

WARFIGHTER INFORMATION NETWORK – TACTICAL (WIN-T) INCREMENT 2 LOW RATE INITIAL PRODUCTION (LRIP)

**Operator And Field Maintenance Manual Including
Repair Parts And Special Tools List (RPSTL)**

For

Repeater Set, Radio

AN/TRC-219 (NSN 5820-01-572-8269) (EIC GRK)

Tactical Relay-Tower (TR-T)

TM 11-5820-1899-13&P

CONTRACT NO. W15P7T-10-D-C007/0077

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**PMCS MAINTENANCE INSTRUCTIONS
(FOUO) PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS)
INCLUDING LUBRICATION INSTRUCTIONS**

INITIAL SETUP**Personnel Required**

Multichannel Transmission Systems Operator-Maintainer, 25Q (3)

References

WP 0023, WP 0029, WP 0094

Materials/Parts

Soft, Lint-free, Anti-static Cloth. (WP 0133, Table 1, Item 9)

GENERAL INFORMATION

This work package provides the requirements for performing Preventive Maintenance Checks and Services (PMCS) on the TR-T. PMCS to be completed by Multichannel Transmission Systems Operator-Maintainer, 25Q unless noted otherwise.

WARNING

Never operate the field-replaceable components from the TR-T until they have been properly grounded. Electrical defects in the load lines or equipment can cause death by electrocution when contact is made with an ungrounded system.

CAUTION

To avoid damage to equipment, use only a soft, dry, lint-free anti-static cloth to clean the equipment.

PRELIMINARY POWER CHECKS

Before applying power perform the following:

1. Ensure ground straps/wires are properly connected to the ground studs/points.
2. Ensure 120/240 VAC power cables and cords are properly connected and secured.
3. Visually inspect condition of all wires, cables, and cords to ensure that they are not twisted, kinked, or damaged.
4. Power **OFF** TR-T according to WP 0029 *SYSTEM SHUTDOWN*.

PMCS

Scheduled Maintenance Procedures

The scheduled PMCS maintenance table (Table 1) lists all the scheduled maintenance tasks required for the TR-T system. If operational requirements prevent completion of the scheduled maintenance at the specified time, perform the required checks and services at the first opportunity.

Explanation of Columns

- Column 1, (Item No.) identifies each Line Replaceable Unit (LRU) by Number. To be used in column “a” of DA Form 2404 for TM Item No.
- Column 2, (Interval) provides the maintenance interval for the given item.
- Column 3, (Items To Be Checked or Serviced) contains the name of the item to be inspected.
- Column 4, (Procedure) contains the specific PMCS action to be performed.
- Column 5, (Equipment Is Not Ready/Available If:) signifies equipment is not ready when this condition exists.

OPERATOR REPAIR PARTS

No repair parts are authorized for operator maintenance.

Table 1. PMCS.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT IS NOT READY/ AVAILABLE IF:
01	PMCS per Trailer TM 9-2330-392-14&P	TRAILER	PMCS per Trailer TM 9-2330-392-14&P.	PMCS per Trailer TM 9-2330-392-14&P. PMCS has not been performed.
02	PMCS per TM 6115-639-13&P	GENERATOR	Refer to Generator TM 6115-639-13&P PMCS.	PMCS per Generator TM 6115-639-13&P PMCS has not been performed.
03	Before	GUY ROPE ENCLOSURE (CURBSIDE)	1. Visually inspect enclosure and locking pins for damage or corrosion. 2. Visually inspect Guy ropes (qty 11 in curbside enclosure) for damage. 3. Visually inspect guy rope winders for damage. 4. Visually inspect pulley for damage or corrosion. 5. Clean enclosure of foreign matter.	Enclosure is damaged or corroded. Guy ropes are missing, frayed or cut.

