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समिश्र जांच दल/ Composite Trials Team
द्वारा नेवी कार्यालय/ C/o Navy Office
मुख्यालय/ Headquarter
अन्धमान एवं निकोबार कमान/
Andaman & Nicobar Command
पोर्ट ब्लैयर/ Port Blair - 744 102

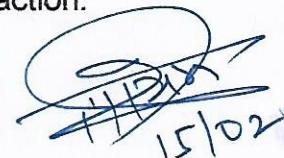
CTT/300/03/13/TECH

15 Feb 23

The Commander - in - Chief
{for CTO (Marine)/ CTO(ML/ SSO(Refit))}
Headquarters
Andaman & Nicobar Command
Port Blair – 744 102

STAFF SEA CHECKS STAGE – I
/IN LCU L-55 (SR 22)

1. Refer to HQANC fax ANC/42442/DR/09 dated 13 Feb 23.
2. The combined Staff Sea Checks Stage - I report iro /N LCU L-55 is forwarded herewith as Enclosures to this letter for further necessary action.



15/02

(एस सी विलियम/ S C William)
कमांडर/ Commander
प्रभारी अधिकारी/ Officer-in-Charge

Encl: - I - CTT report
II - HITU report
III – NBCD report

Copy to:-

The Commodore Superintendent
{for DGM (Refit)}
Naval Ship Repair Yard
c/o Navy Office
Port Blair – 744 102

The Naval Component Commander
{for SSO(Tech)}
c/o Navy Office
Andaman & Nicobar Command
Port Blair – 744 102

The Commanding Officer
/N LCU L55
c/o Navy Office
Port Blair-744 102

SSC-I REPORT- IN LCU L55
REPORT BY CTT PBR) - AS ON 15 Feb 23

1. Engineering Machinery Equipment:-

Ser.	<u>Machinery/ Equipment</u>	<u>Cold checks completed</u>		<u>Sat/Unsat/ Sub- Optimal</u>	<u>Remarks</u>
		<u>YES</u>	<u>NO</u>		
(a)	Both Main Engine	✓		SAT(WITH OBS)	SDCs of BME conducted on 02 and 03 Jan 23. Observation are as follows:- (a) Bilge plate not secured. (b) Bilge hygiene not maintained. (c) Ventilation of engine room non-ops. (d) Leakage observed from sea water outlet line of port gear box.
(b)	Diesel Alternator No. 1 (250 kW)	✓		SAT	SDC carried out on 24 Dec 22.
(c)	Diesel Alternator No.2 (250 kW)	✓	\$	SAT(WITH OBS)	SDC carried out on 25 Jan 23. Full load trial carried out on 27 Jan 23. Following observed:- (a) Lub oil leakage observed from cylinder head cover number 5 and 6. (b) Expansion tank over flow line not fitted. (c) Mounts not preserved. (d) Rust mark found at various point on foundation. (e) Attenuation of three mounts at 60% and 100% load found UNSAT. (f) SPM reading of alternator driven end and free end found yellow zone at 60% and in red zone at 100% load.

(d)	Diesel Alternator No.3 (350 kW)	✓	-	SAT(WITH OBS)	SDC carried out on 16 Jan 23. Following observed:- (a) Vacuum indicator not visible. (b) Bilge plate not secured. (c) Bilge hygiene not maintained.
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EXECUTIVE SUMMARY STAFF SEA CHECKS STAGE I - IN LCU L 55

