Rockwell Collins

REPAIR STATION
AND
QUALITY CONTROL MANUAL

Rockwell Collins, Inc.

Repair Station # No. Z5RY553Y

Rockwell Collins do Brasil Ltda

1090, Ambrósio Molina st. – Building F – Eugênio de Melo
12247-000 – São José dos Campos – SP – Brasil

3rd Ed/Rev: 4

Copy nº 1

Holder: Accountable Manager

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II - Record of Revisions

The table of the Record of Revisions is to be used as a reference to the user of this manual and provides a short description of all the changes accepted by FAA.

After the revision No. 10 a new edition to this manual will be issued and the table contents will re-start on "Rev No. 0".

Rev. No.	Highlights of Revisions	Rev. Date	Insertion Date	By
0	Incorporated all the accepted previous revisions into this new 3rd edition to RSM/QCM; Updated the forms for audit to reflect the digital system in use.	23/Mar/20	23/Mar/20	Felipe P Teixeira
1	Updated the address to match the 8310-3. Included information on section iv that the digital manual is protected by password. Corrected form number on 9.2. Added instruction to save 8130-3 on server. Section 9.5 revised to detail complying with AC.	29/Jan/21	29/Jan/21	Felipe P Teixeira
2	Updated the SUP and Difficult report forms, obligation to follow the RSM/QCM, parts inspection process and traceability, included need for compatibility of the file format and users sw and acceptable to FAA and sufficiency of people, included need to describe work performed on employment summary, have the Org Chart updated and available to FAA and restriction to work performed and qualification.	10/Sep/21	10/Sep/21	Felipe P Teixeira
3	Corrected the location of the scrap parts cabinet and confirmed location of quarantine cabinets	05/May/22	05/May/22	Felipe P Teixeira
4	*Revision for compliance from audit findings, layout update, inclusion of scrap form, update of the roster form, inclusion of form and procedure for RIDII and ASR, update the white label with revision control, included procedure for tool loaning, update RII process.*	*05/Sep/23*	*05/Sep/23*	*Felipe P Teixeira*

II - Record of Revision (CONT).

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5				
6				
7				
8				
9				
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IV - MANUAL CONTROL AND REVISION

The Repair Station and Quality Control Manual will be maintained in a current status on electronic format (no printing allowed by the repair station personnel, digital version available to technicians is protected against edition by password *and only the current version is available at the folder employees have access on a format compatible with FAA and employees reading software*) on a local network server at all times in order to stay available to everyone through a read only file. It will be made available to the FAA Certificate Holding District Office (CHDO) by electronic media, including revisions as required by 14 CFR Part 145.207 and 145.211.

a. Responsibility

The Quality Representative is responsible for:

- administrating and controlling the Repair Station and Quality Control Manuals;
- compiling all changes into a draft revision to be reviewed and approved by the Accountable Manager and
- delivering the approved revision to the CHDO.
- notifying the revisions to the CHDO anytime there is a need to change this manual in the absence of the Accountable Manager.
- *Inform employees of new revisions released, what it contains and where to find the Manual.*

The Accountable Manager is responsible for:

- reviewing and approving the proposed changes;
- sign the pages changed and the List of Effective pages;
- notifying the revisions to the CHDO anytime there is a need to change this manual.

b. Procedure for revisions

Any change on this manual may be proposed or recommended by the manual holders, FAA and by the Repair Station employees *but only the Quality Representative may perform the changes*.

1. The Quality Representative will make all the changes needed to the manual and will update the Record of Revisions (Section II) in conjunction with the List of Effective Pages (Section III) to reflect the new revision/edition and will compile all the affected sheets into a draft revision to be reviewed and approved by the Accountable Manager;
2. After the final review the Accountable Manager will approve the changes by signing the List of Effective Pages and will send the material by email to the FAA requesting for acceptance for the proposed revision;
3. If the changes are accepted (by FAA representatives a signed letter will be sent to the facility either by e-mail, hardcopy or both) the Quality Representative will deliver to the FAA by e-mail a full copy of the RSM&QCM formatted in electronic media (pdf);

If the changes are not accepted the Accountable Manager will coordinate with FAA the necessary corrections until a final revision is accepted.

4. Upon receiving the final FAA acceptance, the Quality Representative will print and insert the pages on original hardcopy of the Repair Station and Quality Control Manual and create and file new revision on the Repair Station network server to provide accessibility to all employees;
5. After 10 consecutive revisions to the manual a new edition will be issued with the revision number restarting at "0"and a unique revision date (the new edition date) will be present in all pages. No need to be in bold this time. Any change incorporated in the new edition will also be identified.

c. Identification of changes

Revised material on each page will be indicated by italic underline. Page numbers, latest revision number and date will be in bold. A brief description of changes will be found on Record of Revisions table on Section II and all pages changed, date and number of revision will be indicated in the same way on the List of Effective Pages and on the cover page of the manual.

d. Notification of Revisions to the CHDO

The Accountable Manager will notify the CHDO within 7 business days, by e-mail, about any new revision needed to be incorporated to this manual and will coordinate the changes with FAA to eliminate any conflict with current regulations before inserting revisions on manual. *Receipt of revision will be documented with the acceptance letter or equivalent*

e. Correction to this manual

In the event of administrative or maintenance action is performed under a revision unacceptable to the FAA, the Quality Representative will make the necessary corrections to that revision pursuant to the recommendations of the FAA.

In the case an article serviced under the unacceptable revision is found to have its airworthy condition affected, the Quality Representative will work in conjunction with the Accountable Manager to institute a recall of any or all articles serviced so as to correct the procedure or to perform maintenance in accordance with the acceptable to FAA.

V - MANUALS AND LISTS

The following manuals and lists are not part of this manual and are maintained current by the Quality Representative and are made available to all personnel at the repair station:

- Reference 14 CFR Part 145.209 (Repair Station Manual Contents) and Part 145.211c (Quality Control Manual Requirements);
- Roster with a combination list of: management and supervisory personnel, technicians performing maintenance and the certificated personnel authorized to sign a maintenance release. The list will contain the signatures and initials used by all personnel. Rosters are maintained and revised per procedures on Section 2.0;
- List of programs and responsibility and back-up personnel;
- List of Subcontractors for Maintenance and Calibration;
- Capabilities List Document (CCD) in lieu of Operations Specifications (as applicable);
- Rockwell Collins Workmanship Standards manual (523-0778764);
- Rockwell Collins Approved Standards Repair Procedure (523-0780748) inserted in Repairs section of the Rockwell Collins Workmanship Standards manual (523-0778764);
- Rockwell Collins Modification Standards (523-0780737) inserted in Modifications section of the Rockwell Collins Workmanship Standards manual (523-0778764);
- Rockwell Collins Avionics Standard Shop Practices manual (523-0768039);

RSM&QCM DISTRIBUTION LIST

Manual No.	***Format***	**Holder**	**Location**
1(original)	Electronic file (".pdf")	Accountable Manager	Quality Department
2(copy)	Electronic file (".pdf")	FAA CHDO	AFS-54-MIA
3(copy)	Electronic file (".pdf")	Repair Station Employees	Local Network Server

Guard and update responsibility: Quality Representative or designee in the absence. Will also be responsible to keep previous revisions of the electronic manual stored on the server where only LAN Administrator and himself have access. The backup policies on this manual applies for the current and previous revisions of this manual. System is under permanent surveillance for both consistency and safety by Collins Aerospace IT team in Cedar Rapids.

VI - INTRODUCTION

This Repair Station and Quality Control Manual have been prepared in accordance with the current 14 CFR (Code of Federal Regulations) and the policies of Rockwell Collins, Inc *and following both Manuals is mandatory*.

The manual comprises of two main sections namely, the Repair Station Manual Elements and the Quality Control Manual Elements as required by 14 CFR Part 145.51 (a) and is referred to as Repair Station Manual in short.

This manual explains the internal inspection system in detail, including the continuity of inspection responsibility. It gives samples of inspection forms used and their method of execution. The manual gives a detailed explanation of the following portions of the inspection system: preliminary inspection, hidden damage inspection, continuity and final inspection of the article being maintained or altered at this facility.

The general repair, overhaul or alteration of products will be performed in accordance with the current Federal Aviation Regulations, manufacturer's data, drawings, specifications and bulletins, or other technical data approved by the Administrator for the particular ratings.

Note: The performance of any maintenance, preventive maintenance, alteration or required inspections for an air carrier or commercial operator having a continuous airworthiness program under 14 CFR Part 121, 125 or 135 will be performed in accordance with the requirements of 14 CFR Part 145.205.

This repair station will not maintain or alter any item for which it is not rated, and will not maintain or alter any article for which it is rated if it requires technical data, equipment, materials, housing, process, facilities or trained personnel that are not available (14 CFR Part 145.201b).

The Repair Station Z5RY553Y authorizes the Quality Representative to make changes and the Accountable Manager to approve all changes to this manual.

VII - QUALITY POLICY

It is the policy of Rockwell Collins businesses to help create the world's most successful Customers by providing products and services with value that meets or exceeds expectations throughout the life of the product.

VIII - GOALS AND OBJECTIVES

Our goal is to assure Customer satisfaction by continuously improving product quality, performance, and service. Our objective is Improved Customer Acceptance and is measured for continual improvement.

IX - NOTIFICATION TO FAA REGARDING CHANGES TO LOCATION, HOUSING OR FACILITIES.

The Accountable Manager shall notify FAA in writing as soon as practicable, any significant changes listed below:

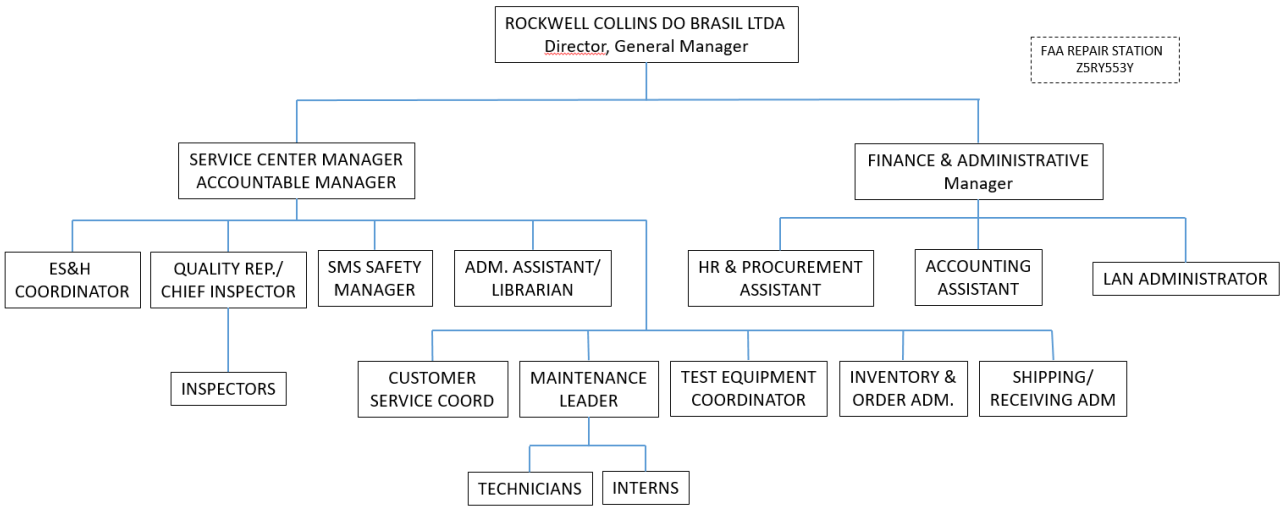
- Name of organization
- Location of the organization
- Additional location of the organization
- Accountable Manager
- Quality Representative
- Changes in company activities affecting terms of approval and scope of work.
- Changes affecting the approved housing or facilities that could have a significant effect on its ability to perform the maintenance, preventive maintenance, or alterations under its repair station certificate and operations specifications.

Repair Station Manual

1.0 - ORGANIZATION

1.1 - ORGANIZATIONAL CHART

Managing positions are identified in bold. *It is kept current and available to the FAA.*



1.2 - DUTIES AND RESPONSIBILITIES

The duties and responsibilities for the following management, supervisory and inspection personnel are described. In addition, in case of absence, delegation of the authority would be made.

A list of back-up personnel document is available on file in the Quality Department and shall be maintained up-to-date by the Quality Representative.

1.2.1 – Director/ General Manager

Duties

The Director/ General Manager as the signatory for Rockwell Collins do Brasil Ltda. has authority to act on behalf of the Repair Station and is responsible for all Administrative and Financial areas by defining strategic objectives to be implemented through general programs and plans, financial and commercial areas and is the main responsible for Salary and Benefits Plans for all RC do Brasil Ltda. employees.

Must assure all RC and local Policies and rules related to Human Resources, Financial and Administrative subjects are strictly accomplished and followed by his reports being responsible for the Strategic Financial Plans and its accomplishment.

Perform audits and verifications in all departments that direct or indirect reports to this position without previous notice.

Must assure RC Diversity and Ethics Policies are followed by all his reports and are in accordance with local market practices.

General Manager and main signatory for leases, hiring, acquisitions/purchases budgeted and not budgeted for RC do Brasil Ltda. being able to delegate/assign tasks to Financial and SC Manager when needed.

Legally represents Rockwell Collins do Brasil Ltda. in all instances and execute all other assigned/related tasks.

Delegation

The Director/General Manager may delegate all duties assigned to any qualified assistant as necessary, however, such delegation does not relieve the Director/General Manager of the overall responsibilities.

Continuity

In the absence of the Director/General Manager of Rockwell Collins do Brasil Ltda. the Service Center Manager/Accountable Manager will assume all duties as assigned above.

1.2.2 - Service Center Manager/Accountable Manager

Duties

The Service Center Manager/Accountable Manager is responsible for ensuring that the maintenance carried out by the organization meets the standards required by the FAA and is authorized by the Director/ General Manager to act on behalf of the Repair Station;

The primary function of the Service Center Manager is to plan, direct and administer the activities of the Service Center accordance with the policies, goals and objectives established by Collins Headquarter. This position is chartered with the management of projects, the development of business and carries the responsibility for assuring services meet all regulatory requirements and achieve highest degrees of safety;

He is responsible for ensuring that the necessary finance, manpower resources, appropriate tools, housing and facilities are available to enable the company to perform the high quality maintenance to which it is committed for the operators and any additional work which may be undertaken which is authorized by the FAA;

The Service Center Manager is accountable to and reports to the Director, International Service Centers in Cedar Rapids, USA and to the Director/General Manager. In addition, this position is responsible for performing duties as the Accountable Manager for the Brazil Repair Station and for the Safety Management System;

Must assure all Quality Policies are followed by RC Brasil Ltda. being able to delegate/assign tasks and duties anytime it is needed.

The Service Center Manager has Ultimate Responsibility for all aspects of the Service Center operation, having final say in any decision or conflict resolution.

The Accountable Manager is the person designated by the certificated repair station who is responsible for and has the authority over all repair station operations that are conducted under part 145, including ensuring that repair station personnel follow the regulations and serving as the primary contact with the FAA

Delegation

The Service Center Manager/Accountable Manager may delegate all duties assigned to any qualified assistant as necessary, however, such delegation does not relieve the Service Center Manager of the overall responsibilities.

Continuity

In the absence of the Service Center Manager/ Accountable Manager of Repair Station the Director/General Manager will assume or delegate all duties as assigned above.