UNIT PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) - CONTINUED

Table 1. PMCS.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT IS NOT READY/ AVAILABLE IF:
04	Before	POWER REGENERATION ASSEMBLY (PRA)	<ol style="list-style-type: none"> 1. On the PRA, open cover. 2. On the PRA, Visually inspect equipment, cables, switches, plastic covers, ports, and seals for damage, debris, and dust. 3. On the PRA, clean using a soft, lint-free, anti-static cloth. 4. On the PRA, ensure all cables are properly connected. 5. On the PRA, ensure dust caps are properly installed. 6. On the Power Inverter, open cover. 7. On the Power Inverter, visually inspect equipment, ports, and seals for damage, debris, and dust. 8. On the Power Inverter, clean using a soft, lint-free, anti-static cloth. 9. On the Power Inverter, ensure dust caps are properly installed. 	Damaged or broken or missing switches or not operational.
05	Before	REAR TRAILER STORAGE COMPARTMENT	<ol style="list-style-type: none"> 1. Visually inspect enclosure for damage. 2. Verify that all 12 Guy stakes are present. Visually inspect stakes for damage. 3. Visually inspect sledgehammers for damage. 4. Visually inspect baseplate for damage. 5. Visually inspect eyebar for damage. 6. Clean enclosure of foreign matter. 	Enclosure is damaged or corroded. Stakes are missing or damaged. Sledgehammers are missing or Sledgehammer handles/heads are damaged.

UNIT PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) - CONTINUED

Table 1. PMCS.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT IS NOT READY/ AVAILABLE IF:
06	Before	CABLE REEL ASSEMBLY	<ol style="list-style-type: none"> 1. On the inside reel, visually inspect for damage and corrosion. 2. On the inside reel, visually inspect cables/connections for damage. 3. On the inside reel, visually inspect for free movement of the reel. 4. On the roadside reel, visually inspect cable reel for damage and corrosion. 5. On the roadside reel, visually inspect cables/connections for damage. 6. On the roadside reel, visually inspect for free movement of the reel. 7. On the curbside ground cable reel, visually inspect cable reel for damage and corrosion. 8. On the curbside ground cable reel, visually inspect cables/connections for damage. 9. On the curbside ground cable reel, visually inspect for free movement of the reel. 10. Ensure reel locks are present and functional. 	<p>Damaged, corroded or not operational. Reel does not move freely, Reel movement is impeded with reel locks disengaged.</p>
07	Before	GUY ROPE ENCLOSURE (ROADSIDE)	<ol style="list-style-type: none"> 1. Visually inspect enclosure for damage or corrosion. 2. Visually inspect 11 Guy ropes in curb side enclosure) for damage. 3. Visually inspect Guy rope winders for damage. 4. Visually inspect measuring rope for damage. 5. Visually inspect the guy rope connector clips for damage. 6. Clean enclosure of foreign matter. 	<p>Enclosure is damaged or corroded. Guy ropes are missing, frayed or cut. Measuring rope is missing, frayed or cut. Guy rope connector clips are missing or damaged.</p>

UNIT PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) - CONTINUED

Table 1. PMCS.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT IS NOT READY/ AVAILABLE IF:
08	Before	Equipment Enclosure	<ol style="list-style-type: none"> 1. At external SEP, visually inspect equipment, cable ends, and connectors for damage, debris, and dust. 2. Clean the external SEP using a soft, lint-free, anti-static cloth. 3. At external SEP, ensure all cables are properly connected. 4. At external SEP, ensure dust caps are installed. 5. At internal SEP, visually inspect equipment, cable ends, and connectors for damage, debris, and dust. 6. Clean the internal SEP using a soft, lint-free, anti-static cloth. 7. At internal SEP, ensure all cables are properly connected. 8. At the ECU, visually inspect equipment, cable ends, and connectors for damage, debris, and dust. 9. Clean ECU using a soft, lint-free, anti-static cloth. 10. At the ECU, ensure all cables are properly connected. 11. At HNR BPU, visually inspect equipment, cable ends, and connectors for damage, debris, and dust. 12. Clean At HNR BPU, using a soft, lint-free, anti-static cloth. 13. At HNR BPU, ensure all cables are properly connected. 14. At HNR BPU, ensure dust caps are installed. 15. At HNR BPU filter, visually inspect air filter for blockage or excessive sand or dust. 	<p>Damaged panel, damaged individual connectors, cables not properly installed, or panel not operational. Damaged or non-operational ECU. Alarms or fault messages present. Damaged or non-operational HNR BPU. HNR BPU damaged. Battery is damaged, swollen or not operational. Damage to GPS Antenna, missing or loose cable. Not operational. DCE/DCE+ Battery are inoperable due to loss of BIOS and/or configuration.</p>

