

**ENGINEERING PRE-OST CHECK OFF LIST – /N LCU L-58**

<b><u>Ser</u></b>	<b><u>Check</u></b>	<b><u>SAT/ UNSAT/ SAT(WITH OBS)</u></b>	<b><u>Remarks</u></b>
<b><u>Document Review</u></b>			
1.	<b>Documentation</b>		
	(a) Main Propulsion Log	<b>SAT</b>	
	(b) Salinity Log	<b>NA</b>	
	(c) Engine Order Log	<b>SAT</b>	
	(d) Sailing Order	<b>SAT</b>	
2.	<b>Test Record of:-</b>		
	(a) Lub oils	<b>SAT</b>	
	(b) Hydraulic oils	<b>SAT</b>	
	(c) Coolants	<b>SAT</b>	
3.	<b>Load Test records of:-</b>	<b>SAT</b>	
	(a) Chain Pulleys	<b>SAT</b>	
	(b) Cranes/ Engine Room Traversing Hoists	<b>NA</b>	
	(c) Eyehooks	<b>SAT(WITH OBS)</b>	Load test certificate not held
4.	<b>Calibration Reports of:-</b>		
	(a) RO Plant Relief Valves	<b>SAT</b>	
	(b) HPAC Stage Relief Valves	<b>UNSAT</b>	Calibration certificate not held. Relief valves not in place.
	(c) HP Air Cylinder Relief valves	<b>SAT</b>	
	(d) AC and Ref System Relief Valves	<b>SAT(WITH OBS)</b>	Calibration certificate not held
	(e) Lub oil/ coolant test kit	<b>SAT(WITH OBS)</b>	Calibration certificate not held
	(f) Vib-10/ T-30	<b>SAT</b>	
	(g) Nagman LP calibration kit	<b>SAT(WITH OBS)</b>	Calibration certificate not held

<u>Ser</u>	<u>Check</u>	<u>SAT/ UNSAT/ SAT(WITH OBS)</u>	<u>Remarks</u>
	(h) Nagman HP calibration kit	<b>SAT(WITH OBS)</b>	Calibration certificate not held
	(j) Nagman Temperature calibration kit	<b>SAT(WITH OBS)</b>	Calibration certificate not held
5.	<b>Records of Safety Devices Check:-</b>		
	(a) Main propulsion plant	<b>SAT</b>	
	(b) Power Generation Plants	<b>SAT</b>	
	(c) AC and Ref Plants	<b>SAT</b>	
	(d) HPACs	<b>SAT</b>	
6.	<b>Machinery and Equipment Status (Individual machinery)</b>		
	(a) Operational Status of Machinery	<b>SAT(WITH OBS)</b>	DA no.3 non-ops
	(b) Routines Due/ Overdue (reason if any)	<b>SAT</b>	
	(c) Limitations in Machinery Performance	<b>SAT</b>	
	(d) Sub-optimal performance and waiver if accorded	<b>SAT</b>	
	(e) Last Trials (Date - Occasion - By Whom)	<b>SAT</b>	
	(f) Status of Instrumentation (Parameters Available/not available)	<b>SAT</b>	
	(g) Performance of All Main Engines at Full Power	<b>SAT</b>	
	(h) Remote Operation of Machinery (from different location if provision exists)	<b>SAT</b>	
7.	<b>Check off Lists:-</b>		
	(a) Sea and Action de-linked from propulsion preparation	<b>SAT</b>	
	(b) Copies available at each controlling positions	<b>SAT</b>	
	(c) Check off lists in log book format, with signature of person undertaking each serial	<b>SAT(WITH OBS)</b>	Not available in DA compartment.
<b><u>Operational Checks of Machinery</u></b>			
8. .	<b>Operational Checks of:-</b>		

<u>Ser</u>	<u>Check</u>	<u>SAT/ UNSAT/ SAT(WITH OBS)</u>	<u>Remarks</u>
	(a) DD Fire pumps	<b>SAT</b>	
	(b) AC Plants including SW and CW system and functional trials of Capacity Control Mechanism Crankcase Heater	<b>SAT</b>	
	(c) Ref Plants including SW system and Auto defrosting system Crankcase Heater	<b>SAT</b>	
	(d) FO Centrifuge including Auto mode operation	<b>SAT</b>	
	(e) LO Centrifuge	<b>SAT</b>	
	(f) HPAC including Capacity trials	<b>SAT(WITH OBS)</b>	Capacity trial report not held.
	(g) Drier system functionality checks and Auto condensate drain mechanism trials Auto mode (cut in/ cut out) trials	<b>SAT</b>	
	(h) OWS and Bilge Pumps	<b>SAT</b>	
	(j) Fire Pumps	<b>SAT(WITH OBS)</b>	MER fire main pump trial pending.
	(k) Functional trials of remote operation of system valves	<b>SAT(WITH OBS)</b>	03 remote control valves non-ops.
	(l) Bilge and Ballast Pumps	<b>SAT</b>	
	(m) Fuel Stripping Pump and system	<b>SAT</b>	
	(n) Cathelco System	<b>NA</b>	
	(p) Emergency/DD compressors	<b>SAT</b>	
	(q) Emergency DAs	<b>SAT</b>	
	(r) Emergency Cooling wherever provisioned	<b>SAT</b>	
	(s) Emergency Steering, if provisioned	<b>SAT</b>	
	(t) Machinery Intercoms	<b>SAT</b>	
	(u) Workshop machinery functional trials	<b>SAT</b>	
	(v) SPT	<b>SAT</b>	
	(w) AELs in Machinery Spaces	<b>SAT(WITH OBS)</b>	05 AELs non ops.

<u>Ser</u>	<u>Check</u>	<u>SAT/ UNSAT/ SAT(WITH OBS)</u>	<u>Remarks</u>
<b><u>Checks of Emergency Provisions</u></b>			
9.	<b>Display on equipment/ Panels:-</b>		
	(a) Cutout limits	<b>SAT</b>	
	(b) Starting and Stopping procedure	<b>SAT</b>	
	(c) Safe range of operating parameters	<b>SAT</b>	
10.	<b>Emergency Arrangements:-</b>		
	(a) Size of Emergency escape hatches (600 mm dia) and ease of usage	<b>SAT(WITH OBS)</b>	410 mm Dia
	(b) Escape route marking	<b>SAT(WITH OBS)</b>	In progress at various locations
	(c) AELs	<b>SAT</b>	
	(d) Marking of ladders	<b>SAT</b>	
	(e) Fluorescent marking of obstructions on emergency walkways/escape routes	<b>SAT</b>	
	(f) Availability of safety nets in all multi-level hatches leading to underwater compartments and their serviceability	<b>NA</b>	
<b><u>Onboard Rounds</u></b>			
11..	<b>Checks of Following:-</b>		
	(a) Colour coding of system pipes (IHQ MoD (N) letter EG/Policy/Aux/05/ 2015 of 01 Jun 15)	<b>SAT(WITH OBS)</b>	In progress at various locations.
	(b) Maintenance of Rod Gearings including colour coding (Art 0431 of INBR 1835 Vol II and SAQ/E-01/13)	<b>SAT(WITH OBS)</b>	Colour coding not carried out.
	(c) Securing of bilge plates/ grating with 'Dzus' fasteners (Section 12 of NES127)	<b>UNSAT</b>	Bilge plates are not secured with Dzus fastener.
	(d) Securing of HP/ Freon bottles (FOST DESACQ 05/2014 of 12 Dec 14)	<b>SAT</b>	

