



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

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NHQ-PCG/CG-10

**STANDING OPERATING PROCEDURE**  
**NUMBER 15-21**

**MAINTENANCE AND REPAIR OF PCG VESSELS, SMALL CRAFTS, SMALL BOATS AND AIRCRAFTS**

**I. PURPOSE:**

To prescribe a set of guidelines or instructions in a sequential manner on the maintenance of vessels, small crafts, small boats, and aircrafts and to define responsibilities and accountabilities of personnel involved in maintenance and repair activities.

**II. SCOPE:**

This Standing Operating Procedure (SOP) shall be applied to all PCG unit and its assigned personnel responsible for the maintenance and repair of all PCG commissioned and non-commissioned vessels under the PCG inventory.

**III. DEFINITION OF TERMS:**

For the purpose of this SOP, the following words and phrases shall be defined as:

- A. *Aircraft*** - refers to air assets in the PCG inventory.
- B. *Maintenance*** - is any action or step performed to keep a piece of machinery equipment, or material in a serviceable condition, and/or to prevent untimely and or possible breakdown or failure. Maintenance includes proper operation, cleaning, adjusting, oiling and similar actions. In a strict sense, maintenance is as ship's force job or aircrew mechanic job.
- C. *Maintenance Level***
  - 1. ***Depot Level Maintenance*** - shall be performed by a qualified private contractor in a Shipyard or Hangar to address the repair requirements that are beyond the scope of Intermediate Level of Maintenance.

2. **Intermediate Level Maintenance** - shall be performed to address the repair requirements of floating and air assets that are beyond the ship's crew and aircraft's crew capability.

3. **Organizational Level Maintenance** - shall be undertaken by the ship's crew to ensure shipboard preventive maintenance and to avoid untimely breakdowns and costly expenses.

- D. **Maintenance Procedure Manual** - a manual provided by the manufacturer and approved by the Deputy Chief of Coast Guard Staff for Ships and Aircraft Engineering, CG-10 giving detailed procedures of the method of maintenance and repair.
- E. **MRG, CGSSF**- sub-unit under Headquarters Coast Guard Surface Support Force that supports and conduct maintenance and repair of machineries and equipment of all floating assets.
- F. **Ships Maintenance and Repair Office, (SF-10)** - Staff of Commander, Coast Guard Surface Support Force primary responsible on matters pertaining to maintenance and repair of all PCG floating assets.
- G. **MRO, CGAF** - Staff of Commander, Coast Guard Aviation Force for Air Assets.
- H. **Preventive Maintenance System (PMS)** - servicing system for the purpose of maintaining machineries and equipment in satisfactory operating condition by providing systematic inspection, detection and correction of untimely failures either they occur or before they develop into major defects.
- I. **Repair** - is any work necessary to restore the serviceable condition of any defective machinery, electrical distribution system, automation and electronics navigational and communication equipment, or material without change in design, number, location or relationships of component parts.
- J. **Repair Type: Repair of Floating and Air Assets**
1. **Voyage Repair (VR) / In-House Repair (IR)** - one (1) week to one (1) month-Shall be undertaken by the MRG, SSF which is subjected to the group's capability, Aircraft maintenance repair shall be conducted by MRO, CGAF.
  2. **Restricted Availability (RA)** - one (1) month to three (3) months-Shall be undertaken by the shipyard/ aircraft repair facility.
  3. **Regular Overhauling (RO)** - Preventive maintenance of air/floating assets' engine depending on the prescribed running hours/ maintenance schedule on its manufacturing manual and shall be undertaken by a competent repair facility.
  4. **Mandatory Drydocking (MD)** - 2 years mandatory dry-docking of floating assets excluding newly acquired floating assets under class warranty.

5. **Emergency Drydocking (ED)** - dry-docking of floating assets in any given emergency situation.

**K. Repair of Air assets:**

A. All aircraft shall declare level one (1) status upon reaching the following scheduled inspection.

**1. BN ISLANDER-2A**

**1. Organizational Level or Intermediate Level**

- (a) 50 hrs total flying time
- (b) 100 total flying time
- (c) 500 total flying time

**2. Depot Level**

- (d) 1,000 total flying time
- (e) 2,000 hrs engine operating time
- (f) 2,000 hrs propeller operating time

**2. BO-105C**

**1. Organizational Level or Intermediate Level**

- (a) 50 hrs total flying time
- (b) 100 total flying time
- (c) 300 total flying time
- (d) 600 total flying time

**2. Depot Level**

- (e) 1, 750 engine operating hours
- (f) 3,500 engine operating hours
- (g) 6,000 hrs flying time

**3. H-145**

- (a) 400 total flying time (intermediate Inspection)
- (b) 12 Months Inspection

(c) 800 total flying time (Periodical Inspection)

B. 50 hours scheduled inspection can be conducted at Air Station

C. 100 hrs scheduled inspection and above shall be conducted aboard HCGAF

D. Routine inspection shall be conducted to ensure the serviceability of the aircraft and its components

L. **Small Craft**- refers to non-commissioned floating assets including indigenous watercrafts that are listed in the PCG inventory.

