UNITED STATES COAST GUARD
SURFACE FORCES LOGISTICS CENTER

STATEMENT OF WORK rev. 3

TRS-3D / AN SPS-75 AIR SEARCH RADAR SYSTEM COMPONENTS, REPAIR

STATEMENT OF WORK
PR# 2126406B4200RJ001
08/12/2026

OVERHAUL/ REPAIR REQUIREMENTS

1. GENERAL

1.1 BACKGROUND**:** This document sets forth the requirements for the overhaul services, receipt, storage, inspection, repair, testing, preservation, packaging, packing, and marking of TRS-3D / AN SPS-75 Air Search Radar System overhaul components, the following items. Items as received by the contractor must be complete and of the proper cited part number. Discrepancies shall be reported to the Coast Guard Contracting Officer within 10 days.

1.2 SCOPE: U.S. Coast Guard SFLC requires complete overhaul/ repair services for the item(s) listed in 1. This repair requirement establishes uniform standards and procedures to be used in the repair process, for example, receipt and evaluation, testing, maintenance procedures, selection and use of parts and material, marking, preservation, and packing for shipment. The requirements described herein are considered minimum and are not intended to replace any procedures, controls, examinations, or tests normally employed by the contractor to assure the quality of the electronic equipment and those aspects of the maintenance processes, which are applicable to electronic equipment.

1.3 OBJECTIVE: The objective of this contract is the repairs of the following types of equipment/components are included in this specification: Complete assemblies, Equipment subassemblies, Circuit card assemblies, Power supplies, Modules and other components as specified in solicitation.

Description	Part Number	NSN	Delivery (ARO)
Pedestal	54.2424.600.00	5985-01-676-8432	18 months
Radar Contr. & Comm. (RCC) for DW	54.2881.822.00	5998-12-412-0350	18 months
Radar Display Contr. (RDC) for DW	54.2881.823.00	5998-12-412-0351	18 months
Power Supply	83093630	6130-12-384-2242	18 months
Mixer Stage, Frequency	54.2325.140.00	5895-12-338-0824	18 months
Monitor, Voltage Deviation	54.2893.376.00	5840-12-344-5692	18 months
Amplifier, Video	54.1058.563.00	5996-12-311-7075	18 months
RF/IF Unit	54.1084.477.00	5840-12-351-8818	18 months
2ND IF Amplifier	54.1078.420.00	5996-12-337-6948	18 months
Synthesizer	54.2325.018.00	5840-12-330-4571	18 months
Gear Pump Refinex 45/45	80075567	4320-01-630-6977	18 months

Circuit Card Assembly	83065084	5998-12-386-8598	18 months
ATE-Controller for DW	83235687	5998-12-412-0349	18 months
STE-Controller for DW	83235689	5998-12-412-0347	18 months
ADT-Controller for DW	83235690	5998-12-412-0348	18 months
Dry Air Unit	83084503	5940-01-644-4575	18 months
Chopper, Electronic	54.2890.483.00	5945-12-342-7780	18 months
Attenuation Module	54.1084.483.00	5985-12-348-8553	18 months
Control Monitor Sub	54.2897.171.00	5895-12-317-1731	18 months
Power Supply	54.1150.602.01	6130-12-374-3665	18 months
Ethernet Interface Unit	54.1150.605.00	7025-12-374-4478	18 months
Radar Set Subassembly	83178628	5840-01-630-9841	18 months
Radar Set Subassembly	83178629	5840-01-630-9842	18 months
Synchronizer Control Board TRS-XD1/DW2	83112334	5998-12-402-5888	18 months
Chopper, Electronic	54.2890.482.00	5945-12-342-7779	18 months
Power Supply Subassembly	54.2897.186.00	6130-12-316-3607	18 months
JAM Detector	54.2322.584.00	5998-12-190-7959	18 months
Radar Set Subassembly	83178627	5840-01-630-9843	18 months
Circuit Card Assembly	54.2897.152.00	5998-22-282-6763	18 months
Vibrator, Interrupte	54.2897.201.00	6130-12-337-7612	18 months
CPI TWT (ELECTRON TUBE)	54.2249.085.00	5960-12-386-8848	25 months
HVT - Upgraded PN (Transmitter, Radar)	54.2249.087.00	5840-12-344-1201	21 months
Exciter, Radio Frequency (B/L: B)	54.2325.080.00	5840-12-330-4572	18 months
Exciter, Radio Frequency (B/L: C)	54.2325.082.00	5998-12-399-3097	18 months
Frequency Multiplier	54.2325.200.00	5895-12-338-0825	18 months
RCD Display	54.1151.160.00	5840-12-399-3105	18 months

Signal Generator	54.1151.370.00	5895-01-631-4097	18 months
Beam Controller, Basic	54.2897.659.00	5998-12-370-0354	18 months
Converter-Detector Set (A/D MODULE)	54.1151.289.00	5840-12-386-8476	25 months
HPM (High Power Module)	54.1155.452.00	5840-12-420-7398	21 months
Coupler Rotary, Radio Frequency	54.2424.650.01	5985-12-393-6773	18 months
Primary Power Module (PPM)	54.1155.350.00	6130-12-422-2040	18 months
Control Transmitter	54.1150.607.00	5480-12-374-3873	18 months
Beam Controller (CGC Bertholf Basic)	54.2890.831.00	5840-12-393-6832	18 months
Radar Transmitter	83075196	5840-12-344-1201	18 months
STC Generator DW	54.2249.270.00	5998-01-644-4769	20 months
Waveguide Switch	54.2248.490.00	5985-12-329-8398	18 months
Circuit Card Assembly	54.2890.521.00	5998-12-345-1465	18 months
Blower	54.3059.050.02	4140-12-344-0867	18 months
Analog to Digital Converter	54.0023.495.00	7050-12-370-0272	18 months
Chopper Electronic	54.2897.179.00	5945-12-317-5738	18 months
Antenna Motor	54.2424.608.00	5985-12-399-3110	18 months
Radio Freq Rotary Coupler	54.2424.650.01	5985-12-393-6773	18 months

1.4 APPLICABLE DOCUMENTS:

1.4.1 Government documents: The following documents form a part of this specification to the extent specified herein. The documents listed shall be by title and effective date, unless otherwise documented.