<b>Ser</b>	<b>Check</b>	<b>SAT/ UNSAT/ SAT(WITH OBS)</b>	<b>Remarks</b>
	(e) Fitment of Machine Guards on machinery (FOST SAQ/ E- 04/13)	<b>SAT</b>	
	(f) Astern fuelling requirements (FOST SAQ/E- 02/13, FOST Safety Alert 01/14 of 03 Jan 14)	<b>NA</b>	
	(g) Maintenance and securing of Fuel/ Lub oil manholes/ tank tops including fitment of conical nuts covers (FOST SAQ/E- 03/13}	<b>SAT(WITH OBS)</b>	Lub oil RU tank cover is not secured with conical nuts.
	(h) Checking and maintenance of Salvage Pumps (FOST Safety Alert 06/14 of 27 May 14)	<b>SAT</b>	
	(i) Operation/ running of RIBs on chocks (FOST Safety Alert 01/15 of 06 Feb 15)	<b>UNSAT</b>	RIB not held onboard
	(j) Release lines on Relief valves (FOST Safety Alert 05/15 of 19 Nov 15)	<b>SAT</b>	
	(k) Oil and coolant testing organisation (FOST Safety Alert 01/16 of 11 Feb 16)	<b>SAT</b>	
	(l) 24 V DC lead lamps are available (IHQ MoD (N) letter EE/Policy/L-01/ POWER-01 of 24 Jan 05)	<b>UNSAT</b>	Not available
	(m) Lagging of Machinery spaces	<b>SAT</b>	
	(n) Handrails on ladders	<b>SAT</b>	
	(p) Guardrails on platforms	<b>SAT</b>	
	(q) Checks of CCTV Cameras	<b>SAT</b>	
	(r) Waterline & other side compartments	<b>SAT</b>	
	(s) Bilge Hygiene of compartments	<b>SAT(WITH OBS)</b>	Water accumulation in MER compartment
	(t) Hygiene of machinery and equipment	<b>SAT(WITH OBS)</b>	Mounts of various equipment not cleaned
	(u) Hygiene of systems, flanges and pipelines	<b>SAT(WITH OBS)</b>	Corrosion at various locations
	(v) Sea water leakages	<b>SAT</b>	
	(w) Oil/ fuel leakages	<b>SAT(WITH OBS)</b>	(i) Minor fuel leakage from filling valve gland. (ii) Minor leakage from port fuel storage tank QC gland
	(x) State of maintenance and preservation of Sea tubes, overboard pipes and valves	<b>SAT</b>	

Ser	Check	SAT/ UNSAT/ SAT(WITH OBS)	Remarks
	(y) State of pipe brackets	SAT(WITH OBS)	Rubber inserts not available in 04 brackets
	(z) Intactness of ventilation trunking	SAT	
	(aa) Status of lighting	SAT	
	(bb) State of bilge lighting (including spark proof build)	SAT	
	(cc) Fuel tank sounding tube and breather pipes	SAT	
	(dd) Tank level indication and flow meters	SAT	
	(ee) Machinery compartment illumination (by Lux Meter), noise levels (by Sound Power Meter) and ventilation (by airflow meter) iaw NES.	SAT	
	(ff) Audit of split/ Marine AC iaw IHQ/ DME/ EG/ 4001/AUX/02 of 16 Oct 14.	NA	
12.	<b>Organisation Checks:-</b>		
	(a) All orgs as per check off list	SAT	
	(b) Tag Out/ Tag In organisation (FOST Safety Alert 07/14 of 06 Jun 14)	SAT	
13.	<b>Test Equipment/ Kits:-</b>		
	(a) All orgs as per org check off list	SAT	
	(b) Lub oil — Viscosity and water content	SAT	
	(c) Coolant	SAT	
	(d) Salinity	SAT	
	(e) Vib-10/ T-30	SAT	
	(f) Nagman Pressure calibration kit (HP and LP)	UNSAT	Test Kit landed for calibration
	(g) Nagman Temperature calibration kit	SAT	
14.	<b>SPTA Stores:-</b>		
	(a) Metallic Boxes	SAT	
	(b) No wooden boxes, cartons or combustibles	SAT	
	(c) No POL/ chemicals	SAT	
	(d) Ventilation	SAT	
	(e) SPTA box key organisation	SAT(WITH OBS)	Key organisation not complete

Ser	Check	SAT/ UNSAT/ SAT(WITH OBS)	Remarks
	(f) Validity of Coolant and RO Plant cleaners onboard	SAT(WITH OBS)	RO cleaners validity expired.
	(g) Status of D787 Updation	SAT(WITH OBS)	In progress
<b>Hazardous Spaces</b>			
15.	<b>AVCAT Stowage:-</b>		
	(a) Lighting (spark proof)	NA	
	(b) Ventilation:-	NA	
	(c) 12 air changes in an hour	NA	
	(d) Dedicated supply fan if inside citadel	NA	
	(e) If shared vent trunking, fire flaps for the compartment	NA	
	(f) Fan/ pump motors to be fire and explosion proof within compartment	NA	
16.	<b>POL Stowage:-</b>	NA	
	(a) Separated from SPTA	NA	
	(b) Ventilation arrangements (NES 102 Part I)	NA	
	(c) Lighting is flash proof	NA	
	(d) Manual FF systems available	NA	
<b>FF System</b>			
17.	<b>Check Following:-</b>		
	(a) Relief valve on manifold with release carried to atmosphere	SAT	
	(b) Manifold pressure gauge	SAT	
	(c) Time delay for operation	SAT	
	(d) Audio visual alarm	SAT	
	(e) Auto closure of ventilation blower and flaps	SAT	
	(f) Provision for remote operation	SAT	
	(g) Control supply for remote operation	SAT	
	(h) Supply backup	SAT	
	(j) Gastight construction of FFF system cylinder stowage	SAT	

<u>Ser</u>	<u>Check</u>	<u>SAT/ UNSAT/ SAT(WITH OBS)</u>	<u>Remarks</u>
	(k) FITs if fitted	<b>SAT</b>	
	(l) Ladder/ bulkhead sprinkling if fitted	<b>NA</b>	
	(m) Ventilation of FFF system cylinder stowage	<b>SAT</b>	
	(n) Location of FFF system cylinder stowage	<b>SAT</b>	
18.	<b>Dewatering Arrangements:</b>		
	(a) Functional Trials of Salvage Pumps	<b>SAT</b>	
	(b) Functional Trials of Bilge/ De-Watering Pumps	<b>SAT</b>	
	(c) Flow rate checks of submersible pumps and DD fire pumps iaw FOST Safety Alert 03/ 16	<b>SAT(WITH OBS)</b>	Flow rate certificate not held
	(d) Fixed Eductors	<b>SAT</b>	
19.	<b>Portable 20 and 40 TPH Submersible Pumps and 37 TPH Emergency DD Pump iaw FOST Safety Alert 03/ 16:-</b>	<b>SAT</b>	
	(a) Checks of portable 20 and 40 TPH Submersible Pumps	<b>SAT</b>	
	(b) Checks 37 TPH Emergency DD Pump	<b>SAT(WITH OBS)</b>	Recoil assembly of one 37 TPH DD pump non ops.
20.	<b>Miscellaneous</b>		



<u>Ser</u>	<u>Check</u>	<u>SAT/ UNSAT/ SAT(WITH OBS)</u>	<u>Remarks</u>
	(a) EMAPS not updated. (b) Stbd gear box not clutching in from remote. (c) Cover handle of FIT not fitted. (d) Load trial report of all 04 DAs (03 DAs + 01 EDA) not held. (e) Discharge gauge glass of lub oil transfer pump damaged. (f) Gauge marking on HPAC not carried out. (g) RO plant belt guard cover not fitted. (h) Exhaust blower of ASP compartment not working. (j) SDCs of DA no.3 not offered due to injector fitment in progress. The same was not offered during half yearly SDCs in Oct 22 as well. (k) Chilled water differential pressure cutout of all three AC non-ops. (l) First stage and second stage pressure cut out of HPAC no.1 non ops. (m) Auto cut in/cut out of HPAC no.1 non ops.		