1.	Inspecting Agency	Hull Inspection and Trials Unit, Port Blair
2.	Presenting authority	HQANC FAX ANC/42442/DR/9 Dated 13 Feb 23.
3.	Authority	ANCGO 12/12 dated 09 Oct 12
4.	Inspection period	14-15 Feb 23
5.	Type of Refit	SR 22
6.	Summary outstanding pending work	<p>(a) Fitment of anchor chain cable pending.</p> <p>(b) IN 305 report not available.</p> <p>(c) Overhauling of slipping clutch in Fwd anchor capstan and Aft capstan in progress.</p> <p>(d) Work on ATU 3 and chemical cleaning of all ATUs fin in progress.</p> <p>(e) Air pressure testing of 01 of 10 watertight clusters iaw NO 01/15 pending.</p> <p>(f) Preservation of tank deck & quarter deck pending iaw NO 53/16.</p> <p>(g) Replacement of 03 emergency escape scuttles iaw NCD 1449 is pending.</p> <p>(h) Serviceability checks of Life raft / Life jacket /RIB 7.2mtrs is pending.</p> <p>(j) NBCD marking and volumetric marking to be undertaken.</p> <p>(k) Trial and weighing of RIB 7.2mtrs is pending.</p> <p>(m) Test certificate of PT of fuel tank RIB, 08 Bullring, DP test of eye hooks and rubber hardness test, Ships Brow load test report to be obtained.</p> <p>(n) Fitments of VTS pump in FWD STP pending.</p>
7.	Remarks	Completion of pending/in progress activities/observations mentioned at enclosure II

REPORT ON HULL, HABITABILITY AND SHIP HUSBANDRY
IN LCU- 55 - SSC STAGE I

1.	Complement of HAs	
(a)	Complement	01
(b)	Borne Strength	05
2.	HMP & VMP (As per NO / ANCO Tech)	
(a)	Formation	04
(b)	Periodicity and consistency	Monthly
(c)	Composition of HMP/VMP	HMP-01, VMP-01
3.	Anchor Capstans (Fwd)	
(a)	Make & Model	M/s Geeta Engineering
(b)	Survey of foundation	Completed
(c)	Overhauling/ routines IAW MAINTOPS/DL	Overhauling of slipping clutch in progress
(d)	Trial/operation	Pending
(e)	Any routines pending	Nil
4.	Aft Mooring Capstan	
(a)	Make & Model	M/s Geeta Engineering
(b)	Survey of foundation	Completed
(c)	Overhauling/routines IAW MAINTOPS/DL	Overhauling and alignment of slipping clutch in progress
(d)	Trial/operation	Pending
(e)	Any routines pending	Nil
5.	Anchor & chain cable & accessories	
(a)	Make & Size	AC 14 & 24 mm chain cable
(b)	Allowance / quantity/ specifications	(a) Length - 192.5 Mtrs (b) Full shackles – 05 (c) Half shackle- 04 (d) Dia – 24 mm.
(c)	Survey	Completed
(d)	BER	Following items of chain cable were declared BER:- (i) Half shackles – 04 (ii) Lugless joining shackles – 10 (iii) Bottle screw slip – 01 (iv) Swivel adaptor – 02 (v) Blake slip – 01 (vi) Riding Slip – 01 (vii) Full Shackles – 04
(e)	Load test/survey as required	Not Completed
(f)	Preservation / marking	Not undertaken
(g)	Changeover / embarkation	Not undertaken
(h)	Receipt of IN 305	Not held with SS
(k)	Any BER item in use / authority/ remarks	Ship is not in position of 04 Half shackles, 01 full Shackles & 05 Lugless joining shackles. Post receiving of these accessories fitment of Anchor chain cable will be undertaken