- Federal Standard, FED-STD-595 Colors Used in Government Procurement.
- MIL-PRF-24635 E dated 09/15/2009 Coating Systems, Weather-Resistant, Exterior Use
- MIL-PRF-81309 H, dated 07/18/2018 Performance Specification: Corrosion Preventive Compounds, Water Displacing, Ultra-Thin Film
- MIL-STD-2073-1E dated 4/22/2019 Department of Defense Standard Practice for Military Packaging
- MIL-STD-129R w/Change 3 dated 2/25/2023 Military Marking for Shipment and Storage

1.4.2 Commercial documents: The following documents form a part of this specification to the extent specified herein. The documents shall be the version listed by number and date from the referenced industry organization.

- ASTM D3951-10 dated 08/15/2010, Standard Practice for Commercial Packaging
- ASTM D6880/D6800M-11 Standard Specification for Wood Boxes
- ISO 9001:2015
- ISO/IEC 17025:2017 Requirements for the Competence of Testing and Laboratories with Calibration of Measuring and Test Equipment

Note: The referenced standards are minimum requirements. If there is a conflict between these standards and Coast Guard-specific requirements or Original Equipment Manufacturer (OEM) specifications, the Coast Guard or OEM requirements shall take precedence unless otherwise specified in this SOW.

2. **SPECIFIC REQUIREMENT TASKS:** The contractor shall provide all labor and materials to perform overhaul services on the Hensoldt parts. Overhaul services shall cover the entire assembly

2.1 DEFECTIVE EQUIPMENT, MODULES, OR ITEMS WILL BE SHIPPED TO THE CONTRACTOR FROM THE COAST GUARD SURFACE FORCES LOGISTICS CENTER.

2.2 UPON RECEIPT OF EQUIPMENT AT VENDOR'S REPAIR FACILITY. The contractor shall ensure that all items are complete and of the proper cited part number as specified and/or listed in the contract documentation. Discrepancies shall be reported to the Coast Guard Contracting Officer, listed on the contract, within 10 days, before further action is taken. Preliminary disassembly and inspection shall be conducted in accordance with OEM procedures, specifications, references, and standard practices to determine estimated cost of overhaul including material, labor, testing, packing, preservation, and packaging. For repairs that are not firm fixed price, a detailed estimate shall be submitted to the Coast Guard Contracting Officer for approval prior to the start of overhaul work. Estimates shall include overhaul, testing, packaging, preservation, and marking. Overhaul is intended to restore the item to a condition that is equal to that of a new item. Contractor shall immediately notify the Coast Guard Contracting Officer if an item delivered for overhaul services does not conform to the intended item cited in section 2.0 above or is questionable for any reason.

2.3 THE CONTRACTOR SHALL NOT PROCEED UNTIL A FIRM, FIXED PRICE FOR REPAIR AND A DELIVERY SCHEDULE ARE NEGOTIATED AND AUTHORIZATION TO EITHER PROCEED WITH REPAIRS, OR DISPOSAL INSTRUCTIONS HAVE BEEN RECEIVED FROM THE CONTRACTING OFFICER. This will be decided upon by the Contracting Officer after submission of the Open and Inspection Report(s) (OIRs) to the Contracting Officer, review and recommendations by the Contracting Officer's Representative (COR)/Equipment Specialist(s) are made, and authorization has been obtained to proceed with repairs from the Contracting Officer. ***The BER threshold is 65% of a new item.***

2.3.1 The Contractor shall also provide the replacement cost of an identical new item for comparison to the overhaul cost. The detailed cost estimate shall contain the following as a minimum:

a. The part number, NSN and serial number of the component
b. The contract number for the component

2.4 REPLACEMENT PARTS: All replacement parts used in the overhaul shall be new original OEM parts. Reclaimed, recycled or aftermarket parts are not acceptable and shall not be used.

2.4.1 Selection of parts and materials for replacement shall be identified by using the parts manual.

2.5 UNUSUALLY DAMAGED ITEMS. Repair requirements do not include equipment or components received which indicates obvious misuse, cannibalization, and severe damage due to mishandling, fire, or submersion. In the event that severely damaged or cannibalized equipment or components are received, the Contractor shall notify the Contracting Officer within 10 days and submit: 1) a description of the condition of the equipment or component as received, 2) include photographs if needed to enhance description, 3) an estimate of the probable cause of the condition, and 4) a written estimate of the cost required to make the repair.

2.6 BEYOND ECONOMICAL REPAIR (BER). The Coast Guard Contracting Officer will determine the disposition of any component delivered for overhaul, that is ***BER (over 65% of the cost of new)***. If a component is BER, the government reserves the right to repair items over BER or purchase an identical new component from the contractor.

2.7 OBSOLETE PARTS/PROCESSES. In the event certain parts or processes become obsolete, the Contractor shall notify the Contracting Officer and submit 1) rationale and verification of any obsolete part or process, and 2) a written estimate of the cost required to make the repair. The Contractor shall not proceed until firm fixed price, and delivery schedules are negotiated and authorization to proceed is received from the Contracting Officer.

2.8 THE INCOMING OPEN AND INSPECTION REPORT (OIR). Shall contain the following information for each piece of Equipment repaired.