**COMMON ELECTRICAL EQUIPMENT SPECIFIC CHECK BY CTT(PBR)**

<b><u>Ser</u></b>	<b><u>Checks to be undertaken</u></b>	<b><u>Sat/ Sat with observations/ Unsat</u></b>	<b><u>Observation</u></b>	<b><u>Remarks</u></b>
1.	A Pre-OST Check Off list checking adherence of ship to various policies w.r.t Electrical Equipment/ Hygiene has been worked out and appended in succeeding paragraphs for checks.			
2.	<b><u>Whether policies on the following are being implemented</u></b>			
	2.1 Usage of double pole 230V, 5/15 Amp switch sockets.	Sat		
	<b>Ref.</b> IHQ MoD(N) letter EE/03/9711 dated 02 Feb 17.			
	2.2 Use of Laundry iron boxes.	Unsat		Iron box used in troops mess.
	2.3 Use of lead lamps.	Sat		
	2.4 Modification of 230V domestic supply scheme to 3 Phase 4 wire system and double pole MCBs.	Unsat		<b>Not modified.</b>
	<b>Ref.</b> IHQ MoD(N) letter EE/03/9721 dated 05 Jan 11.			
	2.5 Availability of HV insulated synthetic rubber mats.	Sat (With Obs)	.	Not available in telephone exchange, battery compt. and galley compartments
	<b>Ref.</b> IHQ MoD(N) letter EE/03/9721 dated 30 DEC 21.			
	2.6 Conduct Power quality audit.	Unsat		<b>Not conducted.</b>
	<b>Ref.</b> IHQ MoD(N) letter EE/POLICY/L-03/POWER-17 dated 22 Apr 10.			
	2.7 Fitment of COTSs LED lights.	Sat		
	<b>Ref.</b> No 36/15 and IHQ MoD(N) letter EE/POLICY/9711(LED)/L-98 dated 18 Mar 15.			
	2.8 Shielding integrity of CAT 'A'.	Sat		
	<b>Ref.</b> NO (STR) 05/15.			

<u>Ser</u>	<u>Checks to be undertaken</u>	<u>Sat/ Sat with observations/ Unsat</u>	<u>Observation</u>	<u>Remarks</u>
	2.9 Removal of metallic wire mesh/ant other material from electrical cables. <b>Ref.</b> IHQ MoD(N) Fax EE/03/9721 Dated 17 Feb 17.	Sat		
	2.10 Pipelines are not passing through switchboard compartments. <b>Ref.</b> Article 0707 OF NES 502.	Sat		
	2.11 Conduct of Electrical Safety Audit.	Sat		
	2.12 Conduct of Galley Safety Audit. <b>Ref.</b> NO 27/06.	Sat		
	2.13 Light Switches are installed outside the battery compartment.	Sat		
	2.14 Conduct of Portable Equipment Audit. <b>Ref.</b> No 02/16.	Sat		
	2.15 Lighting in magazine compartments. <b>Ref.</b> IHQ MoD(N) / DEE letter EE/03/9712/safety Audit dated 27 Nov 18.	Sat		
	2.16 Whether modifications in power supply layout are recorded in the schedule of cables and schematic layout board in distribution boxes. <b>Ref.</b> IHQ MoD(N) letter EE/03/9711/POWER/POLICY dated 11 May 15.	Sat		
3.	<b><u>Whether following safety templates are available onboard.</u></b>			
	3.1 Operation of main switchboard.	Sat		
	3.2 Handling fire in main switchboards.	Sat		
	3.3 Handling low insulation in switchboards.	Sat		
	3.4 Handling partial and total power failure.	Sat		
	3.5 Switchboard watch keeping.	Sat		
	3.6 Laying of emergency cable.	Sat		
	3.7 Operation of Energised/ Live electrical equipment.	Sat		
	3.8 Safety measures during monsoon.	Sat		
	3.9 Rounds of Electrical compartments.	Sat		
	3.10 Pre/ Post sailing checks	Sat		
	3.11 Electrical emergencies during entering and leaving.	Sat		

<u>Ser</u>	<u>Checks to be undertaken</u>	<u>Sat/ Sat with observations/ Unsat</u>	<u>Observation</u>	<u>Remarks</u>
	3.12 Connecting and disconnecting shore supply.	Sat		
	3.13 First aid case of Electrical shock.	Sat		
	3.14 Securing of sea.	Sat		
	3.15 Gyro emergency.	Sat		
	3.16 Handling/ Charging batteries.	Sat		
	3.17 Operation of motor and converters.	Sat		
	3.18 Maintenance of Antenna and Waveguides.	Sat		
	3.19 Working with HT supplies	Sat		
	3.20 Dry Docking	Sat		
	3.21 Water ingress in Electrical equipment.	Sat		
	3.22 Precaution in extreme weather conditions	Sat		
	3.23 Working aloft.	Sat		
	3.24 Testing and maintenance of portable equipment.	Sat		
	3.25 Action during RAS/ Maneuvers.	Sat		
	3.26 Working with power tools	Sat		
	3.27 Precaution for ammunitioning and de- ammunitioning.	Sat		
	3.28 Darken ship.	Sat		
	3.29 Undocking checks	Sat		
4.	<b><u>Whether following books and records are available and being maintained.</u></b>			
	4.1 Log and progress book	Sat		
	4.2 Switch board log book	Sat		
	4.3 Gyro log book (as applicable)	Sat		
	4.4 Weapon stabilizer Log book.	NA		
	4.5 Defect book as (IN -455).	Sat		
	4.6 Battery Log book (IN -384).	Sat		
	4.7 Battery Log Book (Maintenance free).	Sat		
	4.8 Electrical Training Book.	Sat		

<u>Ser</u>	<u>Checks to be undertaken</u>	<u>Sat/ Sat with observations/ Unsat</u>	<u>Observation</u>	<u>Remarks</u>
	4.9 SPM Log Book(ERMR)	Sat		
	4.10 Antenna insulation Book.	Sat		
	4.11 CRETE Book.	Sat		
	4.12 Electrical Survey and demand Book.	Sat		
	4.13 PTS register.	Sat		
	4.14 Ty loan Book (internal).	Sat		
	4.15 Ty loan Book (external).	Sat		
	4.16 Cable Register.	Sat		
	4.17 EMI/EMC Log Book.	Sat		
	4.18 DOP Register.	Sat		
	4.19 OPDEF /CNADEF/STOREDEM/OPDEM/CANDEM Register.	Sat		
	4.20 EMAPS	Sat		
	4.21 Electrical PLL (form S 1099)	Sat		
	4.22 Divisional record book.	Sat		
	4.23 Sailing order book (IN – 499)	Sat		
	4.24 Equipment logs/ Miscellaneous records.	Sat		
	4.25 Record of handling over/ taking over of Electrical officer.	Sat		
	4.26 Electrical standing orders.	Sat		
	4.27 Watch and quarter bill.	Sat		
	4.28 Maintenance schedule.	Sat		
	4.29 D 787/ SPTA lists (OBS, B&D, LTE)/ CA 511/Warrant of stores.	Sat		
	4.30 E DART.	Sat		
	4.31 Policy file (Technical).	Sat		
	4.32 Policy file (General).	Sat		
	4.33 Check off lists.	Sat		
	4.34 SFD/ Electrical maintenance schedule.	Sat		
	4.35 Defect Acquaints.	Unsat		Not available.

Ser	Checks to be undertaken	Sat/ Sat with observations/ Unsat	Observation	Remarks
	4.36 Record of Navy orders.	Unsat		Not available.
	4.37 GRAQ/ ship system specifications (Part IV/ DATs reports.	Sat		
	4.38 Allowance lists (CRETE).	Sat		
	4.39 HATs/ SATs reports/ Test certificates.	Sat		
	4.40 Documentation list	Sat		
	4.41 d 787 'G'/As Made & As fitted drawings list.	Sat		
5.	<u>Calibration/ Load test.</u>			
	5.1 Whether all CRETE are calibrated every 24 months.	Unsat		Calibration certificate not held.
	5.2 Whether all meters of Switchboards, Main breakers are calibrated.	Unsat		Calibration certificate not held.
	5.3 Whether all meters of Rectifiers of Battery Rectifier are calibrated.	Unsat		Calibration certificate not held.
	5.4 Whether anchor windlass and capstan starter has been calibrated and tested.	Unsat		Calibration certificate not held.
	5.5 Whether ventilation starters have been calibrated and tested.	Unsat		Calibration certificate not held.
	5.6 Whether all load tested, certificate is available for generators and all parameters are within laid down limits and critical issues highlighted in trial reports/ certificates are liquidated.	Unsat		Trial report not held.
	5.7 Whether load test certificate of Helo Starting system is available.	NA		
	Ref. Para 13, section III of Annexure I to NO (Str) 13/2009.			
	5.8 Whether Log is calibrated.	Sat		HATs- 13 Oct 20 SATs- 26 Nov 21
MATERIAL CHECKS				