1.2.3 - Quality Representative

Duties

The Quality Representative is designated by the Service Center Manager to implement and maintain a quality program in full compliance to all FAA safety and regulatory requirements, and to assure the maintenance services are carried out at the highest standards of airworthiness, quality and workmanship so that the highest customer acceptance rates are achieved;

The Quality Representative will bring any observed non-compliance or poor standards to the attention of the technician or inspector , with a time-scale for remedial action to be completed; any obstacles or delays in resolving the appointed discrepancies will be brought to the attention of the Service Center Manager for guidance;

The Quality Representative is the focal point for all quality related inquiries and activities in the Service Center; he is also the acting Chief Inspector. This position has an emphasis on Quality Assurance although some of Quality Control tasks are also performed or coordinated by the Quality Representative.

In addition, this position is responsible for:

- Establishing a quality system to the Service Center to ensure that work is carried out by properly trained people based on current technical publication and utilizing adequate and calibrated test equipment, and approved replacement parts and materials, in order to deliver the highest standards of airworthiness and workmanship;
- Keeping a record of all training and experience of maintenance and inspection related personnel.
- Ensure that all technical and regulatory publications are kept current/updated and promptly available at the Rockwell Collins do Brasil Ltda. library and that employees performing maintenance related work are notified of publication revisions, as applicable;
- Audit that periodic checks have been made on all inspection tools and the calibration of precision test equipment used by the repair station and mechanics that have their own precision equipment. Further assure that a current record of those inspections and test is maintained;
- Ensuring that all parts, materials and components are submitted to incoming inspection and are traceable to approved sources in accordance with FAA Advisory Circular AC-20-62( ) and that applicable handling and storage practices are adhered to;
- Maintaining quality records including internal audit reports; calibration records and certificates; etc in proper and easy to retrieve order;

- Establishing an independent quality system to monitor compliance with FAA requirements and maintaining a close liaison with FAA on all matters affecting the airworthiness and the approval;
- Reviewing and amending the Repair Station and Quality Control Manual;
- Ensuring that all maintenance is correctly certified and that record of maintenance services and inspections carried out are retained safely and securely for the statutory period;
- Investigation into the cause of defect in respect of repeated failures in a component that is undergoing maintenance, as required, so that any adverse trends are identified and responded to promptly;
- Oversee the proper tagging and identification of all parts and components as outlined in this manual;
- Performing duties of a Technician, Inspector, Test Equipment Coordinator, Environment Safe and Healthy Coordinator or SMS Safety Manager, when appropriate;
- Reporting to the FAA, operator and manufacturer if any serious defect or an unairworthy condition of a component that could seriously hazard the aircraft is discovered;
- Review and dispose of non-conforming material assuring all non-conforming material is discarded/scrapped/recycled.
- Carrying out any other duties as and when assigned by the Service Center Manager;

Delegation

The Quality Representative may delegate all duties assigned to any qualified assistant as necessary, however, such delegation does not relieve the Quality Representative of the overall responsibilities.

Continuity

In the absence of the Quality Representative of Rockwell Collins do Brasil Ltda. the Service Center Manager/ Accountable Manager will assume all duties and responsibilities as assigned above.

1.2.4 - Inspectors

Duties

The Inspectors are responsible to the Quality Representative for:

- Ensuring that the work carried out in the Service Center is in accordance with the requirements of the relevant airworthiness authority and the repaired components meet all of their specifications per the approved data;
- Issuing certificate of release to service and authorized release certificate, as applicable, upon satisfying that the component can be released/ returned to service as per the requirements of relevant airworthiness authority and operating procedures;
- Performing in-process, hidden and final inspection, as applicable, per the approved data and workmanship standards;
- Performing incoming inspection on the parts and materials received, as applicable for the inspectors;
- Assisting the Quality Representative in monitoring the reliability of any components repaired by the Service Center and to analyze the defect of any repeated failure;
- Reporting to the Quality Representative if any serious defect or other recurring un-airworthy condition of a component is discovered including suspected unapproved parts;
- Performing duties of a Technician or Inspector, when appropriate;
- Carrying out any other duties as and when required by the Quality Representative.

Delegation

Any inspector may only delegate his/her duties to another inspector with the same qualifications and ratings as specified on the List of Personnel Authorized to Release to Service available at the Quality Department files.

Continuity

In the absence of any inspector the Quality Representative will assume all duties and responsibilities as assigned above.

1.2.5 – Maintenance Leader

Duties

The Maintenance Leader is responsible to the Service Center Manager/ Accountable Manager for:

- Planning, leading, organizing and controlling the repair activities of the Repair Shop including delegation of work;
- Scheduling the maintenance workload to be done establishing priorities in accordance with customers' requests and company commitments;
- Responsible for observation of safety precautions and the quality control within the workshop;
- Ensuring maintenance and repair of components are in accordance with the approved airworthiness data and customer's requirements;
- Ensuring that quality standards and regulatory requirements are met in all tasks performed within the Repair Shop. Monitoring of work in process within his/her area to ensure that equipment is repaired and returned to the customer in an airworthy condition and in a timely manner;
- Ensuring that tools, test equipment, test panels and Service Center avionics equipment used in his/her area are kept in good working condition, used only in the correct manner and where applicable, calibrated at periodic intervals;
- Recommending means of correcting malfunctions attributed to faulty design, test methods and procedures, workmanship, etc.;
- Performing duties of a Technician or Inspector, when appropriate;
- Assisting in training, planning and directing the work of new technical staff and apprentices;
- Ensuring that he/she has adequate sized competent staff to perform the work and all the workshop activities are carried out in accordance with Service Center procedures and the FAA requirements;
- Carrying out other duties as and when required by the Service Center Manager.

Delegation

The Maintenance Leader may delegate all duties assigned to any qualified assistant as necessary however, such delegation does not relieve the Maintenance Leader of the overall responsibilities.

Continuity

In the absence of the Maintenance Leader the Service Center Manager/ Accountable Manager will assume all duties and responsibilities as assigned above or will assign the duties to another trained personnel.

1.2.6 - Technicians

Duties

The Technicians are responsible to the Maintenance Leader for:

- Performing maintenance, repair and modification of components in accordance with the approved airworthiness data and customers' requirements;
- Performing varied specialized technical duties relating to the efficient repair, overhaul or modification of equipment for return to customers in a timely manner;
- Verifying that all repairs or modifications performed on components conform to OEM quality and workmanship standards;
- Setting up and operating a variety of precision and automatic test equipment station for alignment, testing and calibration;
- Examining customer units for potentially defective parts or conditions that impair or prevent proper equipment operation including suspected unapproved parts. Recommending means of correcting malfunctions attributed to fault design, test methods and procedures, workmanship, etc.;
- Performing duties of a Technician, Inspector or Test Equipment Coordinator, when appropriate;
- Assisting in training, planning and directing the work of new technical staff and apprentices;
- Maintaining the cleanliness and tidiness of his/her area including common areas;
- Carrying out any other duties as and when required by the Service Center Manager/ Accountable Manager.

Delegation

Any Technician may only delegate his/her duties to another Technician with the same qualifications and ratings pursuant to the duty as specified on the main training records available at the Quality Department files.

Continuity

In the absence of any Technician performing a service or maintenance, another qualified technician will assume all duties and responsibilities as assigned above pursuant to the maintenance records of service performed by his/her predecessor.

1.2.7 – Finance/Administrative Manager

Duties

The Finance/Administrative Manager is responsible to the General Manager for:

- Coordinating and managing general accounting activities and general administrative tasks as well;
- Compliance with the laws related to personnel /regulation and financial controls;
- For overseeing the information systems providing adequate tools/solutions to match Service Center user's requirements;
- Assess financial results and prepare period result demonstrations and analysis;

Delegation

The Finance Manager may delegate all duties assigned to any qualified assistant as necessary however, such delegation does not relieve the Finance Manager of the overall responsibilities.

Continuity

In the absence of the Finance Manager the Director/General Manager will assume all duties and responsibilities as assigned above.

1.2.8 - Inventory & Order Administrator

Duties

The Inventory & Order Administrator is responsible to the SC Manager/ Accountable Mngr. for:

- Maintaining strict guidelines in the handling, storage, unpacking of all parts and materials within the piece parts store in accordance with the Receiving procedures (Subsection 3.5) and Handling of Parts procedures (Subsection3.7);
- Reporting to the Quality Representative if any serious defect or other recurring unairworthy condition of a component is discovered including suspected unapproved parts;
- Responsible for all the external logistics aspects with regard to the appropriate and efficient transportation of components from and to the customers/operators bases;
- Performing varied clerical and administrative duties associated with the proper accountability and recording of Service Center stock movements;
- Issuing replenishment and repair-in-house parts purchase orders periodically and when applicable;

- Issuing parts from stockroom in accordance with the most current revision of the Electrostatic discharge (ESD) Control and Material Handling & Storage procedures;
- Ensure all parts and components have traceability to an approved source and maintain the required documentation of traceability to repaired equipment and A/C when appropriate;
- Maintaining and updating adequate control on shelf-life/dated materials and proceed to proper disposal or replacement of those materials before the due date expires;
- Maintaining and updating a stock record of all materials within the parts store by use and operation of a locally developed computerized recording system (SGS) that allow for prompt access to inventory control data by individual part number; hardcopy records of inventory movements are kept as permanent records;
- Ensuring all electrostatic sensitive devices are properly packed, sealed and handled in accordance with the most current revision of the Electrostatic discharge (ESD) Control and Material Handling & Storage procedures;
- Carrying out other duties as and when required by the Service Center Manager.

Delegation

The Inventory & Order Administrator may delegate all duties assigned to any qualified assistant as necessary, however, such delegation does not relieve the Inventory & Order Administrator of the overall responsibilities.

Continuity

In the absence of the Inventory & Order Administrator the SC Manager/ Acc. Mngr. will assume all duties and responsibilities as assigned above or will assign the duties to another trained personnel.

1.2.9 - Customer Service Coordinator

Duties

This position provides the first layer of interface with the customer/operator and is responsible to the Service Center Manager/Accountable Manager for:

- Providing customers with the necessary support, adequate guidance and services;
- Handling customer's inquiries with regard to quotation, expected turn-around time, repair status, etc.;
- Monitoring flow of customer units while undergoing maintenance at the repair station for assuring timely deliveries;
- Maintaining the work schedule board updated to reflect actual units repair status at all times;
- Submitting periodic performance reports to local management and Rockwell Collins headquarters;
- Respond to customer requests for schedule modifications/Service Bulletins by aligning repair shop resources for achieving requested dates;
- Keeping customers and operator's current address and main contacts records;
- Other duties as assigned by the Service Center Manager/Accountable Manager.

Delegation

The Customer Service Coordinator may delegate all duties assigned to any qualified assistant as necessary, however, such delegation does not relieve the Customer Service Coordinator of the overall responsibilities.

Continuity

In the absence of the Customer Service Coordinator the Service Center Manager/ Accountable Manager will assume all duties and responsibilities as assigned above or assign the duties to another trained personnel.

1.2.10 – Accounting Assistant

Duties

The Accounting Assistant is responsible to the Finance Manager for:

- Inventorying the company assets;
- Controlling and processing all diary payables of the company based on information supplied by the financial system (EMS);
- Providing timely and accurate invoicing;
- Keeping and managing the insurance policy of the company;

- Assisting the Finance Manager when formatting the Rockwell Collins International Special Taxes Reports to account the Incoming Tax;
- Assisting the Finance Manager to control and manage all Customer's Business Agreements;
- Managing the company bank accounts and bank conciliation with information retrieved from the financial system EMS.

Delegation

The Accounting Assistant may delegate all duties assigned to any qualified assistant as necessary, however, such delegation does not relieve the Accounting Assistant of the overall responsibilities.

Continuity

In the absence of the Accounting Assistant the Finance Manager will assume all duties and responsibilities as assigned above or assign the duties to another trained personnel.

1.2.11 –LAN Administrator

Duties

The Local Area Administrator is responsible to the Finance Manager for:

- Developing and building information systems and prepare the related documentation as assigned;
- Coordinating and maintaining the local area network in good condition of operating and assuring the integrity and safety of all data;
- Assuring the physical integrity of the computers and accessories assets and keeping compliance to all end-users licenses of software installed in all workstations;
- Providing training in all the computerized systems, tools and software available, as applicable to the end user;
- Developing contingence plans to all computerized systems under his/her responsibility to decrease to the minimum damage the data;
- Providing accurate information and assistance to the Finance Manager and the Procurement when purchasing new products of services;
- Providing information of handling and operation of the computer systems to the end user when requested.

Delegation

The LAN Administrator may delegate all duties assigned to any qualified assistant as necessary, however, such delegation does not relieve the LAN Administrator of the overall responsibilities.

Continuity

In the absence of the LAN Administrator the Finance Manager will assume all duties and responsibilities as assigned above or assign the duties to another trained personnel.

1.2.12– Shipping/Receiving Administrative

Duties

The Shipping/ Receiving Assistant is responsible to the Service Center Manager/ Accountable Manager for:

- Receiving, unpacking and performing incoming inspection on all equipment and other goods being received;
- Maintaining strict guidelines in the handling and packing or unpacking all products shipped/received at the repair station in accordance with Receiving procedures (Subsection 3.5), Dispatch of Aircraft Material (Subsection 12.11) and the most current versions of Electrostatic Discharge (ESD) Control Procedure and ATA 300 procedure;
- Creating work files, issuing Repair Data Report's (RDR) and related attachments, attaching unserviceable tags to equipment, determining warranty status, marking files accordingly, attaching customer repair order and all relevant documentation to the file and transferring equipment to the workshop as rapidly as possible. Reporting to the Quality Representative if any serious defect or other recurring unairworthy condition of a component is discovered including suspected unapproved parts;
- Ensuring that filing of customer's documentation, good receipts and customs documentation is regularly maintained.
- Packing and shipment of equipment and parts being delivered;
- Preparing delivery notes, consignment notes and various shipping documents as required.

Delegation

The Shipping/ Receiving Assistant may delegate all duties assigned to any qualified assistant as necessary, however, such delegation does not relieve the Shipping/ Receiving Assistant of the overall responsibilities.

Continuity

In the absence of the Shipping/ Receiving Assistant the Service Center Manager/ Accountable Manager will assume all duties and responsibilities as assigned above or will assign the duties to another trained personnel.

1.2.13 – HR & Procurement Assistant

Duties

The HR & Procurement Assistant is responsible to the Finance Manager for:

- Generating the payroll calculations to all RCB employee, payroll overheads, shift labor utilization, fringe benefits and taxes as applicable.
- Issuing and update the annual schedule of all employee vacations.
- Assisting the Finance Manager by planning and provisioning the necessary resources to meet collective bargaining decisions and being current and compliant with Country Labor Laws requirements.
- Represent RCB. in all discussions related to Human Resources.
- Assisting the Director/General Manager and all department leads when conducting processes of contracting and/or dismissal of any employee.
- Represent RCB. to the Labor Union and to the Ministry of Labor regarding employee dismissal.
- Acting as the person of contact with third party companies when recruiting and select new employee.
- Being responsible for the procurement of goods and services to the RCB, identifying and selecting providers on national market by analyzing price offers and conditions of payments following the specifications requested by the other departments within the RCB.
- Achieving approval for purchasing after finished the procurement processes.
- Perform other duties related to procurement.

Delegation

The HR & Procurement Assistant may delegate all duties assigned to any qualified assistant as necessary, however, such delegation does not relieve the HR & Procurement Assistant of the overall responsibilities.

Continuity

In the absence of the HR & Procurement Assistant the Finance Manager will assume all duties and responsibilities as assigned above or assign the duties to another qualified assistant.