2.8.1 The contractor shall submit an OIR for each item, including the following information:

- Date of Report
- From: (POC: name and phone number)
- Contract Number
- Contract Line-Item Number
- Item details (model, serial number, part number, NSN)
- Nature of Defect or Problem(s) found
- Recommended solution
- List of Material/Parts to be replaced for each piece of equipment being repaired
- Anticipated material cost
- Total Estimated cost to repair this unit, Cost include Open and Inspection Report? Yes _X_ No ____
- Cost of Packaging, Cost of Marking, Cost of Freight
- Delivery (FOB destination) Charges

2.9 LIMITATION OF REPAIR. The price in the schedule is the cost of repair unless otherwise authorized by the Contracting Officer. The Contracting Officer will make the determination whether to repair the item or will provide disposal instructions after consulting with the Contracting Officer's Representative (COR)/Equipment Specialist(s).

2.10 LEVEL OF REPAIR. The contractor shall perform the level of repair required to return the repairable equipment or module in a ready for issue (RFI) condition from a non-ready for issue (NRFI) condition. At a minimum, the following process shall be accomplished:

2.10.1 Disassemble and clean the components, to facilitate the equipment inspection/repairs.

2.10.2 Repair of replacement of parts that have failed or are of marginal quality due to wear, deterioration, or damage. Replacement parts of good quality shall be used to return the item to RFI condition.

2.10.3 Install all applicable field changes, modifications and firmware upgrades.

2.10.4 Re-assembly, alignment, and testing.

2.10.5 Provide inspection log, test report for each component repaired.

2.11 DETAILED REQUIREMENTS - REPAIR PROCESS.

2.11.1 Repair Facility must execute repairs in the time frame listed in on table 1.3.

DETAILED OVERHAUL TASKING FOR EACH ITEM:

Line Item 1. Pedestal (PN: 54.2424.600.00, NSN: 5985-01-676-8432)

- Disassemble pedestal assembly.
- Inspect for mechanical wear, corrosion, cracks, and deformation.
- Replace bearings, seals, bushings, and worn/damaged mechanical components.
- Clean all parts, re-lubricate moving parts, reassemble, align, and torque to specifications.
- Inspect/test electrical interfaces for continuity, insulation resistance, and grounding.
- Perform operational test by rotating pedestal under simulated load.
- Provide inspection report, parts replacement log, and test results.

Line Item 2. Radar Controller & Communication (RCC) for DW (PN: 54.2881.822.00, NSN: 5998-12-412-0350)

- Remove/disassemble RCC module.
- Inspect circuit boards for damaged traces, corrosion, and component failure.

- Replace damaged/obsolete components.
- Clean boards, apply conformal coating, update firmware/software.
- Reassemble, conduct functional tests (communication protocols, data transmission, error handling).
- Provide inspection log, firmware update record, and test results.

Line Item 3. Radar Display Controller (RDC) for DW (PN: 54.2881.823.00, NSN: 5998-12-412-0351)

- Disassemble RDC module.
- Inspect circuitry for damaged components, solder joints, connectors.
- Replace defective ICs, connectors, display interface components.
- Clean/calibrate display interfaces, reassemble.
- Test display accuracy, responsiveness, interface compatibility.
- Provide inspection log, calibration report, and test results.

Line Item 4. Power Supply (PN: 83093630, NSN: 6130-12-384-2242)

- Disassemble unit, inspect for faults, overheating, burnt components, physical damage.
- Replace capacitors, transformers, rectifiers, and critical components.
- Clean internal surfaces, heat sinks, reassemble.
- Verify voltage output/stability under load, perform endurance testing.
- Provide inspection log, test results, compliance certificate.

Line Item 5. Mixer Stage, Frequency (PN: 54.2325.140.00, NSN: 5895-12-338-0824)

- Disassemble mixer stage, inspect circuitry for signal integrity, damaged components.
- Replace damaged electronic components, clean board, apply conformal coating.
- Reassemble, test frequency mixing performance, verify output signal.
- Provide inspection log, test results, compliance certificate.

Line Item 6. Monitor, Voltage Deviation (PN: 54.2893.376.00, NSN: 5840-12-344-5692)

- Disassemble unit, inspect monitoring circuits for damaged sensors, ICs, connectors.
- Replace faulty sensors, ICs, connectors, clean board, apply conformal coating.
- Calibrate voltage deviation detection circuits, reassemble.
- Test accuracy, response time.
- Provide inspection log, calibration certificate, test results.

Line Item 7. Amplifier, Video (PN: 54.1058.563.00, NSN: 5996-12-311-7075)

- Disassemble amplifier, inspect circuitry for damaged components, solder joints, connectors.
- Replace defective transistors, capacitors, connectors, clean board, apply conformal coating.
- Reassemble, test amplification, signal clarity.
- Provide inspection log, test report, compliance certificate.

Line Item 8. RF/IF Unit (PN: 54.1084.477.00, NSN: 5840-12-351-8818)

- Disassemble unit, inspect circuitry for signal degradation, damaged components.
- Replace damaged components, clean/shield unit from EMI.
- Reassemble, test RF/IF conversion accuracy, signal integrity.
- Provide inspection log, test/calibration report.

Line Item 9. 2ND IF Amplifier (PN: 54.1078.420.00, NSN: 5996-12-337-6948)

- Disassemble amplifier, inspect stages for damaged components, solder joints, connectors.
- Replace defective components, clean board, apply conformal coating.
- Reassemble, test gain, frequency response.
- Provide inspection log, performance test results, compliance certificate.

Line Item 10. Synthesizer (PN: 54.2325.018.00, NSN: 5840-12-330-4571)

- Disassemble unit, inspect circuitry for damaged ICs, frequency control elements, connectors.
- Replace damaged ICs, frequency control elements, connectors, clean board, apply conformal coating.
- Calibrate frequency output, reassemble.
- Test frequency stability, accuracy.
- Provide inspection log, calibration report, compliance certificate.

