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NATAA/100/Policy

02 Mar 23

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(for CSO(Tech))
Headquarters, A&N Command
Port Blair 744102

The Flag Officer Commanding-in-Chief
(for CSO(Tech))
Headquarters, Eastern Naval Command
Visakhapatnam 530014

The Flag Officer Commanding-in-Chief
(for CSO(Tech))
Headquarters, Southern Naval Command
Kochi 682004

The Flag Officer Commanding-in-Chief
(for CSO(Tech))
Headquarters, Western Naval Command
Mumbai 400023

**POLICY ON CONDUCT OF COMPREHENSIVE PRE REFIT
TRIALS (PRT) – NR/ MR PLATFORMS**

1. Refer to the following, not addressed to all: -

- (a) IHQ MoD(N)/ DNP letter PL/1680/POLICY/2020 dated 24 Sep 21.
- (b) CNO 04/2019 and CNO 02/2012.

2. **Background.** NATAA has been revitalised with an aim of synergising and strengthening the trials and acceptance organisation of the Navy as per IHQ MoD(N) letter ibid. One of the primary duties of NATAA is to ensure Comprehensive and Integrated trials of equipment and systems by multiple Trial Units onboard ships/ submarines, both during Drawdown phase (Pre Refit Trials stage) and as part of End of Refit Trials. The aim of these trials is to present an unambiguous status of complete

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equipment and systems onboard naval platforms, to all concerned, for taking informed decisions.

3. **Drawdown Phase.** CNO 04/ 2019 stipulates the transition cycle for ships from refit to operational phase. As part of this, the ships are to follow Maintenance-Training-Operation-Drawdown (MTOD) cycle. The policy envisages a training phase on completion of refit, followed by operational deployment phase. Before commencement of next refit, the ship is required to undergo a *Drawdown* phase, wherein it would generally not participate in any exercises or prolonged operational deployments away from base ports. During this phase, PRT and preparatory activities for the upcoming refit commence eight weeks prior DSD for NR/ MR platforms.

4. **Pre Refit Trials.** During PRT, all onboard equipment and systems are subjected to a series of trials to enable better appreciation of the status of hull, engineering and electrical equipment and systems. In addition to the confirmation of defects projected by ship staff in the Defect Lists, these trials also aid in identifying fresh defects which have emerged since submission of defect lists and those which were not captured due to oversight or not adequately addressed earlier. These trials are to be completed within the stipulated time to enable capturing of the defects/ observations and inclusion of the same in SDL/ AWRF. The standard trial protocols for PRT have been drawn up for each class of ship by the respective trial agencies. All observed defects and deficiencies are expected to be addressed during the ensuing refit. PRT also enable benchmarking of the performance of various equipment/ systems which helps in comparison of their performance post maintenance/ repairs during the End of Refit Trials.

5. **Gap Analysis.** Based on the experience gained during conduct of PRT of ships/ submarines over a period of time, following issues merit attention: -

(a) Some of the ships scheduled to undergo refits were not placed in Drawdown phase in the past. However, this aspect is being gradually addressed by all Commands presently.

(b) In some cases, ship's deployment during the Drawdown phase has become inescapable due to operational commitments. Divesting the required Drawdown phase of a ship may lead to ambiguity in the scope of PRT and inability towards finalizing the correct scope of work, which can then adversely affect the refit and the subsequent operational cycle of the platform, particularly since most capital ships would now follow extended ops cycle of 60 months.

(c) During the Drawdown phase, more emphasis is required to be laid towards thorough assessment of materiel state of platforms by all stakeholders concerned.

(d) NATAA has co-ordinated PRT of 10 ships since 01 Jan 22 and consolidated PRT reports for all ships were forwarded to concerned stakeholders. However, it has emerged that due importance has not yet been given by the ships to address all the critical defects/ deficiencies highlighted in these PRT reports and all observations have not been included in the SDL/ AWRF raised subsequently.

(e) Certain critical outstanding demands raised during operational cycles remain pending and are not made good even during long refits, thus affecting the availability of OBS and eventually resulting in the crew's inability to attend to defects at sea.

6. **Way Ahead.** In order to address the aforesaid gaps and strengthen the overall system, PRT need to be conducted holistically in a structured manner and critical defects/ shortfalls are projected to Yards, Administrative Authorities and Professional Directorates to take informed decisions. Towards achieving this goal, following needs to be ensured: -

(a) **Trial Protocols and Trials Schedule.** NATAA to forward the Trials Schedule for conduct of PRT along with all Trial Protocols four months prior DSD, to Op Authority and Ship Staff to enable planning, preparation and conduct of trials in a phased manner.