1.2.14 – Administrative Assistant/ Librarian

Duties

The Administrative Assistant/ Librarian is responsible to the Service Center Manager/ Accountable Manager for:

- Assisting the Director/ General Manager, Finance Manager, the Maintenance Leader, the Quality Representative and the Costumer Service Coordinator in all works related to copying, typing and organizing documentation related to their departments and on respective files;
- Forwarding international and national phone calls to the proper department, book hotels, transportation and air tickets to the Rockwell Collins do Brasil Ltda employees and to visitors as requested by Finance Manager, Maintenance Leader, Quality Representative and by the Costumer Service Coordinator;
- Coordinating external administrative work in general;
- Work as the Repair Station Librarian executing control and periodic updating of all technical publications and aviation regulations used within the Repair Station;
- Performing other duties as assigned by the Service Center Manager or the General Manager;

Delegation

The Administrative Assistant may delegate all duties assigned to any qualified assistant as necessary, however, such delegation does not relieve the Administrative Assistant of the overall responsibilities.

Continuity

In the absence of the Administrative Assistant the Service Center Manager/Accountable Manager will assign all duties and responsibilities listed above to another trained assistant.

1.2.15 – Test Equipment Coordinator

Duties

The Test Equipment Coordinator is designated by the Service Center Manager/ Accountable Manager for:

- Ensuring Calibration Control Database is updated and accurately reflects the status of service/ calibration/ preventative maintenance of all the M&TE part of the Repair Station he/she is responsible for;
- Managing the shipping and receiving of the M&TEs sent to the approved subcontractors' performing calibration services;

- Issuing and filing the list of all M&TEs which will fall out of the calibration due date on the first week of each month;
- Managing the file and issuing of all electronic reports of calibration for all test equipment calibrated in house;
- Managing the accomplishment of all calibrations and preventative maintenance and verifying the applicable label is affixed in each test equipment of fixture;;
- Working with the Quality Representative to ensure M&TE Equivalency for M&TE substitution;
- Monitoring and taking proper action to warrant the preservation/ condition of all M&TEs of the Repair Station

Delegation

The Test Equipment Coordinator may delegate all duties assigned to any trained personnel as necessary, however, such delegation does not relieve the Test Equipment Coordinator of the overall responsibilities.

Continuity

In the absence of the Test Equipment Coordinator the Quality Representative will assume all duties and responsibilities as assigned above or assign the duties to another trained personnel.

1.2.16 – Environment, Safety and Health Coordinator

Duties

The Environment, Safety and Health Coordinator is responsible to the Service Center Manager/ Accountable Manager for:

- Being responsible for development, implementation and maintenance of facility ES&H programs - Waste Management per local Environment Agency (CETESB) and Health and Safety programs in accordance with the government requirements to all employees;
- Responsible to discard/scrap/recycle non-conforming material on the “scrap parts trunk”.

Delegation

The Environment, Safety and Health Coordinator may delegate all duties assigned to any qualified assistant as necessary, however, such delegation does not relieve the Environment, Safety and Health Coordinator of the overall responsibilities.

Continuity

In the absence of the Environment, Safety and Health Coordinator the Service Center Manager/ Accountable Manager will assume all duties and responsibilities as assigned above or assign the duties to another qualified assistant.

1.2.17 – SMS Safety Manager

The SMS Safety Manager is designated by the Service Center Manager/ Accountable Manager and is responsible for:

- Facilitate and administer the Repair Station Safety Management System;
- Managing SMS implementation plan;
- Facilitating hazard identification and risk assessment activities;
- Monitoring the effectiveness of mitigation activities;
- Providing periodic reports on safety performance;
- Maintaining SMS documentation;
- Planning and organizing staff safety training;
- Overseeing periodic evaluation of processes and systems.

Delegation

The SMS Safety Manager may delegate all duties assigned to any qualified assistant as necessary, however, such delegation does not relieve the SMS Safety Manager of the overall responsibilities.

Continuity

In the absence of the Environment, Safety and Health Coordinator the Service Center Manager/ Accountable Manager will assume all duties and responsibilities as assigned above or assign the duties to another qualified assistant.

1.2.18 – Intern

The Intern is responsible to the Maintenance Leader for:

- Execute repairs as instructed by the Technician responsible for the unit;
- Remove and Reinstall M&TE as required by Test Equipment Coordinator;
- Measure and registry solder equipment;
- Housekeeping of tools verification;
- Support technicians as required;

Delegation

An Intern *can't* delegate *any* duties assigned to another *person*. *If intern can't perform his assigned task he must communicate to the Maintenance Leader so he can designate another employee.*

Continuity

In the absence of an Intern, another Intern will assume all duties and responsibilities as assigned above.

2.0 - ROSTERS

2.1 - REPAIR STATION PERSONNEL ROSTER

The Quality Representative or authorized designee will maintain and revise a roster of managers responsible for supervision of maintenance and a roster of the inspection personnel designated and authorized to return articles to service *in a format acceptable to the FAA*.

Procedure to revise the rosters:

1. The Quality Representative will revise the rosters within 5 business days of any change caused by termination, reassignment, change in duties or scope of assignment, or addition of personnel to the Repair Station inspectors or managers staff;
2. The Accountable Manager will sign the rosters to indicate approval;
3. The Quality Representative will file the original roster at the Quality Department and will provide a hardcopy and make available to all Repair Station personnel on the main wall of the shop.

The Quality Representative is responsible for designating and approving any individual as a new inspector according to the Repair Station Training Program.

Inspection personnel will be designated by groups according to their proficiency and mechanic certification (by ANAC), in order to attend different technical areas of inspection.

These areas will be the ratings authorized per the Repair Shop certification per the repair capability and will match the descriptions on CFR Part 145.59.

The roster will list all the inspectors that are authorized to sign off the maintenance release documentation and approve articles to return to service, including assigned inspection area, mechanic certificate numbers and authorized signature and initials (see APPENDIX A – Forms).

Inspection areas (ratings):

Radio - Class 1 – Communication Equipment
Class 2 – Navigation Equipment
Class 3 – Radar Equipment

Instruments - Class 1 – Mechanical
Class 2 – Electrical
Class 3 – Gyroscopic
Class 4 - Electronic

Accessories – Class 1 – Mechanical
Class 2 – Electrical
Class 3 - Electronic

The records of rosters will be retained for a minimum period of two years after the employee has relinquished the job position.

2.2 – EMPLOYMENT SUMMARY

Each Manager, Inspector, Technician and Support personnel that is part of the Repair Station staff will have their past experience recorded on the Employment Summary Form (see APPENDIX A – Forms) and filed in their individual folders at the Quality Department files and maintained current in accordance with 14 CFR Part 145.161.

Individual training records available at the Quality Department will be used to demonstrate the individual past hands-on experience on work specified.

The summary will be sufficient to show compliance with the experience requirements and will include the following:

- Full name and Present Title(Job position);
- Total years of experience *and type of maintenance work performed*;
- Past relevant employment with names of employers, periods (month/year) of employment, followed by the description of the work/maintenance accomplished/ experience since has been designated as inspector;
- Scope of present employment, and
- The type of mechanic or repairman certificates held and the ratings on that certificate, if applicable. In addition, other certifications or licenses related to the job position will be included.

Procedure to revise the Employment Summary

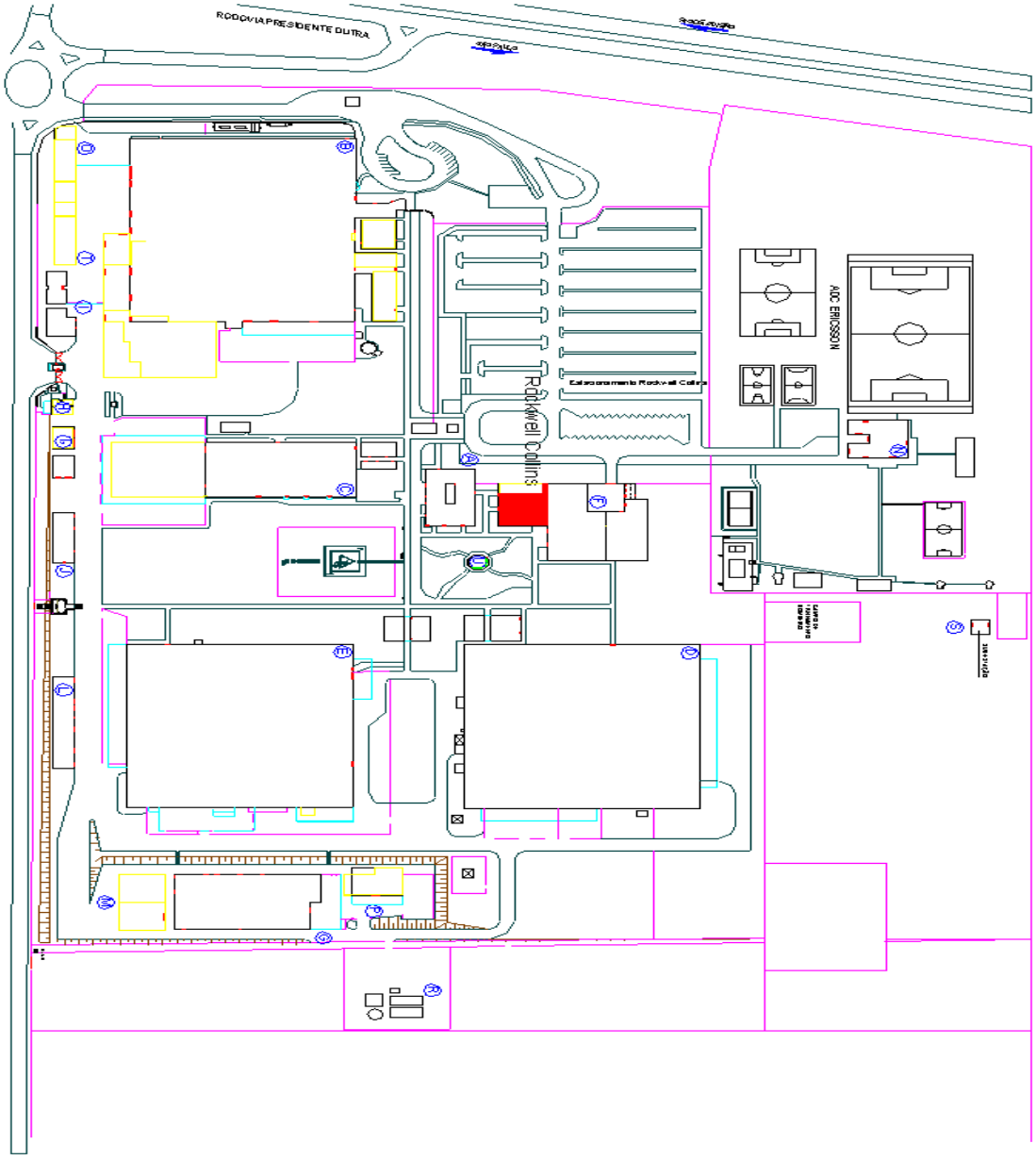
1. The Quality Representative will update or create the individual Employment Summary Form within five business days in the event of any change caused by termination, reassignment, change in duties or scope of assignment, or addition of personnel to the Repair Station staff.
2. The individual that had the employment summary updated will sign and date;
3. The Quality Representative will insert the Employment Summary Form in the individual folder and discard any other form that is superseded. An electronic copy will be maintained at the appropriate server on the Repair Station network.

The records will be retained for a minimum period of two years after the employee has relinquished the job position.

3.0 - OPERATIONS INCLUDING HOUSING, FACILITIES, EQUIPMENT AND MATERIALS

3.1- FACILITIES LAYOUT

3.1.1- Facilities Location– Rockwell Collins – São José dos Campos



3.2 - HOUSING AND FACILITIES

Rockwell Collins do Brasil Ltda – FAA Repair Station No.Z5RY553Y, is located *at 1090, Ambrósio Molina st., - Building F* - Eugênio de Melo - São José dos Campos - São Paulo – Brasil.

The Repair Station is placed at the building F part of the Industrial Plant of the enterprise Ericsson do Brasil Ltda. which is located at km 136 on the Pres. Dutra highway, and covers an area of approximately 646 squared meters, incorporating separated workshop, storage, receiving and dispatch and administration divided in the following areas:

99 m^2 Offices (Accountable Manager, Quality Representative, Customer Representative, Assistant) /Focus Rooms

433.8 m^2 Laboratory

24.8 m^2 Stockroom/IT Server Cabinet

16.6 m^2 Training room/Meeting Room

66.8 m^2 Receiving/Shipping/Storage Area

15.1 m^2 Cleaning Room/Chemicals Storage

The building has central air-conditioning system with variable temperature and smoke detectors with the alarm system directly connected to the Industrial Plant Fireman brigade base.

Emergency lights and exits

All office and workshop areas are lit with fluorescent light fixtures, having two sets of emergency lights for the workshop, one for the administrative area, another for the central hall and another at the main entrance. Emergency lights will be checked manually by the Safety Coordinator by pressing the push button to assure the emergency light lits in case of lack of input power.

Fire Protection

Fire extinguishers are strategically distributed throughout the whole facility and were inspected and approved by the local Fireman authority. The extinguishers were previously selected by the Fireman brigade of the Industrial Plant and were assigned to each area of the Repair Station accordingly to the type of risk of fire.

The conditions of use of the extinguishers (level of pressure and life of the cylinder) will be monitored and controlled by the Safety Coordinator to keep the cylinders safe and ready for use.

Emergency Alarm and procedures

The full plant is monitored by smoke detectors. In the event or suspect of a fire incident, the central control energizes a loud siren sound that can be heard in all rooms of the Repair Station. The siren is located at the repair shop area on its East wall.

In case of the sound of siren being heard :

1. The central control will disable the magnetic lockers of front and rear doors of the *building* F;
2. All the personnel inside building F must leave the facilities immediately through the nearest door (front or rear) and must direct to the meeting point outside the building F and wait for the instructions of the Emergency Staff of the Industrial Plant;
3. In case of lack of power, the emergency lights will lit and the personnel may find the exit by following the luminescent signs localized throughout the facility;
4. All the personnel can only return to the work places after the Emergency Staff has cleared the emergency situation.

In case of fire in any area of the facility:

1. The personnel will leave the area and will not use any of the fire extinguishers;
2. The fire extinguishers will be handled only by the personnel trained that is part of the Emergency Staff of the Industrial Plant.

The building has two access doors. One provides access to the entrance hall and the other to the receiving/shipping room. Both doors have magnetic lockers monitored and controlled by the Security personnel of the Industrial Plant. Access is provided to employees by using individual badges.

The workshop area contains custom-built consoles and benches with standard and specialized test equipment. A separate process room is used for cleaning/washing and drying units. *Whenever the grinder on cleaning room is used not other work shall be performed on the area and the door separating it from the workshop area shall remain closed, cleaning room must be clean afterwards.*

Located adjacent to the workshop area, the stockroom consists of a secured room in which the repair parts are stored.

All goods coming into and going out the facility are checked in the receiving and dock/area which is located to at the opposite end of building entrance hall.

The necessary power requirements, such as 400 cycles/115 volts and 60 cycles/115 volts, is provided and distributed in the shop area. The entire building is designated as a non-smoking area with "Não Fume/No Smoking" signs, displayed throughout the repair station.

3.3 - EQUIPMENT AND MATERIALS

This Repair Station utilizes equipment, tools, and materials necessary to perform maintenance in accordance with 14 CFR Part 43. Each bench test has its own test equipment, interface tools and test cables necessary in order to provide adequate test simulation to all units rated. Others test equipment, tools and materials used at maintenance or test process are kept in appropriate location inside the shop to make easy handling when work is performed.

Each inspector and technician have their own tools supplied by the Repair Station as well as safety materials IPE (Individual Protection Equipment). The Safety and Health Coordinator will be responsible to control and verify if these materials are adequate to use and will maintain in file a record of materials delivered.

3.4 - EQUIVALENCY OF SPECIAL EQUIPMENT OR TEST APPARATUS

Equivalency of special equipment or test apparatus will be determined when the level of accuracy is equal to or better than that recommended by the manufacturer.