Line Item 11. Gear Pump Refinex 45/45 (PN: 80075567, NSN: 4320-01-630-6977)

- Disassemble pump, inspect gears, seals, bearings for wear/damage.
- Replace worn gears, seals, bearings, clean internal surfaces.
- Reassemble, test for flow rate, pressure.
- Provide inspection log, test report.

Line Item 12. Circuit Card Assembly (PN: 83065084, NSN: 5998-12-386-8598)

- Inspect for damaged traces/components.
- Replace defective parts, clean/conformal coat PCB.
- Test circuit functionality.
- Provide inspection log, functional test results.

Line Item 13. ATE-Controller for DW (PN: 83235687, NSN: 5998-12-412-0349)

- Inspect controller circuitry, replace damaged ICs/connectors.
- Update software/firmware, reassemble.
- Test operational integrity.
- Provide inspection log, test/update documentation.

Line Item 14. STE-Controller for DW (PN: 83235689, NSN: 5998-12-412-0347)

- Inspect/repair controller, replace faulty components.
- Update software/firmware, reassemble.
- Test operational performance.
- Provide inspection log, test results.

Line Item 15. ADT-Controller for DW (PN: 83235690, NSN: 5998-12-412-0348)

- Inspect/repair controller, replace defective components.
- Update firmware/software, reassemble.
- Test operational integrity.
- Provide inspection log, test report.

Line Item 16. Dry Air Unit (PN: 83084503, NSN: 5940-01-644-4575)

- Inspect unit for leaks, contamination.

  - Replace filters, seals, worn parts, clean internal surfaces.
  - Reassemble, testing airflow, dryness.
  - Provide inspection log, test report.

Line Item 17. Chopper, Electronic (PN: 54.2890.483.00, NSN: 5945-12-342-7780)

- Inspect chopper circuitry, replace damaged components.
- Test chopping performance, signal integrity.
- Provide inspection log, test report.

Line Item 18. Attenuation Module (PN: 54.1084.483.00, NSN: 5985-12-348-8553)

- Inspect attenuation circuitry, replace defective components.
- Test attenuation levels, accuracy.
- Provide inspection log, test results.

Line Item 19. Control Monitor Sub (PN: 54.2897.171.00, NSN: 5895-12-317-1731)

- Inspect monitoring circuits, replace damaged parts.
- Test monitoring functions.
- Provide inspection log, test report.

Line Item 20. Power Supply (PN: 54.1150.602.01, NSN: 6130-12-374-3665)

- Inspect for electrical faults, replace critical components.
- Test voltage, load capacity.
- Provide inspection log, test results.

Line Item 21. Ethernet Interface Unit (PN: 54.1150.605.00, NSN: 7025-12-374-4478)

- Inspect network interface circuitry, replace damaged connectors/ICs.
- Test data integrity, throughput.
- Provide inspection log, test report.

Line Item 22. Radar Set Subassembly (PN: 83178628, NSN: 5840-01-630-9841)

- Disassemble, inspect for mechanical/electrical faults.
- Replace worn/damaged parts, clean, reassemble.
- Test operational readiness.
- Provide inspection log, test report.

Line Item 23. Radar Set Subassembly (PN: 83178629, NSN: 5840-01-630-9842)

- Same as Item 22.

Line Item 24. Synchronizer Control Board TRS-XD1/DW2 (PN: 83112334, NSN: 5998-12-402-5888)

- Inspect board for damaged traces/components.
- Replace defective parts, clean/conformal coat.
- Test synchronization accuracy.
- Provide inspection log, test report.

Line Item 25. Chopper, Electronic (PN: 54.2890.482.00, NSN: 5945-12-342-7779)

- Same as Item 17.

Line Item 26. Power Supply Subassembly (PN: 54.2897.186.00, NSN: 6130-12-316-3607)

- Inspect for electrical faults, replace critical components.
- Test voltage, load capacity.
- Provide inspection log, test results.

Line Item 27. JAM Detector (PN: 54.2322.584.00, NSN: 5998-12-190-7959)

- Inspect circuitry for signal integrity, damaged components.
- Replace defective parts, clean/conformal coat.
- Test jamming detection accuracy.
- Provide inspection log, test report.

Line Item Radar Set Subassembly (PN: 83178627, NSN: 5840-01-630-9843)

- Same as Item 22.

Line Item 29. Circuit Card Assembly (PN: 54.2897.152.00, NSN: 5998-22-282-6763)

- Inspect for damaged traces/components.
- Replace defective parts, clean/conformal coat PCB.
- Test circuit functionality.
- Provide inspection log, functional test results.

Line Item 30. Vibrator, Interrupte (PN: 54.2897.201.00, NSN: 6130-12-337-7612)

- Disassemble, inspect for wear/damage.
- Replace worn parts, clean, reassemble.
- Test vibration/interruption function.
- Provide inspection log, test report.

Line Item 31. CPI TWT (ELECTRON TUBE) (PN: 54.2249.085.00, NSN: 5960-12-386-8848)

- Inspect tube for internal/external damage.
- Test electron emission, vacuum integrity.
- Replace if non-functional.
- Provide inspection log, test report.

Line Item 32. HVT - Upgraded PN (Transmitter, Radar) (PN: 54.2249.087.00, NSN: 5840-12-344-1201)

- Disassemble, inspect for electrical/mechanical faults.
- Replace worn/damaged parts, clean, reassemble.
- Test transmitter function.
- Provide inspection log, test report.

Line Item 33. Exciter, Radio Frequency (B/L: B) (PN: 54.2325.080.00, NSN: 5840-12-330-4572)

- Disassemble, inspect for faults.
- Replace defective parts, clean, reassemble.
- Test excitation frequency accuracy.
- Provide inspection log, test report.

Line Item 34. Exciter, Radio Frequency (B/L: C) (PN: 54.2325.082.00, NSN: 5998-12-399-3097)

- Same as Item 33.