<u>Ser</u>	<u>Checks to be undertaken</u>	<u>Sat/ Sat with observations/ Unsat</u>	<u>Observation</u>	<u>Remarks</u>
6.	<b><u>Harbour.</u></b>			
	6.1 Compartment checks (General).	Sat		
	6.2 Whether the compartment is free from following warning signs.			
	6.2.1 Smoke, sparks, arcing, or unusual sound from electrical motors or contractors.	Sat		
	6.3 Frayed and damaged cords or plugs.	Sat		
	6.4 Frequent tripping of breakers.	Sat		
	6.5 Unusually hot electric motors, transformers and other electrical equipment.	Sat		
7.	<b><u>Common Measures during Monsoon.</u></b>			
	7.1 Whether all motors, control gears, indicators and repeaters fitted on weather deck are covered with weatherproof canvas/ suitable covers.	Sat		
	7.2 Whether all panel covers/ cable glands and antennae glands on weather deck are leak free.	Sat		
8.	<b><u>Common Checks.</u></b>			
	8.1 Whether rubber mats are available near electrical equipment.			
	8.2 Whether all cable glands are seated.	Sat		
	8.3 Whether portable CO2/ AFFF extinguisher is available.	Sat		
	8.4 Whether emergency escape arrangement is available (ELSA).	Sat		
	8.5 Whether AELs are available and serviceable.	Sat (with obs)		26 AELs non-ops.
	8.6 Whether water tight integrity of electrical equipment is maintained.	Sat		
9.	<b><u>Electrical Safety.</u></b>			
	9.1 Whether all meters/ instrumentation are calibrated.			
	9.2 Whether 'Danger High Voltage' and 'Do Not Switch On' tallies/ boards are available.	Sat		
	9.3 Whether all bulbs, lights and switches are operational.	Sat		
	9.4 Whether test bench is insulated.	Sat		
	9.5 Whether sparks proof safety goggles are available.	Sat		
	9.6 Whether area is secured.	Sat		

<u>Ser</u>	<u>Checks to be undertaken</u>	<u>Sat/ Sat with observations/ Unsat</u>	<u>Observation</u>	<u>Remarks</u>
	9.7 Rubber mats are placed in front of work bench.	Unsat		Not held.
10.	<b><u>Switchboards and Generators.</u></b>			
	10.1 Whether all electrical equipment and starter/ control panels are earthed.	Sat		
	10.2 Whether wires/ straps are tightly fitted and terminals are not painted.	Sat		
	10.3 Whether proper plugs and lugs are used for connecting power supply.	Sat		
	10.4 Verify that fuses, breakers and relays in distribution boxes and control circuits are not bypassed.	Sat		
	10.5 Whether any loose wire and bare live conductors/ terminals are observed including on battery charging terminals and portable emergency fuse boards.	Sat		
	10.6 Whether proper cover/ cap for all connectors on weather deck are available.	Sat		
	10.7 Whether shades for all light fittings and lead lamps are intact.	Sat		
	10.8 Whether domestic power supply transformers and distribution boards are loaded as per their capacity.	Sat		
	10.9 Whether all UPS/ batteries are secured properly and battery terminals are protected with insulated caps/ covers.	Unsat		Battery terminals are not covered with insulated caps.
	10.10 Whether all power supply sockets on weather deck are water tight.	Sat		
	10.11 Whether earth pin is grounded in all power supply sockets.	Sat		
	10.12 Whether all sections of switchboard are earthed.	Sat		
	10.13 Whether insulation is within limits.	Sat		
	10.14 Whether Electrical/ Machinery intercom is operational.	Sat		
	10.15 Whether all safety cutouts/ protection units/ preferential trip systems/ alarms are operational.	Sat		
	10.16 Whether all generators are load tested and all parameters are within laid down limits and critical issues highlighted in trial reports/	Unsat		Trial report not held.



<u>Ser</u>	<u>Checks to be undertaken</u>	<u>Sat/ Sat with observations/ Unsat</u>	<u>Observation</u>	<u>Remarks</u>
	certificates are liquidated.			
	10.17 Whether the compartment is free from water/ fuel/ oil leakages and condensation.	Sat		
	10.18 Whether the following personal protective equipment (PPE) are available with Electrical Repair Teams			
	10.18.1 Rubber gloves.	Sat		
	10.18.2 Insulated tools.	Sat		
	10.18.3 Spark proof safety goggles.	Sat		
	10.18.4 Helmets with head torch	Sat		
	10.19 Whether the switchboard and shore supply breakers are free from combustible materials like fuel and hydraulic oil.	Sat		
	10.20 Whether there are any Outlet of ventilation trunks installed directly above switchboard.	Sat		
	10.21 Whether any pipelines are passing through switchboard.	Sat		
	10.22 Whether switchboard layout diagram available.	Sat		
	10.23 Whether watch keeper hand out board available.	Unsat		Not available.
11.	<b><u>Helo Starting System/ Aviation Facilities.</u></b>			
	11.1 Is the HSR load tested to 1200 A or to the rated current?	NA		
	11.2 Has the ship undertaken case for upgradation of the HSR in case of class B/C/D rectifiers i.a.w. extort policies?			
	11.3 Is the condition of the DC cables and the NATO adapter satisfactory?			
	11.4 Has the output been checked at the rectifier gauge/ cable end / with rectifier on load?			
	11.5 Is the HSC load trials undertaken?			
	11.6 Is the condition of the AC cables and the NATO adapter satisfactory?			
	11.7 Is the condition of the Connection boxes outside the hanger satisfactory?			
	11.8 Are all meters/ instrumentation/ protection devices of the HSC calibrated?			

Ser	Checks to be undertaken	Sat/ Sat with observations/ Unsat	Observation	Remarks
	11.9 Are all meters/ instrumentation/ protection devices of the HSR calibrated? 11.10 Are all helo deck periphery light operational and have sufficient brilliance? 11.11 Is the helo deck periphery light dimmer operational? 11.12 Is the GPI calibrated and is the calibration certificate held onboard? 11.13 Is the GSHB operational? 11.14 Are all helo hangar lights operational? 11.15 Whether hanger lights, deck lights, Stop/Go lights, GPI and Dimmer facilities are operational. Ref. Para 5, section III of Annexure I to NO (Str) 13/2009.			
12.	<b><u>UPS.</u></b>			
	<b>12.1 Are the following equipment to be fitted with Ups i.a.w. IHQ MoD (N) letter EE/03 97/11/Policy/L-05 dated 24 Jan 17?</b>			
	12.1.1 Nav Lights	Sat		
	12.1.2 Telephone exchange	Sat		
13.	<b><u>Battery Compartment.</u></b>			
	13.1 Whether all batteries are arranged neatly and secured for sea.	Sat		
	13.2 Whether fresh water supply, wash basin and drainage facility are available.	Sat		
	13.3 Whether light switches are installed outside the compartment.	Sat		
	13.4 Whether the compartment is free from water or acid spillage.	Sat		
	13.5 Whether the compartment is free from combustible materials such as fuel and hydraulic oil.	Sat		
	13.6 Whether the following personal protection equipment are available.			
	13.6.1 Gum boots rubber.	Sat		
	13.6.2 Gloves rubber.	Sat		
	13.6.3 Goggles complete with clear windows.	Sat		
14.	<b><u>Galley.</u></b>			
	14.1 Whether galley safety indication lamps are available outside galley	Sat		