In instances involving the use of equivalent test equipment and/or apparatus, the determination of equivalency for such equipment is determined by following procedures below. The basis of equivalency for equipment or apparatus as it relates to products being maintained must meet the manufacturer's standards and specifications with all respects regarding tolerances and accuracy as declared on maintenance manuals of the products. A data base of all test equipment equivalency will be maintained and will be revised by the Quality Representative in the event of a new determination of equivalency.

Procedures

1. The Test Equipment Coordinator will select the MT&E that is candidate to be equivalent to that one listed (or having the minimum specifications required listed) on "Special Tools and Equipment" Section of Maintenance Manual of the article to be serviced and will fill the MT&E Equivalency Form (see APPENDIX A) with the specifications of both MT&Es and submit to the Quality Representative for analysis;
2. The Quality Representative will compare and validate the specification data of the MT&E recommended on the Maintenance Manual of the article and the specifications of MT&E suggested by the Test Equipment Coordinator to be equivalent to OEM data;
3. If any of the MT&E OEM data is not available then the Quality Representative will work with the cognizant Rockwell Collins, Inc Support Engineer to perform an evaluation and make the determination of equivalency;

4. In both cases above the Quality Representative will work with the Technical Support to ensure that the limitations, parameters, and reliability of the equipment are equivalent to that of the manufacturer's recommended equipment. This includes data from the OEM or another source of data used to manufacture the equipment.

5. After the final determination of Test Equipment Equivalency the MT&E Equivalency Form (see APPENDIX A) will be closed out by signatures of both Test Equipment Coordinator and the Quality Representative and will be printed and filed at the Quality Department files;

3.5 - RECEIVING

Policy

The Quality Representative will be responsible to assure that all incoming materials, AN or MS and other hardware, parts, component, equipment and other products procured for use by the repair station are subject to receiving inspection to assure conformance to part number, purchase order and/or other applicable specifications. This includes visual inspection of the shipping container for damage.

Items received from subcontracted facilities must be followed by a transportation invoice specifying proper item identification.

All material, parts, and components must be traceable to an approved source in accordance with the latest FAA Advisory Circular AC-20-62().

Any parts or materials required for the maintenance of Rockwell Collins avionics components that are stored at the Repair Station stockroom must be ordered from Rockwell Collins, Inc., USA or from any one of the Service Centers.

Any part or materials required for the maintenance of a Rockwell Collins product that is supplied by the customer must be checked if is followed by the purchase order/ invoice from Rockwell Collins, Inc. or followed by the appropriate documentation that proves traceability to an approved source in compliance with the latest FAA Advisory Circular AC 20-62().

In any case all parts or materials must be checked if having a label containing appropriated identification numbers (part number, quantity, expiry date on materials sensitive aged).

Consumable materials like chemical compound, cleaning solvent, etc, which may be purchased directly from the suppliers, must first seek the approval from the Quality Representative for initial purchase. Procedures will be found on Subsection 3.10 – Shelf Life.

Any article received from a customer to be serviced by the Repair Station will only have a work order (RDR) created and be forwarded to the shop area if its CPN is listed on the FAA Accepted Control Capability Document.

The detailed procedures for the Receiving will be found on subsection 12.2 – Incoming Inspection Procedures in the Quality Control Manual.

3.6 - PARTS AND MATERIALS

Any parts or materials required for the maintenance of a Collins product will be ordered either from OEM warehouse, or from any one of domestic or international Service Centers.

Eventually parts maybe supplied by customer when are not available at the Repair Station stock and since the customer provides the documentation that proves traceability to an approved source as explained on Subsection 3.5 – Receiving.

All parts and materials purchased will be stored at the Repair Station Stockroom and will be maintained by the Inventory & Order Administrator.

In any case, all parts and materials will be obtained from sources approved by Collins's Headquarters Quality Group and Material Operations under the airworthiness requirements.

3.7 - HANDLING OF PARTS, MATERIALS AND EQUIPMENTS

All parts and materials stored in the Repair Station stockroom will be found packaged in containers/ESD bags and labeled with the information of part number, nomenclature, Shipping Invoice number, quantity, lot information and expiration date, in case of aged sensitive materials..

Stockroom will be organized in such a manner that all parts will be placed in suitable stands, shelves, racks and bins in the sequence of the part number accordingly with the labels on each bin. When a package or bag of a part is not small enough to be stored in a bin, an encoding system based on colored labels affixed to the bin will guide the Inventory & Order Administrator to bigger containers placed in other shelf inside the stockroom.

All equipment and articles to be serviced will be handled in such a manner that different articles from different customers and the articles that are ready to be returned to service and others in the process of repair will not be intermixed.

3.7.1 PURGE OF PARTS FROM STOCK

It may happen that some part or material is identified by *OEM* to be suspected to be in non-conformance to some OEM specification.

The Inventory & Order Administrator will be contacted by the Collins's Headquarters Quality Group in USA by e-mail or phone and will receive instructions to remove a part (or a specific lot) from the stockroom either to be inspected if is in compliance to OEM specifications or to be disposed in order to prevent being used during repair.

In this case, the Inventory & Order Administrator will:

1. Locate the container/bag containing the parts or the specific lot to be purged and store it in the "Parts Waiting Disposition" cabinet placed inside the stockroom and notify the Quality Representative;
2. Notify the Quality Representative to accomplish the specific inspection as soon as possible;
3. Return the part to the bin if the part has met the specifications or will proceed to final disposition of the part (procedures on Subsection 3.13);
4. In both cases, the Inventory & Order Administration will document the results on the same message received by e-mail and forward the information to the Accountable Manager and to the Quality Representative. No special form will be used for that action.

3.7.2 EQUIPMENTS

Suitable trays, racks, stands, and ESD protection will be available at the Repair Station to ensure maximum protection of all articles or equipment received.

Handling procedures

All the Repair Station personnel will:

1. Handle any article within the Repair Station with special attention to all warning signs of "FRAGILE" or "HANDLE WITH CARE" labels present in all gyroscopic instruments or any other article that requires special care like instrument with window glasses;
2. Use appropriate ESD protection when removing the ESD caps or covers of the articles at the area of Shipping/ Receiving and at any part of the workshop;
3. Maintain attached to the article all the "POST IT" labels (see APPENDIX A) while article is not ready to be dispatched to the customer and the "Unserviceable Tag" (see APPENDIX A) while an inspector has not released it to return to service;
4. Segregate the parts replaced during repair from the article and treat them as non-conforming parts per procedures in Subsection 3.8;
5. Maintain all parts, cards and assemblies together in an ESD bag or container at the end of the working day;

It is the responsibility of all Repair Station personnel directly in contact with an equipment or article to being serviced that handling, storage or packing procedures of any parts or components must be accomplished by wearing ESD protection equipment: wrist cord plugged into the ESD monitor installed in each bench, stockroom and Shipping/ Receiving area and the mat plugged to ground connection.

Common sense prevails and if an item does not appear to be safety or correctly handled, stored or packed it probably requires special attention.

Any person handling the components or parts is to ensure that any special handling instructions are adhered to accordingly.

Whenever practicable, the items shall not be removed from their packing until such time as they are ready to be used.

3.8 – NON-CONFORMING PARTS

Non-conforming parts are defined as those components (printed circuit boards, crts, lcds, etc) replaced or rejected during avionics repair and the consumable chemicals with due date expired.

Procedure

1. All non-conforming materials (electronic components) replaced during repair will be collected at the time of repair of the article and will be accumulated in a locked container identified as "SCRAPPED PARTS". This container will be available at the *shopfloor* area and when is full will have its content removed to be disposed later per procedures on subsection 3.13 (Disposal of parts and materials).
2. The piece parts resulted of repairs (small trimmed leads, wires, etc) will be accumulated in small containers at the process area within the shop.
3. Any assembly or circuit card that is replaced and is found in good condition for refurbishing will not be disposed and will be handled per the latest revision of the procedure ISS-MAT- P-700 (Refurbished Parts) in a manner to be returned to the stockroom as serviceable or will be retained at the shop for the purposes of any technician to use it as a troubleshooting aid. In such case, these parts will be stored in ESD bags/containers identified with the words "TEST AID" when stored within the shop area.
4. For instance, the customer may request to the Repair Shop to receive the article with the non-conforming parts replaced. Personnel will be advised by the Customer Service Coordinator to proceed as customer request and the parts will be identified as "unserviceable parts".

3.9 - PRESERVATION OF PARTS

All storage areas shall be kept clean, well ventilated and maintained at an even dry temperature to minimize the effects of condensation.

Any special storage instructions are to be adhered to and in addition, they should include but are not limited to the following:

a) All ESDS devices are to be stored in anti-static bags or containers;

b) All fragile components or parts are to be stored in proper containers;

c) Shelf life materials are to be stored in the appropriate environmental conditions, as per the respective specs when available.

3.10 - SHELF LIFE

Parts and materials identified with a shelf life or expiration date sticker or labels will be stored in the stockroom area. Consumable materials (chemicals) having shelf life dates will be kept in the appropriately identified fireproof cabinet located in the cleaning room. Any parts and materials found or received with expiry date already exceeded will be treated as non-conforming part per paragraph 3.8 procedure. The LRUs (Line Replaceable Units) will be identified by the Airworthiness Tag attached to it and the Quality Representative will assign them a shelf life period in accordance with the classification established on Appendix B of the latest revision of the Rockwell Collins Std Shop Practices Manual (Equipment Shelf Life/ Recertification) which is not part of this manual.

As far as practicable, parts and materials are to be issued out in a "first-in first-out" basis. For shelf life items they are to be issued based upon the expiry date order; those with earlier expiry date shall be issued first.

When available, the manufacturer's recommended storage conditions shall be observed.

The Quality Representative or his/her designated will be responsible for ensuring that any part, article (LRU part of rental/exchange pool stock) or material with a shelf life assigned and have expired its due date are not released to the repair shop.

This work will be conducted in conjunction with the Inventory & Order Administrator who will be responsible for monthly monitoring the shelf life dates for parts and materials and for ensuring that those expired are removed from the stock and disposed of accordingly to procedures on paragraph 3.8 or be extended .

The Inventory & Order Administrator must advise the Quality Representative or his/her delegated if shelf-life materials are received at the repair station. The shelf life dates for parts and chemicals will be entered into the EMS system.

The Inventory & Order Administrator will control the LRUs stored in the stockroom through the use of a local listing.

Under no circumstances shall the shelf life of a chemical be extended without written authorization from the Rockwell Collins Application Engineering department. The Quality Representative or his/her designated will perform sample testing to ensure the continuing conformity to its specification following Rockwell Collins procedures for extending shelf life and submit the results to the mentioned department for approval; each expired shelf-life materials for which extension is being pursued (by written request to Rockwell Collins Application Engineering Department or manufacturer, as applicable) must be segregated and held in the "Quarantine" cabinet within the *cleaning room* area until the extension is granted and the Quality Representative print a label with the new date. Otherwise, the extension is denied and the material is disposed of per procedures on paragraph 3.8.

3.11 - HARDWARE AND EQUIPMENT STORAGE

The Inventory and Order Administrator is responsible to the Service Center Manager/ Accountable Manager for the stockroom operation and for controlling, segregating and maintaining all stock of usable parts and materials and all repair station tools as to a serviceable or unserviceable category approved by the Quality Representative. In addition is required to:

Properly store, segregate and protect materials, parts and supplies.

Provide suitable storage facilities for storing standard parts, spare parts and assure raw materials are separated from shop and working space. Provide for the preservation of all articles or parts, while in inventories, which are subject to deterioration and shelf life specifications.

Only acceptable parts and supplies will be issued for any work. Acceptable industry practices shall be followed for the proper protection and storage of materials.

The labeled parts and materials are to be stored in the designated location in the stock area. As far as practicable, items received shall be stored in the original packaging so that it does not deteriorate or is likely to damage or deteriorate any other goods.

All certificates, invoices / delivery documents shall be kept on file under responsibility of the inventory & order administrator. These documents that make up the goods receipt register must be retrievable within a reasonable time in order to facilitate identification of traceability of parts. *Whenever feasible digital copies of the records are kept on the server, accessible on the stockroom.*

As far as practicable, all serviceable tools and test equipment are to be kept at the designated locations.

Any unserviceable tools or test equipment including those with expired calibration are to be properly tagged and removed from the workstation.

It is the responsibility of the Maintenance Leader to ensure that the tools and test equipment are properly stored and kept in good condition.

3.12 HAZMAT POLICY AND PROCEDURES

Rockwell Collins Inc. is committed to responsible environmental, safety and health management wherever it does business around the world. The enterprise has established goals to provide a safe and healthful workplace for all employees and to prevent pollution in the communities in which operates. Environment, safety and health are an integral part of managing of the business and serves the enterprise as a competitive business advantage. Through continual improvement programs, the enterprise strive to exceed environmental, safety and health regulatory requirements, enhance the

Environment, safety and health management processes and establishes voluntary environmental, safety and health programs at the facilities worldwide.

The Rockwell Collins do Brasil Ltda. hazmat control and handling is implemented under guidance of the latest revision of the RC-ESH-P-329 "Hazardous, Controlled and Universal Waste Handling" procedure that is an integral part of Rockwell Collins Environmental Management System.

Rockwell Collins do Brasil Ltda. doesn't falls under the definition of a "hazmat employer", with "hazmat employees", under 49 CFR 171.8. The repair station ship by ground approved materials to be disposed at a Treatment and Disposal Facility approved by the local environment agency authority – CETESB within container approved by contractor.

The Repair Station doesn´t ship or transport hazardous goods by air. The hazardous waste generated during the repair process are shipped and transported only by ground.

3.13 DISPOSAL OF SCRAPPED PARTS AND MATERIALS PROCEDURES

Any production waste or parts and/or materials that has been replaced or generated during the repair will not be returned to customer (unless is requested) and will be either destroyed or recycled as applicable in accordance with the procedures below and using FAA AC 21-43 -App E- (Scrap or Salvage and Destruction of Aircraft Parts) as a guidance for misrepresentation of aviation parts.

After the repair of any article the Technician will segregate:

1. In the containers identified with a blue label (ESH Form 3 – Controlled Waste Label) on Appendix A and placed on the process area all Non-Hazardous waste that was generated, like waste of solder, trim leads of components, wires and all sort of small piece of metals must be disposed in these containers;
2. In the containers identified with a red label and placed (ESH Form 4 – Hazardous Waste Label) on Appendix A on the process area all Hazardous waste resultant of contamination of chemical products.

The contents of the containers will be clean out weekly by the facility cleaners and will be transferred in plastic bags to separated containers placed at the shipping area (packages room);

The Environment Coordinator is responsible for the control, monitoring and labeling of containers assigned to store Non-Hazardous and Hazardous waste;

The Environment Coordinator and/or the Shipping/Receiving Assistant will:

1. Identify containers with Non-Hazardous waste with the label "Controlled Waste" (ESH Form 3 on APPENDIX A); The date of when container was created, when container is full and the originator; The originator field will be filled with "Shop".
2. Input a record on Scrap waste log sheet(see APPENDIX A) and identifying the number of the box;
3. Identify containers with Hazardous waste with the label "Hazardous Waste"(ESH Form 4 on APPENDIX A); Input the date when the container is full and the Originator as "Shop" if generated by the repair process or "all facility" in case of fluorescent lamps;
4. Input a record on Hazardous Waste Log Sheet (ESH Form 2 on APPENDIX A) and identify the number of the box;

All the waste will be accumulated until is sent to a subcontractor for recycling (separation of metals and glass) or destruction (incineration and landfill).

The limit for accumulation will be the balance between the volume of waste and the cost to send to destruction or recycling.

