MAINTENANCE TECHNICAL SUPPORT CENTER
HEADQUARTERS MAINTENANCE OPERATIONS
UNITED STATES POSTAL SERVICE

Maintenance Management Order

SUBJECT: Operational & Operational & Preventive Maintenance Guidelines for the Robotic Containerization System (RCS II)

TO: All RCS II Sites

DATE: June 2, 2015

NO: MMO-061-15

FILE CODE: TM4

dpen: mm14124ad

This Maintenance Management Order (MMO) provides Operational & Preventive Maintenance (PM) Guidelines for the Robotic Containerization System (RCS II). **This MMO supersedes MMO-007-08.** This bulletin applies to acronym RCS II and Class Code AB.

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

The work hours represented in this MMO reflect the maximum work hours required to maintain the equipment. Given local conditions, management may modify task frequencies.

The attached master checklists provides tasks to be performed at periodic intervals (Daily, Weekly, Monthly, Semi-Annual, and Operational Maintenance), time required per task, and the minimum skill level for each task.

WARNING

Various products requiring Material Safety Data Sheets (MSDS) may be utilized during the performance of the procedures in this bulletin. Ensure the current MSDS for each product used is on file and available to all employees. When reordering such a product, it is suggested that current MSDS be requested. Refer to MSDS 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.

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.

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

Andy L. Henderson
Manager (A)
Maintenance Technical Support Center
HQ Maintenance Operations

Attachments:
1. Summary, Workload Estimate for Robotic Containerization System II
2. RCS Master Checklist: 03-RCS-AB-001-M: Daily
3. RCS Master Checklist: 03-RCS-AB-002-M: Weekly
4. RCS Master Checklist: 03-RCS-AB-003-M: Monthly
5. RCS Master Checklist: 03-RCS-AB-004-M: Quarterly
6. RCS Master Checklist: 03-RCS-AB-005-M: Annual
7. RCS Master Checklist: 03-RCS-AB-006-M: Two Year
8. RCS Master Checklist: 03-RCS-AB-007-M: Three Year
9. RCS Master Checklist: 09-RCS-AB-001-M: Operational

ATTACHMENT 1

SUMMARY

WORKLOAD ESTIMATE

FOR

ROBOTIC CONTAINERIZATION SYSTEM II

SUMMARY
WORKLOAD ESTIMATE
FOR RCS II

Days of Operation	Routine Servicing (Hrs/Yr)	Repair* (Hrs/Yr)	Total Servicing & Repair Time (Hrs/Yr)	Non-Productive Time ** (Hrs/Yr)	Total Servicing Per Machine (Hrs/Yr)	Operational Maintenance + Total Servicing		
						1 Tour	2 Tours	3 Tours
5 Day	339.39	67.88	407.27	40.73	447.99	556.33	664.66	
6 Day	396.59	79.32	475.91	47.59	523.50	653.50	783.50	
7 Day	453.79	90.76	544.55	54.45	599.00	750.67	902.34	

NOTES

∗Repair estimates based on 20% of servicing.

∗∗Based on 10% of total servicing and repair.

ITEM	TASK TIME	MULTIPLIER FACTOR	TOTAL MINUTES
1	1	1	1
2	1	1	1
3	1	3	3
4	1	3	3
5	1	3	3
6	1	3	3
7	2	3	6
8	5	1	5
			25

CHECKLIST	TOTAL MINUTES
Daily	66
Weekly	35
Monthly	65
Quarterly	75
Annual	86
Two Years	321
Three Years	171

ATTACHMENT 2

RCS MASTER CHECKLIST

03-RCS-AB-001-M

DAILY

Time Total: 66 Minutes

Refer to MS-192 if additional maintenance information is required.

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	R	C	S						A	B	0	0	1	M
Equipment Nomenclature: Robotic Containerization System	Equipment Model: RCS II										Bulletin Filename: MM14124AD					Frequency: DAILY

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)	Weeks
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. Open equipment and inspect dust conditions. 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 for appropriate EWP PPE and barricade requirements.**	1	All			
		WARNING **Ensure no one is standing in the safeguarded space around the robot and the motion settings for jogging are correctly set. Carelessness can result in personal injury or damage to the equipment.**					
		WARNING **Be cautious when working around or on equipment when power has been applied.**					

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	R	C	S						A	B	0	0	1	M
Equipment Nomenclature: Robotic Containerization System	Equipment Model: RCS II										Bulletin Filename: MM14124AD		Frequency: DAILY			