<u>Ser</u>	<u>Checks to be undertaken</u>	<u>Sat/ Sat with observations/ Unsat</u>	<u>Observation</u>	<u>Remarks</u>
	and in DCHQ.			
	14.2 Whether single isolating switch for all galley equipment other than refrigeration units is fitted adjacent to the main entrance door of galley.	Sat		
	14.3 Whether locking arrangement for main isolating switch is available.	Sat		
	14.4 Whether ventilation starting mechanism is available within 1.8 to 3 m of deep fat fryer.	Sat		
	14.5 Whether instructions in English and Hindi on first aid for electric shock, affixed in a conspicuous place.	Sat		
	14.6 Whether insulation of equipment cables is within limit.	Sat		
	14.7 Whether all power supply cables are running along the installed channel plates and conduits.	Sat		
15.	<b><u>HF/ Antennae Post.</u></b>			
	15.1 Whether high voltage marking of transmitter and radio hazard markings/ boards are available.	Sat		
	<b>Ref. Article 0705 of BR 2000 (20).</b>			
16.	<b><u>Steering Post.</u></b>			
	16.1 Whether AELs are fitted in the compartment.	Sat		
	16.2 Whether rubber mats are placed in front of electrical equipment.	<b>Unsat</b>		Not placed.
17.	<b><u>Equipment Rooms/ Converter Room.</u></b>			
	17.1 Check whether the following in equipment rooms such as Gyro, Steering gear, Radars etc. are available.	Sat		
	17.2 Whether ACOS/UYPs and fault alarms for critical equipment such as gyro, steering gear, navigational lights, etc. are operational.	Sat		
	17.3 Whether all meters/ instrumentation are calibrated iaw MAINTOPS.	<b>Unsat</b>		Not calibrated.
	17.4 Whether all safety cut offs are operational.	Sat		
	17.5 Whether rubber mats are placed in front of equipment.	<b>Unsat</b>		Not placed.
	17.6 Whether HP pneumatic systems and HP air bottles are pressure tested.	NA		
	17.7 Whether hydraulic systems such as accumulator, pressure gauge, valve, pipe lines are pressure tested.			

<u>Ser</u>	<u>Checks to be undertaken</u>	<u>Sat/ Sat with observations/ Unsat</u>	<u>Observation</u>	<u>Remarks</u>
18.	<b><u>Magazine (Specific Compartment).</u></b>			
	18.1 Whether lighting switches are fitted outside the compartment.	Sat		
	18.2 Whether only burst proof glass lamp fittings are fitted.	Sat		
	18.3 Whether only necessary continuo scales pass through the magazine and no junction boxes are installed in the past.	Sat		
	18.4 Whether all electrical cables are running as high as possible.	Sat		
	18.5 Whether any naked lights are used.	Sat		
	18.6 Whether any waveguides are running through the magazine.	Sat		
	18.7 Whether light fittings are divided into two different groups, each fed from a different source of supply.	Sat		
19.	<b><u>Sound Power Telephone.</u></b>			
	19.1 Whether all sound powered telephone are operational.			
	19.2 Whether SPT is available from bridge to conning positions, all steering posts, AIO compartment (Command Post and Ops Room), MCR and DCHQ.	Sat		
20.	<b><u>Galley Equipment.</u></b>			
	20.1 Whether all galley equipment are maintained.	Sat		
	20.2 Whether protective guards for all rotating parts of labour saving equipment, viz, meat cutting machines, mixers atta kneading machines etc. is fitted.	Sat		
	20.3 Whether all galley equipment is earthed.	Sat		
	20.4 Whether safety cut-out thermostat for deep fat fryer is operational.	Sat		
21.	<b><u>Split ACs.</u></b>			
	21.1 Whether double pole switches are used as On/Off switches.	NA		
	21.2 Whether Moulded Circuit Breakers (MCB) are used for split ACs as far as feasible.			
	21.3 Whether screened and single length cables are used.			
	21.4 Whether cable ends and switches free from carbonization/ deformation.			

Ser	Checks to be undertaken	Sat/ Sat with observations/ Unsat	Observation	Remarks
	21.5 Whether all wires are laid down with proper channel plate and secured with clips/ cables tie.			
	21.6 Whether any extra/ unwanted wires are coiled and kept near the AC panel.			
22.	<b><u>Portable Electrical Equipment.</u></b>			
	22.1 Whether all portable electrical equipment including iron boxes in laundries are earthed with maximum earth resistance of 0.35 ohms (supplied directly and 0.50 ohms (supplied through an extension lead).	Sat		
	22.2 Whether quarterly checks of portable electrical equipment are being conducted.	Sat		
	22.3 Whether any temporary power supplies are utilised for prolonged durations.	Sat		
	22.4 Whether three pin sockets are used for portable domestic appliances.	Sat		
	22.5 Whether power cables are of single length.	Sat		
23.	<b><u>ICCP System.</u></b>			
	23.1 Whether maintenance of the system is being undertaken as per MAINTOPS.	Sat		
	23.2 Whether condition of the cables and conduits is intact.	Sat		
	23.3 Whether hull potential values are within safe range.	Sat		
	23.4 Whether hull potential is measured using an external zinc reference electrode once every fortnight.	Sat		
	23.5 Whether pre-set hull potential is set on the auto control unit.	Sat		
24.	<b><u>DAT Recorder.</u></b>			
	24.1 Whether conning and machinery intercoms are interfaced with DAT recorder.	Sat		
	24.2 Whether DAT/ voice recorder log is being maintained.	Sat		
25.	<b><u>MDA.</u></b>			
	25.1 Whether interfacing of GPS, CTD, COTs radars, AIS, Sonar, Anemometer, Echo sounder, gyro and log with Trigun is available.	Sat		

<b>Ser</b>	<b><u>Checks to be undertaken</u></b>	<b><u>Sat/ Sat with observations/ Unsat</u></b>	<b><u>Observation</u></b>	<b><u>Remarks</u></b>
	25.2 Whether MDA node/ slave display is available.	Sat		
26.	<b><u>AIS.</u></b>			
	26.1 Whether AIS is available.	Sat		
	26.2 Whether AIS is interfaced with GPS/DGPS, MDA, NAV Radar, ECDIS, Gyro, Log, Integrated Bridge system (if fitted), CTD/CAAIO, LINK II.	Sat		
	26.3 Whether 24V DC backup is available for AIS.	Sat		
27.	<b><u>ECDIS.</u></b>			
	27.1 Whether GPS, AIS and Radar are Interfaced with ECDIS.	Sat		
	27.2 Whether base version and latest correction of ENC's, paper charts and navigation publications are available.	Sat		
28.	<b><u>Gyro/ Magnetic Compass.</u></b>			
	28.1 Whether lubber line alignment of gyro repeaters has been carried out.	Sat		
	28.2 Whether gyro failure alarm is available in bridge.	Sat		
	28.3 Whether swing check of magnetic compass has been carried out and deviation card is available.	Sat		
29.	<b><u>Steering Gear.</u></b>			
	29.1 Whether following audio and visual failure alarms are available in bridge.			
	29.1.1 Hydraulic failure.	Sat		
	29.1.2 Control failure.	Sat		
	29.1.3 Total power failure.	Sat		
	29.2 Whether ACOS for steering gear supply is available.	Sat		
	29.3 SPM checks and health of steering gear.	Sat		
	29.4 Operational status of all available modes of operation as per system design from various steering locations onboard.	Sat		
30.	<b><u>Anchor Windlass and Capstan.</u></b>			
	30.1 Whether MAINTOP routines are being carried out.	Sat		
	30.2 Whether current and SPM parameters are within prescribed limits.	Sat		