Procedures to send hazardous waste for destruction:

1. The Environment Coordinator will select a facility to destroy the Hazardous Waste by visiting the facility candidate to provide the service and obtaining enough information to assure the facility has approval and certification of the Environment Agency (CETESB);
2. The Environment Coordinator will submit the information and estimate of costs to the Accountable Manager for approval;
3. After approval, the Environment Coordinator will contact the Environment Agency to initiate the process of obtaining documentations and paying applicable government taxes;
4. Once the process is concluded the Environment Coordinator will identify all packages in accordance to the regulations (RES 420) of National Transportation Agency(ANTT) and send the waste to the selected facility to destroy the hazardous waste;
5. The Environment Coordinator will fulfill the Hazardous Waste Log Sheet(ESH Form 2 on APPENDIX A) with the date sent to the facility and later with the date the the Manifest of Destruction was received at the Repair Station and will sign off at the appropriate field of the form;

6. The Environment Coordinator will then submit the form to the Service Center Manager/ Accountable Manager to the final acknowledgement and close out of the process;
7. The Environment Coordinator will then file the Manifest of Destruction at the ESH files at the Quality Department for a period of six years minimum;

Procedures to send Non-Hazardous waste (scrapped parts) for recycling:

The process to send the Non-Hazardous waste to be recycled does not have the requirement of being managed by the Environment Agency and there are no taxes involved.

However, any subcontractors for recycling services need to be approved before receiving the electronic scrap generated by the Repair Station.

1. The Environment Coordinator will work with the Rockwell Collins, Inc ES&H Regional Manager to obtain approval to subcontract the services of a recycling facility by submitting all the documentation that assure the facility has been granted by the Local Environment Agency to operate as a recycling facility and that will warrant the scrap parts will be completely mutilated avoiding to return to the market;
2. The Environment Coordinator will request to the facility for a estimate of costs to accomplish the service and submit to the Service Center Manager/ Accountable Manager for approval;
3. After obtaining approval, the Environment Coordinator will identify all containers by type of scrap (previously separated), send to the selected facility and fulfill the ESH Form 1(see APPENDIX A) with the date sent to the disposal facility;
4. When the disposal facility return the Manifest of Destruction, the Environment Coordinator will submit it to the Service Center Manager/ Accountable Manager for final acknowledgement and close out of the process.

The Environment Coordinator will then file the Manifest of Destruction at the ESH files at the Quality Department for a period of six years minimum;

4.1 - GENERAL

The Repair Station will maintain in a separate manual entitled "Controlled Capabilities Document" (CCD) its current repair capability list where are listed all the articles it may perform maintenance, preventative maintenance, or alterations within the scope of the ratings of its certificate. *The CCD will be kept in a format that is compatible with the responsible Flight Standard Office.*

The Quality Representative or his designee will be responsible for conducting the Self-Evaluation required under 14 CFR Part 145.215(c) to determine the Repair Station has all the housing, facilities, equipment, material, technical data, processes and trained personnel *(in sufficient quantity)* in place to perform the work on the article. Only after the Self-Evaluation is completed and FAA is informed of the addition may a new article be listed on the CCD.

4.2 - SELF-EVALUATION PROCEDURE

1. Any Repair Station employee who seeks for the alteration (add or remove items) on the capability list must provide the information of the article to the Quality Representative;
2. The Quality Representative or his designee will perform the Self-Evaluation as required by 14 CFR Part 145.215(c) and will document it by using the CCD Form A (see CCD manual Section II) for this purpose and will report the results to the Accountable Manager for review and approval.
3. The CCD Form A must be filled by checking the suitable choice on the blocks ("has/ has not") for each of the items evaluated, and any applicable comments must be entered by the individual (initials are required) who performed the self-evaluation; Both Quality Representative (or his designated) and Acc. Manager must sign and date when completed.
4. The Accountable Manager will submit the form to FAA after reviewing and approving it and will send an email message to the FAA requesting for acceptance of the alteration to the CCD.
5. The Quality Representative will file the hardcopy of the document and keep it during all the period the capability is maintained by the service center plus five years after discontinuance.
6. For product/equipment subject to 14 CFR Part 43 Appendix E and/or F compliance, the field for Procedures and/or Technical Publication must contain notes confirming this compliance was checked and that the available documents have sufficient process/procedures in them (e.g. instructions on the CMM – Component Maintenance Manual) to fully comply with the appendixes requirements.

4.3 - CHDO NOTIFICATION AND REVISION

The Accountable Manager will be responsible for notifying the FAA CHDO that a Self-Evaluation has been done and for submitting a request for acceptance of the new revision to the CCD.

The CCD Form A and the pages revised on the CCD will be submitted to FAA anytime the Repair Station identify the need for a revision and will be done before the date planned to initiate the operations of maintenance.

The Quality Representative will update and maintain the CCD distribution list as applicable to notify the latest update to the holders of controlled copies of the CCD.

5.0 - TRAINING PROGRAM

5.1 - GENERAL

Training of repair station mechanics, inspectors and other personnel will be accomplished by classroom instruction, computer based training (CBT), factory and on the job training as necessary following procedures on the latest revision of the Repair Station Training Program Manual approved by FSDO. All technicians may be trained at the factory (USA) or locally using videos, books, and/or cross training supplied by the Service Center.

This training will cover procedures and policies with respect to quality control, workmanship standards, ESD Control, Human Factors, aviation regulations, hazardous materials handling and disposal, handling or parts and disposal, SUPs, etc. as well as special training in equipment specifications and parameters. Formal classroom and/or on the job training will be available for updating skills for new equipment types and state of the art advances. This will be conducted by an on-site Collins instructor or at a designated training location.

Training records/information may have hard copy and/or electronic format. A copy of each employee's training record will be retained indefinitely in the Service Center. It shall be the responsibility of Service Center Manager/Accountable Manager to ensure the applicable training record forms are initiated and kept current for each employee. The forms are defined on the Repair Station Training Manual and will indicate the type of training, method, duration, date of completion, location and will include the name of the instructor that conducted the classroom and/or the on job training.

All entry of data on forms must be in ink or be printed. If any corrections must be made, a line should be drawn through the data to be corrected so that anyone is still able to read the old wording/ data. The correct information should be printed or written near the lined-out information followed by the initials of the person who made the correction. "White-out" is not permitted to correct any information on training records forms.

Copies of the certificates issued for factory training or local training will be kept in the employee's file.

A Service Center employee may have previously received training on a same or very similar technology capability (appliance or product) that is currently serviced in the Service Center. This training can be qualified for Service Center use if:

- Previously received training, via military or through former employment, is the same or very similar technology as the appliance or product type that the newly hired employee is to have service responsibility and
- The employee successfully completes unit servicing with demonstrated competence.

Recurrent inspector training is to be given to all Service Center inspectors who have previously completed the requirements of the new inspector training. This training is on going to keep the inspectors current with applicable documentation changes and revision.

Indoctrination, Basic, Recurrent, Inspector Recurrent, Specialized and remedial training will be accomplished by following procedures on the most current revision of the Repair Station Training Manual.

The Repair Station will not issue Certificates of Conclusion for the training categories listed. Certificates can be available from CBT training and formal training conducted by Rockwell Collins Inc. at the factory and third parties.

However, the Quality Department will document and record the participation of trainees in a List of Presence per Repair Station Program Manual.

5.2 - PROGRAM

The Repair Station Training Program is assigned for all Service Center's employee that perform maintenance, preventive maintenance, or alterations, and have inspection functions in order to become capable of performing the assigned task in conformance with the knowledge required.

The following types of training are currently used by the Service Center:

1. **Formal Training (basic or specialized)**

   Initial or Recurrent training can be conducted at a formal class room, at the factory or at other service center. A certificate will be awarded upon completion of the training, as applicable.

2) **On-the-Job Training (recurrent or specialized)**

   This program is used for technical staff cross training by company authorized training instructor to qualify him/her on new equipment type. It can be initial or recurrent training.

3) **Indoctrination Training**

   New employee shall be given orientation training at the earliest opportunity to familiarize himself within the company. Initial training only.

4) **Job Function Training (Basic training)**

   Initial and recurrent training will be provided to the relevant staff according to the job function. Technical personnel and inspectors must be trained in any changes or revisions to the Repair Station Manual, 14 CFR Part's, etc.

5) Personal Development Training

As a good practice, any employee may be nominated for internal Rockwell Web page (LMS – Learning Management System) training (CBT) or external courses/seminars to upgrade his/her knowledge and skills. These include quality-related course, supervisory skill, safety-related courses, and others.

6) Hazardous Materials Training

All employees that handle hazardous materials or hazardous waste as part of their job position will receive initial and recurrent training as required in 49 CFR 172 Subpart H and in compliance to 14 CFR 145.165 and as defined on Repair Station Program Manual.

5.3 - REVIEW AND SUBMISSION OF TRAINING PROGRAM

The Accountable Manager is the responsible for the training program and in conjunction with the Maintenance Leader and Quality Representative shall review the Repair Station Training Program based upon staffing requirements, capabilities expansion, etc and shall submit it to the FAA International Field Office in Miami as required for approval.

The Accountable Manager is responsible for the administration and issue of revision for the Training Program. The Accountable Manager will revise any part of the Training Program is found necessary to produce it in a final.

The Accountable Manager will send the revised material to the FAA Representative by e-mail or regular mail or provide in hands and request for approval.

Upon approval by FAA as indicated either by Representative's signature on the approval block on the List of Effective Pages or by the FAA stamp on LEP, the Quality Representative or his/her designee will insert the revisions and changes onto the Repair Station Training Program Manual, update and initial the Record of Revisions page and will file the RSTP in electronic format in a folder at the local network server. The access for edition of the original file will be limited to the Accountable Manager and to the Quality Representative in order to guarantee the integrity of the manual information.

6.0 - WORK PERFORMED AT ANOTHER LOCATION

The Repair Station Z5RY553Y does not perform work at another location other than at the business address as specified in the Air Agency Certificate. Hence, this chapter is not applicable to this Repair Station.

7.0 GENERAL PROCEDURES FOR MAINTENANCE

The company may perform maintenance of components removed from any air carrier or other commercial operator and must follow their maintenance programs and applicable sections of their maintenance manual in compliance with 14 CFR Part 145.205. The work is limited to the capability list and shall be conducted by qualified personnel or under supervision of qualified personnel.

7.1- MAINTENANCE PERFORMED FOR AN AIR CARRIER

The Repair Station must obtain a letter from the Air Carrier stating that the Repair Station Quality System complies with the Air Carrier's Quality System and with their General Maintenance Manual. The Quality Representative will file the letter at the Quality Department files.

It is the air carrier's responsibility to provide any additional air carrier's procedure including the necessary technical data (CAMP or other FAA approved maintenance program). Otherwise, all maintenance of the component will be carried out in accordance with the Original Equipment Manufacturer's (OEM) approved data.

7.1.1 - Required Inspection Items (RII)

Not applicable to Rockwell Collins do Brasil scope.

7.2 - WORK ORDER - REPAIR DATA REPORT (RDR)

After incoming equipment is received and inspected in accordance with QCM – Inspection System - and the requested work for maintenance or alteration on an instrument, radio or accessory product is confirmed to be under the repair station certificate, the Receiving/Shipping Administrator will issue a Repair Data Report (RDR form 074-6165-200), sometimes informally referred as "O.S." for each unit/equipment received to initiate the process of servicing.

The S.G.S. system is developed to create work orders only for those articles listed on accepted CCD.

No RDR paper will be printed at this step of process. The Receiving/Shipping Administrator enters the incoming equipment data (type, part number, s/n, customer complaint) on proper screen of the S.G.S. (business) program according to the accompanying documentation and a unique number is issued so that each RDR bears a singular job number that will be the basic reference for recording and tracking all work action taken from this point until the end of whole process of servicing, when the equipment is found serviceable and airworthy.

Aircraft Tail Number and Aircraft Type when unknown must be filled as "none" on the SGS.

This RDR number will then be recorded with its model and serial number on a ‘’post-it” to be attached to the equipment.

During this Receiving Inspection (refer to Subsections 3.5 and 12.5) the inspector will enter information about ADs verification. During the Preliminary Inspection on Subsection 12.7 the verification of the SBS will be done and recorded. These information will be printed on Work Order – RDR Form (see APPENDIX A) at the end of the process.

All the incoming paperwork like customer repair order and tags are also retained on a separated file area and identified per RDR number. It will then be the responsibility of the Maintenance Leader to schedule the equipment for servicing based upon the turn-around time requirement and available resources, etc.

The post-it is color coded for urgency with blue being regular repair, orange urgency and red AOG.

This “post-it” will have a bar code printed with information of the RDR number. By using bar code readers any personnel that have permission to access SGS system will be able to verify all information pursuant to the article, including past visits.

The equipment is then passed to the workshop where it will be temporarily stored in the “INCOMING UNITS” cabinet shelves. At this point any available technician is required to fill the date, time and sign on Post It indicating the equipment is ready to go to the appropriate test station to be serviced.

Each component with a just created RDR number is at first classified as IR (“IN REPAIR”) status, but that may change many times as necessary while the component goes through the workflow in the Service Center. The classifications/workflow phases are defined as follows:

IR - (In Repair) – equipment is in process of servicing;

CH - (Customer Hold) – Waiting for customer answer or transportation;

EA - (Estimated Approval) – waiting customer approving estimated work;

WP - (Waiting Parts) – waiting for imported parts of supplied by customer;

TH - (Technical Hold) – equipment held due to technical problems on bench;

SC - (Sub-Contracted) – sent to subcontracted company;

CO – (Credit hOld) – Waiting for credit approval to the customer.

All data of any RDR are also available on repair station networked terminals so that the component is tracked and identified by any of data entry. A logbook is maintained in the repair station computerized workflow tracking program (locally developed software) that duplicates all available work order data, with records in numerical order, identifying the customer, the product for which it was issued along with manufacturer serial number, special instructions and the work accomplished. The implemented computerized database allows for fast retrieving of any information on the component and the work accomplished.

It is the responsibility of the Operational Manager to assure that proper supplemental instructions are furnished to assure proper progressive servicing, inspection and testing of the product involved. See copy of the Repair Data Report (work order) and supplemental forms in Appendix *A* of this manual.

7.3 - REPAIR, ALTERATION AND PERFORMANCE OF TESTS

The technician is to be aware that all repairs, alterations and tests carried out on a component shall be done in accordance with the approved maintenance tools such as updated component maintenance manual, suitable and calibrated test equipment and special tools, chemical products within the valid date and also that work be executed in conformance with the company workmanship standards and handling procedures of electrostatic discharge sensitive devices.

For deviation from the approved maintenance data, engineering assistance from the technical support of the respective manufactures shall be sought along with FAA approval before using such deviation.

The repair capability undertaken at the facility shall include inspection, replacement, testing, repair, overhaul and modification of avionics components including printed circuit assemblies or modules, etc., as approved by the FAA.

The company will only perform maintenance on the equipment listed on the Capabilities Controlled Document accepted by the Federal Aviation Administration and under the terms and limitations specified.

Procedures for repair or alteration:

There may be generation of Non-Hazardous and Hazardous waste during the repair or alteration of any article. These wastes must have final disposition accordingly to the procedures on Subsection on 3.13 (Disposal of Parts and Materials).

The technician and/ or the modification operator will segregate:

1. In the containers identified with a blue label and placed on the process area all the Non-Hazardous waste that is generated, like solder leads, trim leads of components, wires and all sort of small piece of metals or glass;

2. In the containers identified with a red label and placed on the process area all Hazardous waste resultant of contamination of chemical products used on repair, like pipe cleans or napkins contaminated by adhesives, toluene or all sort of products that might contain hazardous materials.

