including decompression.

V

vaccine	A substance inoculated into the body, used to cause antibody formation in order to prevent a specific disease.
valsalva manoeuvre	A manoeuvre to equalise the pressure in the middle ear with the ambient pressure against the outer surface of the eardrum; the nose is compressed shut, the mouth is shut, the glottis is open, and an attempt is made to exhale through the nose; results in forcing air through the eustachian tube into the middle ear, but also causes increased pulmonary pressure which has been known to cause rupture of lung tissue and the round window of the ear.

REVISED BY: Active Learning Partners (Bronwen Campbell), Ian A. Milliner, and Paul Bulter **DATE & TIME:** 24-Feb-05 10:46
FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

valve	A device that starts, stops, or regulates the flow of gas in diving equipment.
valve, non-return	A valve which prevents reverse flow through the gas supply umbilical.
variable volume dry suit	A dry-suit with both an inlet gas valve and an exhaust valve; together with a weighted belt, the diver can maintain buoyancy control.
vascular	Pertaining to, or composed of, blood vessels.
vascular system	The heart, blood vessels, lymphatics, and their parts, considered collectively; it includes the pulmonary and portal systems.
vasoconstriction	A decrease in the diameter of blood vessels, especially constriction of the arterioles; leads to decreased blood flow to a part of the body.
vasodilation	An increase in the diameter of blood vessels, especially dilation of the arterioles; leads to increased blood flow to a part of the body.
vasomotor control	Regulation of tension of blood vessel walls.
vasovagal effects	A group of physiological changes caused by fright, trauma, pain and other stress inducing situations; includes nausea, sweating, paleness; decreased cardiac output, and related symptoms.
velocity	In blasting, the rate of the detonation wave travelling through a column of explosive material.
vena cava	Either of the two large veins that enter into and return blood to the right side of the heart.
ventilate	Procedure in which a diver increases gas flow to ventilate or flush the life support system.
ventilatory capacity	A function of maximum breathing capacity, timed vital capacity, and maximum expiratory flow rate, all of which are maximum effort dynamic ventilatory measures and all reflect the work limits of the anatomical respiratory apparatus.
ventricle	The two lower chambers of the heart.
ventricular fibrillation	A condition in which the ventricles of the heart develop and irregular and chaotic rhythm and the electrical activity of the heart becomes disorganised. If ventricular fibrillation of the heart is not stopped immediately, it is fatal.
venturi effect	A type of flow in which the flow rate is higher and the relative pressure is lower; venturi effects are caused by a smooth constriction in a pipe or by restriction of an area through which gas or liquid flows.
venule	A small vein.
vertebra	Any one of the bones of the spinal column.

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FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

vertigo	A disorientated state in which the individual or the surroundings seem to rotate dizzily; objective vertigo: the sensation that the external world is revolving around one; subjective vertigo: the sensation that one is revolving in space.
vestibular decompression sickness	Decompression sickness involving the inner ear; often associated with vertigo.
vestibular system	That part of the inner ear concerned with balance.
vestibule	Any cavity or space serving as an entrance to another cavity or space, as the vestibule of the inner ear leading into the cochlea.
victuals	Food and supplies.
viscosity	The property of a fluid or gas that resists change in the shape or arrangement of its elements during flow; thickness.
vital capacity	The maximum volume of air that can be expired after maximum inspiration.

W

weight	A measure of the mass of an object with gravity acting on it.
wet submersible	An underwater vehicle designed so that its occupants are exposed to the ambient environment.
wet suit	A closed cell, synthetic rubber diving suit which provides a thermal barrier by trapping a thin layer of body-warmed water next to the diver's skin.
windward side	The side of the vessel from where the wind is blowing.
work of breathing	The amount of effort a diver must exert to breathe through the equipment; the work of breathing depends on depth, type of equipment, gas mixture, and the condition of the lungs.
working pressure	The approximate pressure required to operate a system over its intended mission rate.