	Boat davit	Ops. Load test – 26 Jan 23 (Certificate not held with SS) Destruction test of SWR- 23 Nov 20
7.	Tank hauling Capstan	Ops
8.	5 T Deck Crane	Ops
9.	Boats (RIB- 01 , Gemini- 04)	RIB- (i) Wiring is in progress. (ii) Apt of fuel tank undertaken certificate awaited. (iii) DP test of 04 eye hooks completed certificate awaited. (iv) Boat weighing pending. (v) Trials of boat pending. Gemini - Ops
10.	Towing / Mooring Arrangement	
	(a) Survey	Completed (30 Nov 22)
	(b) Serviceability checks / destruction certificate of sample piece	Completed (30 Nov 22)
	(c) Repairs	Completed
	(d) Load test	NA
	(e) Preservation	Completed
	(f) Receipt of test certificates	Held
11.	Jack Stay Point (Heavy / Light)	NA
12.	RAS Equipment	NA
13.	Probe Fueling Arrangement	NA
14.	Bollards , Fair Leads and Towing Eyes	
	(a) Allowance /quantity /specifications of gear	Twin Bollards - 10, Towing Pad- 02, roller fairlead – nil, Fairlead -08, Bullring – 04 rolling bollard – 02, Cleats - 08
	(b) Location	Weather deck
	(c) Survey	Visual survey undertaken
	(d) Repairs	Completed
	(e) Load test / Serviceability checks	Held (Except bullring)
15.	Tanks (AVCAT, Fuel, Lub oil, Fresh water, Ballast tanks, cofferdams, void spaces)	
	(a) No of tanks	Fresh water Tank – 05 Fuel Oil Tank- 02 Ballast tank – 05 Dirty Oil tank – 01 Drain Tank – 04 FORU tank – 04.
	(b) Survey	Completed
	(c) Repairs	Completed
	(d) NDT	Completed
	(e) Pressure testing	Completed
	(f) Preservation	Completed
	(g) Boxing up	Completed
	(h) Last 100 % paint renewal undertaken	Jul 2018
	(i) Work undertaken on paint scheme in present refit	Complete paint renewal in Ballast tank 1 and condition based paint touch up in remaining tank undertaken.
	(k) Any other relevant information	-
16.	AC & Vent System	
	(i) Specifications	H&H

	(ii)	Overhauling / routines / repairs	Chemical cleaning of ATU fins pending
	(iii)	Cleaning of ventilation trunking	Completed
	(iv)	Fitment of bellows	In progress
	(v)	Fitment of inspection covers	In progress
	(vi)	Restoration of insulation	In progress
	(vii)	Rectification of WTSV / HWTCs / Butterfly valves / diffuser	Fitment of diffuser pending
	(viii)	Rectification of instrumentation	In progress
	(j)	Preservation	In progress
17	ATU		Qty - 03 , WIP on ATU 3 in progress & Chemical cleaning of ATU fins pending
17.	AFU		NA
18.	STP		Fwd STP – fitment of VTS pump in progress. Aft STP - Ops
19.	Availability of H ₂ S sensor		
	(a)	Fixed H ₂ S sensor	(i) Qty - 04. (ii) Ops and calibrated – 04 (06 Sep 22)
	(b)	Portable H ₂ S sensor	(i) Qty – 02 (ii) Ops and calibrated – 02 (07 Jan 23 & 24 Dec 22)
20.	Cathodic Protection system (ICCP / Sacrificial Anodes)		
	(a)	Ext readings w.r.t. zinc reference electrode in mV	Forward Mid Aft Port 156 mV 173 mV 168 mV Stbd 153 mV 158 mV 160 mV
	(b)	Renewal of Sacrificial Anodes	SR-22
21.	ICCP system		
	(a)	Status	Ops
	(b)	Readings on the panel	(i) ICCP switched off view hot work is in progress onboard. (ii) Post docking Checks pending.
	(c)	Set potential	800mV
22.	Watertight doors + Gastight door		
	(a)	No's	20
	(b)	Survey	Completed
	(c)	Overhauling / routines	Completed
	(d)	Repairs	Completed
	(e)	Chalk test	Pending (02/20)
	(f)	Remarks	Rubber hardness test report awaited
23.	Watertight hatches		
	(a)	Nos	17
	(b)	Survey	Completed
	(c)	Overhauling / routines	Completed
	(d)	Repairs	Completed
	(e)	Chalk test	Completed
	(f)	Remarks	(i) Retaining mechanism of 01 troops mess hatch defective. (ii) Rubber hardness test report awaited.
24.	Emergency escape covers/ Hatch		
	(a)	Nos	15
	(b)	Survey	(i) Replacement of 12 EES completed