Line Item 35. Frequency Multiplier (PN: 54.2325.200.00, NSN: 5895-12-338-0825)

- Disassemble, inspect for faults.
- Replace defective parts, clean, reassemble.
- Test frequency multiplication accuracy.
- Provide inspection log, test report.

Line Item 36. RCD Display (PN: 54.1151.160.00, NSN: 5840-12-399-3105)

- Disassemble, inspect for faults.
- Replace defective display components, clean, reassemble.
- Test display accuracy.
- Provide inspection log, test report.

Line Item 37. Signal Generator (PN: 54.1151.370.00, NSN: 5895-01-631-4097)

- Disassemble, inspect for faults.
- Replace defective parts, clean, reassemble.
- Test signal generation accuracy.
- Provide inspection log, test report.

Line Item 38. Beam Controller, Basic (PN: 54.2897.659.00, NSN: 5998-12-370-0354)

- Disassemble, inspect for faults.
- Replace defective parts, clean, reassemble.
- Test beam control function.
- Provide inspection log, test report.

Line Item 39. Converter-Detector Set (A/D MODULE) (PN: 54.1151.289.00, NSN: 5840-12-386-8476)

- Disassemble, inspect for faults.
- Replace defective parts, clean, reassemble.
- Test conversion/detection accuracy.
- Provide inspection log, test report.

Line Item 40. HPM (High Power Module) (PN: 54.1155.452.00, NSN: 5840-12-420-7398)

- Disassemble, inspect for faults.
- Replace defective parts, clean, reassemble.
- Test high power output.
- Provide inspection log, test report.

Line Item 41. Coupler Rotary, Radio Frequency (PN: 54.2424.650.01, NSN: 5985-12-393-6773)

- Disassemble, inspect for faults.
- Replace defective parts, clean, reassemble.
- Test rotary coupling function.
- Provide inspection log, test report.

Line Item 42. Primary Power Module (PPM) (PN: 54.1155.350.00, NSN: 6130-12-422-2040)

- Disassemble, inspect for faults.
- Replace defective parts, clean, reassemble.
- Test primary power output.
- Provide inspection log, test report.

Line Item 43. Control Transmitter (PN: 54.1150.607.00, NSN: 5480-12-374-3873)

- Disassemble, inspect for faults.
- Replace defective parts, clean, reassemble.
- Test transmitter control function.
- Provide inspection log, test report.

Line Item 44. Beam Controller (CGC Bertholf Basic) (PN: 54.2890.831.00, NSN: 5840-12-393-6832)

- Disassemble, inspect for faults.
- Replace defective parts, clean, reassemble.
- Test beam control function.
- Provide inspection log, test report.

Line Item 45. Radar Transmitter (PN: 83075196, NSN: 5840-12-344-1201)

- Disassemble, inspect for faults.
- Replace defective parts, clean, reassemble.
- Test radar transmission function.
- Provide inspection log, test report.

Line Item 46. STC Generator DW (PN: 54.2249.270.00, NSN: 5998-01-644-4769)

- Disassemble, inspect for faults.
- Replace defective parts, clean, reassemble.
- Test STC generation function.
- Provide inspection log, test report.

Line Item 47. Waveguide Switch (PN: 54.2248.490.00, NSN: 5985-12-329-8398)

- Disassemble, inspect for faults.
- Replace defective parts, clean, reassemble.
- Test waveguide switching function.
- Provide inspection log, test report.

Line Item 48. Circuit Card Assembly (PN: 54.2890.521.00, NSN: 5998-12-345-1465)

- Inspect for damaged traces/components.
- Replace defective parts, clean/conformal coat PCB.

- Test circuit functionality.
- Provide inspection log, functional test results.

Line Item 49. Blower (PN: 54.3059.050.02, NSN: 4140-12-344-0867)

- Disassemble, inspect for wear/damage.
- Replace worn parts, clean, reassemble.
- Test blower function (airflow, noise).
- Provide inspection log, test report.

Line Item 50. Analog to Digital Converter (PN: 54.0023.495.00, NSN: 7050-12-370-0272)

- Disassemble, inspect for faults.
- Replace defective parts, clean, reassemble.
- Test A/D conversion accuracy.
- Provide inspection log, test report.

Line Item 51. Chopper Electronic (PN: 54.2897.179.00, NSN: 5945-12-317-5738)

- Inspect chopper circuitry, replace damaged components.
- Test chopping performance, signal integrity.
- Provide inspection log, test report.

Line Item 52. Antenna Motor (PN: 54.2424.608.00, NSN: 5985-12-399-3110)

- Disassemble, inspect for wear/damage.
- Replace worn parts, clean, reassemble.
- Test motor function (rotation, torque).
- Provide inspection log, test report.

Line Item 53. Radio Freq Rotary Coupler (PN: 54.2424.650.01, NSN: 5985-12-393-6773)

- Same as Item 41.

2.12 MATERIALS. The Contractor shall provide all current technical manuals, all spare parts, discrete components and consumable materials needed for the repair of the items.

2.12.1 Test and diagnostic equipment. All test equipment and attached gages shall be calibrated and have a current calibration sticker. Calibration shall be traceable to National standards. The Contractor shall provide all test and diagnostic equipment necessary to create the system mock-up to provide testing for needed repairs, modifications and firmware upgrades.

2.12.2 Repair. Electronic equipment shall be processed for the return of unserviceable items to an operational status. This process shall accomplish:

2.12.2.1 Disassembly and cleaning are required to facilitate the equipment repairs.

2.12.2.2 Repair of replacement parts that have failed or are of marginal quality due to wear, deterioration, or damage shall be replaced to return the item to ready for issue (RFI) condition. See 2.10.