UNIT PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) - CONTINUED

Table 1. PMCS.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT IS NOT READY/ AVAILABLE IF:
			<p>16. If HNR BPU filter cleaning is required, use a flat head screw driver to remove retainer and filter to clean.</p> <p>17. Gently use compressed air to clean HNR BPU filter.</p> <p>18. At GPS I/O Block, visually inspect equipment, cable ends, and connectors for damage, debris, and dust.</p> <p>19. Clean GPS I/O Block using a soft, lint-free, anti-static cloth.</p> <p>20. At GPS I/O Block, ensure all cables are properly connected.</p> <p>21. At GPS I/O Block, ensure dust caps are installed.</p> <p>22. Remove the GPS I/O Block battery cover.</p> <p>23. At GPS I/O Block, visually inspect the Battery for swelling or leakage.</p> <p>24. At GPS Antenna, visually inspect equipment for damage, debris, and dust.</p> <p>25. Clean the GPS Antenna using a soft, lint-free, anti-static cloth.</p> <p>26. At GPS Antenna, ensure cable is properly connected.</p> <p>27. At DCE and DCE+, visually inspect equipment, cable ends, and connectors for damage, debris, and dust.</p> <p>28. Clean DCE and DCE+ using a soft, lint-free, anti-static cloth.</p> <p>29. At DCE and DCE+, ensure cable is properly connected.</p> <p>30. Remove DCE+ Battery cover.</p> <p>31. Charge DCE Battery.</p> <p>32. DCE (Only) due to non-replaceable DCE battery life, replace DCE as a unit between the fourth and fifth year of service.</p>	

UNIT PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) - CONTINUED

Table 1. PMCS.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT IS NOT READY/ AVAILABLE IF:
			33. At Power Distribution Unit (PDU), visually inspect equipment for damage, dust, and debris. 34. At PDU, ensure all switches and LEDs are operational. 35. At Media Converter, visually inspect equipment for damage, dust, and debris. 36. At Media Converter, ensure all cables are properly connected. 37. At LED Light Assembly, visually inspect equipment for damage, dust, and debris. 38. Clean LED Light Assembly using a soft, lint-free, anti-static cloth. 39. At LED Light Assembly, ensure ON/OFF switch is operational and LEDs illuminate.	
09	Before	BACKUP BATTERY COMPARTMENT	1. Remove Backup Battery Compartment cover. 2. Using a battery load tester, perform Load test on Backup Battery. 3. At Backup Battery Compartment, replace both sealed lead-acid batteries. 4. Change Backup Batteries. 5. Visually inspect Backup Battery Cables for damage, cracks, or corrosion. 6. Replace Backup Battery Compartment cover.	Batteries are missing, discharged, or unable to hold a charge. Cables are damaged or missing.

UNIT PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) - CONTINUED

Table 1. PMCS.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT IS NOT READY/ AVAILABLE IF:
10	Before	MAST ASSEMBLY	<ol style="list-style-type: none"> 1. Check Mast Hoisting Winch frame and lock mechanism for damage. 2. At Mast Hoisting Winch, check function of winch and brake system. 3. At Mast Hoisting Winch, check operation of brake by rotating the crank handle. There should be a clicking noise from the rotating ratchet wheel when cranking in the "up" direction. <p>NOTE: Brake linings of the winch can be freed by locking the spur gears in place and cranking the winch upwards (clockwise).</p> <ol style="list-style-type: none"> 4. Clean Mast Hoisting Winch Gears with a soft bristle brush to remove excess debris. 5. Visually inspect Mast Hoisting Winch Gears for excessive wear. 6. Lubricate Mast Hoisting Winch Gears and bearings. See WP 0094. 7. At Mast Assembly Mast Light Kit, visually inspect for damage. 8. At Mast Assembly Mast Light Kit, ensure proper installation. 9. At Mast Assembly Flag Mast Marker, visually inspect for damage. 10. At Mast Assembly Flag Mast Marker, ensure proper installation. 11. Visually inspect the Mast Assembly for signs of damage (cracks and missing parts). 12. Inspect the latches and mast tube sections. 13. At Mast Assembly Mast Tilt Bracket inspect the mast assembly for proper operation and damage, loose hardware, and corrosion. 14. At Mast Assembly Mast Tilt Bracket, clean and lubricate the mast tilt bracket bearings. 	<p>Winch frame or lock mechanism is damaged. Winch not functioning properly or no "clicking" noise when rotating crank handle. Winch gears contain excess debris. Winch gears show excess wear. Winch gears worn/ chipped/sprocket loose. Winch gears or bearings not clean or lubricated. Damaged or not operational. Flag mast marker has tears or rips larger than 1 ½ inches or the flag mast marker is missing or faded. Mast hoisting belt is frayed, improperly oriented, or damaged. Counter not replaced at belt change.</p>