	(c) Overhauling / routines	and 03 pending.	
	(d) Repairs	(ii) Yard remarks for 03 Hatches are DTNR.	
	(e) Chalk test		
25.	Port holes / Scuttles		
	(a) Nos	09	
	(b) Survey	Completed	
	(c) Overhauling / routines	Competed	
	(d) Chalk test	Competed(Rubber hardness test report awaited)	
26.	Citadel		
27.	Mushroom Head		
	(a) Nos	04	
	(b) Survey / Overhauling	Competed	
28.	Habitability (Offices /accommodations /bathrooms)		
	(a) Fitment of accessories in bathrooms/WC	Completed	
	(b) Fitment of valves in bathrooms /WC	Completed	
	(c) Fitment of paneling / furniture / bunk and lockers	In progress	
	(d) Fitment of ventilation diffusers in all messes and accommodation spaces	In progress	
29.	Air Pressure Test/AHT of W/T Compartments		
	(a) No of WT compartment / Clusters	01/10 WT cluster pending.	
	(b) Availability of APT/AHT equipment		
	(c) No of WT clusters / sections pending for proving APT in presence of HITU (PBR)		
	(d) Liquidation of APT defects if any		
30.	Helo Deck		
31.	Helo Hangar		
32.	Helo Traversing Winch		
33.	Weather decks		
	(a) Deck survey / repairs	Completed	
	(b) Date of 100 % last paint scheme renewal	Jul 18	
	(c) Surface preparation / restoration of paint scheme	Touch up will be undertaken by SS	
	(d) Work undertaken on paint scheme in present refit		
34.	No of Doublers /cold repairs below Water line		
		Nil	
35.	No of Doublers above Water line		
	(a) Nos	Nil	
	(b) Location		
	(c) Size		
	(d) Status of hull concession		
36.	Sea chests, Sea tubes, U/W Appendages/Associated fittings (Rudders / Sonar Dome / Stabilizer / Bilge Keel / A Brackets / Shaft tube / Eddy plates /Propellers)		
	(a) Survey / renewal / built up / repair / pressure testing status	Completed	
	(b) Pressure testing and preservation	Completed	
	(c) Status of repair / overhauling / pressure testing of U/W valves	Completed	
	(d) Modifications	Nil	

	(e)	Removal of sacrificial anodes from rudder (P & S) and blanking of holes	Completed IN Dec 22
37.	Shell Plating & Associated stiffeners		
	(a)	Survey/ repair of shell plating below WL	Completed
	(b)	Survey/ repair of shell plate above WL	Completed
	(c)	Surface preparation and preservation	Completed (In progress above Water line)
38.	External UW paint scheme -		
	(a)	Surface Area (Sq.m)	Approx area 750 m ²
	(b)	Surface preparation / restoration of paint scheme	Completed
	(c)	Type of paint scheme applied	M/s Akzo Nobel
	(d)	Date of 100 % renewal	Jul 18
	(e)	Work undertaken on paint scheme in present refit	Condition based touch up painting was undertaken during DD phase.
39.	Decks & lobbies		
	(a)	Deck survey / repairs	Completed
	(b)	Surface preparation / restoration of paint scheme	In progress
	(c)	Type of paint scheme being applied	M/s Akzo Nobel
	(d)	Restoration / application of deck covering schemes	Completed
	(e)	Repairs in progress	Completed
40.	Superstructure including main mast /funnels		
	(a)	Deck survey / repairs	Completed
	(b)	Surface preparation / restoration of paint scheme	In progress
	(c)	Type of paint scheme being applied	Akzo Nobel
	(d)	Repairs	Completed
	(e)	Condition of expansion joints	NA
41.	Wet Compartments (Galley/Laundry/pantry/scullery/fan room)		
	(a)	Survey / repairs	Completed
	(b)	Surface preparation / restoration of paint scheme	Completed
	(c)	Restoration / application of deck covering schemes	Completed
	(d)	Dado casting status(up to 230 MM)	Completed
42.	Watertight and minor bulkhead		
	(a)	Survey / repairs	Completed
	(b)	Surface preparation / restoration of paint scheme	Completed
	(c)	Type of paint scheme being applied	M/s Akzo Nobel
	(d)	Repairs	Completed
43.	Deck covering / tiles in Dry / Wet compartment		
	(a)	Removal of deck covering for survey / repairs	Completed (Not removed from Bridge lobby and Captain lobby and MCO)
	(b)	Renewal of deck covering	Completed
	(c)	Renewal of tiles	NA
	(d)	Dado casting status(up to 150 MM)	Completed
44.	PVC coated SS guard rails		
	(a)	Survey	Completed
	(b)	Repair/ renewal of PVC coated EFSWR	Completed
45.	Guardrail stanchions and awnings		