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)	Weeks
SYSTEM	2.	**Check the maintenance and failure log reports.** 1. Generate the reports from the Reports screen on the Human Machine Interface (HMI). 2. Look for alarms and faults indicating problems with the machine operation.	3	10			
SYSTEM	3.	**Check warning horns and lights for proper operation**. Check warning horns and lights using the HMI lamp test.	3	9			
ROBOT	4.	**Check the calibration of Robot 1.** Check the calibration of Robot 1 by running the Calibration 840 Routine per instructions in MS-192, Volume B, Section 4.	5	9			
GRIPPER	5.	**Jog Robot 1 gripper to an inspection position**. Jog Robot 1 gripper to an inspection position per instructions in MS-192, Volume B, Section 4.	1	9			
	6.	**Check Robot 1 gripper for proper operation**. Check Robot 1 gripper for proper operation using the Griptest Routine per instructions in MS-192, Volume B, Section 4.	2	9			
ROBOT	7.	**Check the calibration of Robot 2**. Check the calibration of Robot 2 by running the Calibration 840 Routine per instructions in MS-192, Volume B, Section 4.	5	9			
GRIPPER	8.	**Jog Robot 2 gripper to an inspection position.** Jog Robot 2 gripper to an inspection position per instructions in MS-192, Volume B, Section 4.	1	9			
	9.	**Check Robot 2 gripper for proper operation**. Check Robot 2 gripper for proper operation using the Griptest Routine per instructions in MS-192, Volume B, Section 4.	2	9			
PNEUMATIC SYSTEM	10.	**Check main pneumatic panel air pressure**. 1. Check main pneumatic panel air pressure gauge for 75-80 PSI. 2. Report any deficiencies to supervisor.	1	7			
	11.	**Check Robot 1 main conveyor air pressure**. 1. Check Robot 1 main conveyor air pressure gauge for 60 ± 3 PSI. 2. Report any deficiencies to supervisor.	1	7			

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	R	C	S						A	B	0	0	1	M
Equipment Nomenclature: Robotic Containerization System	Equipment Model: RCS II										Bulletin Filename: MM14124AD					Frequency: DAILY

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)	Weeks
PNUEMATIC SYSTEM	12.	**Check Robot 1 gripper air pressure** 1. Check both gripper air gauges for 35 ± 2 PSI. 2. Report any deficiencies to supervisor.	1	7			
PNEUMATIC SYSTEM	13.	**Check Robot 2 main conveyor air pressure**. 1. Check Robot 2 main conveyor air pressure gauge for 60 ± 3 PSI. 2. Report any deficiencies to supervisor.	1	7			
PNUEMATIC SYSTEM	14.	**Check Robot 2 gripper air pressure** 1. Check both gripper air gauges for 35 ± 2 PSI. 2. Report any deficiencies to supervisor.	1	7			
SYSTEM	15.	**Power down and lock out power.** Power down the machine and lock out its electrical power sources as prescribed by the current local lockout/restore procedures.	15	9			
GRIPPER	16.	**Robot 1 gripper cleaning and check.** 1. Clean mail containment plate guide shafts using a clean lint free cloth. Do not lubricate shafts. 2. Check for smooth operation of the mail containment plate by manually raising and lowering the plate. 3. Check gripper fingers for visible physical damage. 4. Check shelf lowering spring plunger for visible physical damage. 5. Check shelf lowering fingers for visible physical damage. 6. Check removable harness assembly for visible physical damage.	4	7			
CONVEYOR	17.	**Check Robot 1 right angle transfer belts.** 1. Check both Robot 1 right angle transfers for visibly cracked, torn, or missing belts. 2. Report any deficiencies to supervisor.	2	7			

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	R	C	S						A	B	0	0	1	M
Equipment Nomenclature Robotic Containerization System	Equipment Model RCS II										Bulletin Filename MM14124AD					Frequency DAILY