UNIT PREVENTIVE MAINTENANCE CHECKS AND SERVICES (PMCS) - CONTINUED

Table 1. PMCS.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT IS NOT READY/ AVAILABLE IF:
			<p>15. At Mast Assembly Mast Pivot Actuator, lubricate two bearings at the pivot actuator with lithium grease. Refer to WP 0095.</p> <p>16. While raising the mast, visually inspect Mast Assembly Belt for fraying, improper orientation, or damage.</p> <p>17. For Mast Assembly Belt replacement, refer to higher-level maintenance.</p> <p>18. For Mast Assembly Counter replacement, at belt replacement refer to higher-level maintenance.</p> <p>19. Replace Mast Assembly Counter at each belt replacement. Record counter numbers of old and new counter.</p> <p>20. At Mast Assembly Dampener, replace dampener if activated (e.g. actuator fails, activating dampener to soften mast assembly fall). Once the dampener is activated, the dampener cannot be reused.</p> <p>21. At Mast Assembly Mast Latches, lubricate every 50 cycles as read by counter.</p> <p>22. At Mast Assembly Guy Ropes and Stakes, inspect continuously for tension and damage (minimum of 12 hours).</p> <p>23. Adjust Mast Assembly Guy Ropes and Stakes as needed.</p>	<p>Mast latches have not been lubricated within the 50 cycles as read by counter. Hoisting belt is damaged or not tensioned. Guy ropes are not securely staked, stakes pulling out of the ground.</p>

Table 1. PMCS.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT IS NOT READY/ AVAILABLE IF:
11	Before	PAYLOAD SUPPORT BRACKET	1. Remove Payload Cover. At Aircraft Warning Beacons, visually inspect for damage and proper operation. 2. At Aircraft Warning Beacons, ensure cables are properly connected. CAUTION: Do not pour/spray liquids on the equipment. 3. At HRFU, visually inspect equipment (including Radome) for damage, dust and debris. 4. At HRFU, clean using a soft, lint-free, anti-static cloth. 5. At HRFU, ensure all cables are connected. 6. At HRFU (if equipped), ensure the ON/OFF toggle switch is ON. 7. Check HRFU mounting hardware and tighten if needed. 8. At HRFU Filter Cartridge, check desiccant window. If PINK, rotate cover counter-clockwise approximately 30 degree and remove desiccant.	Damaged Beacon or Beacon fails to illuminate - Beacon is not operational. Payload cover is missing. Missing or damaged Radome cover (HRFU). Damaged or missing cables. Damaged or state of the desiccant is determined to be no longer usable as indicated by PINK color. Damaged, corroded or not cleaned. Cannot be properly grounded.
			9. Replace desiccant pack. 10. Replace desiccant cover. 11. At INU, visually inspect equipment for damage, corrosion, dust, and debris. 12. At INU, ensure all cables are properly connected. 13. At Lightning Rod Assembly, visually inspect for debris and damage. 14. At Lightning Rod Assembly Ground Cable, visually inspect cable and connectors for damage and corrosion. 15. At HRFU, ensure payload cover is properly installed.	

Table 1. PMCS.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT IS NOT READY/ AVAILABLE IF:
12	Before	SUPPORT EQUIPMENT	<ol style="list-style-type: none"> 1. On the RTEK case, visually inspect the handles, latches, hinges, seals, and foam insert for damage. 2. On the RTEK antenna, Clean using a soft, lint-free, anti-static cloth. 3. On the RTEK antenna, visually inspect the equipment for damage. 4. On the XNDM Laptop case, visually inspect the handles, latches, hinges, seals, and foam inset for damage. 5. On the XNDM Laptop, Clean using a soft, lint-free, anti-static cloth. 6. At XNDM Laptop, visually inspect equipment for damage, including latches, handles, seals, and hinges. Verify power adapter, and cable are present. 7. At XNDM Laptop, verify battery condition/ calibration. 8. Verify XNDM Laptop has latest Post Development Software Support (PDSS) updates. 	<p>Damaged, cable missing, or not operational. Damage prevents equipment from functioning properly.</p> <p>Cooling vents have obstructions that cannot be removed. Dirt, oil, or grease cannot be removed and prevents equipment from functioning properly. Battery is damaged or is not charged. PDSS updates have not been incorporated. Damaged or cannot be properly grounded. Case is damaged. Grounding kit is damaged or missing. Task light is damaged or missing.</p>
			<ol style="list-style-type: none"> 9. At Grounding Kit and Task Light Case, visually inspect case for damage. 10. At Grounding Kit and Task Light Case, visually inspect bounding wire for damage. 11. At Grounding Kit and Task Light Case, visually inspect task light for damage. 12. Visually inspect Surface Wire Ground Kit and connectors for damage. 	

