MAINTENANCE TECHNICAL SUPPORT CENTER
HEADQUARTERS MAINTENANCE OPERATIONS
UNITED STATES POSTAL SERVICE

Maintenance Management Order

SUBJECT: Preventive Maintenance Guidelines for Flex Rover Sorter (FRS)

DATE: January 26, 2024

TO: All Maintenance Capable Sites

PUB NO: MMO-009-23
FILE CODE: PF
FILE ID: mm23009
REV LEVEL: ai

Online Change Record		
Change #	**Date**	**Description of Change**
3	6/24/2024	Attachment 1, corrected the placement of roll up numbers for quarterly and semi-annual thresholds and PM time summary hours per year on FRS_AA, FRS_AB, and FRS_AB. Deleted unnecessary bi-annual rows; no bi-annual tasks.
2	3/5/2024	Attachment 2, FRS_AA checklist, Task 80, Inspect Sortation Field Floor. Added "* Per system" for clarity.
1	2/29/2024	Attachment 4, FRS_AC (Control Station), Task 60, Step 2, changed to: With the UPS plugged in and powered on, press, and hold the mute button until the UPS beeps (approximately 2 seconds) then release.

This Maintenance Management Order (MMO) provides preventive maintenance guidelines for the Flex Rover Sorter (FRS). This bulletin applies to Acronym FRS, Class Codes AA, AB, and AC.

The workhours indicated in the workload estimate (Attachment 1) are a calendar-based schedule to reflect the maximum annual workhours required to maintain each system. Management may modify task frequencies to address local conditions.

The minimum maintenance skill level required to perform each task is included in the Minimum Skill Level column of each checklist. This does not preclude higher-level employees from performing any of this work.

Maintenance Managers are to use these preventive maintenance guidelines when preparing the route sheets for local maintenance personnel. It is the responsibility of each Maintenance Manager to ensure all WARNINGS, CAUTIONS, and NOTES are included with each applicable task as part of the preparation of any local route sheets.

WARNING

Various products requiring Safety Data Sheets (SDS) may be utilized during the performance of the procedures in

this bulletin. Ensure the current SDS for each product used is on file and available to all employees. When reordering such a product, it is suggested that current SDS be requested. Refer to SDS for appropriate personal protective equipment.

WARNING

The use of compressed or blown air is prohibited. An alternative cleaning method such as a HEPA filtered vacuum cleaner, a damp rag, lint-free cloth, or brush must be used in place of compressed or blown air.

WARNING

Steps contained in this bulletin may require the use of Electrical Work Plan (EWP) Personal Protective Equipment (PPE). Refer to the current EWP MMO for appropriate EWP PPE and barricade requirements.

For questions or comments concerning this bulletin contact the MTSC HelpDesk, either online at **MTSC>HELPDESK>Create/Update Tickets** or call (800) 366-4123.

Frederick L. Jackson III
Executive Manager
Maintenance Technical Support Center
Asset Maintenance Planning, Performance, and Support

Attachments
1. Summary of Workload Estimate For Flex Rover Sorter (FRS)
2. Master Checklist 03-FRS-AA-001-M – FRS Preventive Maintenance (PM) FRS_AA (Rover)
3. Master Checklist 03-FRS-AB-001-M – FRS Preventive Maintenance (PM) FRS_AB (Battery Charging Station)
4. Master Checklist 03-FRS-AC-001-M – FRS Preventive Maintenance (PM) FRS_AC (Control Station)

ATTACHMENT 1

SUMMARY WORKLOAD ESTIMATE

FOR FLEX ROVER SORTER (FRS)

FRS_AA (Rover)

Configuration	Routine Servicing (hrs/yr)	Repair* (hrs/yr)	Routine Servicing + Repair Time (hrs/yr)	Non-productive Time** (hrs/yr)	Total Servicing Per Machine (hrs/yr)	Operational Maintenance + Total Servicing		
						1 Tour (hrs/yr)	2 Tours (hrs/yr)	3 Tours (hrs/yr)
Single Rover	9.28	2.79	12.07	1.21	13.28	N/A	N/A	N/A

* Repair maintenance estimates based on 30% of preventive maintenance.
** Based on 10% of total PM and repair.