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)	Weeks
GRIPPER	18.	**Robot 2 gripper cleaning and check**. 1. Clean mail containment plate guide shafts using a clean lint free cloth. Do not lubricate shafts. 2. Check for smooth operation of the mail containment plate by manually raising and lowering the plate. 3. Check gripper fingers for visible physical damage. 4. Check shelf lowering spring plunger for visible physical damage. 5. Check shelf lowering fingers for visible physical damage. 6. Check removable harness assembly for visible physical damage.	4	7			
CONVEYOR	19.	**Check Robot 2 right angle transfer belts.** 1. Check both Robot 2 right angle transfers for visibly cracked, torn, or missing belts. 2. Report any deficiencies to supervisor.	2	7			
MAIL SEARCH	20.	**Perform a mail search.** Search for mail pieces in and under machine.	6	7			
CLEAN UP	21.	**Clean up.** Ensure all tools, lubricants, rags, etc., are removed from the work area. Report all deficiencies to supervisor.	2	All			
		WARNING **Be cautious when working around or on equipment when power has been applied.**					
SYSTEM POWER	22.	**Restore power.** Remove lockouts, restore power, and return machine to operational status as prescribed by the current local lockout instructions providing lockout/restore procedures.	3	9			

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	R	C	S						A	B	0	0	1	M
Equipment Nomenclature: Robotic Containerization System	Equipment Model: RCS II										Bulletin Filename: MM14124AD					Frequency: DAILY

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)	Weeks

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ATTACHMENT 3

RCS MASTER CHECKLIST

03-RCS-AB-002-M

WEEKLY

Time Total: 35 Minutes

Refer to MS-192 if additional maintenance information is required.

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	R	C	S						A	B	0	0	2	M
Equipment Nomenclature: Robotic Containerization System	Equipment Model: RCS II										Bulletin Filename: MM14124AD					Frequency: WEEKLY

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)	Weeks
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. Open equipment and inspect dust conditions. 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 for appropriate EWP PPE and barricade requirements.**	1	All			
		WARNING **Be cautious when working around or on equipment when power has been applied.**					
SYSTEM	2.	**Power down and lock out power.** Power down the machine and lock out its electrical and pneumatic power sources as prescribed by the current local lockout/restore procedures.	15	9			
CAMERA	3.	**Infeed and robot cameras.** Clean infeed and robot windows with a clean lint-free cloth.	6	7			
CONVEYOR	4.	**Clean SMM tray storage stand photo eyes**. Clean SMM tray storage stand photo eyes with a clean lint-free cloth.	8	7			

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	R	C	S						A	B	0	0	2	M
Equipment Nomenclature: Robotic Containerization System	Equipment Model: RCS II										Bulletin Filename: MM14124AD					Frequency: WEEKLY

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)	Weeks
CLEAN UP	5.	**Clean up.** Ensure all tools, lubricants, rags, etc., are removed from the work area. Report all deficiencies to supervisor.	2	All			
		WARNING **Be cautious when working around or on equipment when power has been applied.**					
SYSTEM	6.	**Restore power.** Remove lockouts, restore power, and return machine to operational status as prescribed by the current local lockout instructions providing lockout/restore procedures.	3	9			

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	R	C	S						A	B	0	0	2	M
Equipment Nomenclature: Robotic Containerization System	Equipment Model: RCS II										Bulletin Filename: MM14124AD					Frequency: WEEKLY

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)	Weeks

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ATTACHMENT 4

RCS MASTER CHECKLIST

03-RCS-AB-003-M

MONTHLY

Time Total: 65 Minutes

Refer to MS-192 if additional maintenance information is required.

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	R	C	S						A	B	0	0	3	M
Equipment Nomenclature: Robotic Containerization System	Equipment Model: RCS II										Bulletin Filename: MM14124AD					Frequency: MONTHLY

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)	Weeks
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. Open equipment and inspect dust conditions. 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 for appropriate EWP PPE and barricade requirements.**	1	All			
		WARNING **Be cautious when working around or on equipment when power has been applied.**					
SYSTEM	2.	**Operate all emergency stops and emergency stop pull cords to check for proper operation.** Verify correct operation of emergency stops and emergency pull cords by: 1. Ensuring machine stops when the emergency stop is pressed or the emergency stop pull cord is pulled. 2. Observing emergency stop indicator lamp on the emergency stop switch illuminates when the emergency stop is pressed or emergency stop pull cord is pulled. 3. Observing emergency stop indicator on the	8	7			

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	R	C	S						A	B	0	0	3	M
Equipment Nomenclature: Robotic Containerization System	Equipment Model: RCS II										Bulletin Filename: MM14124AD		Frequency: MONTHLY			

