



TEXAS A&M UNIVERSITY-SAN ANTONIO

Dive Program

Appendix 9: AAUS statistics collection criteria and definitions

Collection criteria:

The "Dive Time in Minutes", The Number of Dives Logged", and the "Number of Divers Logging Dives" will be collected for the following categories.

- Dive Classification
- Breathing Gas
- Diving Mode
- Decompression Planning and Calculation Method
- Depth Ranges
- Specialized Environments
- Incident Types

Dive Time in Minutes is defined as the surface-to-surface time including any safety or required decompression stops.

A Dive is defined as a descent underwater utilizing compressed gas and subsequent ascent/return to the surface with a minimum surface interval of 10 minutes. Dives will not be differentiated as open water or confined water dives. But open water and confined water dives will be logged and submitted for AAUS statistics classified as either scientific or training/proficiency.

A Diver Logging a Dive is defined as a person who is diving under the auspices of the A&M-SA Dive Program. Dives logged by divers from another AAUS Organization will be reported with the diver's home organization. Only a diver who has actually logged a dive during the reporting period is counted under this category.

Incident(s) that occur during the collection cycle: Only incidents that occurred during, or resulting from, a dive where the diver is breathing a compressed gas will be submitted to AAUS.

Definitions:

Dive Classification:

- **Scientific Dives:** Dives that meet the scientific diving exemption as defined in 29 CFR 1910.402. Diving tasks traditionally associated with a specific scientific discipline are considered a scientific dive.
 - Construction and trouble-shooting tasks traditionally associated with commercial diving are not considered a scientific dive.
- **Training and Proficiency Dives:** Dives performed as part of a scientific diver-training program, or dives performed in maintenance of a scientific diving certification/authorization.

Breathing Gas:

- **Air:** Dives where the bottom gas used for the dive is air.



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- **Nitrox:** Dives where the bottom gas used for the dive is a combination of nitrogen and oxygen percentages different from those of air.
- **Mixed Gas:** Dives where the bottom gas used for the dive is a combination of oxygen, nitrogen, and helium (or other inert gas), or any other breathing gas combination not classified as air or nitrox.

Diving Mode:

- **Open Circuit SCUBA:** Dives where the breathing gas is inhaled from a self-contained underwater breathing apparatus and all of the exhaled gas leaves the breathing loop.
- **Surface Supplied:** Dives where the breathing gas is supplied from the surface by means of a pressurized umbilical hose. The umbilical generally consists of a gas supply hose, strength member, pneumofathometer hose, and communication line. The umbilical supplies a helmet or full-face mask. The diver may rely on the tender at the surface to monitor the divers' depth, time and diving profile.
- **Hookah:** While similar to Surface Supplied in that the breathing gas is supplied from the surface by means of a pressurized hose, the supply hose does not require a strength member, pneumofathometer hose, or communication line. Hookah equipment may be as simple as a long hose attached to a standard SCUBA cylinder supplying a standard SCUBA second stage. The diver is responsible for monitoring his/her own depth, time, and diving profile.
- **Rebreathers:** Dives where the breathing gas is repeatedly recycled in a breathing loop. The breathing loop may be fully closed or semi-closed.
 - Note: A rebreather dive ending in an open circuit bailout is still logged as a rebreather dive.

Decompression Planning and Calculation Method:

- Dive Tables
- Dive Computer
- PC Based Decompression Software

Depth Ranges:

- Depth ranges for sorting logged dives are: 0-30, 31-60, 61-100, 101-130, 131-150, 151-190, 191-250, 251-300, and 301->. Depths are in feet seawater (when measured in meters: 0-10, >10-30, >30-40, >40-45, >45-58, >58-76, >76-92, and >92->).
- A dive is logged to the maximum depth reached during the dive.
 - Note: Only "The Number of Dives Logged" and "The Number of Divers Logging Dives" will be collected for this category.

Specialized Environments:

- **Required Decompression:** Any dive where the diver exceeds the no-decompression limit of the decompression planning method being employed.



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- **Overhead Environments:** Any dive where the diver does not have direct access to the surface due to a physical obstruction.
- **Blue Water Diving:** Open Water diving where the bottom is generally greater than 200 feet deep and requires the use of multiple-tethers diving techniques.
- **Ice and Polar Diving:** Any dive conducted under ice or in polar conditions. Note: An Ice Dive would also be classified as an Overhead Environment dive.
- **Saturation Diving:** Excursion dives conducted as part of a saturation mission are to be logged by "classification", "mode", "gas", etc. The "surface" for these excursions is defined as leaving and surfacing within the Habitat. Time spent within the Habitat or chamber must not be logged by AAUS.
- **Aquarium:** An aquarium is a shallow, confined body of water, which is operated by or under the control of an institution and is used for the purposes of specimen exhibit, education, husbandry, or research (Not a swimming pool).

Incident Types:

- **Hyperbaric:** Decompression Sickness, AGE, or other barotrauma requiring recompression therapy.
- **Barotrauma:** Barotrauma requiring medical attention from a physician or medical facility, but not requiring recompression therapy.
- **Injury:** Any non-barotrauma injury occurring during a dive that requires medical attention from a physician or medical facility.
- **Illness:** Any illness requiring medical attention that can be attributed to diving.
- **Near Drowning/ Hypoxia:** An incident where a person asphyxiates to the minimum point of unconsciousness during a dive involving a compressed gas. But the person recovers.
- **Hyperoxic/Oxygen Toxicity:** An incident that can be attributed to the diver being exposed to too high a partial pressure of oxygen.
- **Hypercapnea:** An incident that can be attributed to the diver being exposed to an excess of carbon dioxide.
- **Fatality:** Any death accruing during a dive or resulting from the diving exposure.
- **Other:** An incident that does not fit one of the listed incident type

Incident Classification Rating Scale:

- **Minor:** Injuries that the OM considers being minor in nature. Examples of this classification of incident would include, but not be limited to:
 - Mask squeeze that produced discoloration of the eyes.
 - Lacerations requiring medical attention but not involving moderate or severe bleeding.
 - Other injuries that would not be expected to produce long term adverse effects on the diver's health or diving status.
- **Moderate:** Injuries that the OM considers being moderate in nature. Examples of this classification would include, but not be limited to:
 - DCS symptoms that resolved with the administration of oxygen, hyperbaric treatment given as a precaution.



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- DCS symptoms resolved with the first hyperbaric treatment.
 - Broken bones.
 - Torn ligaments or cartilage.
 - Concussion.
 - Ear barotrauma requiring surgical repair.
- **Serious:** Injuries that the OM considers being serious in nature. Examples of this classification would include, but not be limited to:
 - Arterial Gas Embolism.
 - DCS symptoms requiring multiple hyperbaric treatment.
 - Near drowning.
 - Oxygen Toxicity.
 - Hypercapnia.
 - Spinal injuries.
 - Heart attack.
 - Fatality.



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