(b) **Comprehensive PRT by Trial Units.** During the Drawdown phase of ship/ submarine scheduled for major refits (NR/ MR), respective Commands to ensure that the ship/ submarine is available in harbour/ sea for a duration not less than *one* week at the beginning of Drawdown phase for conduct of Comprehensive PRT. Further, ship/ submarine in consultation with respective Trial Units are to offer all equipment and systems for comprehensive checks. Post assessment, probable reasons leading to defect/ sub-optimal performance (if any) may also be included based on condition monitoring techniques utilised.

(c) **Consolidated PRT Report.** On completion of PRT, NATAA to render a Consolidated PRT report in the form of a signal followed by a detailed report at least a week prior DLC, bringing out critical defects/ performance limitations observed during trials, to enable actionable outcomes by all concerned during the ensuing refit.

(d) Critical Outstanding Demands by Ships/ Submarines. List of critical outstanding demands for repairs/ maintenance of various equipment and systems of the respective ship/ submarine, which may have direct bearing on the operational availability of the ship/ submarine, post completion of the refit be highlighted in the PRT signal and the detailed report, based on the inputs received from the ship staff.

7. In order to undertake comprehensive PRT to capture the materiel state of the equipment/ systems with specific and quantifiable defects, achieve refinement of defect list to address the defects during the ensuing refit and provide unambiguous state of the equipment/ systems onboard ships/ submarines to all stakeholders, it is requested that the following be undertaken with immediate effect: -

(a) Command Headquarters. Ships/ submarines due for NR/ MR be placed in Drawdown phase as per CNO 04/19 to progress with PRT and other actions as elaborated in CNO.

(b) Operational Authorities. Ensure conduct of in-house trials/ performance assessment by ship staff during the last phase of the operational cycle, to the extent feasible and balance as part of PRT during Drawdown phase, to capture specific and quantifiable defects.

(c) Ship Staff. Offer trials/ checks to Trial Units and incorporation of all the defects/ observations captured during trials or brought out by the Trial Units in SDL/ AWRF and ensure addressing of the same during the ensuing refit. Further, list of critical outstanding demands for repairs/ maintenance of equipment/ systems which may have a direct bearing on the operational availability of the platform post REFCOMP be forwarded to MOs and NATAA six months prior DSD. In addition, confirmation wrt inclusion of PRT defects in SDL/ AWRF be rendered to NATAA/ Trial Units.


(d) Trial Units. Conduct comprehensive PRT and render trial reports to NATAA to enable rendition of a Consolidated PRT report to all concerned.

(e) Refitting Authority. Study the consolidated PRT report rendered by NATAA to arrive at actionable outcomes during DLC wrt refining the scope of work.

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8. The summary of the actions along with timelines for conduct of comprehensive PRT of ships/ submarines scheduled to undergo NR/ MR is placed at Enclosure.


(Jasvir Singh)
Cmde
Cmde (NATAA)
for Director General

Enclosure: - Timelines for conduct of PRT

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Director/ Osl/C – HITUs, MTUs / MCTU, CTT(Pbr), MSETT, GTTTs, DTTTs, CBIU, ETMA/
ETMUs/ ETT

<u>Internal:</u> -	<u>ACOM(IT&S)</u>	<u>ACOM(D&R)</u>	<u>DG NATAA</u>
	<u>CMDE(EE)</u>	<u>CMDE(NA)</u>	<u>CMDE(ME)</u>
<u>Info:</u> -	<u>NA/ VCNS</u>	<u>TA/ COM</u>	<u>SO/ DCNS</u>

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Enclosure to NATAA letter
NATAA/100/Policy dt 02 Mar 23

TIMELINES FOR CONDUCT OF PRE REFIT TRIALS (NR/ MR)

<u>Ser</u>	<u>Activity</u>	<u>Timeline</u>	<u>Agency/ Remarks</u>
1.	Ship to forward details of critical outstanding demands to MOs and NATAA	D - 06 months	Ship Staff
2.	NATAA to forward the approved Trial Protocols and Trial Schedule to Op authority and concerned ship/ submarine	D - 04 months	NATAA
3.	Ship to undertake performance assessment of all equipment/ systems including internal acoustic hygiene audit during deployments, to the extent feasible	D - 04 to 02 months	Op Authority/ Ship Staff
4.	Placing of ship in Drawdown Phase	D - 08 weeks	Command HQs
5.	Conduct of Comprehensive PRT – Sea Trials and progress of Harbour trials (Harbor checks – 03 days, checks/ assessment at sea – 02 days)	D - 08 to 07 weeks	Refitting Authority/ Trial Units/ Ship Staff
6.	Rendition of performance reports to NATAA by all Trial Units	D - 07 to 06 weeks	Refitting Authority/ Trial Units/ Ship Staff
7.	NATAA to render Consolidated PRT Report in the form of a signal followed by a detailed report	D - 05 weeks	NATAA
8.	Defect List Conference	D - 04 weeks	Refitting Authority

D : DSD