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)	Weeks
		Human Machine Interface (HMI) Main screen graphic display. A red indicator will appear at the location of emergency stop or pull cord as represented on HMI Main screen graphic display when emergency stop is pressed or emergency stop pull cord is pulled. 4. Report any deficiencies to supervisor.					
	3.	**Operate the Lexan door safety interlocks.** Verify correct operation of the Lexan door safety interlocks by: 1. Observing Lexan door interlock indicator on the HMI Main screen graphic display. A red indicator box will appear at the location of the Lexan safety door as represented on the HMI Main screen graphic display when the Lexan door safety interlock is operated by opening the Lexan safety door. 2. Report any deficiencies to supervisor.	4	7			
CONVEYOR	4.	**Check the conveyor drive rollers for proper speed setting**. Check conveyor drive rollers for proper speed setting per instructions in MS-192, Volume B, Section 4.	12	9			
SYSTEM	5.	**Power down and lock out power.** Power down the machine and lock out its electrical and pneumatic power sources as prescribed by the current local lockout/restore procedures.	15	9			
CONVEYOR	6.	**Clean conveyor photo eyes**. Clean all main conveyor photo eye sensors and reflectors with a clean lint-free cloth.	8	7			
	7.	**Check all main conveyor system roller drive belts**. 1. Observe if any belts are damaged or missing. 2. Report any deficiencies to supervisor.	12	7			
CLEAN UP	8.	**Clean up.** Ensure all tools, lubricants, rags, etc., are removed from the work area. Report all deficiencies to supervisor.	2	All			

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	R	C	S						A	B	0	0	3	M
Equipment Nomenclature: Robotic Containerization System	Equipment Model: RCS II										Bulletin Filename: MM14124AD		Frequency: MONTHLY			

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)	Weeks
		WARNING **Be cautious when working around or on equipment when power has been applied.**					
SYSTEM	9.	**Restore power.** Remove lockouts, restore power, and return machine to operational status as prescribed by the current local lockout instructions providing lockout/restore procedures.	3	9			

ATTACHMENT 5

RCS MASTER CHECKLIST

03-RCS-AB-004-M

QUARTERLY

Time Total: 75 Minutes

Refer to MS-192 if additional maintenance information is required.

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	R	C	S						A	B	0	0	4	M
Equipment Nomenclature: Robotic Containerization System	Equipment Model: RCS II										Bulletin Filename: MM14124AD					Frequency: QUARTERLY

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)	Weeks
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. Open equipment and inspect dust conditions. 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 for appropriate EWP PPE and barricade requirements.**	1	All			
		WARNING **Be cautious when working around or on equipment when power has been applied.**					
SYSTEM CONSOLE	2.	**Check uninterruptible power supply**. Check uninterruptible power supply by verifying the Battery OK green LED is lit.	1	7			
	3.	**Check system console cabinet fans**. Check system console cabinet fans for proper operation by testing for airflow. Test airflow by feeling for air movement.	1	9			
CONVEYOR	4.	**Check MCP 1 fans for proper operation**. Check MCP 1 fans for proper operation by testing for airflow. Test airflow by feeling for air movement.	1	9			

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	R	C	S						A	B	0	0	4	M
Equipment Nomenclature: Robotic Containerization System	Equipment Model: RCS II										Bulletin Filename: MM14124AD					Frequency: QUARTERLY

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)	Weeks
ROBOT	5.	**Check Robot 1 S4C Robot Controller fans for proper operation.** Check Robot 1 S4C Robot Controller fans for proper operation by testing for airflow. Test airflow by feeling for air movement.	1	9			
CONVEYOR	6.	**Check MCP 2 fans for proper operation**. Check MCP 2 fans for proper operation by testing for airflow. Test airflow by feeling for air movement.	1	9			
ROBOT	7.	**Check Robot 2 S4C Robot Controller fans for proper operation.** Check Robot 2 S4C Robot Controller fans for proper operation by testing for airflow. Test airflow by feeling for air movement.	1	9			
PNEUMATIC SYSTEM	8.	**Conduct ultrasonic scan of pneumatic system**. Conduct ultrasonic scan of pneumatic system to identify any air leaks.	8	9			
SYSTEM	9.	**Power down and lockout power.** Power down the machine and lock out its electrical power source as prescribed by the current local lockout/restore procedures.	15	9			
SYSTEM CONSOLE	10.	**Clean system console cabinet air filters.** Clean by vacuuming system console cabinet air filters.	2	7			
CONVEYOR	11.	**Clean MCP 1 air filters.** Clean by vacuuming MCP 1 air filters.	2	7			
ROBOT	12.	**Clean Robot 1 S4C Robot Controller air filters.** Clean by vacuuming Robot 1 S4C Robot Controller air filters.	2	7			
CONVEYOR	13.	**Clean MCP 2 air filters.** Clean by vacuuming MCP 2 air filters.	2	7			
ROBOT	14.	**Clean Robot 2 S4C Robot Controller air filters.** Clean by vacuuming Robot 2 S4C Robot Controller air filters.	2	7			
ROBOT	15.	**Verify MEMOLUB automatic lubricators are operating**. Verify the MEMOLUB automatic lubricators are operating by using the indicator labels to confirm the level of grease has changed since the last reading.	10	7			
CONVEYOR	16.	**Lubricate the right angle transfer linear guide bearings**. Lubricate the right angle transfer linear guide bearings at all four transfer stations. Apply two strokes (3 gm) of Klüber Microlube GL261 at each of the four (4) grease manifold fittings.	8	7			