		THRESHOLDS and PM TIME SUMMARY Hrs per Year			OPERATIONAL MAINTENANCE		
		Daily	0.00		0 MIN. PER DAY PER MACHINE		
		Weekly	0.00		1 Tour	2 Tours	3 Tours
		Monthly	8.88	5 Day	0.00	0.00	0.00
		Quarterly	0.20	6 Day	0.00	0.00	0.00
		Semi-Annual	0.20	7 Day	0.00	0.00	0.00
		Annual	0.00				

FRS_AB (Battery Charging Station)

Configuration	Routine Servicing (hrs/yr)	Repair* (hrs/yr)	Routine Servicing + Repair Time (hrs/yr)	Non-productive Time** (hrs/yr)	Total Servicing Per Machine (hrs/yr)	Operational Maintenance + Total Servicing		
						1 Tour (hrs/yr)	2 Tours (hrs/yr)	3 Tours (hrs/yr)
Per Battery Charging Station	1.65	0.5	2.15	0.22	2.37	N/A	N/A	N/A

* Repair maintenance estimates based on 30% of preventive maintenance.
** Based on 10% of total PM and repair.

		THRESHOLDS and PM TIME SUMMARY Hrs per Year			OPERATIONAL MAINTENANCE		
		Daily	0.00		0 MIN. PER DAY PER MACHINE		
		Weekly	0.00		1 Tour	2 Tours	3 Tours
		Monthly	0.00	5 Day	0.00	0.00	0.00
		Quarterly	1.40	6 Day	0.00	0.00	0.00
		Semi-Annual	0.00	7 Day	0.00	0.00	0.00
		Annual	0.25				

FRS_AC (Control Stations – MSA Components/PrimeVision Server)

Configuration	Routine Servicing (hrs/yr)	Repair* (hrs/yr)	Routine Servicing + Repair Time (hrs/yr)	Non-productive Time** (hrs/yr)	Total Servicing Per Machine (hrs/yr)	Operational Maintenance + Total Servicing		
						1 Tour (hrs/yr)	2 Tours (hrs/yr)	3 Tours (hrs/yr)
Per Control Station	4.22	1.27	5.49	0.55	6.04	N/A	N/A	N/A

* Repair maintenance estimates based on 30% of preventive maintenance.
** Based on 10% of total PM and repair.

		THRESHOLDS and PM TIME SUMMARY Hrs per Year			OPERATIONAL MAINTENANCE		
		Daily	0.00		0 MIN. PER DAY PER MACHINE		
		Weekly	0.00		1 Tour	2 Tours	3 Tours
		Monthly	3.47	5 Day	0.00	0.00	0.00
		Quarterly	0.00	6 Day	0.00	0.00	0.00
		Semi-Annual	0.50	7 Day	0.00	0.00	0.00
		Annual	0.25				

	* -- The tasks marked with one asterisk are per unit tasks				
	** -- The tasks marked with two asterisks are critical tasks				
	Frequency Codes (1 AP = 4 Weeks)				
Code	**Frequency**	**Description**	**Code**	**Frequency**	**Description**
A	ANNUAL	Once every 13 APs	B	BI-WEEKLY	Once every half AP
C	BI-MONTHLY	Once every 2 APs	D	DAILY	Once a day; 7 days a week
E	DAILY	Once a day; 6 days a week	F	DAILY	Once a day; 5 days a week
G	DAILY	Once a day; 4 days a week	H	DAILY	Once a day; 3 days a week
J	SEMI-WEEKLY	2 days a week	K	BI-ANNUAL	Once every 26 APs
L	tdl-ANNUAL	Once every 39 APs	M	MONTHLY	Once every AP
N	QUAD-ANNUAL	Once every 52 APs	P	QUINT-ANNUAL	Once every 65 APs
Q	QUARTERLY	4 times every 13 Aps	S	SEMI-ANNUAL	Twice every 13 APs
T	TOURLY	3 times a day; 7 days a week	U	TOURLY	Twice a day; 7 days a week
V	TOURLY	3 times a day; 6 days a week	W	WEEKLY	Once 1/4 AP (a week)
X	TOURLY	Twice a day; 6 days a week	Y	TOURLY	3 times a day; 5 days a week
Z	TOURLY	Twice a day; 5 days a week			
WI(*)	WEEKS INTERVAL	Perform a task once every # weeks e.g., WI(60) = Once every 60 weeks			
		# = number of weeks			