Table 1. PMCS.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT IS NOT READY/ AVAILABLE IF:
	During	Equipment Enclosure	<ol style="list-style-type: none"> 1. At external SEP, ensure all cables are properly connected. 2. At external SEP, ensure dust caps are installed. 3. At internal SEP, ensure all cables are properly connected. 4. At HNR BPU, ensure all cables are properly connected. 5. At HNR BPU filter, visually inspect air filter for blockage or excessive sand or dust. 6. At PDU, ensure all switches and LEDs are operational. 7. At LED Light Assembly, ensure ON/OFF switch is operational and LEDs illuminate. 	
	During	MAST ASSEMBLY	<ol style="list-style-type: none"> 1. Inspect latches and mast tube sections. 2. While raising the mast, visually inspect Mast Assembly Belt for fraying, improper alignment, or damage. 3. At Mast Assembly Dampener, replace dampener if activated (e.g. actuator fails, activating dampener to soften mast assembly fall). Once the dampener is activated, the dampener cannot be reused. 	
	During	BACKUP BATTERY COMPARTMENT	<ol style="list-style-type: none"> 1. Observe Backup Battery Compartment for damage. 2. Observe battery gauge on the PRA to ensure battery is being charged. 	Battery backup cover is damaged or missing, Batteries are unable to hold a charge.
	During	PAYLOAD SUPPORT BRACKET	Verify Aircraft Warning Beacons are operational.	Damaged or nonoperational.
	During	MAST ASSEMBLY GUY ROPES AND STAKES	<ol style="list-style-type: none"> 1. Inspect the mast guy ropes and stakes continuously for tension and damage (minimum every 12 hours). 2. Adjust guy ropes and stakes. 	Damaged or not tensioned. Guy ropes are not securely staked, stakes pulling out of the ground.

Table 1. PMCS.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT IS NOT READY/ AVAILABLE IF:
	After	GUY ROPE ENCLOSURE (CURBSIDE)	<ol style="list-style-type: none"> 1. Visually inspect enclosure and locking pins for damage or corrosion. 2. Visually inspect Guy ropes (qty 11 in curb side enclosure) for damage. 3. Visually inspect guy rope winders for damage. 4. Visually inspect pulley for damage or corrosion. 5. Clean enclosure of foreign matter. 	Enclosure is damaged or corroded. Guy ropes are missing, frayed or cut.
	After	POWER REGENERATION ASSEMBLY (PRA)	<ol style="list-style-type: none"> 1. On the PRA, open cover. 2. On the PRA, Visually inspect equipment, cables, switches, plastic covers, ports, and seals for damage, debris, and dust. 3. On the PRA, clean using a soft, lint-free, anti-static cloth. 4. On the PRA, ensure all cables are properly connected. 5. On the PRA, ensure dust caps are properly installed. 6. On the Power Inverter, open cover. 7. On the Power Inverter, visually inspect equipment, ports, and seals for damage, debris, and dust. 8. On the Power Inverter, clean using a soft, lint-free, anti-static cloth. 9. On the Power Inverter, ensure dust caps are properly installed. 	Damaged or broken or missing switches or not operational.

Table 1. PMCS.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT IS NOT READY/ AVAILABLE IF:
	After	REAR TRAILER STORAGE COMPARTMENT FOR STAKES AND SLEDGE-HAMMER, BASE PLATE EYE BOLT, PIN AND BASE STAKES	<ol style="list-style-type: none"> 1. Visually inspect enclosure for damage. 2. Visually inspect 12 stakes for damage. 3. Visually inspect sledgehammers for damage. 4. Visually inspect baseplate for damage. 5. Visually inspect spikes for damage. 6. Visually inspect eye bar for damage. 7. Clean enclosure of foreign matter. 	Enclosure is damaged or corroded. Stakes are missing or damaged. Sledgehammers are missing or damaged.
	After	CABLE REEL ASSEMBLY	<ol style="list-style-type: none"> 1. On the inside reel, visually inspect for damage and corrosion. 2. On the inside reel, visually inspect cables/connections for damage. 3. On the inside reel, visually inspect for free movement of the reel. 4. On the inside reel, ensure reel locks are present and operational. 5. On the roadside reel, visually inspect cable reel for damage and corrosion. 6. On the roadside reel, visually inspect cables/connections for damage. 7. On the roadside reel, visually inspect for free movement of the reel. 8. On the roadside reel, ensure reel locks are present and operational. 9. On the curbside ground cable reel, visually inspect cable reel for damage and corrosion. 10. On the curbside ground cable reel, visually inspect cables/connections for damage. 11. On the curbside ground cable reel, visually inspect for free movement of the reel. 12. On the curbside reel, ensure reel locks are present and operational. 	Damaged, corroded or not operational. Reel does not move freely, Reel movement is impeded by reel locks.