Procedures to install parts during repair

Parts installed in any article during the repair must meet the requirements of traceability to approved sources as described on Subsection 3.5(Receiving) and maybe:

- Requested directly from the Repair Station stockroom and/ or
- Supplied by the customer after be purchased directly from Rockwell Collins, Inc. and/or
- Supplied by the customer when is authorized to remove from another owned Top Level unit.

When requesting parts from stock the Technician will follow the instructions on SGS system and will:

1. Access the word order (RDR) of the article serviced on the SGS system and type the desired part with reference to the IPC or the article;
2. Replace the part in accordance with the Rockwell Collins Standard Shop Practices, Workmanship Standards Manuals and the technical publications CMM, CMMP, IB or SB ;the repair must be done in one of the process area of the Repair Station;
3. Record the maintenance action of the replacement of parts following procedures on Subsection 9.0 (Record of Work);
4. Segregate bad parts removed and store them in plastic bags;
5. Identify the plastic bags with the number of the RDR, model and serial number of the article;
6. Attach the bag with the bad parts to the article and return it to the shelf identified as "Bench Test";

These parts will follow the article while is within the Repair Station until the article is dispatched to customer and the parts maybe disposed locally or sent back to customer if requested. Procedures on Subsection 12.11 explain this in more details.

Tools used during repairs – FOREIGN OBJECT DAMAGE

All tools at the repair station used to perform the necessary tasks to repair an article in accordance with the Avionics Standard Shop Practices Manual and Workmanship Manual will be controlled to prevent loss, damage and/ or cause FODs (Foreign Object Damage) contamination to customer parts and equipment and for personnel safety.

Hand tools are all of Rockwell Collins do Brasil Ltda. property and are stored on toolbox, drawer or cabinet and available for the technicians to use. Each toolbox is designated to one technician to use and take care; tools that don't need one per technician will be kept on the drawer. Surplus are kept at the cabinet on the cleaning room.

Each tool when feasible is identified with a tag containing RCB-** to identify to which kit or drawer it belongs. All tools are contained in the master tool control list

At the beginning of each work day each toolbox and drawer is verified against the list of tools it should have and the result is recorded on a log. If there is any discrepancy he shall note it on the blank field available in the same line of the toolbox control otherwise it shall remain blank (if multiple tools are missing over time a sequential numerical order is used).

A corrective action is defined (replace with backup tool, buy a new one, scrap the toolbox, etc).

The checker will initialize the field corresponding the day.

Weekly the Test Equipment coordinator shall initialize accepting the report and taking actions if necessary.

7.4 - TAGGING AND IDENTIFICATION OF PARTS

The following is the tags system in use at Repair Station:

1. Warning Tag

This tag is to warn the customer that the unit it is serviceable but is_not presently configured to be operable in flight and that adjustment and/or strapping must be performed during/prior installing the equipment in the aircraft.

2. Unserviceable Tag

All incoming unserviceable items and items received for modification and other work shall be treated as unserviceable and labeled with a red unserviceable tag. (form CPN - 074-5186-200).

Equipment returning to customer either as non-repaired due to BER (Beyond Economic Repair)or any other reason customer requests the article back must be identified with this same red tag. A record on the back of it containing the customer name, unit type, part number and serial number must be completed by inspector.

3. Out of Service Tag

This tag identifies the instrument test equipment as improper for use (CBZ 96-07 form on Appendix A).

7.5 - PART FINISHING

Outgoing equipment after final inspections are temporary stored on a "Finished Goods" shelf waiting for invoicing and shipping.

In the shipping and receiving area, the equipment is kept in accordance with manufacturer's recommendations or other acceptable industry standards. To afford protection against humidity, extreme temperatures, dust, rough handling or other damage, the component will be preserved by wrapping in suitable containers, plastic bags, cartoon bins and/or rigid boxes containing suitable shock absorption material.

8.0 - SUBCONTRACTED MAINTENANCE

The Repair Station does not subcontract any maintenance function. In the case of deeming necessary to subcontract any maintenance function the Repair Station will only subcontract the work from other Rockwell Collins facilities approved by FAA as Repair Stations.

8.1 - WORK PERFORMED BY OUTSIDE CONTRACTORS FOR CALIBRATION

The Repair Station contracts calibration laboratories for the calibration service of its own Maintenance and Test Equipment.

Quality Representative will be responsible for maintaining and keeping current the list of contractors for calibration services and make it available at the Quality Department files.

Only the calibration agencies that provide traceability of standards of calibration that are acceptable to the Administrator (like NIST) or those that are present on the list of "Signatories of Mutual Recognition Arrangement" (like INMETRO) available at the website http://www.ilac.org/ and/or the laboratories of calibration approved by the repair station through quality audits procedures on paragraph 14.2 will be approved as subcontractors for calibration services.

The list of contractors is a collection of calibration laboratories that have traceability of standards acceptable to the Administrator which includes the INMETRO (National Institute of Metrology, Normalization and Quality on Industry)

When test and/or calibrations are performed by the outside contractors, they will be required to provide the records of tests and calibrations as well as the respective calibration certificates with standards traceable to a standard acceptable to FAA.

Contractors for calibration services are non- FAA certified repair stations and are subjected to periodic audits (minimum of 2 years) scheduled by Quality Representative accordingly to audit procedures on paragraph 14.2. The results of audits and correction actions are filed at the Quality Department. Audits will be accomplished either visiting on-site or by sending a survey/audit questionnaire through regular mail.

9.0 - REQUIRED RECORDS AND RECORD-KEEPING SYSTEM

9.1 - RECORD OF WORK

This repair station will retain records of all work performed for a minimum of two years from the date the article was approved for return to service to demonstrate compliance with the requirements of 14 CFR Part 43 and 145.219. The hardcopy documentation of repair (primary source) will be available at the Finance Department shelves for no more than two months and will be kept on Iron Mountain (company hired for safeguarding hardcopies, located at Av. Gonçalo Madeira, 401 - JAGUARE – São Paulo - SP) for permanent storage file room for additional 8 years minimum. The records will be in English and in a format acceptable to the FAA and will be available for inspection anytime is requested.

The Accounting Assistant will be responsible for maintaining the permanent storage file including the retrieval of record which are done within Collins intranet on the address, the instructions are on the page http://rbizapps2.rockwellcollins.com/recordsroot/ (instructions are given on the tool itself).

A copy of each Repair Data Report (form 074-6165-200) with all attached supplementary form(s), like FAA 8130-3 form, to be maintained in the repair station records. Each work record is checked by an inspector for work accomplished, parts used, signature of mechanic and inspectors who performed the maintenance and inspection, respectively. A complete work package consists of RDR, Form 8130-3 (if unit is airworthy), *ADCF* (if applicable), Applicable Customer Correspondence, Inspection Verification Checklist, Reference to Test Log (if applicable) and reference to parts used.

All action carried out on an equipment shall be recorded using appropriate routines on the S.G.S system. The system is formulated on a direct flow of data to simplify the usage. All staff operating it receive training based on OJT and on the instructions manual of the system.

Security of data and information

Any person recording actions on a RDR must have proper identification recognized by S.G.S. Thus the current status of the equipment in the repair process is monitored, identifying not only the work but also the technician/inspector that performed it. The record of work of any RDR may be reviewed by accessing the system from any computer tied to RCB local network. However, this access will only be provided to company employees who have registered passwords on S.G.S per procedures on Subsection 9.5.

Alteration or correction of records

In case the correction cannot be done electronically, the printed paperwork must be corrected in ink with a line drawn through the information in such a manner that anyone is still able to read the previous wording/ data. The correct information should be typed or written near the lined-out information followed by the initials of the person who made the correction. “White-out” is not permitted to correct any information on maintenance records

Upon completion of work, the technician will proceed to the closing of the work order and fill all applicable fields of the Repair Data Report on S.G.S proper screen and submit the unit to final inspection.

Additional records may be prepared by the Repair Station to provide a comprehensive historical record of the work performed. These records will contain work orders, service bulletins, AD notes, service letters, type of inspection, detailed figures related to functional tests and special nondestructive tests to be accomplished. The approved engineering or other approved technical data authorizing the repair or alteration will be clearly indicated. Where special drawings are made to cover specific repair conditions, a copy of the drawing will be included in the equipment records.

9.2 - RECORD OF INSPECTIONS

The inspections conducted at the repair station that will be recorded by using an appropriated Form 07*4*-8433-377 on APPENDIX A: Incoming, Preliminary, Hidden Damage, and Final Inspections. The procedures to the accomplishment and recording these inspections will be found in details in the Quality Control Manual Section 12 – Inspection System.

Specific observations like Hidden Damage Inspection, Unapproved Parts and other information will be recorded on SGS system by either an inspector or a technician. These records will be accomplished by filling the fields on the system screen as trained.

9.3 - RECORD OF MAJOR REPAIR AND ALTERATION OF AIRCRAFT AND EQUIPMENT

The normal operation of this Repair Station does not match the definitions to Major Repair and Major Alterations per 14 CFR Part 1.1.

The Repair Station determines that the repairs and alterations made on articles serviced are done in accordance with acceptable practices and procedures described on approved technical data (Maintenance Manuals and Service Bulletins issued by the manufacturer) and that do not appreciably affect the frequency stability, noise level, sensitivity, distortion, spurious radiation, AVC characteristics, ability to meet environmental test conditions by changing the weight, balance, structural strength, performance, power plant operation, flight characteristics of the aircraft.

No records of major repair and alteration of equipment are applicable.

9.4 RECORD OF TESTS AND CALIBRATION OF PRECISION EQUIPMENT

A computerized database system is used at RCB to control all its precision test equipment and tools by identifying each piece of equipment used for return to service.

A file system is in this manner implemented and maintained to clearly track and monitor each of such equipment/tools, by recording the date, person or vendor testing or calibrating each individual piece of precision equipment.

Other calibration and/or testing related information, like next due date and standards traceability for instance, are promptly available at the computerized system.

Hardcopies of all calibration and testing certificates will be kept in a file maintained by Quality department for at least two years after an article is released to service.

The detailed description of Calibration Control will be found on Section 13.0.

Calibration records, independent if executed by this facility or contracted from outside source, needs to meet minimum requirement. This includes Name of the person who performed the calibration; Date of calibration; Standard used to perform the calibration; Method used to perform the calibration; and Results of the calibration. The calibration tag attached to the Test Equipment by the facility have the calibration date, due date for next calibration, control number and CRIS code.

9.5 – ELECTRONIC RECORDKEEPING

The Repair Station utilizes an electronic record system capable of retaining and storing the records of works on repair, maintenance, and modifications performed in all articles. The data will be retrievable during any part of process and will be preserved and kept safe in compliance with 14 CFR Part 145.2*1*9 and with the information security policies of Rockwell Collins, Inc.

Any data will be available to the FAA and to the NTSB for review and analyses upon request *and will be available on the site to be inspected on a terminal provided by the company*. *Quality Representative will assist the inspector and grant printed copies be made when required.*

The LAN Administrator will be responsible to warrant the security and accuracy of all electronic data and will accomplished as follows:

a) will be responsible for maintaining the electronic record-keeping system

b) *Ensures there is no password duplication since user defines its unique password to network and is forbidden from sharing, also defines his password to SGS.*

c) *Company uses 2 systems (CyberPark EPM Software and Tanium) to permanently monitor its network and log files resultant of automatic and uninterruptedly auditing of the system. These logs are retained during the life of the business. These systems detect errors on the computer servers and desktop network computers (except workstation computers that are offline system without capability to access electronic recordkeeping server), SGS keeps permanent log of every entry made (and if they were deleted) and after a work order is finished it isn`t possible to edit entries, only observations can be included; Yearly audit of the electronic recordkeeping to confirm unauthorized event or tampering will be recorded and kept on the same retention schedule as other audits with RDR sampling*.

d) The electronic recordkeeping system is implemented in such a manner that will transmit data only to the main data base at Rockwell Collins, Inc. via a Virtual Private Network (VPN) and by using proper hardware and encryption software dedicated to this end. *Customers and operators only receives hardcopy of the records. No data is transferred to aircrafts.*

e) The access of users to the local network will be granted to Collins employees only and will be validated by a high secure password that needs to be change at every 90 days as per Corporate Policies. The access to the SGS maintenance system, which is used for recordkeeping the work, will be controlled by the Rockwell Collins do Brasil LAN Administrator, by creating and attributing to the users five different levels or hierarchy of the passwords; These passwords will provide individual identification to any action entered in the system as an electronic signature; Thus, access to SGS will depend upon the job function of the user and will be limited to the level of the password; alteration of any data will be granted accordingly to the level of the password and will be recorded the action. *Training is given per RSTP during the employment based on level of access.*

Quality Control Manual

10.0 - PROFICIENCY OF INSPECTION PERSONNEL

10.1 - INSPECTION PERSONNEL

Inspection Personnel are required to be thoroughly familiar with all inspection methods, techniques and equipment used in their area of responsibility to determine the airworthiness of an article undergoing maintenance, repair or alterations as authorized by the FAA.

The Repair Station establishes minimum qualification/skills an employee must hold in order to be designated by the Service Center Manager and/ or the Quality Representative to act as a new Inspector authorized to release articles to service by issuing the FAA Form 8130-3. These minimum requirements to the employee are:

- Be holder of a valid ANAC license (Aircraft Maintenance Mechanic);
- Have a minimum of 18 months total of practical experience with methods, techniques, practices, aids, equipment, and tools used to perform the maintenance, preventive maintenance, or alterations working at the Repair Station and on previous employment;
- Have attended the internal inspectors training program and be approved in accordance with the Repair Station Program Manual.
- Maintain proficiency in the use of the various types of inspection aids to be used for inspection of the particular items undergoing inspection and be aware of all current specifications involving inspection tolerances, limits, and procedures as set forth by manufacturer of the product undergoing inspection and other forms of inspection information such as FAA airworthiness directives, manufacturer's bulletins, etc.

The Quality Representative is responsible to maintain current the training to all inspectors related to FAA and local aviation authorities' regulations and requirements as well as in regards to any criteria of quality and/or airworthiness of the appliance to properly interpret and identify defects.

Inspection personnel assigned to repair station operations are required to familiarize themselves current with quality rules accordingly to procedures issued by Rockwell Collins head office (USA), Rockwell Collins Workmanship Standards Manual and the Avionics Standard Shop Practices Manual.

The training records of each inspector will be filed at the Quality Department in accordance with 14 CFR Part 145.163 and will be retained for a minimum of 2 years.

11.0- CURRENT TECHNICAL DATA

11.1- TECHNICAL DATA

All the work and repair undertaken by the Repair Station will be accomplished in accordance with approved technical data. The Rockwell Collins Workmanship Standards Manual (523-0778764) and the Avionics Standard Shop Practices Manual (523-0768-039) provide standardized processes for manufacturer's approved workmanship and shop practices.

The documents and data required for the maintenance, preventive maintenance or alterations under the Repair Station certificate and Operations Specifications in accordance with 14 CFR Part 43 will be controlled, made current and accessible as described below:

1. All the maintenance or overhaul manual, service bulletins and application software necessary to perform maintenance, preventive maintenance and alterations will be obtained directly from Rockwell Collins, Inc. via a subscription renewed annually.
2. The Repair Station will not use hardcopies of technical data issued by the manufacturer unless is the unique format available.
3. Otherwise the technical data will be made available electronically by the manufacturer through individual user access to the internal web page – Technical Publications Index (http://intranet.rockwellcollins.com) in the case of maintenance manuals and service bulletins. The access to application software will be provided in a shared drive at the controlled network.
4. The Quality Representative will oversee the proper authorization and access to the Technical Publications web site is provided to all repair station employees that need the data to accomplish the work.
5. The user will visualize the technical data after typing the desired identification information and downloading the available file to any computer connected to the controlled local area network.
6. The manufacturer – Rockwell Collins, Inc. – is the owner of the database and will keep all technical data current and promptly available by identifying with the date of edition, date of revision, date of printing and distribution (for hardcopies) as well as the date is effective or even identify as obsoleted.
7. The Repair Station librarian will be responsible for revising, maintaining, and making available to the repair station employees only those hardcopies that must be maintained locally (i.e. maintenance manuals of government articles are not allowed to be downloaded due to export rules and restrictions).
8. The technician is responsible for creating the medias (CD ROMs, floppy disks) for those application softwares that are updated (received by regular mail, downloaded from a shared drive or received by email) after confirming the current SW requested in the CMM.