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	R	C	S						A	B	0	0	4	M
Equipment Nomenclature: Robotic Containerization System	Equipment Model: RCS II										Bulletin Filename: MM14124AD					Frequency: QUARTERLY

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)	Weeks
	17.	**Lubricate the tray tub lift linear guide bearings**. Lubricate the tray tub lift linear guide bearings at both lift stations. Apply 1 ml of ISO VG 10 to 20 weight oil at each of the two (2) oil fittings.	12	7			
CLEAN UP	18.	**Clean up.** Ensure all tools, lubricants, rags, etc., are removed from the work area. Report all deficiencies to supervisor.	2	All			
		WARNING **Be cautious when working around or on equipment when power has been applied.**					
SYSTEM	19.	**Restore power.** Remove lockouts, restore power, and return machine to operational status as prescribed by the current local lockout instructions providing lockout/restore procedures.	3	9			

ATTACHMENT 6

RCS MASTER CHECKLIST

03-RCS-AB-005-M

ANNUAL

Time Total: 86 Minutes

Refer to MS-192 if additional maintenance information is required.

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	R	C	S						A	B	0	0	5	M
Equipment Nomenclature Robotic Containerization System	Equipment Model RCS II										Bulletin Filename MM14124AD					Frequency ANNUAL

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)	Weeks
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. Open equipment and inspect dust conditions. 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 for appropriate EWP PPE and barricade requirements.**	1	All			
		WARNING **Ensure no one is standing in the safeguarded space around the robot and that the motion settings for jogging are correctly set. Carelessness can result in personal injury or damage to the equipment.**					
		WARNING **Be cautious when working around or on equipment when power has been applied.**					
SYSTEM	2.	**Conduct thermal scan of the power distribution panel.** 1. Don PPE as required by current EWP MMO.	14	9			

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	R	C	S						A	B	0	0	5	M
Equipment Nomenclature: Robotic Containerization System	Equipment Model: RCS II										Bulletin Filename: MM14124AD					Frequency: ANNUAL

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)	Weeks
		2. Power down the machine. 3. Open the power distribution panel. 4. Restore power and return machine to operational status. 5. Scan the interior of the power distribution panel using a thermal imaging camera. 6. Look for anomalies indicating a high resistance connection or other problem. 7. Close power distribution panel.					
SYSTEM	3.	**Power Down And Lockout Power.** Power down the machine and lockout its power as prescribed by the current local lockout instructions providing lockout/restore procedures.	14	9			
ROBOT	4.	**Check Robot 1 axis 1 belts.** 1. Check for dirt and grease buildup. 2. Check for wear or damage. 3. Check for proper alignment and tracking.	10	9			
	5.	**Check Robot 1 axis 2 belts.** 1. Check for dirt and grease buildup. 2. Check for wear or damage. 3. Check for proper alignment and tracking.	4	9			
	6.	**Check Robot 1 axis 3 belts.** 1. Check for dirt and grease buildup. 2. Check for wear or damage. 3. Check for proper alignment and tracking.	4	9			
	7.	**Check Robot 2 axis 1 belts.** 1. Check for dirt and grease buildup. 2. Check for wear or damage. 3. Check for proper alignment and tracking.	10	9			
	8.	**Check Robot 2 axis 2 belts.** 1. Check for dirt and grease buildup.	4	9			

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	R	C	S						A	B	0	0	5	M
Equipment Nomenclature: Robotic Containerization System	Equipment Model: RCS II										Bulletin Filename: MM14124AD					Frequency: ANNUAL