	(a) Survey	Completed	
	(b) Repairs	Completed	
46.	Bunk mattresses		
	(a) No of defective bunks	Completed(Fitment of 10 Anti roll bar pending)	
	(b) Status of repairs		
	(c) Fitment of bunks		
	(d) Renewal of bunk mattresses		
47.	Lifesaving appliances (Lifebuoy / Life raft / Life jacket / Gemini/RIB 7.2mtrs)		
	(a) Location	Upper deck	
	(b) Routines of life raft	Landed in yard for serviceability checks	
	(c) Securing system	Not Completed	
	(d) Life jackets Survey	In progress(PTS demand for 45 HDLJ raised)	
	(e) Gemini (04 no)	Ops	
	(f) RIB 7.2 mtrs	Work in progress on 7.2 M RIB	
	(g) Receipt of test/ serviceability checks	Will be done post completion of work on RIB	
48.	Cool and Cold room		
	(a) Survey	Completed	
	(b) Repairs of structure / door	Nil work undertaken	
	(c) Fitment of paneling	Completed	
	(d) Heat input test	NA	
49.	Machinery Compartments bilges and seating		
	(a) Survey of decks / seating	Completed	
	(b) Repairs of structural work	Completed	
	(c) Surface preparation / preservation of bilges of Engine Room / Boiler Room / Fwd DA / Main DA and pump and filter space compartments	Completed	
	(d) Condition of coating	Sat	
	(e) Date of 100 % paint scheme renewal	Jul 18	
	(f) Type of paint scheme applied	M/s Akzo Nobel	
50.	Ship Systems (Pre-wetting)		
	(a) Survey	NA	
	(b) Repairs / refitting		
	(c) Pressure testing		
	(d) Pre-wetting Trials		
51.	Hull Drawing availability as per inventory		
52.	Stability drawings availability as per inventory		
53.	NBCD markings status of renewal / restoration being undertaken (Door/ Hatches)		
54.	Volumetric markings Status of renewal/restoration		
55.	Deep water line marking/renewal /restoration		
56.	Ladders		
	(a) Survey	Completed	
	(b) Repairs / refitting	Completed	
57.	Ship brow		
	(a) Survey / defect rectification	Completed	
	(b) Load testing	Completed (Certificate awaited)	

	(c)	Receipt of test certificates	Held
58.		Insulation / lagging restoration status	In progress
59.		Bimetallic joints repair status	NA
60.		Ramp door	<ul style="list-style-type: none"> (a) Sat. (b) Rubber beading renewed. (c) Load test – 11 Feb 23. (d) Serviceability checks of SWR – 08 Dec 22
61.		Ramp winch	SR routines completed

Enclosure III to CTT(Pbx) Letter
CTT/300/03/13 dated 15 Feb 23

NBCD STATUS- IN LCU-55

(1) NBCD Status

<u>SER</u>	<u>EQUIPMENT</u>	<u>STATUS SAT</u>		<u>REMARKS</u>
		<u>YES</u>	<u>NO</u>	
(a)	NBCD Status Board of ship available	Yes		
(b)	Watch and Quarter Bill up to date	Yes		
(c)	NBCD Team Organized as per current orders	Yes		
(d)	CABA/ELSA positioned throughout the ship	Yes		ELSA for Troops – Demand Pending (Qty-128) vide demand no 22M0001 dated 23 Apr 22.
(e)	Location list of NBCD Equipment	Yes		
(f)	Various WT and GT conditions check off lists	Yes		
(g)	Pre-shelter check off list		No	To be maintained
(h)	Pre-wetting check off list		No	
(j)	Monitoring check off list		No	
(k)	Cleansing Station check off list		No	
(l)	Chemical Defence and Safety check off list		No	
(m)	Incident Board	Yes		
(n)	Door and Hatch Board	Yes		
(p)	Pumping and Flooding Board	Yes		
(q)	Fuel and Water State Board	Yes		
(r)	Main System Board	Yes		
(s)	NBCD stores as per allowance list	Yes		
(t)	Exercise briefing and de-briefing register	Yes		