<b>Ser</b>	<b><u>Checks to be undertaken</u></b>	<b><u>Sat/ Sat with observations/ Unsat</u></b>	<b><u>Observation</u></b>	<b><u>Remarks</u></b>
	30.3 Whether all insulation parameters are within limits.	Sat		
	30.4 Whether earthing straps are intact.	Sat		
	30.5 Whether electromagnetic brakes are operational.	Sat		
	30.6 Whether motors/ starters are covered with waterproof covers.	Sat		
31.	<b><u>General and Engine Room Ventilation.</u></b>			
	31.1 Whether MAINTOP routines are being carried out.	Sat		
	31.2 Whether current and SPM parameters are within prescribed limits.	Sat		
	31.3 Whether all insulation parameters are within limits.	Sat		
32.	<b><u>Laundry.</u></b>			
	32.1 Use of iron box	Unsat		Iron box used in troops dining hall.
	32.2 Whether visual warning indication is available for iron box switched On/ Off at DCHQ/ Outside laundry.	Unsat		Indication not available.
	32.3 Whether iron box is being used with good quality three core flexible cable, and is earthed.	Sat		
	<b>Ref. NO 53/02 and FOST SAQ/L-01/14.</b>			
	32.4 Whether standard marine grade plugs/ sockets are being used.	Sat		
	32.5 No extension board/ cord is being used.	Sat		
	32.6 The electrical cord is arranged/ laid out in a manner, so that it cannot be pulled or tripped over.	Sat		
	32.7 No other high- wattage appliance is being used on the same circuit to avoid an overload.	Sat		
	32.8 The stowage holder for the iron box is sited in a suitable position away from the electrical socket iaw Def. Stan 02-123 Part 1 issue 2.	Sat		
	32.9 Adequate lighting, ventilation and drainage are available.	Sat		
	32.10 Protective rubber mats are available near ironing table/ board.	Unsat		Not available.
33.	<b><u>Window Wipers.</u></b>			
	33.1 Whether all window wipers are operational.	Sat		

<b>Ser</b>	<b><u>Checks to be undertaken</u></b>	<b><u>Sat/ Sat with observations/ Unsat</u></b>	<b><u>Observation</u></b>	<b><u>Remarks</u></b>
34.	<b><u>Electric Siren.</u></b>			
	34.1 Is the siren operational from all location as per design?	Sat		
	34.2 Is the system available in auto model?	Sat		
	34.3 Are all components grounded?	Sat		
35.	<b><u>NLCP.</u></b>			
	<b>Ref. NLCP EED-Q-262.</b>			
	35.1 Are all navigational lights checked during sea and action?	Sat		
	35.2 Are all navigational lights operational?	<b>Sat (With Obs)</b>		Following lights non –ops (a) FWD anchor light. (b) Mast obstruction light. (c) Stern light
	35.3 Are there individual toggle switches for each navigation light with, LEDs adjacent to the corresponding light control switch iaw ED-Q-262?	Sat		
	35.4 Is a MIMIC panel available in OPS room?	<b>Unsat</b>		Not available.
	35.5 Is LED test facility operational?	Sat		
	35.6 Is alarm and its reset facility available in NLCP iaw EED-Q-262?	Sat		
	35.7 Is dimmer available in NLCP iaw EED-Q-262?	Sat		
	35.8 Does the NLCP have a operational backup supply?	Sat		
	35.9 Are all 24 V emergency lights operational?	Sat		Following lights non –ops (a) FWD anchor light. (b) Mast obstruction light.
	35.10 Are weather proof sockets available for connection of stern light/	Sat		



<b>Ser</b>	<b><u>Checks to be undertaken</u></b>	<b><u>Sat/ Sat with observations/ Unsat</u></b>	<b><u>Observation</u></b>	<b><u>Remarks</u></b>
	anchor light etc?			
36.	<b><u>Boat Davit.</u></b>			
	36.1 Whether maintenance is being undertaken as per MAINTOPS.	Sat		
	36.2 Whether limit switches for upper hoisting limit and slewing movement are operational.	Unsat		02 Non-ops
37.	<b><u>Man Trap Alarm.</u></b>			
	37.1 Whether Mantrap alarm for cold room and cool room is available in DCHQ, Ship galley and Officer galley.	Sat		
	37.2 Whether battery backup for alarm is available.	Sat		
38.	<b><u>ACOS.</u></b>			
	38.1 Are both normal and alternate supply available for all ACOS?	Sat		
	38.2 Are all the ACOS operational?	Sat		
	38.3 Does the supply change over occur without tripping the downstream equipment?	Sat		
	38.4 Are all indications operational?	Sat		
39.	<b><u>Emergency Supply.</u></b>			
	39.1 Are all emergency cables as per the ships drawing available on board?	Sat		
	39.2 Are shrouded plugs/ springs/ cylindrical sleeve of moulded insulation material/ flexible corrugated rubber sheath available for all cables?	Sat		
	39.3 Have the earth connection cables been provided with hook-end terminals for securing.	Unsat		Not available.
	39.4 Are all bulkhead earth connection terminals provided with securing under wing nuts.	Sat		
	39.5 Are all cables marked with an identification number and with a brief indication of its purpose?	Sat		
	39.6 Are all bulkhead cable stowage marked with an identification number?	Sat		
	39.7 Are all emergency changeover switches of DBs/Fuse panels operational?	Sat		

Ser	Checks to be undertaken	Sat/ Sat with observations/ Unsat	Observation	Remarks
	39.8 Are T handles available at all ECBs/ DBs/ FPs and service points?	Sat		
	39.9 Are all portable transformers as per SFD/ drawings available?	Sat		
	39.10 Availability of portable emergency link boxes as per SFD/ drawings.	Sat		
	39.11 Is the insulation of the fixed emergency run greater than 2 Mohm?	Sat		
40.	<b><u>Fuse Panel.</u></b>			
	40.1 Are all cable tallies in place?	NA		
	40.2 Are all fuse panels cleaned with dry air?			
	40.3 Is any damaged insulation of cables (if any replaced)?			
	40.4 Are there any fuses replaced using fuse wire?			
	40.5 Are there any missing fuses?			
41.	<b><u>Transrectifiers.</u></b>			
	41.1 Are all contact and connections clean?	Sat		
	41.2 Is rectifier failure unit tested on load, cut off power supply?	Unsat		Trial report not available
	41.3 Are load trials carried out at the rated value?	Unsat		Trial report not available
	41.4 Is the battery bank automatically taking over in case of supply failure?	Sat		
	41.5 Are the battery being trickle charged when not in use?	Sat		
	41.6 Does the ship have a Transrectifier failure audio/ visual alarm in MCR/ switchboard.	Sat		
	41.7 Is the insulation resistance greater than 1 M ohm?	Sat		
42.	<b><u>Wire Aerials.</u></b>			
	42.1 Are the wire ropes are free of kinds and frayed strands?	NA		
	42.2 Are the bonding straps installed and intact?			
	42.3 Is the antenna wire properly stressed?			
	42.4 Are the insulators free of grease, paint and salt?			
	42.5 Are the wire safety link installed and intact?			

Ser	Checks to be undertaken	Sat/ Sat with observations/ Unsat	Observation	Remarks
	42.6 Are the insulators free of cracks?			
	42.7 Is the insulation/ resistance of antenna satisfactory?			
43.	<b><u>Whip Aerials.</u></b>			
	43.1 Are the insulators free from cracks and salt deposit?	Sat		
	43.2 Are the antenna base tuner bonded?	Sat		
	43.3 Is the antenna tuner pressurized?	Sat		
	43.4 Are the insulation checks of ABT satisfactory?	Sat		
	43.5 Are the insulation/ resistance checks of antennas satisfactory?	Sat		
44.	<b><u>HK 014/ M7 Antennas.</u></b>			
	44.1 Is the condition of RF paint on the antennas satisfactory?	Sat		
	44.2 Are the insulation/ resistance checks of antennas satisfactory?	Sat		
45.	<b><u>Mainbroadcast/ Intercom/ Interphone.</u></b>			
	45.1 Have the system trials been undertaken by ETMU?	Unsat		Trial report not available.
	45.2 Does the mainboardcast have priority setting for critical locations?	Sat		
	45.3 Are all location provided with speakers of appropriate rating as per drawings?	Sat		
	45.4 Are all critical locations connected through both Con 1 and 2?	Sat		
	45.5 Are location of all speakers and microphones as per the action manning?	Sat		
	45.6 Are all amplifier optimally loaded?	Sat		
	45.7 Are all speakers and associated components effectively grounded?	Sat		
	45.8 Is the system backup satisfactory?	Sat		
	49.9 Have headsets been provided in machinery component?	Sat		
	49.10 Are flasher units installed in machinery compartment?	Unsat		Not installed.
46.	<b><u>Communication Sets.</u></b>			
	46.1 Are all communication sets as per the SFD operational?	Sat		
	46.2 Availability of OP checks reports of all communication equipment?	Sat		