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)	Weeks
		2. Check for wear or damage. 3. Check for proper alignment and tracking.					
	9.	**Check Robot 2 axis 3 belts.** 1. Check for dirt and grease buildup. 2. Check for wear or damage. 3. Check for proper alignment and tracking.	4	9			
		WARNING **Discard solvent soaked materials according to local procedures to prevent spontaneous combustion.**					
ROBOT	10.	**Check Robot 1, axis 1, gearbox for proper oil level.** 1. Clean immediate area around the axis 1 gearbox oil level plug. 2. Loosen and remove axis 1 gearbox oil level plug. 3. Ensure the oil is at the level of the plug opening threads. 4. Fill as needed with Shell Tivela S-220 or Klüber GH 6-220 lubricant. 5. Replace plug and tighten securely. 6. Clean up any spilled oil.	4	7			
	11.	**Check Robot 1, axis 2, gearbox for proper oil level.** 1. Clean immediate area around the axis 2 gearbox oil level plug. 2. Loosen and remove axis 2 gearbox oil level plug. 3. Ensure the oil is at the level of the plug opening threads. 4. Fill as needed with Shell Tivela S-220 or Klüber GH 6-220 lubricant. 5. Replace plug and tighten securely. 6. Clean up any spilled oil.	4	7			

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	R	C	S						A	B	0	0	5	M
Equipment Nomenclature: Robotic Containerization System	Equipment Model: RCS II										Bulletin Filename: MM14124AD					Frequency: ANNUAL

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)	Weeks
	12.	**Check Robot 2, axis 1, gearbox for proper oil level.** 1. Clean immediate area around the axis 1 gearbox oil level plug. 2. Loosen and remove axis 1 gearbox oil level plug. 3. Ensure the oil is at the level of the plug opening threads. 4. Fill as needed with Shell Tivela S-220 or Klüber GH 6-220 lubricant. 5. Replace plug and tighten securely. 6. Clean up any spilled oil.	4	7			
		WARNING **Discard solvent soaked materials according to local procedures to prevent spontaneous combustion.**					
	13.	**Check Robot 2, axis 2, gearbox for proper oil level.** 1. Clean immediate area around the axis 2 gearbox oil level plug. 2. Loosen and remove axis 2 gearbox oil level plug. 3. Ensure the oil is at the level of the plug opening threads. 4. Fill as needed with Shell Tivela S-220 or Klüber GH 6-220 lubricant. 5. Replace plug and tighten securely. 6. Clean up any spilled oil.	4	7			
CLEAN UP	14.	**Clean up.** Ensure all tools, lubricants, rags, etc., are removed from the work area. Report all deficiencies to supervisor.	2	All			
		WARNING **Be cautious when working around or on equipment when power has been applied.**					

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	R	C	S						A	B	0	0	5	M
Equipment Nomenclature: Robotic Containerization System	Equipment Model: RCS II										Bulletin Filename: MM14124AD		Frequency: ANNUAL			

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)	Weeks
SYSTEM	15.	**Restore power.** Remove lockouts, restore power, and return machine to operational status as prescribed by the current local lockout instructions providing lockout/restore procedures.	3	9			

ATTACHMENT 7

RCS MASTER CHECKLIST

03-RCS-AB-006-M

TWO YEAR

Time Total: 321 Minutes

Refer to MS-192 if additional maintenance information is required.

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	R	C	S						A	B	0	0	6	M
Equipment Nomenclature Robotic Containerization System	Equipment Model RCS II										Bulletin Filename MM14124AD				Frequency TWO YEAR	

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)	Weeks
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. Open equipment and inspect dust conditions. 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 for appropriate EWP PPE and barricade requirements.**	1	All			
		WARNING **Ensure no one is standing in the safeguarded space around the robot and that the motion settings for jogging are correctly set. Carelessness can result in personal injury or damage to the equipment.**					
SYSTEM	2.	**Power down and lock out power.** Power down the machine and lock out its electrical and pneumatic power sources as prescribed by the current local lockout/restore procedures.	15	9			
		WARNING **Discard or dispose of chemical soaked materials according to MSDS and in accordance with local procedures.**					

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	R	C	S						A	B	0	0	6	M
Equipment Nomenclature: Robotic Containerization System	Equipment Model: RCS II										Bulletin Filename: MM14124AD		Frequency: TWO YEAR			

