



Republic of the Philippines
NATIONAL POLICE COMMISSION
NATIONAL HEADQUARTERS PHILIPPINE NATIONAL POLICE
OFFICE OF THE CHIEF, PNP
 Camp BGen Rafael T Crame, Quezon City

MEMORANDUM CIRCULAR
 NO.: 2020-058

SEP 07 2020

**PRESCRIBING THE MINIMUM TECHNICAL SPECIFICATIONS
 FOR TECHNICAL DIVE COMPUTER**

1. REFERENCES:

- a. NAPOLCOM Resolution No. 2020-0411: "Prescribing the Minimum Standards for Technical Dive Computer dated June 17, 2020;
- b. NAPOLCOM MC No. 2019-002 entitled: "Defining the Duty and Authority of the NAPOLCOM to Prescribe Minimum Standards for Uniforms, Arms, and Equipment to be Procured by the PNP" dated January 29, 2019;
- c. PNP Memorandum Circular No. 2019-016 entitled "Implementing Guidelines of NAPOLCOM resolution No. 2019-002 Defining the Commission's Function to Prescribe Minimum Standards for Uniforms, Arms and Equipment for the Philippine National Police and Delineation of Authority to the Chief, Philippine National Police and to Set Technical Specifications of PNP Uniforms, Arms and Equipment" dated April 4, 2019; and
- d. PNP UESB Resolution No. 2020-015 entitled: Proposed Minimum Technical Specifications for Technical Dive Computer.

2. RATIONALE:

This MC sets forth the minimum technical specifications for Technical Dive Computer to be used during procurement activity.

3. SITUATION:

Decompression Sickness is a disorder in which nitrogen dissolved in the blood and tissues by high pressure forms bubbles as pressure decreases which is life-threatening to the diver. By means of Technical Dive Computer it will perform a continuous calculation of the partial pressure of inert gases in the body based on the actual depth and time profile of the diver. As the dive computer automatically measures depth and time, it is able to warn of excessive ascent rates and missed decompression stops and the diver has less reason to carry a separate dive watch and depth gauge.

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Many dive computers also provide additional information to the diver including air and water temperature, data used to help prevent oxygen toxicity, a computer-readable dive log, and the pressure of the remaining breathing gas in the diving cylinder. This recorded information can be used for the diver's personal log of their activities or as important information in medical review or legal cases following diving accidents.

The diving computer is wrist mounted with decompression algorithms and battery-powered with watertight and pressure resistant case.

4. PURPOSE:

To provide and establish the minimum technical specifications for Technical Dive Computer that will serve as reference in the procurement of wrist mounted with decompression algorithms.

5. DEFINITION OF TERMS:

For purposes of this MC, the following terms shall mean:

- a. **Algorithm** – is a finite sequence of well-defined, computer-implementable instructions, typically to solve a class of problems or to perform a computation.
- b. **Decompression Sickness** – is a disorder in which nitrogen dissolved in the blood and tissues by high pressure forms bubbles as pressure decreases. Symptoms can include fatigue and pain in muscles and joints.
- c. **Digital Compass** – is actually a magnetometer that can measure the Earth's magnetic field.
- d. **Liquid Crystal Display (LCD)** – A liquid-crystal display is a flat-panel display or other electronically modulated optical device that uses the light-modulating properties of liquid crystals combined with polarizers.
- e. **Light Emitting Diode (LED)** – is an electronic device that emits light when an electrical current is passed through it.

6. SPECIFICATIONS:

a. Description:

Is a diving computer that is wrist mounted with decompression algorithms and battery-powered with watertight and pressure resistant case. The dive computer provides display information to the diver. The algorithm used is intended to keep the risk of decompression sickness (DCS) to an acceptable level.

b. Technical Specifications

- 1) Processor : Manufacture's Standard Algorithm
- 2) Materials : Manufacture's Standard

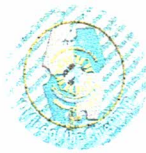
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- 3) Display Type : LCD or LED Color Display
- 4) Minimum Battery: 40hours
- 5) Mounting : Wrist strap
- 6) Minimum Depth : 100m
Rating
- 7) No. of Gases : 5 gases
Monitor
- 8) Compass : 3D Digital Compass

7. EFFECTIVITY:

This MC shall take effect immediately after 15 days from filing a copy thereof at the UP Law Center in consonance with Section 3, Chapter 2, Book VII of Executive Order 292 otherwise known as the "Revised Administrative Code of 1987, as amended.



Archie
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