M. **Commissioned Vessels/aircraft** - refers to any commissioned air/floating assets that are listed under the PCG inventory.

N. **Commissioned Aircraft** - shall refer to the aircraft commissioned under PCG inventory.

#### IV. POLICIES:

A. Maintenance and Repair of all PCG floating and air assets is a command responsibility.

B. MRG CGSSF/ AAMG CGAF personnel shall be composed of technical and duly trained personnel associated in electrical/electronic mechanical and structural ships/ aircraft repair that will be assigned at CGSSF/ CGAF for a period of not less than ten years.

C. It is the duty of every individual to properly maintain all machineries, equipment or materials directly under his cognizance in accordance with established operating and maintenance procedure.

D. Maintenance shall be performed on a following maintenance level (please see Definitions of Terms, Maintenance Level) to ensure proper accomplishment, taking into consideration all applicable regulations, urgency priority, crew impact, capability, capacity and the total cost:

1. Organization
2. Intermediate
3. Depot

E. Repair of any vessel or any of its sub-systems shall be in accordance with the following order of priority:

1. Hull and Structural Repair/ Fuselage Repair- to ensure watertight/airtight integrity of the vessel/aircraft maintaining its stability.
  2. Propulsion System and Auxiliary Machineries- to ensure continuous maintenance of main and auxiliary machineries for deck, engineering and operations department.
  3. Automation and Electronics System- to ensure continuous maintenance of electrical system for deck, engineering and operations department.
  4. Habitability Requirements- to provide comfortable living conditions and sanitary environmental aboard ship.
  5. Navigational/Communicational Equipment- to ensure safe and fast voyage.
- F. In order not to jeopardize operational commitments of the floating assets, the duration of the repair availability must be strictly adhered to the following Repair Types (*Please see Definition of Terms*) :

1. Voyage Repair (VR) / In-House Repair (IR)
2. Restricted Availability (RA)
3. Regular Overhauling (RO)
4. Major Drydocking (MD)
5. Mandatory Drydocking (MD)
6. Emergency Drydocking

G. Farm-out repairs shall not commence unless there is duly funded and approved work order or contract agreement and Notice to Proceed (NTP) by proper authorities in accordance with the existing regulations. No growth repairs or offsetting from the approved contract/scope of works are allowed without the approval of CPCG.

H. To reduce the cost of repair, all repair activities shall be awarded to Lowest Calculated and Responsive Bidder, preferably those with shipyard or repair facility that is known to have quality and standard services rendered to the PCG.

**V. RESPONSIBILITIES:**

**A. Commander, Coast Guard Surface Support Force/ Commander, Coast Guard Aviation Force:**

1. Shall assess/ evaluate the formulation of policies pertaining maintenance and repair prior endorsement to Commandant, Philippine Coast Guard (Attn: CG-10).
2. Shall endorse the pertinent documents and repair request thru the evaluation of CGSSF10/CGAF10 (Attn: CG-10)
3. Shall ensure proper endorsement of CG personnel to CPCG (Attn: CG-12) who will be recommended for domestic/ foreign trainings, seminars and schoolings.

**B. Commander, Coast Guard Surface Support Force (C, CGSSF) and Commander, Coast Guard Surface Support Force (C, CGAF):**

1. Shall formulate and publish a Shipboard Deck Equipment and Engineering Machineries Operating and Maintenance Manual.
2. Shall provide a copy of the Shipboard Deck Equipment and Engineering Machineries Operating and Maintenance manual to all vessels and air assets.
3. Shall require all the Commanding Officers/ Pilot in Command to strictly adhere to the Shipboard Deck Equipment and Engineering Machineries Operating and Maintenance Manual.
4. SF-1, CGSSF in collaboration with Manning Group, CGSSF shall ensure assignment of appropriate ratings to ships who will operate and maintain the equipment and machineries onboard.
5. Shall ensure proper validation of the repair prior endorsement to CGSSF/ CGAF.
6. SF-12, CGSSF in collaboration with STG, CGSSF shall evaluate recommended maintenance and Repair personnel who will participate in trainings/ seminars both domestic and foreign prior endorsement to C, CGSSF.