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)	Weeks
ROBOT	3.	**Lubricate Robot 1, axis 3, 75mm belt upper roller bearing.** Lubricate Robot 1, axis 3, 75mm belt upper roller bearing per instructions in Axis 3 Lube Point Maintenance placard or MS-192, Volume B, Section 3. Use Shell Albida LC2 grease.	60	9			
	4.	**Lubricate Robot 1, axis 3, bearing blocks, and Front Lubrication Units (FLUs).** Lubricate Robot 1, axis 3, bearing blocks, and FLUs per instructions in Axis 3 Lube Point Maintenance placard or MS-192, Volume B, Section 3. Use Mobile SHC639 oil and Optimal Longtime PD2 grease.	60	9			
	5.	**Lubricate Robot 2, axis 3, 75mm belt upper roller bearing.** Lubricate Robot 2, axis 3, 75mm belt upper roller bearing per instructions in Axis 3 Lube Point Maintenance placard or MS-192, Volume B, Section 3. Use Shell Albida LC2 grease.	60	9			
	6.	**Lubricate Robot 2, axis 3, bearing blocks, and FLUs.** Lubricate Robot 2, axis 3, bearing blocks, and FLUs per instructions in Axis 3 Lube Point Maintenance placard or MS-192, Volume B, Section 3. Use Mobile SHC639 oil and Optimal Longtime PD2 grease.	60	9			
	7.	**Replace MEMOLUB automatic lubricator pouches and batteries**. Replace MEMOLUB automatic lubricator pouches and batteries per instructions in MS-192, Volume B, Section 3. Use MEMOLUB Refill Kit, GIGA 480, NSN 4730-06-000-9841 (8 required for each RCS) and MEMOLUB Refill Kit, MEGA 240, NSN 4730-06-000-9842 (2 required for each RCS).	60	9			
CLEAN UP	8.	**Clean up.** Ensure all tools, lubricants, rags, etc., are removed from the work area. Report all deficiencies to supervisor.	2	All			
		WARNING **Be cautious when working around or on equipment when power has been applied.**					

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	R	C	S						A	B	0	0	6	M
Equipment Nomenclature: Robotic Containerization System	Equipment Model: RCS II										Bulletin Filename: MM14124AD		Frequency: TWO YEAR			

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)	Weeks
SYSTEM	9.	**Restore power.** Remove lockouts, restore power, and return machine to operational status as prescribed by the current local lockout instructions providing lockout/restore procedures.	3	9			

ATTACHMENT 8

RCS MASTER CHECKLIST

03-RCS-AB-007-M

THREE YEAR

Time Total: 171 Minutes

Refer to MS-192 if additional maintenance information is required.

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	R	C	S						A	B	0	0	7	M
Equipment Nomenclature: Robotic Containerization System	Equipment Model: RCS II										Bulletin Filename: MM14124AD					Frequency: THREE YEAR

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)	Weeks
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. Open equipment and inspect dust conditions. 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 for appropriate EWP PPE and barricade requirements.**	1	All			
SYSTEM	2.	**Power down and lock out power.** Power down the machine and lock out its electrical and pneumatic power sources as prescribed by the current local lockout/restore procedures.	15	9			
PNUEMATIC SYSTEM	3.	**Replace coalescing filter**. 1. Turn filter holder clockwise to remove. 2. Unscrew filter and remove. 3. Screw new filter in place to secure it. 4. Install filter holder. Turn counterclockwise to lock in place.	2	7			
SYSTEM CONSOLE	4.	**Replace uninterrupted power supply (UPS) battery.** Replace UPS battery per instructions in MS-192, Volume B, Section 5.	6	9			

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	R	C	S						A	B	0	0	7	M
Equipment Nomenclature: Robotic Containerization System	Equipment Model: RCS II										Bulletin Filename: MM14124AD		Frequency: THREE YEAR			