Table 1. PMCS.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT IS NOT READY/ AVAILABLE IF:
	After	GUY ROPE ENCLOSURE (ROADSIDE)	<ol style="list-style-type: none"> 1. Visually inspect enclosure for damage or corrosion. 2. Visually inspect 11 Guy ropes in curb side enclosure) for damage. 3. Visually inspect Guy rope winders for damage. 4. Visually inspect measuring rope for damage. 5. Clean enclosure of foreign matter. 	Enclosure is damaged or corroded. Guy ropes are missing, frayed or cut. Measuring rope is missing, frayed or cut.
	After	Equipment Enclosure	<ol style="list-style-type: none"> 1. At external SEP, visually inspect equipment, cable ends, and connectors for damage, debris, and dust. 2. Clean the external SEP using a soft, lint-free, anti-static cloth. 3. At external SEP, ensure all cables are properly connected. 4. At external SEP, ensure dust caps are installed. 5. At internal SEP, visually inspect equipment, cable ends, and connectors for damage, debris, and dust. 6. Clean the internal SEP using a soft, lint-free, anti-static cloth. 7. At internal SEP, ensure all cables are properly connected. 	Damaged panel, damaged individual connectors, cables not properly installed, or panel not operational. Damaged or non-operational ECU. Alarms or fault messages present. Damaged or non-operational HNR BPU. HNR BPU damaged. Battery is damaged, swollen or not operational. Damage to GPS Antenna, missing or loose cable. Not operational. DCE/DCE+ Battery are inoperable due to loss of BIOS and/or configuration.

Table 1. PMCS.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT IS NOT READY/ AVAILABLE IF:
			<p>8. At the ECU, visually inspect equipment, cable ends, and connectors for damage, debris, and dust.</p> <p>9. Clean ECU using a soft, lint-free, anti-static cloth.</p> <p>10. At the ECU, ensure all cables are properly connected.</p> <p>11. At HNR BPU, visually inspect equipment, cable ends, and connectors for damage, debris, and dust.</p> <p>12. Clean At HNR BPU, using a soft, lint-free, anti-static cloth.</p> <p>13. At HNR BPU, ensure all cables are properly connected.</p> <p>14. At HNR BPU, ensure dust caps are installed.</p> <p>15. At HNR BPU filter, visually inspect air filter for blockage or excessive sand or dust.</p> <p>16. If HNR BPU filter cleaning is required, use a flat head screw driver to remove retainer and filter to clean.</p> <p>17. Gently use compressed air to clean HNR BPU filter.</p> <p>18. At GPS I/O Block, visually inspect equipment, cable ends, and connectors for damage, debris, and dust.</p> <p>19. Clean GPS I/O Block using a soft, lint-free, anti-static cloth.</p> <p>20. At GPS I/O Block, ensure all cables are properly connected.</p> <p>21. At GPS I/O Block, ensure dust caps are installed.</p> <p>22. Remove the GPS I/O Block battery cover.</p>	

Table 1. PMCS.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT IS NOT READY/ AVAILABLE IF:
			<p>23. At GPS I/O Block, visually inspect the Battery for swelling or leakage.</p> <p>24. At GPS Antenna, visually inspect equipment for damage, debris, and dust.</p> <p>25. Clean the GPS Antenna using a soft, lint-free, anti-static cloth.</p> <p>26. At GPS Antenna, ensure all cables are properly connected.</p> <p>27. At GPS Antenna, ensure dust caps are installed.</p> <p>28. At DCE and DCE+, visually inspect equipment, cable ends, and connectors for damage, debris, and dust.</p> <p>29. Clean DCE and DCE+ using a soft, lint-free, anti-static cloth.</p> <p>30. At DCE and DCE+, ensure all cables are properly connected.</p> <p>31. Remove DCE+ Battery cover.</p> <p>32. Charge DCE Battery.</p> <p>33. DCE (Only) due to non-replaceable DCE battery life, replace DCE as a unit between the fourth and fifth year of service.</p> <p>34. At Power Distribution Unit (PDU), visually inspect equipment for damage, dust, and debris.</p> <p>35. At PDU, ensure all switches and LEDs are OFF.</p> <p>36. At Media Converter, visually inspect equipment for damage, dust, and debris.</p> <p>37. At Media Converter, ensure all cables are properly connected.</p>	