ATTACHMENT 2

FRS MASTER CHECKLIST

03-FRS-AA-001-M

PREVENTIVE MAINTENANCE (PM)

FRS_AA (Rover)

U.S. Postal Service Maintenance Checklist	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	F	R	S						A	A	0	0	1	M
Equipment Nomenclature Flex Rover Sorter	Equipment Model FRS Rover										Bulletin Filename mm23009					Occurrence Calendar

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
SAFETY STATEMENT	1	**COMPLY WITH ALL SAFETY PRECAUTIONS:** Disconnect power and apply lockouts when required by this instruction. Refer to current local lockout procedures to properly shut down and lock out this machine. Check for suspicious dust or unusual debris. If any unusual substance is found, notify supervisor prior to proceeding with any further action on the equipment. **THE USE OF COMPRESSED OR BLOWN AIR IS PROHIBITED:** When cleaning is required, an alternative cleaning method such as a HEPA filtered vacuum cleaner, or a damp rag must be used in place of compressed or blown air. A lint-free cloth or brush may be used on optical equipment only when other cleaning methods cannot be used. Report safety deficiencies to your supervisor immediately upon detection. **WARNING FOR EWP/PPE:** Steps contained in this bulletin may require the use of Electrical Work Plan (EWP) Personal Protective Equipment (PPE). Refer to the current EWP MMO or appropriate EWP PPE and barricade requirements. **WARNING FOR SDS:** Various products requiring Safety Data Sheets (SDS) may be utilized during the performance of the procedures in this bulletin. Ensure the current SDS for each product used is on file and available to all employees. When reordering such a product, it is suggested that current SDS be requested. Refer to SDS for appropriate personal protective equipment.	1	All			

Tasks marked with one asterisk after the time required are per unit tasks.
Tasks marked with two asterisks after the item number are critical tasks.

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
FRS ROVER: EMERGENCY STOP SWITCH	20**	**Test Rover E-Stop.** 1. Enable system. 2. Ensure rover is powered on and enabled. 3. Press E-Stop on rover; observe the following: a. Observe enabled rover in use LED indicator illuminates red. b. Observe the Master Reset Switch green LED indicator is off. c. Observe PV Terminal Computer Notification lists robot as “Emergency Stop”. 4. Reset rover E-Stop. 5. Rotate E-Stop switch clockwise. 6. Press the Master Reset switch. a. Observe rover audible alarm sounds. b. Observe LEDs return to purple/green. 7. Repeat steps 2-4 to test remaining rover E-Stop switches. 8. Remove any rover from system that fails test. 9. Create a work order to address any deficiencies. ***Per rover**	1*	10			M
FRS ROVER: LIDAR SENSOR	30	**Clean Lidar Sensor.** 1. Ensure system and rover is powered off. 2. Using lint free cloth, wipe off dirt and dust front Lidar sensor lens. 3. Power on rover and return to service. ***Per rover**	1*	7			M
FRS ROVER: LIDAR SENSOR	40**	**Test Front Lidar Sensor.** 1. Enable system. 2. Ensure rover is powered on and initialized. 3. Induct rover for testing. 4. Place an object, minimum of 6 inches in height, in rover line of travel. 5. Ensure rover stops prior to impacting object and rover LED illuminates red.	3*	10			M

Tasks marked with one asterisk after the time required are per unit tasks.
Tasks marked with two asterisks after the item number are critical tasks.

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		6. Remove object from rover line of travel. Rover audible alarm sounds, and then LEDs illuminate green, and then green/purple. 7. Observe rover returns to route. 8. Remove any rover from system that fails to stop or impacts object. 9. Create a work order to address any deficiencies. ***Per rover**					
FRS ROVER: CONVEYOR BELT	50	**Check Conveyor Belt Tension.** 1. Ensure system and rovers are powered off. 2. Exercise the conveyor belt by pushing/pulling belt two complete rotations. 3. Use the PrimeVision Belt Tensioning Gauge to measure belt tension on both sides of carrier. 4. Measure tension in center of belt. Tension should read between 5 - 6 on the PrimeVision Belt Tension Gauge. 5. Create a work order to address any deficiencies. Refer to KB0020656 FRS Maintenance Guide and KB0021042 Rover Conveyor Belt Tension Adjustment. ***Per rover**	3*	10			Q
FRS ROVER: UNDERCARRIAGE COMPONENTS	60	**Clean and Inspect Undercarriage Components.** 1. Ensure system and rover is powered off. 2. Remove battery from rover and place in area away from rover. 3. Carefully lean rover over and place rover on its side on top of a cardboard box or drop cloth. 4. Using lint free cloth, wipe built up dirt, dust, or debris from floor camera lens. 5. Use a shop towel to wipe drive wheels and chassis idler wheels to remove any built-up dirt or debris.	5*	ALL			S