2.12.2.3 Install all applicable field changes, modifications and firmware upgrades.

2.12.2.4 Re-assembly, alignment, and testing.

2.12.3 Detailed requirements - repair process.

2.13 TECHNICAL SPECIFICATIONS. Except where otherwise indicated, the Coast Guard will NOT provide the current technical specifications, manuals, or other technical data or diagnostics for repair of the items covered by this specification. The Contractor is responsible for obtaining the required technical manuals or data. This information shall remain the property of the Contractor but must be available for inspection by the Coast Guard.

2.14 INSPECTIONS. In the course of repair, three levels of inspection shall be performed as follows.

2.14.1 Incoming inspection. This inspection shall be performed at the point of receipt of the repair material to detect damage in transit. The items shall be inspected for completeness, for model type per contract or work order, and for obvious flaws and defects. If the equipment or module is received incomplete or damaged in transit, the Contracting Officer shall be immediately notified of the discrepancy. The Contractor shall identify and record the damaged property by its nomenclature; serial number (if applicable), National Stock Number (NSN), manufacturer's part number, date of receipt, quantity, number inspected, number defective or damaged, contract number, nature of the defect, circumstances of discovery, and estimated repair cost.

2.14.2 In-process inspections. These inspections shall be performed during repair in order to ensure completeness of repair and conformance to equipment technical requirements. Examples of such inspections are 1) adherence to fault isolation and test procedures, 2) proper application of coatings and treatments, and 3) proper mounting and connection of piece parts.

NOTE

The results of all in process inspections shall be recorded and submitted to the Contract Officer upon request. See 4.14.1 for the required information.

2.14.3 Final inspection. This inspection shall consist of 1) a visual inspection of workmanship, assembly and fit, mechanical and electrical safety and marking, materials, parts, and finish, and

treatment for prevention of corrosion and 2) verification of all operations specified in the equipment's technical requirements.

NOTE

All final inspection observations and measurements shall be recorded and certified. A copy of the final inspection shall be placed with the repaired unit or item with it in the packing.

2.15 TEST AND DIAGNOSTIC EQUIPMENT. The Contractor shall provide all test and diagnostic equipment necessary to create the system mock-up to provide testing for needed repairs, modifications, and firmware upgrades.

2.16 TESTING. During repairs, the Contractor will perform two types of testing.

2.16.1 OPERATIONAL TESTS. These tests shall be for the purpose of verifying operation and to identify areas requiring fault isolation. Any abnormalities during testing shall be corrected and retested after corrective work is complete.

2.16.2 Final performance and acceptance testing. A dynamic test will be conducted to confirm acceptability of alignment and function. This must be accomplished using a fully operational equipment mock-up, or the use of Automated Test Equipment (ATE) with the ability to emulate live circuit conditions. The qualifying performance standard for the equipment shall be the test criteria contained in the equipment technical requirements. A copy of this final performance and acceptance test shall be packed, in a zip lock bag, with each item **(Certificate of Conformance).**

2.16.3 After completion of an overhaul, contractor shall conduct the following described tests in the presence of a coast guard Quality Assurance Rep (QAR). ***The QAR will be provided on a case-by-case basis, though the Coast Guard reserves the right to waive presence, require re-testing, or audit results at its discretion***. The Coast Guard QAR shall be provided with an opportunity to witness or review any testing highlighted in 2.27 testing. All testing shall be accomplished on contractor supplied calibrated test equipment. If an item fails, it shall be repaired and re-tested as necessary until a successful test is achieved. All repairs shall be in accordance with OEM specifications and procedures and shall be made available to the QAR. ***The Coast Guard reserves the right to final determination regarding whether all testing, components, and procedures comply strictly with these OEM specifications. This will be provided electronically via a Certificate of Conformance.***

2.16.4 Test report: Test results shall be documented in a report. A copy of the test report shall be packed with the tested item, and a copy shall be turned over to the Coast Guard Quality Assurance Representative. Report shall contain the following information as a minimum:

a. Contractor name.
b. Contract number.
c. Item Model & Serial Numbers
d. Date of test.

e. Description of each test conducted and results of each test.
f. Name of the person conducting the testing.

2.16.5 Repair diagnostics. The Contractor shall develop repair diagnostics and test procedures to effectively troubleshoot problems with the components and repair the components to meet the requirements of this specification. The diagnostics and test procedures shall be in accordance with current technical specifications.

2.17 FAULT ISOLATION. Troubleshooting of electronic equipment and modules shall recognize the fault symptom, identify the circuit responsible, and isolate the defective component(s) or sub assembly. After a fault has been localized, but prior to corrective action, ascertain that the specific fault is actually the cause of the malfunction rather than a symptom of some other malfunction. The Contractor shall be responsive to the troubleshooting procedures as indicated in the applicable technical documentation or established test procedures.

2.18 DISASSEMBLY. The degree of disassembly on any equipment or module processed by the Contractor shall be commensurate with the level of repair required.

2.19 CLEANING. Items requiring cleaning during repair shall be cleaned prior to or during the pre-induction inspection and disassembly, whichever is deemed more practical by the Contractor. Final cleaning shall be conducted to ensure the component is free of obvious defects and corrosion, soil, grease, residue, fingerprints, perspiration, or other acid or alkali residues.

NOTE

All temporary markings and tags, to include the CG-5236 or DD-1577-2 Serviceable/Unserviceable Tag, shall be removed.

2.20 SELECTION OF PARTS AND MATERIALS.

NOTE

The Contractor shall utilize parts and materials specified in the latest design specifications. Original equipment manufacturers (OEM) parts or parts that equal or exceed the performance and tolerance characteristics of the OEM parts must be used on all component part replacements.

CAUTION

Any part which would change the form, fit, and/or function of the equipment or module shall not be used. Requests to utilize nonstandard (non-OEM or direct equivalent) parts shall be submitted to the Contracting Officer for approval.

2.21 LABEL PLATES (IF APPLICABLE): Remove any label plates and replace at the conclusion of painting. New label plates shall be used if the original plate is not legible or in poor condition. Label

plate shall contain unit make, model, part number, and serial numbers.