Table 1. PMCS.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT IS NOT READY/ AVAILABLE IF:
			39. At LED Light Assembly, visually inspect equipment for damage, dust, and debris. 40. Clean LED Light Assembly using a soft, lint-free, anti-static cloth. 41. At LED Light Assembly, ensure ON/OFF switch is operational and LEDs illuminate.	
	After	BACKUP BATTERY COMPARTMENT	1. Remove Backup Battery Compartment cover. 2. Visually inspect Backup Batteries for damage, corrosion, swelling, or leaking. 3. At Backup Battery Compartment, replace both sealed lead-acid batteries. 4. Change Backup Batteries. 5. Visually inspect Backup Battery Cables for damage, cracks, or corrosion. 6. Replace Backup Battery Compartment cover.	Batteries are missing, discharged, or unable to hold a charge. Cables are damaged or missing.
	After	MAST ASSEMBLY	1. Check Mast Assembly Winch frame and lock mechanism for damage. 2. At Mast Assembly Winch, check function of winch and brake system. 3. At Mast Assembly Winch, check operation of brake by rotating the crank handle. There should be a clicking noise from the rotating ratchet wheel when cranking in the "up" direction. NOTE: Brake linings of the winch can be freed by locking the spur gears in place and cranking the winch upwards (clockwise). 4. Clean Mast Assembly Winch Gears with a soft bristle brush to remove excess debris. 5. Visually inspect Mast Assembly Winch Gears for excessive wear. 6. Lubricate Mast Assembly Winch Gears and bearings. See WP 0094.	Winch frame or lock mechanism is damaged. Winch not functioning properly or no "clicking noise when rotating crank handle. Winch gears contain excess debris. Winch gears show excess wear. Winch gears worn/ chipped/sprocket loose. Winch gears or bearings not clean or lubricated. Damaged or not operational. Flag mast marker has tears or rips larger than 1 ½ inches or the flag mast marker is missing or faded. Mast assembly belt is frayed, improperly oriented, or damaged. Mast assembly belt is improperly tensioned or exhibits slack. Counter not replaced at belt change.

Table 1. PMCS.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT IS NOT READY/ AVAILABLE IF:
			<p>7. At Mast Assembly Mast Light Kit, visually inspect for damage.</p> <p>8. At Mast Assembly Mast Light Kit, ensure proper installation.</p> <p>9. At Mast Assembly Flag Mast Marker, visually inspect for damage.</p> <p>10. At Mast Assembly Flag Mast Marker, ensure proper installation.</p> <p>11. Visually inspect the Mast Assembly Mast Tubes for signs of damage (cracks and missing parts).</p> <p>12. Inspect the latches and mast tube sections.</p> <p>13. At Mast Assembly Mast Tilt Bracket inspect the mast assembly for proper operation and damage, loose hardware, and corrosion.</p> <p>14. At Mast Assembly Mast Tilt Bracket, clean and lubricate the mast tilt bracket bearings.</p> <p>15. At Mast Assembly Mast Pivot Actuator, lubricate two bearings at the pivot actuator with lithium grease. Refer to WP 0095.</p> <p>16. While raising the mast, visually inspect Mast Assembly Hoisting Belt for fraying, improper orientation, or damage.</p> <p>17. For Mast Assembly Belt replacement, refer to higher-level maintenance.</p> <p>18. For Mast Assembly Counter replacement, at belt replacement refer to higher-level maintenance.</p> <p>19. Replace Mast Assembly Counter at each belt replacement. Record counter numbers of old and new counter.</p>	<p>Mast latches have not been lubricated within the 50 cycles as read by counter. Damaged or not tensioned. Guy ropes are not securely staked, stakes pulling out of the ground.</p>