Tasks marked with one asterisk after the time required are per unit tasks.
Tasks marked with two asterisks after the item number are critical tasks.

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		6. Ensure each suspension grommet is attached to the rover undercarriage and suspension frame. 7. Stand-up rover and reinsert battery. 8. Power on system and return rover to service. ***Per rover**					
FRS ROVER BATTERY	70	**Inspect Rover Batteries.** Perform detailed inspection of each FRS Rover Battery. 1. Inspect the battery container and ensure the labels are properly applied and legible. 2. Inspect the front and rear container of each battery for damage and loose screws. 3. Conduct the rotational test on each battery to ensure internal battery pack is securely mounted. 4. Create a work order for any battery that has visible damage or a loose battery pack. *** Per Battery** Reference MMO-123-23 - FRS Battery and Damage Inspection for additional instructions. Reference KB0021717 FRS Battery Procedures.	*1	07			S
FRS SORTATION FIELD FLOOR	80	**Inspect Sortation Field Floor.** 1. Inspect the entire Sortation Field Floor for any signs of damage or wear along the rovers' traveling paths. 2. Create a work order floor issues and open ticket to notify MTSC. *** Per system** Reference MMO-117-23 FRS Floor Maintenance Guidelines. Reference KB0021691 FRS Floor Field Repair Procedures.	30	09			M
CLEAN: FINAL	90	**Clean Up.** 1. Ensure all tools, lubricants, rags, etc., are removed from the work area. 2. Note any deficiencies and generate a work order/report them to supervisor.	5	ALL			

Tasks marked with one asterisk after the time required are per unit tasks.
Tasks marked with two asterisks after the item number are critical tasks.

ATTACHMENT 3

FRS MASTER CHECKLIST

03-FRS-AB-001-M

PREVENTIVE MAINTENANCE (PM)

FRS_AB (Battery Charging Station)

U.S. Postal Service Maintenance Checklist	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	F	R	S						A	B	0	0	1	M
Equipment Nomenclature: Flex Rover Sorter	Equipment Model: Battery Charging Station										Bulletin Filename: mm23009		Occurrence: Calendar			

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
SAFETY STATEMENT	1	**COMPLY WITH ALL SAFETY PRECAUTIONS:** Disconnect power and apply lockouts when required by this instruction. Refer to current local lockout procedures to properly shut down and lock out this machine. Check for suspicious dust or unusual debris. If any unusual substance is found, notify supervisor prior to proceeding with any further action on the equipment. **THE USE OF COMPRESSED OR BLOWN AIR IS PROHIBITED:** When cleaning is required, an alternative cleaning method such as a HEPA filtered vacuum cleaner, or a damp rag must be used in place of compressed or blown air. A lint-free cloth or brush may be used on optical equipment only when other cleaning methods cannot be used. Report safety deficiencies to your supervisor immediately upon detection. **WARNING FOR EWP/PPE:** Steps contained in this bulletin may require the use of Electrical Work Plan (EWP) Personal Protective Equipment (PPE). Refer to the current EWP MMO or appropriate EWP PPE and barricade requirements. **WARNING FOR SDS:** Various products requiring Safety Data Sheets (SDS) may be utilized during the performance of the procedures in this bulletin. Ensure the current SDS for each product used is on file and available to all employees. When reordering such a product, it is suggested that current SDS be requested. Refer to SDS for appropriate personal protective equipment.	1	All			

Tasks marked with one asterisk after the time required are per unit tasks.
Tasks marked with two asterisks after the item number are critical tasks.