Ser	Checks to be undertaken	Sat/ Sat with observations/ Unsat	Observation	Remarks
	46.3 Have the VSWR measurements been undertaken for all communication sets?	Sat		
	46.4 Have the power output measurements been undertaken for all communication sets in various modes?	Sat		
	46.5 Are the RCU of the individual sets operational?	Sat		
	46.6 Are all communication sets free from any interference?	Sat		
	46.7 Is the ACOS feeding supply to the sets operational?	Sat		
	46.8 Have two communication sets below 2 KW been provided with backup supplies?	Unsat		Not provided.
47.	<b><u>NBC Monitoring.</u></b>			
	47.1 Are all sensors of the SIRS operational?	NA		
	47.2 Are all sensors of the SICADS operational?			
	47.3 Is the trial report of SIRS available?			
	47.4 Is the trial report for SICADS available?			
	47.5 Are the NBC monitoring equipment calibration report in date?	Sat		08 Jun 22
	47.6 Are the operating procedure for SIRS and SICADS available near the equipment?	NA		
	47.7 Are the nucleonic return being sent for the onboard sources?			
48.	<b><u>Telephone Exchange.</u></b>			
	48.1 Is the telephone exchange operational?	Sat		
	48.2 Is the list of phone numbers available at all locations?	Sat		
49.	<b><u>Degaussing.</u></b>			
	49.1 Is the system operational in both manual and auto mode?	NA		
	49.2 Are all external interfaces for the system available?			
	49.3 Is the electrical/ EMI hygiene of equipment and associated cabinets satisfactory?			
	49.4 Are the switching On/ Off procedure available?			
	49.5 Are the insulation values of the degaussing coils satisfactory?			
	49.6 Are the system setting as per last ranging trials report?			

Ser	Checks to be undertaken	Sat/ Sat with observations/ Unsat	Observation	Remarks
	49.7 Are the insulation, SPM and starting / running current of MG sets satisfactory?			
	49.8 Are all panel meters calibrated?			
	49.9 is appropriate current being injected in the different coils?			
	49.10 Has the annual health audit of the system been undertaken iaw IHQ MoD(N) Letter WM/2855 dt 29 May 13?			
50.	GSHB.			
	50.1 Is the system operational?		NA	
	50.2 Is the bar illumination panel operational?			
	50.3 is the bar illumination potentiometer operational?			
	50.4 is switching ON/OFF procedure in the compartment available?			
	50.5 Has the functional check of system been undertaken with stimulator?			
	50.6 Are the last HAT/SAT/Ops Checks reports available?			
	50.7 Are the operation of push buttons and limit switches satisfactory?			
51.	Miscellaneous PGD.			
	51.1 Are Power quality checks being conducted by SS annually?	Unsat		Not conducted.
	51.2 Has the annual power quality surveillance audit been conducted by ETMA/ETMU? (For ships applicable)	Unsat		Not conducted.
	51.3 Does the ship have a 3 Ph, 4 Wire 230 V distribution system for all domestic supplies?	Unsat		Not modified.
	51.4 Are all 230V 6/16 Amp sockets compliant with IHQ MoD(N) letter EE/03/9711 Dated 02 Feb 17?	Sat		
	51.5 are the cable run/cable channel tray covered with wire meshes/any other material in contravention to IHQ MoD(N) letter EE/03/9711 dated 17 Feb 17?	Sat		
	51.6 Do the installed Led based luminaire to conform to EED-50-33 FOR design and technical requirement?	Sat		
	51.7 Are there sufficient number of 24 V lead lamps available iaw ETMA letter ETMA/318/103/EH dated 11 mar 15?	Sat		
	51.8 Are al portable equipment's which are fed by flexible cables being	Sat		

<u>Ser</u>	<u>Checks to be undertaken</u>	<u>Sat/ Sat with observations/ Unsat</u>	<u>Observation</u>	<u>Remarks</u>
	quarterly mustered iaw NO 02/16?			
	51.9 Are the following ETMU trial reports, iaw No 14/15, available:-			
	51.9.1 DAs.	Unsat		Trial report not available.
	51.9.2 Helo starting rectifiers.	NA		
	51.9.3 Helo starting convertors.			

Ser	Checks	Yes/ No/NA	Observation	Remarks
<b>Radars including Cots Radars</b>				
1.	Are radars operational?	Sat		
2.	Check availability of Rubber mats in HF post.	Sat		
3.	Is the ventilation of the compartment/ devices functional/ effective?	Sat		
4.	Are all electrical equipment/ devices earthed, and wires/ straps tightly fitted and terminals free from paint?	Sat		
5.	Is the system BITE checks, if available satisfactory?	Sat		
6.	Are all interfaces as per Technical; Manual interface document available?	Sat		
7.	Are all cabinet doors tightly closed and interlocks maintained?	Sat		
8.	Have the six monthly parameter checks wherever applicable been undertaken?	Sat		
9.	Are the EMAP and defect book of the system updated?	Sat		
10.	Are all maintenance routines carried out as per MAINTOP and if not has FUSS been raised?	Sat		
11.	Has the tracking on simulated target using TCC been undertaken with follow up check of all mountings?	Sat		
12.	Are the azimuth and elevation locks operational?	Sat		
13.	Are the HAT/ SATs report available?	Sat		HATs- 13 Oct 20 SATs- 26 May 21
14.	When was the last fine alignment checks of the sensors carried out?	Sat		25 Oct 22
15.	Are the alignment checks with bore sight camera satisfactory?	NA		
16.	Are the EMAP and defect book of the system updated?	Sat		
17.	Are all maintenance routines carried out as per MAINTOP and if not has FUSS been raised?	Sat		
18.	Is the Man Aloft Switch operation satisfactory?	Sat		
19.	Is a combiner unit/interswitch fitted for Nav Radars to obviate blind arc iaw IHQ MoD(N) letter WP/0204 dated 18 Jan 11.	Sat		
20.	Are all the sensors input (Log, GPS, Gyro, AIS) to the system correctly displayed?	Sat		
21.	Is the radar range calibration of the display undertaken?	Sat		

Gyros and other Nav Aids(Echo Sounder, EM Log, Magnetic Compass, WSDI)				
22.	Is the system operational?	Sat		
23.	Is the system interfaced with LOG and GPS?	Sat		
24.	Are all meters are operational and calibrated?	Sat		
25.	Are the switching ON/ OFF procedure and SOPs available in the compartment?	Sat		
26.	Is the ACOS taking over supply without tripping of gyro?	Sat		
27.	Are all repeaters aligned with master compass/Compass retransmission error check undertaken?	Sat		
28.	Has the gyro been checked for emergency settling?	Sat		
29.	Has the auto change over operation from Gyro 1 to Gyro 2 at the DDU been checked?	Sat		
30.	Is the operation of Auto Change Over Switch from Normal to Alternate supply satisfactory?	Sat		
31.	Are all alarm checks/signaling operational in the gyro compartment and bridge?	Sat		
32.	Is the system backup supply arrangement satisfactory?	Sat		
33.	Are the last HAT/SAT/ Ops Checks reports available?	Sat		
34.	Is the compartment well ventilated?	Sat		
35.	Is the Auto Change Over switch for the steering motors operational?	Sat		
36.	Is the system operational in Auto Pilot Mode? If applicable.	Sat		
37.	Is the system operational from all designated posts?	Sat		
38.	Is the system available in both channels of operation?	Sat		
39.	Are the last HAT/SAT/ Ops Checks reports available?	Sat		HATs- 13 Oct 20 SATs- 13 May 21
40.	Does the steering gear control system have a backup supply provision?	Sat		
41.	Are effective means of communication available between ASP and following locations?			
	Bridge	Sat		
	Bridge Wing	Sat		
	Bridge Top	Sat		
	Quarter Deck	Sat		
	MCR	Sat		



