



**PUNONGHIMPILAN TANOD BAYBAYIN NG PILIPINAS**  
(Headquarters Philippine Coast Guard)  
139 25<sup>th</sup> Street, Port Area  
1018 Manila

16 October 2014

CGA/CG-11

STANDING OPERATING PROCEDURE)

NUMBER 05 – 14)

**NATIONAL COAST WATCH SYSTEM (NCWS) COMMAND, CONTROL,  
COMMUNICATION AND SURVEILLANCE (C3/S) SYSTEM GUIDELINES**

**1. OBJECTIVES:**

a. To provide guidelines and measures for reliable sustainment of NCWS C3/S equipment. (NCWC equipment and software, High Frequency Radios, Very High Frequency Radios, VHF repeaters, Point to Point Microwave, Surveillance subsystems and infrastructure for National Coast Watch System); and

b. To ensure continuous operation of C3/S equipment through designation of appropriate personnel in operation, maintenance and repair of C3/S equipment and their respective responsibilities.

**2. SCOPE:** This SOP applies to personnel and systems involved in operation and sustainment of C3/S in support of NCWS.

**3. DEFINITIONS:**

a. NCWS – acronym for National Coast Watch System. The central inter-agency mechanism for a coordinated and coherent approach on maritime security operations towards enhancing governance and awareness of the country's maritime domain.

b. NCWC – acronym for National Coast Watch Center. The "Fusion Center", which provides essential support to an established decision-making architecture for the NCWS and coordinates the threat or incident response leading to successful maritime security governance.

c. C3/S – acronym for Command, Control, Communication and Surveillance System, which designated to establish and provide C2, communication and surveillance capabilities for NCWS and respective areas.

- d. Level I Capability – basic maintenance and repair works. The work is to be performed at the site (unit) locations and includes replacement of fuses, other safety devices and certain end-item replacement. Technical personnel will follow procedures IAW technical manuals and the equipment checklists.
- e. Level II Capability – advanced technical works with high level performance and technical expertise to conduct preventive maintenance, troubleshooting and repair of C3/S equipment.
- f. HCGWCEISS – Headquarters, Coast Guard Weapons, Communications, Electronics and Information System Service.
- g. MRTT – Maintenance Repair and Training Team.
- h. MRTT Technicians – trained technical personnel from HCGWCEISS with Level II and III capabilities.
- i. District Technicians – trained technical personnel from HCGWCEISS deployed in the Coast Guard District with Level I capability.
- j. Station Technicians – trained technical personnel from HCGWCEISS deployed in the Coast Guard Station with Level I capability.
- k. NCWC Technicians – trained technical personnel from HCGWCEISS deployed in the NCWC with Level I capability.
- l. High Frequency – the International Telecommunications Union (ITU) designated range of radio frequency electromagnetic waves (radio waves) between 3 and 30 MHz.
- m. Very High Frequency – the International Telecommunications Union (ITU) designated range of radio frequency electromagnetic waves (radio waves) between 30 and 300 MHz.
- n. Microwave – microwave radio communications includes all radio communications above 1,000 MHz. Microwave supports voice and data transfer from PCG Districts to NCWC location and opposite direction.
- o. Other Communications System Equipment – refers to the telephone sets, computer sets, printers, uninterrupted power supply (UPS) and other equipment, which form part of the communications system of the C3/S provided by the project.
- p. C3/S Infrastructure – auxiliary equipment and subsystems (tower, power supplies, security and fire alarm) which serve as the backbone to all installed and connected together communications and surveillance equipment.
- q. Radio – is a wireless means of communications whereby radio frequency (RF) energy is used to transmit or convey information from a person or a place to another.

r. Automatic Identification System (AIS) – an automatic tracking system used on ships and by vessel traffic services (VTS) for identifying and locating vessels by electronically exchanging data with other nearby ships, AIS based stations, and satellites.