**C. Pilot in Command /Commanding Officer/Boat Captain of CG Vessel, Small boat and Craft:**

1. Shall designate Personnel-In-Charge (PIC) to every equipment and machineries onboard who will subsequently maintain history logbook for assigned equipment or machinery.
2. Shall ensure full compliance to the scope, proper documentation/disposal of waste material and accept the same after satisfactory conduct of sea trial/test flight and endurance run if necessary.



3. Shall ensure that the maintenance carrying by Ships/aircraft Force is in accordance with the Maintenance Procedure Manual including the conduct of Preventive Maintenance System.
4. Shall be responsible and over-al in-charge of the repair and maintenance of their respective vessels and ensure that the vessels are ready for sea (RFS) status at all times.

D. Maintenance and Repair Group (MRG), CGSSF/CGAF:

1. Shall maintain a proof of repair technicians and MRG personnel who are readily available for deployment.
2. Shall validate and assess the extent of derangement prior endorsement to CGSSF10 /CGAF10
3. Shall provide and render technical assistance upon request by the personnel afloat due to their limited capacity to ensure proper conduct of maintenance and repair equipment and machineries.
4. Shall determine repair priorities prior and submit same to higher headquarters for programming purposes.
5. Shall supervise Depot Level of maintenance in the conduct of in-house and farm out repair activities of PCG floating and air assets.
6. Shall optimize the utilization of Maintenance and Repair Teams (MRTs) upon availability of necessary spares and fast-moving items.
7. Shall assess as well as conduct engine overhauling and other related machineries/equipment of small craft and small boat as per request by the Boat captain/ special unit/ coast guard districts/ major commands
8. Shall ensure and validate the repairs that are being farmed-out in compliance with the approved scope of work by the Headquarters thru O/CG-10.
9. Shall monitor depot level of maintenance, if in case the proponent would not able to finish the work within the given completion date, advise the proponent to submit request for time extension/work suspension/lifting of work suspension subject to the command approval.

E. Ship's Force/ Aircraft Crew:

1. Shall perform preventive maintenance in accordance with approved Maintenance Procedure Manual.

2. Shall maintain complete reports and up-to-date records that identified as machinery and equipment history which can be used as reference during the conduct of repair.
  3. Shall maintain and logged properly all machineries and equipment running hours that can be used as a reference during the conducting PMS.
  4. Shall recommend appropriate measures to keep their ship adequately maintained and be able to meet every assigned mission.
  5. Shall prepare repair request for repair activities that are beyond their capability (i.e general overhauling, drydocking, technical troubleshooting, etc) to be performed by either the MRG, Private Yard or Contractors, Preparation and routing of repair request shall be in accordance with current procedures.
  6. Shall conduct minor repair of shipboard equipment, machinery, and electrical distribution system, and electronics, communication and navigation equipment within their capability.
  7. Shall perform the Organizational Level Repair activities.
  8. Shall ensure good quality and reliability of the component's installed/ fitted onboard ships or watercraft.
- F. Deputy Chief of Coast Guard Staff for Ships and Aircraft Engineering, CG-10:
1. Shall formulate, publish and disseminate plans and policies for PCG-wide maintenance program.
  2. Shall monitor the enforcement of maintenance plans and policies.
  3. Shall conduct technical inspection of vessels and equipment as necessary to ascertain how effective such plans and policies are being carried out and formulate necessary corrective actions.
  4. Shall concur to nomination to the Education and Training Board thru CG-12 on names of CG personnel who will represent the PCG to take domestic and foreign trainings, seminars and schoolings.
  5. Shall review/validate all Work Request to be performed by a private yard prior to preparation of PCG Work Order for the subsequent approval of CPCG

6. Shall be responsible for the formulation, dissemination and publication of plans, policies, and instruction relative to the proper operation and maintenance of vessels and equipment.
7. Shall coordinate with CG-1 for the hiring of consultant /non-uniformed personnel highly skilled in ship/aircraft building/repair to assist/validate request made for the repair.
8. To craft a 5-year Preventive Maintenance Program for PCG Commissioned and Non-commissioned vessels.

**G. Commander, Coast Guard Legal Service (C, CGLS):**

1. Shall ensure that legal matters enclosed in terms and conditions of every repair should be properly assessed / evaluated.
2. Shall represent the command on legal issues arising from repair contracts and agreements.

**VI. RESCISSION:**

All other instructions or publication in conflict with this SOP are hereby rescinded.

**VII. EFFECTIVITY:**

This Standing Operating Procedure takes upon publication:

**BY COMMAND OF COAST GUARD VICE ADMIRAL LAROYA:**

**OFFICIAL:**

**FERDINAN B PICAR**  
**CG COMMO**  
Chief of Coast Guard Staff

  
**JAYSIEBELL B FERRER**  
**CG CDR**  
Coast Guard Adjutant