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
FRS BATTERY CHARGING CABINET: CABINET	20	**Clean FRS Battery Charging Cabinet.** 1. Remove power from the charging cabinet. 2. Wipe exterior surfaces of cabinet using a lint free cloth. 3. Inspect front and rear power cables for tears, nicks, gouges, and other deformities. 4. Verify tight cable connections in cable ports. 5. Inspect battery compartment latches. a. Ensure latches are firmly connected to frame. b. Ensure batteries properly seat in compartment. c. Insert a spare battery into any open compartment to ensure battery seats properly. 6. Restore power to charging cabinet. a. Observe cabinet cooling fans come on. b. Observe power LEDs illuminate white. c. Observe charge status LEDs illuminate and flash indicating battery charging. d. Observe charge status LEDs remain solid on fully charged battery compartment(s). 7. Generate a work order to address any discrepancies. ***Per charging cabinet**	15*	7			A
FRS BATTERY CHARGING STATION	30	**Inspect Battery Charging Station Hardware.** Perform inspection of each charging station cables and battery enclosures. 1. Remove any batteries from the charging station cabinet. 2. Lockout charging station per local Lockout/Tagout guidelines. 3. Inspect the station main power cable for cuts, cracks, nicks, and abrasions. 4. Inspect the charge station power and enclosure cables for cuts, cracks, nicks, and abrasions. 5. Check station cable connections are properly seated into ports.	*15	07			Q

Tasks marked with one asterisk after the time required are per unit tasks.
Tasks marked with two asterisks after the item number are critical tasks.

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		6. Inspect the enclosure battery locks for functionality. a. Insert a battery into the enclosure and ensure the battery locks receive battery properly and b. The inserted battery container should be flush with the face of the charge enclosure. 7. Inspect the PCB, cable/cable connection for any signs of damage and inspect PCB mounting standoffs to ensure they are tightly secured to the enclosure box. 8. Remove lockout device and restore power to charge station. 9. Reinsert previously removed batteries. 10. Inspect the enclosure LED activity lights are functioning for each enclosure. LED activity light flashes while charging and remains steady when battery is fully charged. 11. Generate a work order for any discrepancies found. *** Per Battery Charging Station** Reference KB0021723 FRS Battery Charging Station Procedures for additional information.					
CLEAN: FINAL	40	**Clean Up.** 1. Ensure all tools, lubricants, rags, etc., are removed from the work area. 2. Note any deficiencies and generate a work order/report them to supervisor.	5	ALL			

Tasks marked with one asterisk after the time required are per unit tasks.
Tasks marked with two asterisks after the item number are critical tasks.

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ATTACHMENT 4

FRS MASTER CHECKLIST

03-FRS-AC-001-M

PREVENTIVE MAINTENANCE (PM)

FRS_AC (Control Station)

U.S. Postal Service	IDENTIFICATION															
Maintenance Checklist	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	F	R	S						A	C	0	0	1	M

Equipment Nomenclature	Equipment Model	Bulletin Filename	Occurrence
Flex Rover Sorter	Control Station	mm23009	Calendar

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
SAFETY STATEMENT	1	**COMPLY WITH ALL SAFETY PRECAUTIONS:** Disconnect power and apply lockouts when required by this instruction. Refer to current local lockout procedures to properly shut down and lock out this machine. Check for suspicious dust or unusual debris. If any unusual substance is found, notify supervisor prior to proceeding with any further action on the equipment. **THE USE OF COMPRESSED OR BLOWN AIR IS PROHIBITED:** When cleaning is required, an alternative cleaning method such as a HEPA filtered vacuum cleaner, or a damp rag must be used in place of compressed or blown air. A lint-free cloth or brush may be used on optical equipment only when other cleaning methods cannot be used. Report safety deficiencies to your supervisor immediately upon detection. **WARNING FOR EWP/PPE:** Steps contained in this bulletin may require the use of Electrical Work Plan (EWP) Personal Protective Equipment (PPE). Refer to the current EWP MMO or appropriate EWP PPE and barricade requirements. **WARNING FOR SDS:** Various products requiring Safety Data Sheets (SDS) may be utilized during the performance of the procedures in this bulletin. Ensure the current SDS for each product used is on file and available to all employees. When reordering such a product, it is suggested that current SDS be requested. Refer to SDS for appropriate personal protective equipment.	1	All			

Tasks marked with one asterisk after the time required are per unit tasks.
Tasks marked with two asterisks after the item number are critical tasks.

