



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

01 JUN 2020

**MEMORANDUM CIRCULAR**  
**NO.: 2020-040**

**PRESCRIBING THE TECHNICAL SPECIFICATIONS FOR  
VERY HIGH FREQUENCY (VHF) MARITIME BAND HANDHELD RADIO**

**1. REFERENCES:**

- a. NAPOLCOM Memorandum Circular (MC) No. 2019-002: "Defining the Duty and Authority of the NAPOLCOM to prescribe Minimum Standards for Uniforms, Arms, and Equipment to be Procured by the Philippine National Police" dated January 29, 2019;
- b. NAPOLCOM Resolution No. 2019-752: "Prescribing the Minimum Standards for Very High Frequency (VHF) Maritime Band Handheld Radio" dated October 3, 2019; and
- c. PNP UESB Resolution No. 2019-035: "Approving the Proposed Amendment to the Technical Specifications for High Frequency (HF) Tactical Manpack Radio Transceiver" dated October 14, 2019.

**2. RATIONALE:**

This MC sets forth the technical specifications for Very High Frequency (VHF) Maritime Band Handheld Radio to be used by the Philippine National Police (PNP).

**3. SITUATION:**

The PNP Maritime Group is mandated to ensure public safety and internal security over Philippine territorial waters, rivers and coastal areas including points of entry and exit such as ports and harbors. Due to the peculiarity of its mission and nature of work which involves patrolling using watercraft, the need for a communication equipment capable of sending distress signals or messages or making distress calls arises.

For the PNP Maritime Group to be able to use the aforementioned distress methods, communication equipment is essential to every sea transportation they have in their inventory. As stated in the 1988 amendment of the Safety of Life at Sea (SOLAS) regulation, particularly on paras 7.1.1, 7.1.2 and 14.1 of Article IV, and in the 1974 Global Maritime Distress and Safety System (GMDSS), every ship must be provided with a VHF radio communication equipment. Wherein, such radio should conform to the performance standard set by the Organization.

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**DARWIN D VALDERAS**  
**POLICE LIEUTENANT COLONEL**  
**Chief, Administrative Section**

#### 4. PURPOSE:

To provide and establish the technical specifications for VHF Maritime Band Handheld Radio that will serve as a reference in the procurement of said equipment.

#### 5. DEFINITION OF TERMS:

- a. Battery Life - refers to the length of time required for a fully charged battery to discharge to a specified end-point voltage under specified conditions.
- b. Digital Selective Calling (DSC) - refers to a synchronous system developed by the International Telecommunication Union Radio Communication (ITU-R) Sector, used to establish contact with a station or group of stations automatically by means of radio.
- c. Distress signal - refers to a digital selective call using an internationally recognized distress call format in the bands used for terrestrial communication or an internationally recognized distress message format, in which case, it is relayed through space stations, which indicates that a person, ship, aircraft, or other vehicle is threatened by grave and imminent danger and requests immediate assistance.
- d. Sensitivity – refers to the smallest input signal which gives a specified output or signal-to-noise ratio. In a radio receiver, it is the smallest RF input which gives a specified signal-to-noise ratio at the output, the modulation frequency and depth of modulation being specified.
- e. Very High Frequency (VHF) Band - refers to the band of frequencies between 30 to 300 MHz with wavelengths ranging from one (1) to ten (10) meters.

#### 6. GUIDELINES:

##### a. Specifications:

##### 1) Description

The Very High Frequency (VHF) Maritime Band Handheld Radio is a portable, waterproof, buoyant and lightweight communication equipment.

##### 2) Technical Specifications

- |                      |                           |
|----------------------|---------------------------|
| a) Frequency Range   |                           |
| (1) Transmit         | : 156.025–157.425 MHz     |
| (2) Receive          | : 156.050–163.275 MHz     |
| b) Channel Spacing   | : 25 kHz                  |
| c) Antenna Impedance | : Manufacturer's standard |

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- d) Battery
  - (1) Type : Li-Ion rechargeable battery, 1485 mAh (minimum)
  - (2) Battery Life : 9 hours (at 5%Tx, 5%Rx, 90% Standby)
- e) Weight : 330 g. max.
- f) Transmitter
  - (1) Output Power
    - Low : 1 Watt
    - High : 5 Watts
  - (2) Frequency Stability : ±10 ppm
- g) Receiver
  - (1) Sensitivity @12dB SINAD : 0.25µV
  - (2) Adjacent Channel Selectivity: 60 dB
  - (3) Audio Output Power : Manufacturer's standard
- h) Ingress Protection Rating : IPX7

3) Features

- a) Built-in GPS receiver
- b) Built-in Digital Selective Calling (DSC)
- c) Man over Board (MOB)
- d) Noise canceling
- e) Navigation
- f) Weather alert
- g) Floating design

4) Accessories

- a) Antenna
- b) Li-Ion rechargeable battery pack
- c) AC charger
- d) DC charger
- e) Belt clip
- f) Speaker microphone
- g) Earpiece

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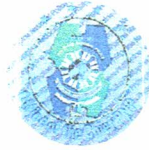


**7. REPEALING CLAUSE:**

All other technical specifications contrary to or inconsistent with the provisions of this MC are hereby rescinded, modified or amended.

**8. EFFECTIVITY:**

This MC shall take effect 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*  
**ARCHIE FRANCISCO F GAMBOA**  
Police General  
Chief, PNP

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*Darwin*

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