2.22 DISPOSITION: The Coast Guard shall determine the disposition of any item delivered for repair that is found to be not suitable for repair for whatever reason.

2.23 PAINTING (IF APPLICABLE): an item shall be painted with primer and finish coats. Primer coats shall be any rust preventive metal primer suitable for use with the finish coat. Finish coat shall be Silicone Alkyd Enamel Type III Class 1. Total paint thickness shall be a minimum of 4 to 6 mils dry film thickness, not to exceed 12 mils dry thickness.

2.24 ASSEMBLY: Overhauled items shall be delivered to the Coast Guard completely assembled and ready for installation.

2.25 RESPONSIBILITY FOR INSPECTION: The Contractor shall be responsible for the performance of all inspection requirements specified herein. The Contractor shall provide space, personnel and test equipment for the conduct of all inspection requirements. All inspection and testing shall be performed at the Contractors facility prior to the Coast Guard's acceptance of the contracted items. The Coast Guard reserves the right to verify or have performed any of the inspections set forth herein where such inspections are deemed necessary to ensure that supplies and services conform to prescribed requirements.

2.26 NOTIFICATIONS & INSPECTIONS: The contractor is responsible for notifying the Contracting Officer no less than ten (10) calendar days prior to the contractor being ready for any Quality Assurance (Q.A.) inspections or testing required herein. ***Upon electronic receipt of Certificate of Conformance, the Coast Guard reserves the right to modify this notification window, waive formal inspection attendance, or conduct unannounced inspections at its discretion.***

2.27 QUALITY ASSURANCE:

2.27.1 General: The Contractor is responsible for the conformance and overall quality of each item offered to the Coast Guard for acceptance or approval.

2.27.2 Inspections & Tests: The inspections & tests required herein are the minimum necessary and are not intended to replace any controls, examinations, or tests normally employed by the contractor to assure the quality of the product. The following are required:

a. Test requirements described in part 2.16
b. Paint thickness as specified in 2.23 (if applicable)
c. Inspection of preservation, packaging, packing, marking and bar-coding in accordance with 1.4.1.4, 1.4.1.5, and 1.4.2.2
d. Verify OEM installation of parts in part 2.10.
e. Verify label/name plate installation on part 2.21.
f Final inspection and test reports as required in section 2.27.3.

2.27.3 Test & Inspection Reports: A copy of any standard Contractor test or inspection report shall be turned over to the Coast Guard Q.A. Inspector upon his arrival at the contractor's plant.

The Coast Guard reserves the right to request these reports electronically or prior to arrival, and to mandate additional documentation to verify qualification standards.

2.27.4 Warranty. Contractor's standard new unit warranty applies.

2.27.5 Failure Responsibility – If a component fails to pass any inspection/test the contractor shall report the failure and the recommended fix to the Coast Guard Contract Officer. ***The Coast Guard reserves the right of final determination on all corrective actions and reserves the right to mandate the use of authentic OEM components and certified repair procedures. Proof will be provided by electronic issuance of a Certificate of Conformance.***

2.28 PRESERVATION, PACKAGING, AND MARKING:

2.28.1 Electrostatic protection. Electronic parts are susceptible to damage by environmental field forces.

2.28.1.1 Sensitive electronic devices and other items susceptible to environmental field force damage (electrostatic fields, electromagnetic fields, or magnetic fields, or combinations of these fields) shall be protected in accordance with MIL-STD-2073-1E with Change 4, 22 April 2019. See paragraph 3.7, 5.2.4.1 and table J-Ia.

2.28.1.2 See MIL-PRF-81705E_AMENDMENT-1 Barrier Materials, Flexible, Electrostatic Discharge Protective, Heat-Sealable. This specification explains the need for using this specification of electrostatic/vapor barrier material. ***ONLY REQUIRED IF APPLICABLE TO PART***

2.29 MILITARY PACKING. Reference Method 10 Pack Type within MIL-STD-2073-1E with Change 4 Document to assist with proper preservation and packing that a given item requires to ensure that it is not degraded during shipment and storage. All parts must be individually packaged and labeled so they are ready for individual release.

2.29.1 Intermediate and exterior packing. Application of materials and/or methods designed to protect an item during shipment, handling, indeterminate storage and distribution to consignees worldwide.

2.29.2 Unit pack. All items repaired shall be individually packaged per MIL-STD-2073-1E w/Change 4, 22 April 2019, APPENDIX B, B.3.1 and returned in the same container that it was received prior to induction. Multiple parts which when assembled equal one (1) unit will all be packed within the same outer box.

2.29.3 Damage to or loss of original container. In the event of damage to or loss of the original container, the Contractor must provide an equal replacement container.

NOTE

Remove any old markings and if applicable the CUA stickers from the containers prior to applying the new markings.

NOTE

A copy of the Final performance and acceptance testing data record sheet shall be included in the container. See 4.14.3 and 4.15.2.

2.30 MARKING.

NOTE: ALL PREVIOUS MARKINGS AND / OR QUALITY ASSURANCE DECALS SHALL BE COMPLETELY REMOVED FROM A REUSABLE SHIPPING CONTAINER PRIOR TO THE APPLICATION OF ANY NEW MARKINGS. The following information shall be included in the markings:

NSN:
Item Name:
P/N:
S/N: If applicable
Shipping Weight:
Government Contract No.

Coast Guard SFLC Material Condition A, 1 ea."
2.30.1 In addition to any special markings required by the contract or order, all interior packages and shipping containers shall be marked in accordance with MIL-STD-129R w/Change 3. *** Any packages received not individually packaged and labeled will be returned to the OEM / Vendor for repackaging at no charge to the CG ***

2.31 SHIPPING. Unless otherwise directed by the Contracting Officer, the contractor shall return repaired electronic equipment/units to:

US Coast Guard
Surface Forces Logistics
Center 2401 Hawkins
Point RD,
Receiving Room – Bldg.
88 Curtis Bay, MD 21226

NOTE

Normal delivery hours at the warehouse are Monday through Friday 0730-1300. If delivery is needed to be made outside that delivery window the Contractor shall notify the Contracting Officer.