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)	Weeks
	5.	**Replace computer BIOS battery**. Replace computer BIOS battery per instructions in MS-192, Volume B, Section 5.	12	10			
ROBOT	6.	**Replace Robot 1 S4C batteries**. Replace Robot 1 S4C batteries with cable per instructions in MS-192, Volume B, Section 5.	5	10			
	7.	**Replace Robot 1 serial measurement board lithium battery pack**. Replace Robot 1 serial measurement board lithium battery pack per instructions in MS-192, Volume B, Section 5.	30	10			
	8.	**Replace Robot 2 S4C batteries**. Replace Robot 2 S4C batteries with cable per instructions in MS-192, Volume B, Section 5.	5	10			
	9.	**Replace Robot 2 serial measurement board lithium battery pack**. Replace Robot 2 serial measurement board lithium battery pack per instructions in MS-192, Volume B, Section 5.	30	10			
		WARNING **Discard or dispose of chemical soaked materials according to MSDS and in accordance with local procedures.**					
	10.	**Change Robot 1, axis 1, gearbox oil**. Change Robot 1, axis 1, gearbox oil per instructions in MMO-026-06 or MS-192, Volume B, Section 3. Use Shell Tivela S-220 or Klüber GH 6-220 lubricant.	15	9			
	11.	**Change Robot 1, axis 2, gearbox oil**. Change Robot 1, axis 2, gearbox oil per instructions in MMO-026-06 or MS-192, Volume B, Section 3. Use Shell Tivela S-220 or Klüber GH 6-220 lubricant.	15	9			
	12.	**Change Robot 2, axis 1, gearbox oil.** Change Robot 2, axis 1, gearbox oil per instructions in MMO-026-06 or MS-192, Volume B, Section 3. Use Shell Tivela S-220 or Klüber GH 6-220 lubricant.	15	9			
	13.	**Change Robot 2, axis 2, gearbox oil**. Change Robot 2, axis 2, gearbox oil per instructions in MMO-026-06 or MS-192, Volume B, Section 3. Use Shell Tivela S-220 or Klüber GH 6-220 lubricant.	15	9			

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	3	R	C	S						A	B	0	0	7	M
Equipment Nomenclature: Robotic Containerization System	Equipment Model: RCS II										Bulletin Filename: MM14124AD		Frequency: THREE YEAR			

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)	Weeks
CLEAN UP	14.	**Clean up.** Ensure all tools, lubricants, rags, etc., are removed from the work area. Report all deficiencies to supervisor.	2	All			
		WARNING **Be cautious when working around or on equipment when power has been applied.**					
SYSTEM	15.	**Restore power.** Remove lockouts, restore power, and return machine to operational status as prescribed by the current local lockout instructions providing lockout/restore procedures.	3	9			

ATTACHMENT 9

RCS MASTER CHECKLIST

09-RCS-AB-001-M

OPERATIONAL MAINTENANCE
TWO TOURS PER DAY

Time Total: 25 Minutes

Refer to MS-192 if additional maintenance information is required.

ITEM	TASK TIME	MULTIPLIER FACTOR	TOTAL MINUTES
1	1	1	1
2	1	1	1
3	1	3	3
4	1	3	3
5	1	3	3
6	1	3	3
7	2	3	6
8	5	1	5
			25

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	9	R	C	S						A	B	0	0	1	M
Equipment Nomenclature: Robotic Containerization System	Equipment Model: RCS II										Bulletin Filename: MM14124AD					Frequency: TOUR

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)	Weeks
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. Open equipment and inspect dust conditions. 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 for appropriate EWP PPE and barricade requirements.**	1	All			
MACHINE LOG	2.	**At the beginning of the tour examine machine log.** Examine log and bring forward any unresolved problems from the previous tour. **NOTE** Operational checks must be made with machine processing mail in a normal operating mode.	1	9			
SYSTEM GENERAL	3.	**Every two hours check for unusual sounds, odors.** Be alert for unusual sounds, odors, or other indication of potential failure of the RCS.	1	9			
SYSTEM SAFETY INDICATORS	4.	**Every two hours check warning horn and beacons.** Check for proper operation of warning horns and beacons on start-ups.	1	9			

U.S. Postal Service **Maintenance Checklist**	IDENTIFICATION															
	WORK CODE		EQUIPMENT ACRONYM								CLASS CODE		NUMBER			TYPE
	0	9	R	C	S						A	B	0	0	1	M
Equipment Nomenclature: Robotic Containerization System	Equipment Model: RCS II										Bulletin Filename: MM14124AD		Frequency: TOUR			

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)	Weeks
SYSTEM INDICATORS	5.	**Every two hours check lamps.** Watch for proper functionality of all indicator lamps during normal machine operations. Correct deficiencies as soon as practical.	1	9			
REJECTS	6.	**Every two hours check rejects.** Check the RCS for rejects. Determine if they are due to tray/label hygiene or scan issues. Take appropriate action as practical.	1	9			
ACE COMPUTER	7.	**Every two hours check MPEWatch.** Check to ensure RCS is connected, transmitting Unit Load Transactions (ULX), and read rate is acceptable.	2	9			
ADMINISTRATIVE	8.	**At the end of tour compile the following information:** • Any work orders generated • Make entries in Machine Logbook of any discrepancies found during the tour Turn this information into Maintenance Supervision. Brief personnel coming on duty	5	9			