FAA regulations update and control

The Quality Representative have a subscription to FAA to receive new ADs through e-mail and shall update the index and print out the pages whenever a new AD is issued. He also informs the IT Administrator the part numbers that need to be flagged in the SGS, so that whenever a work order is open or worked on it will inform that there is an AD issued against that product and that it needs to be checked.

The Quality Representative receives notification of new regulations and ACs by the support team from Collins Aerospace and will flow down any requirements and changes that may affect the work as needed to each individual.

11.2- SOFTWARE CONTROL AND USE

The Collins Aerospace Technical Support Engineering is responsible to ensure software has proper operation.

Prior to loading any software program into an automated test station (ATE), the technician has to verify against the corresponding documents, service bulletins or component maintenance manual, etc, that the correct software and version is being used for the component under test as identified in the application matrix.

WARNING: Only dedicated USB "Jump Drives" can be used on ATE stations, do **NEVER** use personnel storage device or other devices that are shared with other activities.

Similar to publication control, a software master list is available on database program in a quick and easy way for queries. The floppy disks or CD ROMs are stored on identified drawers on repair shop library and are placed in crescent order by the disk part number.

Information of software updates found on proper section of repair manuals will also be checked at the time the affected manual page is revised.

Due to a delay between issuing date of software in USA and receipt date at the Repair Station technician will uphold the final test and release of equipment until the Software is available or received clearance from the Quality Representative;

The detailed instructions on how to perform the upload of Software to ATE and how to program the LRU are given on the CMM applicable to the work in question.

12.0 - INSPECTION SYSTEM

12.1 - GENERAL INSPECTION PROCEDURES

The Quality Representative is responsible for ensuring that all the inspections accomplished at the Repair Station will comply with 14 CFR Part 145.211 and 213 and will be done in an effective way to assure the article returned to service meets the OEM specifications or other approved technical data.

The Quality Representative is responsible for ensuring that all personnel authorized and assigned to perform the inspections at the Repair Station have the required proficiency (see RSM 2.0). These inspections will be divided in: Incoming, Preliminary, Hidden Damage, In Process and Final Inspections as defined below:

1. Incoming Inspection: This inspection will be performed at the Receiving/Shipping area on the articles received from customers in order to detect discrepancies on documentation, physical damage, etc. and will be performed at the Stockroom on parts and materials received to be included in the inventory of stock. The discrepancies that are found will be recorded in the SGS system and will be reported to proper personnel to start the corrective actions. All articles received and inspected will be classified and tagged as "unserviceable" and will be forwarded to the repair shop after creating a Work Order record in the SGS system. Verification of SUPs will be part of this inspection.

The SGS maintenance system will not allow creating a Work Order to an article that is not listed on the Repair Station Capability List accepted by FAA which is recorded in its database but will allow creating work orders to other services accomplished at the repair station(e.g. calibration or repair of Rockwell Collins Test Panels).

2. Preliminary Inspection: This inspection will be performed within the shop area and at the time the repair is initiated. The customer complaint, the compliance to Airworthiness Directives and the applicability of service bulletins will be verified with the covers of the article removed.

3. Hidden Damage Inspection: This inspection will be accomplished within the shop area in conjunction with the Preliminary Inspection whether the customer states the unit has been involved in an accident or when an apparent damage is suspicious and has been recorded during the Incoming Inspection.

4. In-Process Inspection: This will be a visual inspection accomplished within the shop area each time an article have parts replaced or is reassembled after repairs, alterations, and rework.

5. Final Inspection: This inspection will be performed within the shop area on each article after maintenance or alterations in order to assure it meets all OEM specifications to be returned to service.

Records retention:

The records of the inspections on articles will be traceable to the work order created to each article, and the records of inspection on parts will be traceable to the purchase order and the receiving invoice of parts. Records will be retained for at least 2 years.

12.2 - INCOMING INSPECTION

The incoming inspection is done to assure the parts and materials received are accompanied by the proper documentation traceable to the OEM or other approved distributor (e.g. Rockwell Collins, Inc.) with the proper identification and they are in good condition to be installed in any article before being included in the inventory of the stockroom.

The inspection personnel must assure the articles received from customer for repair or alteration are checked for physical damage, have proper identification and are in good state of preservation before forwarding to the shop to initiate the repair.

The Verification Checklist Form RCB 074-8433-377 (see instructions and form on Appendix A) will be used as a guidance to accomplish the Incoming Inspection so that the discrepancies found can be noticed by the proper repair station personnel and the corrective actions can be initiated.

Inspector must save a digital copy of signed 8130-3 on the local server.

12.3 - INCOMING INSPECTION FOR AIRCRAFT PARTS AND MATERIALS

The Inventory & Order Administrator is responsible for receiving all the incoming repair parts, materials and their documentation (invoices and packing list) and for performing a verification and the inspection to review and close out the documentation of the incoming inspection of parts and materials.

The Repair Station will not receive raw materials such those that need to be worked before the application during the repair processes (e.g. sheet metals, welding rods, etc.). Only finished parts and materials (e.g. assemblies, electronic or mechanical components, chemicals, etc.) that may be installed directly in an article during the maintenance or alteration will be received. *No special testing is necessary for the parts, they will be fully evaluated during the Top Level repair/testing.*

Traceability to the original lot:

In any case, the traceability information to the original lot of any individual part or material that is released from the stock in small units (e.g. shielded wires) will be part of the work order record.

This information may be found on the identification label of the package of the part or maybe retrieved through the number of the invoice received with the parts or materials.

Procedures – receiving of parts and materials

The Receiving/ Shipping Administrator will:

1. Receive all incoming parts and materials used in avionics repair from the OEM (e.g. Rockwell Collins, Inc.) facilities and that have previously undergone receiving inspection for conformance to drawings, specifications, and purchase orders (including chemicals);
2. Perform the incoming inspection to compare the Certification of Conformance to the packing list (or verify the Statement of Conformance is in a packing list of Rockwell Collins, Inc.) to ensure traceability of the parts to the original equipment manufacturer. Precautions will be taken when handling electrostatic sensitive parts and will visually inspect for the following before stocking or use:
    a. Items received match the purchase order;
    b. Correct Quantity (i.e. Over Shipment or Under Shipment);
    c. Correct Part number;
    d. Revision Level or Mod State (If applicable);
    e. Shelf life and the MSDS control labels (if applicable);
    f. Shipping Damage;
    g. Contamination/corrosion;
    h. Foreign Object Damage (FOD);
    i. Proper Packaging (i.e. ATA 300);
    j. State of Preservation (i.e. Electrostatic Discharge (ESD) & Humidity Protection, as applicable);
    k. Acceptance Tag and/or 8130-3, or other approved Regulatory form (if Applicable);

    Note: The receiving of the shelf life products like the chemicals (e.g. adhesives, sealers, primers, etc) will also be communicated to the Environment Coordinator as soon as possible.
3. Request a corrective action to the Logistics support (warehouse at Rockwell Collins, Inc.) if any part listed fails visual inspection and segregate them at the "Parts Waiting Disposition" cabinet at the Offices until discrepancies are corrected or until receive instructions to dispose the parts;
4. Notify the discrepancies (if found) to the Quality Representative and request for review of the documentation and close out the inspection (sign-off and date);
5. Use the Verification Checklist Form RCB 074-8433-377 (see instructions and the form on Appendix A) as a guidance to review all the actions and record the discrepancies (if found) notified by the Inventory & Order Administrator;
6. Provide a receipt of acknowledgment (initials and date) on the invoice of parts and return the form with all documentation to the Finance Department to archive. Initiate corrective actions (if needed).

The Inventory & Order Administrator will:

1. Enter the parts information (CPN, invoice number, shelf life due date) in the EMS database and will accommodate in their applicable bins or containers after the parts and materials have been correctly identified, physically inspected and verified the documentation for the traceability of parts;
2. File all documentation received in the respective permanent file in such a manner that they are easily and quickly available when requested by FAA.

Suspected Unapproved Parts (SUP)

All of the Repair Station employee must be aware when a discrepancy is found on a part or article in any phase of the inspection processes that matches the definition of Suspected Unapproved Part per the latest FAA Advisory Circular AC21-29().
In general, an article or a part maybe classified as a SUP if:

1. Is noticed during the Incoming Inspection that the Part Number on Identification plate of the article does not match the OEM drawings per information found on Technical Publication or other approved data;
2. The ID plate is visible altered by non-standard work (part number or serial number remarked);
3. The information of part number on customer paperwork does not match to the CPN on ID plate of the article AND the customer is not able not provide the correct data;
4. The article is disassembled and is noticed that the article contains subassemblies or any other part that is not listed on IPC of the article;
5. The part number on invoice of parts does not match with the part physically packaged.

The Accountable Manager will receive the inputs from the Repair Station personnel that detected and confirmed the SUP on articles received from customer and will report it to FAA by submitting the Suspected Unapproved Parts Notification Form 8120-11 (see Appendix A) as instructed.

Quarantine

In case an article is identified as a needing to be in Quarantine the inspection personnel who finds it will:

1. Assure the discrepancy is clearly documented on the Verification Checklist Form RCB 074-8433-377 (see instructions and form on Appendix A);
2. Forward the information of the discrepancy to the Customer Service Representative in order to request clarification from customer;
    1. Hold the article at the cabinet identified as “QUARANTINE” (parts and articles) placed at the Offices Area until the owner provides the correct information on status of configuration of the unit so that the article can be forwarded to the shop to be serviced to meet original manufacturer’s specifications or returned to customer “As Is” if requested.

12.4 - EQUIPMENT RETURNED SERVICEABLE FROM OTHER FAA APPROVED REPAIR STATIONS

Equipment received serviceable from other service centers shall be inspected accordingly and routed for forwarding to the customers. No additional certification shall be raised as the original one issued by the origin Service Center will apply.

Any repaired or overhauled components received from a FAA certified repair station do not normally require more than a visual receiving inspection before being returned to service. Repaired or overhauled components that are received from other than a FAA certified repair station, in addition to the normal receiving inspection, will be functionally checked before being returned to service.

Any airworthy/conformity certificates issued by third parties (approved Service Centers) are to be kept and attached to the received component and returned to the customer. Copies of these documents are to be attached to the respective job file.

12.5 - EQUIPMENT RECEIVED FROM CUSTOMERS FOR REPAIR AND/OR OVERHAUL

It is responsibility of the inspectors assigned to perform the incoming inspection on all equipment received for repair or servicing to check the physical integrity and the correct identification in accordance with paperwork supplied by the customer before forwarding them to the workshop.

The Repair Station will only perform maintenance, preventive maintenance or alterations in those articles received from customers if they are listed on the FAA accepted CCD.

When a CPN of an equipment received from a customer is entered in the system, an automatic comparison to the local and controlled capability list database will determine if the work order will be created or not. The operator will be advised if the CPN of the article is not listed and will abort the creation of a work order (see RDR form 074-6165-200 on Appendix A).

It is the responsibility of the Quality Representative to assure the database in the SGS system is updated any time the capability list is reviewed per procedures on RSM 4.0.

Procedures – receiving of articles to be serviced

The Receiving/ Shipping Administrator will;

1. Receive all avionics to be serviced, check if they are listed on the Repair Station Control Capabilities Document;

2. *If the article(s) is (are) not listed, he/she will advise immediately the owner by phone and forward this information to the Customer Service Representative;*
3. *Create a Repair Data Report number through the EMS and SGS Systems if the SGS system identify the CPN entered as being part of the CCD of the Repair Station;*
4. *Apply the "UNSERVICEABLE" red tag 074-5186-200 (see Appendix A) and appropriate ESD caps or bags on each article and put them on the transportation kart;*
5. *Attach an in-process identification sticker and will generate and print locally a label and affix it on the identification sticker. This label will contain a bar code with information of the RDR number and SN;*
6. *Enter the customers repair instructions/ complaint information on proper field of the work order (see RDR form 074-6165-200 on Appendix A) as well as the preliminary observation of physical damage on the Verification Checklist Form RCB 074-8433-377 (see instructions and form on Appendix A) and call any inspector to review and record the Incoming Inspection;*
7. Gather the documentation received from customer (Purchase/ Service Order/Tags), identify the package of documents with the RDR number and store it temporarily in the bin placed near the work schedule board;
8. Receive and unpack all test equipment returning from calibration/repair at outside subcontractors and advise the Test Equipment Coordinator.

The inspection personnel will:

1. Review all the information on the documentation received from customers and compare with the units received;
2. Review and validate all actions performed by the Shipping/ Receiving personnel and use the Verification Checklist Form RCB 074-8433-377 (see instructions and form on Appendix A) as a guidance to add any remarks pursuant to the discrepancies found or any other information relevant to the article.
3. Sign and date the label affixed on "POST-IT" for all items received and inspected and route them to the shop by transportation kart and lay the articles on the "Incoming Units" shelf. *Notes may be done on the post-it, but need to also be entered into SGS. If additional space is needed another post-it with the same color may be attached to the WIP.*

Records retention:

The records of the incoming inspections on articles received from customer for repair will be part of the work order file and will be retained on files for at least 2 years from the date the article is released to service.

The records of the incoming inspections on parts and materials received will be retained for at least 2 years and while the part is in the inventory of the stock. This will be done to maintain a proof of traceability of parts in stock.

12.6 - PRELIMINARY INSPECTION

The Preliminary inspection will be performed by the technicians when an incoming unit is assigned by the Accountable Manager or his/ her designee as the next one to be worked on.
This inspection will be done with the covers of the article removed and will be performed at the shop area to evaluate the work scope requested by the customer and the required maintenance or alteration actions. In addition, the compliance with service bulletins and Airworthiness Directives will be evaluated and the defects and discrepancies found will be noted.

The corrective actions will be documented in the Work Order record during the maintenance process.

At a minimum the Technician assigned to repair the article will:

1. Determine if there are SBs applicable to the article;
2. Evaluate the applicability and the compliance to any Airworthiness Directive issued against the article;
3. Familiarize with the customer's instructions and defects reported and determine if the failure can be confirmed or not;
4. Use the Verification Checklist Form RCB 074-8433-377 (see instructions and form on Appendix A) as a guidance to add and record any other observations and the discrepancies found.

Evaluation of an Airworthiness Directive:

At the time a work order is created to any product the SGS system can automatically detect (see Note[1]) if an AD has been issued against it (by unit type).

The SGS system is configured to display a warning message in order to advise the operator about an airworthiness directive issued against the product.

The operator must follow the instructions on the Airworthiness Directive documentation to determine whether is applicable (see Note[2]) or is not applicable (adding the reason) to the part number and serial number of the article so that the correct instruction can be accomplished during the process of maintenance;

If an AD is issued against the product then a ADCF (Airworthiness Directive Compliance Form) needs to be filled using the instructions on page A-8 of this manual.

Note[1]: The Quality Representative is responsible for providing to the LAN Administrator an updated list of all the products (by model only) that are affected by an Airworthiness Directive and that are part of the repair capability of the Repair Station.

The LAN Administrator will be responsible for updating the information in the SGS system database so that any article that has an Airworthiness Directive issued against it can be automatically detected anytime time a Work Order is created to it.