2.32 PRESERVATION: Any overhauled item is intended for warehouse storage for up to two (2) year minimum and not for immediate installation. Therefore, it is critical that the contractor ensures that the overhauled unit is properly preserved.

2.33 PACKING: The overhauled and preserved items, over 50 pounds, shall be individually packaged in its own framed in wooden crate, totally enclosed, with a skid mount to facilitate handling by a forklift. The crate shall be assembled with wood screws. The item shall be bolted to the inside of the crate or wooden blocking shall be incorporated and shall be constructed in such a manner as to prevent the item from shifting within. Crates shall be capable of protecting the item from damage during multiple shipments by commercial carrier.

2.33.1 All open ports shall be sealed using waterproof caps or covers to prevent the intrusions of moisture and other contamination. A copy of the material certifications shall be packaged inside a protective envelope. Each overhauled items shall be packaged in a moisture resistant protective envelop using MIL-PRF-131K Class 1 (if applicable). Just before the package is sealed, add the appropriate amount of desiccant shall be placed inside each item as per MIL-D-3464D. A vacuum shall be used to remove all excess air and the package sealed. Packaging of parts under 50 pounds shall be done using individual double-walled boxes. Each box shall have protective fitted foam. Sealed bags and desiccant are required.

2.34 BAR CODING: The stock number shall also be bar coded in addition to the numerical marking.

2.34.1 The actual labels shall be Type “V”, Grade “C”, Style 2”, and Composition “a”.

2.34.2 The Bar Code Label can be applied separately or as part of the marking required in 3.34.

2.35 ACCEPTANCE: Acceptance will be made at destination by a government representative. Acceptance will be contingent upon representative's verification of no damage in transit, correctness and completeness of order and contractor’s conformance to preservation, packing and marking requirements.

3 CONTRACTOR PERSONNEL

3.1 QUALIFIED PERSONNEL
The Contractor must provide qualified personnel to perform all requirements specified in the SOW.

3.2 CONTINUITY OF SUPPORT
The Contractor must ensure that the contractually required level of support for this requirement is maintained at all times. The Contractor must ensure that all contract support personnel are present for all hours of the workday. If for any reason the Contractor staffing levels are not maintained due to vacation, leave, appointments, etc., and replacement personnel will not be provided, the Contractor must provide e-mail notification to the Contracting Officer’s Representative (COR) prior to employee absence. Otherwise, the Contractor must provide a fully qualified replacement.

3.3 KEY PERSONNEL
Before replacing any individual designated as *Key* by the Government, the Contractor must notify the

Contracting Officer no less than 15 business days in advance, submit written justification for replacement, and provide the name and qualifications of any proposed substitute(s). All proposed substitutes must possess qualifications equal to or superior to those of the *Key* person being replaced, unless otherwise approved by the Contracting Officer. The Contractor must not replace *Key* Contractor personnel without approval from the Contracting Officer. The following Contractor personnel are designated as Key for this requirement. Note: The Government may designate additional Contractor personnel as *Key* at the time of award.

3.3.1 Key Personnel
Contractor Key personnel must not be assigned by the contractor to more than one key positions for this requirement.

3.3.2 Project Manager
The Contractor must provide a Project Manager who must be responsible for all Contractor work performed under this SOW. The Project Manager must be a single point of contact for the Contracting Officer and the COR. The name of the Project Manager, and the name(s) of any alternate(s) who must act for the Contractor in the absence of the Project Manager, must be provided to the Government as part of the Contractor's proposal. The Project Manager is further designated as *Key* by the Government. During any absence of the Project Manager, only one alternate must have full authority to act for the Contractor on all matters relating to work performed under this contract. The Project Manager and all designated alternates must be able to read, write, speak and understand English. Additionally, the Contractor must not replace the Project Manager without prior approval from the Contracting Officer.

3.3.2.1 The Project Manager must be available to the COR via telephone between the hours of 0900 and 1800 EST, Monday through Friday, and must respond to a request for discussion or resolution of technical problems within 48 hours of notification.

4 OTHER APPLICABLE CONDITIONS

4.1. SECURITY
Contractor access to classified information is not currently required under this SOW. However, the Government at a later date may require all Contractor personnel to have Secret clearances. Accordingly, all Contractor employees provided for this requirement must be eligible for a Secret Clearance.

4.2. PERIOD OF PERFORMANCE
The period of performance for this contract is a Base period with two (2) Ordering periods as follows:

Ordering Period 1	Nov 24, 2026, through Nov 23, 2027
Ordering Period 2	Nov 24, 2027, through Nov 23, 2028
Ordering Period 3	Nov 24, 2028, through Nov 23, 2029

4.3. PLACE OF PERFORMANCE

The primary place of performance will be at the contractors' facilities.

4.4. HOURS OF OPERATION

The hours of operation will be dictated by the contractor performing the requirements of this SOW.

4.5. TRAVEL:

Contractor travel must not be required for this requirement.

4.6. POST AWARD CONFERENCE

TBD

4.7. SECTION 508 COMPLIANCE

5. GOVERNMENT FURNISHED RESOURCES

The government will provide the parts that need to be repaired.

6. CONTRACTOR FURNISHED PROPERTY

The contractor must furnish all facilities, material, equipment, and services necessary to fulfil the requirements of this contract, except for the government furnished resources specified in section two of this SOW.

7. GOVERNMENT ACCEPTANCE

Acceptance will be made at destination by a government representative. Acceptance will be contingent upon the representative's verification of no damage in transit, correctness and completeness of order and contractor's conformance to preservation/packaging, packing, marking requirements.