EM Log				
42.	Is the AC/ventilation of compartment satisfactory?	Sat		
43.	Are the switching ON/ OFF procedure and SOPs available in the compartment?	Sat		
44.	Is the RTU operational?	Sat		
45.	Are all log repeaters operational?	Sat		
46.	Are all repeaters aligned with RTU?	Sat		
47.	Are the last HAT/SAT/ Ops Checks reports available?	Sat		
48.	Is the test mode of operation available?	Sat		
49.	Is the insulation of pick up head satisfactory?	Sat		
50.	Is the system provided with backup supplies?	Sat		
Echo Sounder				
51.	Is the ES Shallow depth warning alarm operational?	Sat		
52.	Are the ES Audio and visual alarm for minimum depth available?	Sat		
53.	Are the ES Lithium batteries in the memory module (If applicable) operational?	Sat		
54.	Is the insulation of 33 Khz Transducer satisfactory?	Sat		
55.	Is the insulation of 210 Khz Transducer satisfactory?	Sat		
56.	Is the system provided with backup supplies?	Sat		
57.	Are the measurement of depth and it's correctness as per charts?	Sat		
58.	Is the Recorder unit operational?	Sat		
Wind Speed and Direction				
59.	Has the system been calibrated?	Sat		HATs- 13 Oct 20 SATs- 13 May 21
60.	Are all WSDI interfaces as per the technical manual available?	Sat		
61.	Are all WSDI repeaters operational?	Sat (With Obs)		Stbd WSDI non-ops.
Basic checks of SR/MR Guns				
62.	Is the system operational?	Sat		
63.	Are the switching ON/ OFF procedure available?	Sat		
64.	Are the ACOS (if installed) operational?	Sat		
65.	Are all the devices grounded?	Sat		
66.	Are all indication lamps are operational?	Sat		

67.	Are all pressure gauges and meters calibrated?	NA		
68.	Is there any leakage in components of the hydraulic system?			
69.	Is loading/ feeding mechanism operational?	Sat		
70.	Is the operation of Gun in elevation and training in manual mode satisfactory	Sat		
71.	Is the Cooling system and pneumatic system operational?	NA		
72.	When were the last Gun Alignment checks undertaken?	Unsat		Data not available with SS.
73.	When was the last Static and Dynamic checks undertaken?	Unsat		
74.	Are the last HATs/SATs report available with the ship?	Unsat		
75.	When was the last series inspection carried out?	Unsat		
76.	Is the ship in possession of bore sight camera and binoculars as per authorised holdings?	Sat		
77.	Have all routines as per MAINTOPS been undertaken?	Sat		
78.	Are the operational state of mechanical interlocks and protection devices of system/ equipment, as applicable, satisfactory?	Sat		
79.	Are the insulation of motors, converters and power circuits within the limits (more than 1 Mohm)?	Sat		
80.	Are all the gun inter-locks working satisfactory?	Sat		
81.	Is the test report of hydraulic oil held with the ship?	NA		
82.	Is the ship in possession of approve Polar diagram?	Sat		
83.	Are the Pre and Post firing checks being undertaken?	Sat		
84.	Have all routines as per MAINTOPS been undertaken?	Sat		
<b>Basic checks of EON 51,SOP &amp; OSS/ other Optical Tracking System</b>				
85.	Is the system operational?	Sat		
86.	Are the switching ON/ OFF procedure available?	Sat		
87.	Are the ACOS (if installed) operational?	Sat		
88.	Are all the devices grounded?	Sat		
89.	Are all indication lamps are operational?	Sat		
90.	Are all system parameters within specified limits as per Technical Manual?	Sat		
91.	Is the LRF is operational and are LRF ranges available?	Sat		
92.	Is the thermal camera operational?	Sat		
93.	Is the unit clear of all obstructions across the complete range of firing arc?	Sat		

94.	Is the gyro feed available for stabilization?	Sat		
95.	When was the last alignment checks undertaken?	Sat		
Basic checks of Chaff Launcher				
96.	Is the system operational?	NA		
97.	Are the switching ON/ OFF procedure available?			
98.	Are the ACOS (if installed) operational?			
99.	Are all the devices grounded?			
100.	Are all indication lamps are operational?			
101.	Are all system parameters within specified limits as per technical manual?			
102.	Are the launchers clear of all obstructions?			
103.	Are the state of mechanical interlocks and protection devices of system operational?			
Basic checks of Missile FCS.				
104.	Is the system operational?	NA		
105.	Are the switching ON/ OFF procedure available?			
106.	Are the ACOS (if installed) operational?			
107.	Are all the devices grounded?			
108.	Are all indication lamps are operational?			
109.	Are indications including switches operational?			
Missile Launchers				
110.	Is the system operational?	NA		
111.	Are the switching ON/ OFF procedure available?			
112.	Are the ACOS (if installed) operational?			
113.	Are all the devices grounded?			
114.	Are all indication lamps are operational?			
115.	Are all system parameters within specified limits as per Technical Manual?			
116.	Are the launchers clear of all obstructions?			
Test Equipment				
117.	Are all test equipment calibrated iaw NO 15/13?	Sat		
118.	Is the ship in possession of all INCRETE iaw latest IHQ MoD (N) policy letter	Sat		
119.	Are all test equipment in operational state?	Sat		

<b>Weapon SPTA Management</b>				
120.	Is the store muster being undertaken every 18 months or on transfer of LO? (Obtain the certificate)	Sat		
121.	Is a record of total no of OBS/presently held on board/ Demand outstanding/ yet to surveyed / demanded held with the respective department?	Sat		
122.	Is the list of OBS being maintained by the ship as per D787?	Sat		
123.	Does the ship maintain critical spares and its status?	Sat		
124.	Has the ship undertaken D787 amendment for newly fitted equipment/ change in scaling of OBS?	Sat		
125.	Has the check list been placed inside each of the boxes?	Sat		
126.	Has random check of SPTA for each section been carried out during sailing/reaction ex.	Sat		
127.	Are the SPTA boxes labelled for easy identification?	Sat		
128.	Are the stores properly secured for sea?	Sat		
129.	Are spares being stored in cardboard/ boxes of inflammable materials?	Sat		
<b>Documentation of Weapon &amp; Sensors</b>				
130.	Has the documentation muster been undertaken as per D787 lists?	Sat		
131.	Are MAINTOPS available for all equipment installed on board as per D787/ SFD?	Sat		
132.	Are all books/ formats being maintained as per FOST guidelines?	Sat		
133.	Are all sections of EMAPs being filled as per existing instructions?	Sat		
134.	Is the key register being maintained by the department?	Sat		
135.	Are there any deficiency in documentation and has any action been initiated for the same?	Sat		
136.	Are the log books being signed by the concerned personnel regularly?	Sat		
137.	Is the department in possession of relevant Safety Check list for various evolutions as per FOST guidelines?	Sat		

138.	Has the LO's Ty Memo been issued for authorising personnel to undertake switchboard watch keeping?	Sat		
139.	Is the Departmental Standing orders as per guideline and in consonance with the Ships Standing Order?	Sat		
140.	Have all departmental personnel read and signed the Departmental Standing Orders?	Sat		
141.	Are the Sea and Action check list available with the department and in respective locations?	Sat		

### EMI/ EMC CHECKS

Ser.	Checks to be undertaken	Observation	Remarks
1.	Is there uniform all round metal to metal contact between door and doorframe of CAT A compartments iaw NO Str 04/04?	Sat	
2.	Are doors on upper deck bonded at two locations ie. near both hinges?	Sat	
3.	Are all removable fittings on the upper deck are bonded?	Sat	
4.	Are fluorescent / CFL lighting being used in CAT 'A' compartments?	Sat	
5.	Are doors not made of metal covered with screening material in CAT 'A' compartment?	Sat	
6.	Are honeycomb filters provided on ventilation trunkings opening in a Cat 'A' compartment	Sat	
7.	Are all shipboard equipment operating from an external electrical power source of 30 volts or more, including COTS equipment, provided with bonding?	Sat	
8.	Is the resistance of all bonding straps used less than $C > 0.1 \text{ Ohm}$ ?	Sat	
9.	Are RADHAZ zones marked for all antennas?	Sat	
10.	Are the Part A/ Part B EMI/EMC survey report (as applicable) available?	Sat (With Obs)	Part 'A' not held Part 'B'-13 Jan 22