Table 1. PMCS.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT IS NOT READY/ AVAILABLE IF:
			<p>20. At Mast Assembly Dampener, replace dampener if activated (e.g. actuator fails, activating dampener to soften mast assembly fall). Once the dampener is activated, the dampener cannot be reused.</p> <p>21. At Mast Assembly Mast Latches, lubricate every 50 cycles as read by counter.</p> <p>22. At Mast Assembly Guy Ropes and Stakes, inspect continuously for tension and damage (minimum of 12 hours).</p> <p>23. Adjust Mast Assembly Guy Ropes and Stakes as needed.</p>	
	After	PAYLOAD SUPPORT BRACKET	<p>1. At Aircraft Warning Beacons, visually inspect for damage and proper operation.</p> <p>2. At Aircraft Warning Beacons, ensure cables are properly connected.</p> <p>CAUTION: Do not pour/spray liquids on the equipment.</p> <p>3. At HRFU, visually inspect equipment (including Radome) for damage, dust and debris.</p> <p>4. At HRFU, clean using a soft, lint-free, anti-static cloth.</p> <p>5. At HRFU, ensure all cables are connected.</p> <p>6. At HRFU (if equipped), ensure the ON/OFF toggle switch is ON.</p> <p>7. Check HRFU mounting hardware and tighten if needed.</p> <p>8. At HRFU Filter Cartridge, Desiccant check desiccant window. If PINK, rotate cover counter-clockwise approximately 30 degree and remove desiccant.</p>	<p>Damaged Beacon or Beacon fails to illuminate - Beacon is not operational. Cover is missing. Damaged or not operational. missing Radome cover (HRFU). Damaged or missing cables. Damaged or state of the desiccant is determined to be no longer usable as indicated by PINK color. Damaged, corroded or not cleaned. Cannot be properly grounded.</p>

Table 1. PMCS.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT IS NOT READY/ AVAILABLE IF:
			9. Replace desiccant pack. 10. Replace desiccant cover. 11. At INU, visually inspect equipment for damage, corrosion, dust, and debris. 12. At INU, ensure all cables are properly connected. 13 At Lightning Rod Assembly, visually inspect for debris and damage. 14. At Lightning Rod Assembly Ground Cable, visually inspect cable and connectors for damage and corrosion. 15. At HRFU, ensure payload cover is properly installed.	
	After	SUPPORT EQUIPMENT	1. On the RTEK case, visually inspect the handles, latches, hinges, seals, and foam insert for damage. 2. On the RTEK antenna, Clean using a soft, lint-free, anti-static cloth. 3. On the RTEK antenna, visually inspect the equipment for damage. 4. On the XNDM Laptop case, visually inspect the handles, latches, hinges, seals, and foam inset for damage. 5. On the XNDM Laptop, Clean using a soft, lint-free, anti-static cloth. 6. At XNDM Laptop, visually inspect equipment for damage, including latches, handles, seals, and hinges. Verify power adapter, and cable are present. 7. At XNDM Laptop, verify battery condition/ calibration. 8. Verify XNDM Laptop has latest Post Development Software Support (PDSS) updates.	Damaged, cable missing, or not operational. Damage prevents equipment from functioning properly. Cooling vents have obstructions that cannot be removed. Dirt, oil, or grease cannot be removed and prevents equipment from functioning properly. Battery is damaged or is not charged. PDSS updates have not been incorporated. Damaged or cannot be properly grounded. Case is damaged. Grounding kit is damaged or missing. Task light is damaged or missing.

Table 1. PMCS.

ITEM NO.	INTERVAL	ITEM TO BE CHECKED OR SERVICED	PROCEDURE	EQUIPMENT IS NOT READY/ AVAILABLE IF:
			9. At Grounding Kit and Task Light Case, visually inspect case for damage. 10. At Grounding Kit and Task Light Case, visually inspect bounding wire for damage. 11. At Grounding Kit and Task Light Case, visually inspect task light for damage. 12. Visually inspect Surface Wire Ground Kit and connectors for damage.	
	Minimum Every 12 Hours	MAST ASSEMBLY	At Mast Assembly Guy Ropes and Stakes, inspect continuously for tension and damage (minimum of 12 hours).	Damaged or not tensioned. Guy ropes are not securely staked, stakes pulling out of the ground.
	Every 12 Hours	MAST ASSEMBLY	1. Inspect the mast Guy Ropes and Stakes continuously for tension and damage (minimum every 12 hours). 2. Adjust Guy Ropes and Stakes.	Damaged or not tensioned. Guy ropes are not securely staked, stakes pulling out of the ground.
	Every 4-5 Years	Equipment Enclosure	DCE (Only) due to non-replaceable DCE battery life, replace DCE as a unit between the fourth and fifth year of service.	DCE not operational and P/F LED is illuminated.

END OF WORK PACKAGE