(2) NBCD Status

SL No.	SYSTEM	STATUS		REMARKS
		SAT	YES NO	
(a)	NBCD markings of the ship		No	To be undertaken post painting.
(b)	Portable /Fixed Firefighting and Damage Control equipment as per allowance list	Yes		20 TPH-03 (Ops) 40 TPH-05 (Ops) 37 TPH DD pumps-02 (Ops)
(c)	AFUs		NA	
(d)	Citadel test		NA	
(e)	Communication equipment in NBCD HQs and Section bases	Yes		Total Field Telephones - 05 (Ops) Motorola - 04 (Ops)
(f)	NBCD Organisation	Yes		
(g)	Automatic Emergency Lights (AEL)	Yes		Total-134 Ops-124, Non ops- 10
(h)	Portable emergency battery operated damage control lights	Yes		Total-08 (Ops)
(j)	Pre- wetting systems		NA	
(k)	SIRS		NA	
(l)	Fixed major FF systems	Yes		CO ₂ Drenching system ops. Bottle Weighing carried out on 01 Apr 22. Last functional test carried out on 27 Dec 22.
(m)	NBCD Standing Orders	Yes		
(n)	Key Organisation	Yes		Last quarterly muster of duplicate key carried out on 30 Dec 22.
(p)	Documents /records as per ANCO	Yes		
(q)	Cooks /Galley safe operating drills and procedures	Yes		Training to be conducted for galley staff and record for the same to be maintained in NBCD exercise/ training record book.
(r)	Sprinkling system for magazines	Yes		System Ops. Remote control Valve of Port CRN not working. Four monthly trials/operational checks carried out on 10 Jan 23.
(s)	Laying down of "NO SMOKING ZONES " AND "SMOKING PERMITTED COMPARTMENT"	Yes		

(3) Equipment status

<u>Ser</u>	<u>Equipment/System</u>	<u>Status</u>	<u>Remarks</u>
(a)	Automatic Fire Detection System(AFDS)	Ops	Qtrly trials/operational checks carried out on 27 Dec 22.
(b)	Flood warning system	Ops	Qtrly trials/ operational checks carried out on 20 Aug 22.
(c)	Fire main System	Ops	Qty- 02 Ops- 01, Non ops- 01
(d)	GFFS	Ops	Qtrly trials/ operational checks carried out on 27 Dec 22.
(e)	9 Litre AFFF Extinguisher	Ops	
(f)	2 Kg CO2 Extinguisher	Ops	02 Kg CO2 extinguishers (Qty- 05) Non Ops.
(g)	10 kg DCP	Ops	
(h)	Portable BA Charging Compressor	Ops	Qty-01 (Ops) Last air analysis test carried out on 31 Oct 22.
(j)	TIC	Ops	Ops- 02
(k)	ITP	Ops	
(l)	FB5(X)	Ops	Qty- 05
(m)	Hoses	Ops	Qty- 35

(4) Outstanding demands

<u>Ser</u>	<u>Item</u>	<u>Qty</u>	<u>Demand No.</u>
(a)	Portable CAM	01	19W0036 dated 26 Mar 19.
(b)	ELSA	128	22M0001 dated 23 Apr 22 (for troops).
(c)	Cement rapid hardening	120 Kg	22X0218 dated 16 Nov 22.

(5) Recommendation/ Observations

<u>Ser</u>	<u>Observations</u>
(a)	Plug/socket of Two 40/ 20TPH submersible pump is found defect/missing near main alleyway. The same to be fitted at the earliest. It may cause short circuit and shock incident during operation of pump.
(b)	The nomination of personnel for DCPOOW/DCP is to be for three months, after which they are to be changed as per NO (str) 03/19.
(c)	The following books and record need to be updated and maintained iaw NO 27/16:- (i) NBCD Equipment Information and Maintenance Record – Details of all portable extinguisher/dewatering pump held onboard are to be maintained as per prescribed format (i.e Item recd date, manufacturing date, last charging date, next due date, routine details etc). All entry to be made with ink pen only. (ii) NBCD class and specification - It is to be updated as per latest CNAL published in 2018.