s. Sustainment – the provision of personnel, logistics and other support required to maintain and prolong operations of equipment and subsystems provided and installed in support of NCWS.

t. Internet Protocol – protocol used for communicating data across a small to medium and to a very large network.

u. Preventive Maintenance – technical actions that include periodic maintenance in accordance with Original Equipment Manual (OEM) requirement in support of ongoing equipment operations.

v. Corrective Maintenance – technical actions or event to put failed equipment back to operation in expeditious and efficient manner.

w. Technical Documentation – the technical documentation library that is kept and managed to enable personnel involved into technical support process to access technical information provided by Vendor in support of equipment or infrastructure. It ensures availability of other information relating to technical aspects of the equipment.

x. Supply Support (Spare Parts) – ensures that C3/S equipment and subsystems have a full set of appropriate spare parts and fast moving spares (consumables) for program delivered equipment. Requirements for the type and quantity of spare parts/consumables usually derived from OEM/Vendor recommendations, maintenance and repair requirements.

y. Training – is a continuous process where Coast Guard personnel undergo classroom and field training to ensure sustainment tasks are performed by PCG technicians or other technicians to perpetuate the knowledge and skills required to support the effective operation of the equipment.

#### 4. POLICIES:

##### a. GUIDELINES FOR C3/S AND OTHER COMMUNICATION EQUIPMENT:

1) Sustainment of the C3/S equipment and subsystems should include six (6) key sustainment areas which serve as prerequisite of successful and continuous operation of the C3/S equipment and consist of periodic maintenance, corrective maintenance, supply of spare parts, warranty management, sustainment training and provision of technical documentation relevant to the C3/S equipment. It is required to organize technical support through aforementioned technical areas to ensure that all appropriate action are taken to continue operation and fit operational requirements of NCWS.

2) Sustainment covers NCWC equipment and software, HF Radios, VHF Radios, VHF Repeaters, PTP Microwave and Surveillance subsystems and infrastructure for National Coast Watch System.

3) To ensure continuous operability of the equipment in accordance with the requirements of technical documentation. CGWCEISS shall organize periodic technical service (periodic maintenance) of all C3/S components and subsystems including supply support in accordance with Preventive Maintenance Program (PMP) based on technical requirement from Original Equipment Manual (OEM), checklists and PCG internal requirements which can be applied to the C3/S equipment.

4) The core of preventive maintenance is the Preventive Maintenance Program (PMP) for each supported equipment to ensure that each preventive maintenance task is scheduled and implemented in order to prolong the operational use of all C3/S equipment and other communications equipment. Effective maintenance system shall be strictly followed based on the maintenance manual provided to this project.

5) If technical failures and outages occur, CGWCEISS shall establish workshop in order to enhance the knowledge and capabilities of the technical personnel on the matters pertaining to the cause of failures. However, when workshop is not rational to keep, the appropriate District Communications Station will be the technical pivotal point to deal with technical issues on remote sites.

6) Before assigning to communications station, all CGWCEISS technical personnel shall acquire necessary knowledge and skills at CGWCEISS based on its established training program.

7) CGWCEISS shall establish and keep an up to date technical documentation library in order to supply when necessary appropriate documentation (manuals, checklists, as build documentation, etc.) to remote location and to ensure that documents are available on sites which will be used for technical purposes.

8) CGWCEISS through MRTT shall conduct sustainment training in order to enhance the capability of technicians in the conduct of maintenance and repair activity.

9) The warranty of NCWS C3/S equipment and supplies shall be agreed in accordance with the equipment warranty conditions from manufacturers for end user. Warranty management actions shall be organized and implemented from the level of CGWCEISS.

10) PCG unit involved into the NCWS support processes shall ensure the efficient and effective operation of C3/S equipment and other communications equipment.

11) In case of derangement or equipment failure, the Districts/ Stations/ NCWC technicians shall immediately inform MRTT technicians of the reported failure.