Y

yoke	A device for attaching regulators to cylinders in order to make a leak-proof seal.

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FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

PREFIXES & SUFFIXES

Listed below are common prefixes (meaning 'before') and suffixes (meaning 'after') used in medical texts associated with diving physiology. They are commonly found in texts for both the recreational and occupational diving industry, and in these course notes by ADAS.

PREFIXES (BEFORE)

Bi-	two
Bio-	of life
Brady-	slow
Cardi-	of the heart
Chem-	chemical
Circum-	around
Cine/kine-	of motion
Contra-	against
Cost-	of the ribs
Cyt-	of a cell
Derm-	of the skin
Dys-	difficult/abnormal
Epi-	above/over
Erythr-	red
Haem-	of the blood
hemi-	a half
Hist-	of tissue
Hydr-	of water
Hyper-	above
Hypo-	below
Intra-	inside
Mono-	one/single
Multi-	many
Os,oste	of the bone
Ot-	of the ear
Path-	disease
Peri-	around
Syn-	union with
Tachy-	fast
Therm-	of heat
Tox-	poison
Trans-	across, through
Ultra-	beyond
Vas-	of vessels (blood)
Ven-	of veins

SUFFIXES (AFTER)

-cyte	cell
-derm	skin
-ectomy	removal of
-genesis	origin
-itis	inflammation
-ology	study of
-osis	disease
-pathy	disease of
-scopy	visual examination
-sonic	sound

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FILE REF: c:\documents and settings\ian milliner\my documents\data-1\milly\adas\text books\supervisor\a-dive supervisor - section 14.doc

AN OBITUARY TO COMMON SENSE (THE END OF CDF)

Today we mourn the passing of an old friend, by the name of Common Sense, known to his friends as CDF.

Common Sense lived a long life but died recently. No one really knows how old he was, since his birth records were long ago lost in bureaucratic red tape.

He selflessly devoted his life to service on dive sites, in schools, hospitals, homes, and factories, helping folks get jobs done without fanfare and foolishness. For decades, petty rules, silly laws, and frivolous lawsuits held no power over Common Sense. He was credited with cultivating such valued lessons as to know when to come in out of the rain, why the early bird gets the worm, and that life isn't always fair.

Common Sense lived by simple, sound, financial policies (don't spend more than you earn), reliable parenting strategies (the adults are in charge, not the kids), and it's okay to come in second. A veteran of the Industrial Revolution, the Great Depression, and the Technological Revolution, Common Sense survived cultural and educational trends including body piercing, whole language, "New Maths", and the PADI Wheel.

But his health declined when he became infected with the "What's-in-it-for me" virus. In recent decades his waning strength proved no match for the ravages of well intentioned but overbearing regulations.

He watched in pain as good people became ruled by self-seeking lawyers. His health rapidly deteriorated when schools endlessly implemented zero-tolerance policies. Reports of a six-year-old boy charged with sexual harassment for kissing a classmate, a teenager suspended for taking a swig of mouthwash after lunch, and a teacher fired for reprimanding an unruly student, only worsened his condition.

It declined even further when schools had to get parental consent to administer aspirin to a student, but could not inform the parents when a female student became pregnant, or wanted an abortion.

Finally, Common Sense lost his will to live as the Ten Commandments became contraband, churches became businesses, criminals received better treatment than victims, and judges stuck their noses in everything from the Boy Scouts to professional sports.

Finally, when people, too stupid to realise that a steaming cup of coffee was hot, were awarded a huge settlement for scalding themselves, Common Sense threw in the towel.

As the end neared, Common Sense drifted in and out of logic but was kept informed of developments regarding questionable regulations such as those for low flow toilets, rocking chairs, and stepladders.

Common Sense was preceded in death by his parents, Truth and Trust; his wife, Discretion; his daughter, Responsibility; and his son, Reason. He is survived by two step siblings: My Rights, and Ima Whiner!

Not many attended his funeral because so few realised that Common Sense was gone. RIP.

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