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
SERVER CABINET: UPS	50**	**Test PrimeVision FRS Server Cabinet UPS Functionality.** The FRS Server UPS conducts a self-test automatically every 14 days. 1. Select the **Return** key to select Main Menu: Status. 2. Select the **down arrow** key twice to Test and Diags. a. Select the **RETURN** key to enter. b. Select **RETURN** key on UPS Self-Test prompt. c. Select **Up arrow** key to display “Yes”. d. Select **RETURN** key to start Self-Test. e. Self-test performs and displays “Passed”. 3. Press the **ESC** key twice to return to Load/Battery level display. 4. Create a work order to address any deficiencies.	5	10			M
MSA HAMMERHEAD CABINET: UPS	60**	**Test FRS Terminal and Manual Sortation Appliance (MSA) Computer UPS Functionality.** Perform self-test of the UPS. 1. To conduct a self-test, leave the connected equipment powered on. 2. With the UPS plugged in and powered on, press, and hold the mute button until the UPS beeps (approximately 2 seconds) then release. • All LEDs will be lit, and the UPS will emit several short beeps as it switches over to battery to test the charge and load capacity. • Test will last up to 10 seconds. • If the inverter is overloaded, the tripped LED will remain lit, and the UPS will continue to beep after the test. The trip LED is the indicator next to the mute button. 3. If this condition occurs, power off one of the computers and unplug from the UPS, perform Step 2 again.	5*	10			M

Tasks marked with one asterisk after the time required are per unit tasks.
Tasks marked with two asterisks after the item number are critical tasks.

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		• If the batteries are weak, the battery warning LED will remain on, and UPS will continue to beep. • Battery Warning LED is the battery icon with a line through it. 4. Remove UPS, perform a charge on the UPS with no load for 12 hours, and then repeat self-test. 5. If the self-test fails again, replace UPS. 6. Create a work order to address any deficiencies. ***Per cabinet**					
MSA HAMMERHEAD CABINET: FRS TERMINAL COMPUTER	70	**Clean FRS Terminal, Manual Sortation Appliance (MSA) Computers, and Hammerhead Cabinet.** 1. Power off FRS terminal and MSA computers. 2. Power off cabinet UPS. 3. Clean interior cabinet and monitor enclosure using an approved HEPA filter shop vacuum. 4. Wipe dust and debris from monitor enclosure transparent glass and exterior cabinet surfaces using a lint free cloth. 5. Wipe dust and debris from computer keyboard and mouse devices. 6. Ensure cables are intact with no exposed wires from rubbing cabinet edges. 7. Check cables are wire tied and routed in an orderly fashion. 8. Power on cabinet UPS. 9. Power on FRS terminal and MSA computers. 10. Create a work order to address any discrepancies. ***Per cabinet**	15*	10			S
SERVER CABINET: SERVER	80	**Clean PrimeVision FRS Server Cabinet.** 1. Power off the cabinet UPS. PrimeVision servers, router, and access point will power off. 2. Remove the front covers and filter screens on both primary/secondary servers.	15	ALL			A

Tasks marked with one asterisk after the time required are per unit tasks.
Tasks marked with two asterisks after the item number are critical tasks.

Part or Component	Item No	Task Statement and Instruction (Comply with all current safety precautions)	Est. Time Req (min)	Min. Skill Lev	Thresholds		
					Run Hours	Pieces Fed (000)	Freq.
		3. Clean the filter screens using an approved HEPA filter shop vacuum. 4. Clean dust and debris from server and UPS chassis using HEPA filter shop vacuum. 5. Wipe dust and debris from cabinet interior and exterior surfaces using a lint free cloth. 6. Replace the filter screens and front covers on both primary/secondary servers. 7. Power on the cabinet UPS. 8. Observe servers, router and access points power up.					
CLEAN: FINAL	90	**Clean Up.** 1. Ensure all tools, lubricants, rags, etc., are removed from the work area. 2. Note any deficiencies and generate a work order/report them to supervisor.	5	ALL			

Tasks marked with one asterisk after the time required are per unit tasks.
Tasks marked with two asterisks after the item number are critical tasks.