12) All derangement report shall be submitted to CGCWEISS attention MRTT technicians thru radio message or other form of communication indicating therein the background of the problem and other circumstances observed which occurred prior to the equipment failure.

13) Districts and NCWC Technician may conduct limited to level I maintenance/repair and if the failure and major derangement of the equipment occurs, coordination to the MRTT shall be made of any such failures.

14) Level II Corrective maintenance will be undertaken by the MRTT technicians.

## **5. DUTIES AND RESPONSIBILITIES:**

### **a. DEPUTY CHIEF OF COAST GUARD STAFF FOR MCWEIS, CG-11 shall:**

- 1) Responsible for the financial support program intended for the sustainment of NCWS C3/S and other communications equipment;
- 2) Responsible for the procurement of all supply support needed to upkeep the conduct of maintenance and repair of the NCWS C3/S and other communications equipment;
- 3) Ensure that the program for the budget of such NCWS C3/S and other communications equipment will be included in the Annual Plan and Budget (APB);
- 4) Primarily responsible for monitoring the implementation of this SOP; and
- 5) Perform other tasks as directed.

### **b. COMMANDER, CGWCEISS shall:**

- 1) Responsible for the deployment and formulation and revision of policies for the sustainment and employment of NCWS C3/S and other communications equipment;
- 2) Responsible for the execution of NCWS Policies and Strategic Plans and Programs on matters pertaining to sustainment of NCWS C3/S and other communications equipment;
- 3) Responsible for the maintenance and repair of all NCWS C3/S and other communications equipment;

- 4) Responsible for the technical development, career advancement, discipline and conduct of MRTT personnel to attain the utmost professionalism;
  - 5) Establish and maintain liaison with other government agencies involved in NCWS implementation for lateral exchange of sustainment information capabilities;
  - 6) Responsible for the deployment of technicians with level I capability in NCWC and Coast Guard Districts;
  - 7) Responsible for the 24/7 duty MRTT personnel aboard HCGWCEISS; and
  - 8) Perform other tasks as directed.
- c. **COMMANDER, COAST GUARD DISTRICT/ PCG MAJOR/ SPECIAL/ TECHNICAL UNIT** shall:
- 1) Responsible for the operation, maintenance and security of all NCWS C3/S and other communications equipment within his area of responsibility;
  - 2) Report to HCGWCEISS any NCWS C3/S facilities and equipment failure within his area of responsibility; and
  - 3) Perform other tasks as directed.
- d. **STATION COMMANDER, COAST GUARD STATION** shall:
- 1) Responsible for the operation, maintenance and security of all NCWS C3/S equipment and communications tower installed within his area of responsibility;
  - 2) Support the MRTT personnel in conduct of maintenance and repair activity;
  - 3) Report to the Commander, Coast Guard District in any facilities and C3/S equipment failures;
  - 4) Perform other tasks as directed.
- e. **COMMANDER, READY FORCE** shall:
- 1) Responsible for the operation, maintenance and security of all NCWS C3/S and other communications equipment installed onboard Coast Guard Vessels;
  - 2) Report to HCGWCEISS any NCWS C3/S equipment failure onboard PCG Vessels; and

3) Perform other tasks as directed.

f. **COMMANDING OFFICER, COAST GUARD VESSEL** shall:

- 1) Responsible for the operation, maintenance and security of all NCWS communications equipment installed onboard;
- 2) Report to the Commander, Ready Force any equipment failure onboard;  
and
- 3) Perform other tasks as directed.

**6. RESCISSION:**

Provisions of policies in conflict with this SOP are hereby rescinded.

**7. EFFECTIVITY:**

This SOP shall take upon publication.

**BY COMMAND OF VICE ADMIRAL ISORENA:**

**OFFICIAL:**

**JOSELITO F DELA CRUZ  
COMMO PCG  
Chief of Coast Guard Staff**

*S. Bautista*  
**LIEZEL B BAUTISTA**  
**LCDR PCG**  
**Coast Guard Adjutant**  
*6/10/14*