Note[2]: Due to a variety of part numbers assigned to the same model of the article, and other conditions like serial numbers affected or service bulletins required to be installed or evaluated in conjunction with an AD, a lower level analysis must be accomplished during the preliminary inspection to determine the applicability and the compliance to an Airworthiness Directive.

The Preliminary inspection results will be recorded on the Verification Checklist Form RCB 074-8433-377 (see form and instructions on Appendix A) and on the field "INITIAL FINDINGS" of the Repair Data Report form.

Records retention:

The records of the Preliminary Inspection will be part of the work order file and will be retained for a period not less than two years from the date the article is returned to service.

12.7 - INSPECTION FOR HIDDEN DAMAGE

The Hidden Damage Inspection is required in all articles that have been reported by the customer as being involved in an accident and will be performed by the technician assigned to repair the incoming unit.

This inspection will not be limited to the area of obvious damage or deterioration but will include a thorough and search for any secondary damage in areas adjacent to the damaged area that could be resulted from an accident.

The scope of this inspection will be governed by the type of unit involved with special consideration accordingly to previous operating history, Malfunction or Defect Reports, service bulletins and AD notes applicable to the unit involved.

The technician will record the hidden damage results in the same manner as for the preliminary inspection.

Discrepancies like presence of hydraulic oil or other corrosive agent must be communicated to the Quality Representative and to the customer through Customer Service Representative.

Records retention:

The records of the Hidden Damage Inspection will be part of the work order file and will be retained for a period not less than two years from the date the article is returned to service.

12.8 - IN PROCESS INSPECTION

In Process inspections may take place at various stages of teardown, overhaul, and repair of all units or equipment received by the repair station for service.

Progressive inspections will be accomplished in the frequency and sequence determined by the applicable maintenance manual and by the Rockwell Collins Workmanship Standards manual.

These inspections will be carried out by an inspector qualified to evaluate the compliance of a work to the OEM specifications anytime the article is repaired, reassembled or a part is replaced. In Process inspections include but are not limited to visual inspection, identification of foreign object damage (FOD), teardown inspection, and reassembly inspection, and may require the use of proper measuring and test equipment to assure that the workmanship standards and OEM specifications are met.

In process inspection must be indicated on the scratchpad whenever executed (i.e. after repair, before or after reassembly, etc), this information will be saved on the repair log.

REWORK

The inspector who carried out the inspection will determine the necessary Rework on the article to return it to an acceptable condition that meets the Rockwell Collins Workmanship Standards and OEM specifications whether defects or discrepancies are noticed during the In Process Inspections (after the normal repair) or is noticed the article has not been reworked correctly by other repair station.

Records retention:

The records of the In Process Inspection and the Rework will be part of the work order file and will be retained for a period not less than two years from the date the article is returned to service.

12.9 - CONTINUITY OF MAINTENANCE OR INSPECTION RESPONSIBILITY

As far as practicable, a technician/inspector assigned to work on the particular equipment will follow through the whole process and complete his/her task.

If hand-over is required, when the person who initiated the repair or inspection is not able to complete the tasks, all the work previously done shall be found recorded on the work performed area (or scratch pad) of the Work Order, so that the next person will be able to ensure proper inspection and work continuity.

12.10 - FINAL INSPECTION AND RELEASE TO SERVICE

This inspection will be performed on each article prior to approval for return to service and will be accomplished by those authorized inspectors listed on the inspection personnel roster that meet the requirements on 14 CFR Part 145.155. The article will be released to service after the article is found serviceable in conformance to the OEM specifications and the Rockwell Collins Workmanship Standards.

Procedures for the acceptance of the article:

In order to accomplish the final airworthiness determination the inspector will:

1. Verify the work has been accomplished as requested by the customer;
2. Accomplish functional checks (if needed) to verify the article is operating in conformance with the OEM specifications;
3. Use applicable inspection methods, techniques, practices, aids, equipment, and tools to determine the airworthiness of the article and to determine the Rework if discrepancies are found;
4. Verify the completeness and accuracy of information on RDR form 074-6165-200 (see instructions and form on Appendix A) and determine correction to errors, if found;
5. Fill out and issue the Form 8130-3 to release the unit to service only after all the discrepancies (if found) are properly corrected;
6. Print the documentation related to the repair (RDR and FAA 8130-3 forms) and obtain the signatures of technician(s) that accomplished the repair;
7. Sign all the forms and attach the copy of the documentation received from customer to be forwarded to the Receiving/ Shipping area; the article will have the "UNSERVICEABLE" red tag 074-5186-200 (see Appendix A) removed and will be routed to the appropriated shelf (commercial of military) on the "Finished Goods" rack.

Procedures for the Rejection of the article

The inspector will reject an article anytime:

a) A discrepancy is verified on the work performed or when the information on the work order is inaccurate (e.g.: SBs requested by the customer were not installed, article failed during functional checks, wrong information on the work order). In such cases, the inspector will determine to the technician the necessary rework on the article or the correction on the documentation;

   REWORK - The Rework will be accomplished on the article to return it to an acceptable condition by using the maintenance manual and the Rockwell Collins Workmanship Standards manual:

   1. The technician that has been assigned to repair the article will evaluate the discrepancies noticed by the inspector and will proceed to the corrective actions;

2. The technician will then resubmit the article to another final inspection only after the corrective actions are taken;
3. The inspector may reject it again if the article cannot be returned to an airworthy condition after the rework is accomplished and will maintain the "UNSERVICEABLE" Tag attached to the article. In this case the inspector will advise the Accountable Manager and the Customer Service Coordinator about the status of the work.

b) The Customer Service Representative advises that the customer requests the article to be returned with no repair completed (e.g. when customer does not approve the estimate of repair). In such cases, the inspector will not remove the "UNSERVICEABLE" red tag 074-5186-200 (see Appendix A) from the article and will return it to customer as unairworthy.

c) The Repair Station cannot comply with 14 CFR Part 145.215(c) due to lack of updated technical data, test equipment not calibrated, not available or damaged, etc. In such cases, the inspector will request the Customer Service Representative to obtain approval from the customer to hold the article until the Repair Station returns to the full repair capability. If customer disagrees and requests the article returned with no repair completed ("AS IS") then the inspector will not remove the "UNSERVICEABLE" red tag 074-5186-200 (see Appendix A) from the article and will return it to customer as unairworthy.

The Inspector will use Verification Checklist Form RCB 074-8433-377 (see form and instructions on Appendix A) as a guidance to record the Final Inspection results.

Records retention:

The records of the Final Inspection and the Rework will be part of the work order file and will be retained for a period not less than two years from the date the article is returned to service.

CONFLICTS ON FINAL INSPECTIONS

The SGS system is configured in such a way that a message appears on screen to advise the operator. in case the same person who performed the work tries to access the system to perform the final inspection.

WORK SIGN-OFF

No stamps will be used to identify the inspector or technician who performed the work. The electronic sign-off method will be used to ensure traceability to the name of the person who performed or inspected the work.

The technicians will be identified by their initials and the individual number as printed on the work order.

The inspectors will be identified by the number of their Aircraft Mechanic License issued by the CAA of the country (ANAC) and by their signature on the work order and as seen on the roster of inspectors.

All signatures and numbers can be traced to the employees' registry of the Repair Station and the roster of the inspector.

Security of the system

All the repair station employees will have the access to the SGS maintenance system granted by the Accountable Manager and the LAN Administrator will be responsible for updating and controlling the Repair Station personnel identification and access to the SGS system.

In case of termination or reassignment of any technician or inspector the Accountable Manager will instruct the LAN Administrator to remove their respective identifications and access to the SGS system.

MAINTENANCE RELEASE FORM 8130-3

The computerized system is prepared to issue The Airworthiness Tags in conformance with guidelines on the latest revision of FAA Order 8130.21( ), *AC-145-9, 43.9 and 43.11*.

The numbering process used on block 3 of both forms is created by the computerized system so that there is an unique number assigned to each form and has traceability to work order issued. The numbering format is XXX-NNNN/AA, where:

XXX - three digits that identify the repair station.

NNNN – numeric sequence with four digits created in such a manner that an unique number is assigned for each airworthiness tag within the same year and

AA – two digits which identify the year the tag is being issued.

Extra copies of the Form 8130-3

At any time, additional FAA 8130-3 copy could be dispatched to the operator under request in case the original doc/form has been lost or have typographical errors. In the case of typographical errors the words "This FAA Form 8130-3 corrects the error(s) in Block(s) [enter block number(s) corrected] of the FAA Form 8130-3 [enter form tracking number] dated [enter issuance date] and does not cover conformity/condition/release to service." must be typed in block 13 in capital letters and current date entered in Block 23 for approval for return to service. The replacement form must have an original signature.

The additional FAA 8130-3 photo copy must be taken from the original doc/form initially retained and filed as part of the technical reports.

12.11 – DISPATCH OF AIRCRAFT EQUIPMENT

It is the responsibility of the Receiving/Shipping Administrator to ensure that equipment are adequately packed before dispatching the components to the customers, freight agents or other OEM service centers with equivalency to ATA no. 300 standards.

This includes the following:

a) adequate precautions are to be taken to protect the package from shock, environmental and other damage which is likely to result from the process of delivery;

b) the equipment is adequately supported and protected from damage by reasonable handling and shipping; the container is adequately marked to identify its contents and any delivery instructions any specific packaging instructions issued by Rockwell Collins or other OEM shall be adhered to;

c) when customer provides ATA packing cases, they shall be used for repackaging, as applicable.

d) Repair Data Report, maintenance release forms, billing and transportation invoices shall be dispatched with the equipment to the operator. Duplicate copy shall be retained and treated as part of the technical records.

e) The parts replaced will not be shipped to the customer unless the Repair Station is requested. The Customer Service Coordinator will advise the Receiving/ Shipping Assistant when and what customers request the parts replaced back to their base;

f) The parts replaced will be treated as non-conforming parts and will be accumulated at specific containers at the Rec/Ship area until the Environment Coordinator start the process for disposal of these parts. The procedure for Disposal of Parts will be found on Subsection 3.14.

g) Review the Verification Checklist, Form 8130-3, Repair Data Report and other documents that are being shipped in accordance with the filling instructions on the appendix section.

The Financial Manager or designated assistant is responsible to assure that a copy of billing invoice documentation is sent to customer at the end of process is properly filed for a minimum period of 5 years. The LAN Administrator is responsible to assure that on a daily basis back up of all electronic records entered on SGS and EMS programs is done.

The Verification Checklist Form RCB 074-8433-377 (see form and instructions on Appendix A) will be used as a guidance to record the Shipping results and discrepancies.

Records retention:

The records of the Shipping will be part of the work order file and will be retained for a period not less than two years from the date the article is returned to service.

12.12 – CORRECTIVE ACTIONS ON DEFICIENCIES

The Quality Representative is responsible to conduct the program for corrective actions under the delegated authority of the Accountable Manager.

The basic methodology to define the root cause of the deficiency is the 5 Whys and the Ishikawa Diagram (Fishbone), but others may be used whenever is needed.

The deficiency may be noted during the inspections executed through the repair flow, audits (external, internal, process or product), return from the customer or any other source.

Will be verified what conditions allowed the deficiency to happen and why it wasn't detected before (latent and systemic cause).

Corrective Action will be taken to not only correct the deficiency verified, but root cause and systemic cause whenever those are present.

Any person that detect the deficiency must report it to the Quality Representative, who is responsible to start the corrective action process under the 8 Steps Problem Solving Process (Define the problem, clarify the problem, define goals, discover root cause, develop action plan, execute action plan, verify, reassess) which is a development of the PDCA (Plan, Do, Check and Act) methodology.

The corrective action timeline should follow the basics criteria: containment must be immediately after deficiency is discovered, correction of saw problem within the agreed delivery to the customer (may it be a rework, retest or exchange of full component) and root cause correction time to accomplish must be define in accordance with the severity and complexity with enough time allowed to fully correct the issue.

The Quality Representative will verify through audit or another acceptable mean (like log review or follow up) that the corrective action was efficient and effective.

Corrective Actions will be summarized on the Management Review.

Records retention:

The records of the correction on the unit level (containment and rework/retest) will be held on the SGS system under the repair order log.

If the correction of the deficiency needed more than a rework, retest of correction of paperwork the full corrective action records will be kept under the google drive accessible to the Accountable Manager, Quality Representative and available to the FAA inspectors during audits.

Corrective Action Examples

Refresh training, change of process, purchase of new equipment,

13.0 - CALIBRATION OF MEASURING AND TEST EQUIPMENT

13.1- CALIBRATION CONTROL SYSTEM

The Quality Representative or a designee will have full responsibility for the calibration control system. He will determine equivalency of measuring and test equipment (M&TE) for any substitution of calibrated equipment and tools other than those recommended by the manufacturer. The Quality Representative may coordinate this determination effort with the help of Rockwell Collins Maintenance Operations Technical Support and with the Test Equipment Coordinator. The M&TE equivalency is performed by comparing and documenting the OEM specifications (e.g. product documentation) for M&TE requirement/needs to that of the proposed M&TE to be substituted. The M&TE equivalency is defined as equal or greater than Original Equipment Manufacturer (OEM) specification requirements/characteristics and will be documented using the M&TE Equivalency Form found on Appendix A.

This repair station may utilize approved calibration suppliers selected and qualified per audit procedures on Subsection 14.0 that uses measurement standards traceable to a standard acceptable by FAA (refer to RSM Subsection 8.1). The M&TE manufacturer and/or Rockwell Collins Maintenance Operations Technical Support may provide in writing, equivalency information for each specific occurrence where equivalent test equipment is required.

Calibration is only mandatory on TE used to release to service of UUTs as defined on CMM.

Calibration of non-standard M&TEs (like test panels or automated test stations manufactured by Rockwell Collins, Inc. or other vendors) may be performed at the repair shop by repair station technicians following Commercial Manufacturer's Overhaul Manual or Rockwell Collins calibration procedures and using identified and measurement standards traceable to a standard acceptable by FAA. The manuals and calibration procedures are organized and will be found filed in the repair station library.

The Repair Station will use the Test Equipment Management System (TEMS) as the calibration control database and computerized system to track, record the calibration work, preventive maintenance, analyze the index of quality of calibrations (CRIS code – Calibration Recall Information System) and maintain the history of all calibrations. All M&TEs will be identified by a unique control number on TEMS that will provide the following information as minimum:

1. M&TE Manufacturer's name;
2. Model Number and description;
3. Serial Number;
4. Date it was calibrated and recall Due Date;
5. Calibration interval;
6. Description of work.

The calibration control includes, but is not limited to:

- Issue of reports of all affected M&TE due for calibration or preventive maintenance;
- Provides records of the calibration history, calibration intervals and recall due dates;
- Provides traceability information of the standards used on calibration and certificates;
- Issue of certificates of calibration and calibration/preventative labels;

The Measuring and Test Equipment used as standards for calibration will be handled and transported in a manner that will not affect their calibration results and will not be stored in any of the test stations to preclude their use in a work other than for calibration of M&TEs.

All repair station personnel, before using test equipment, are responsible to check that the test equipment has a valid calibration label attached, as applicable.

Any piece of test equipment found in the repair station without a current calibration label attached or if inadvertently exceeds its calibration due date, it will immediately be removed from the workstation and replaced by an equivalent one. It will be tagged with a Test Equipment – Out of Service tag (form CBZ-9607) until a calibration check has been performed, a new calibration label is fixed and the history record is updated.

At no time any person will be permitted to perform maintenance, alterations and repair to release an article to service using employee-owned test equipment or tool as measuring test equipment.

The standards used to calibrate test equipment must be traceable to a standard acceptable to FAA.

13.2 - TEST EQUIPMENT CALIBRATION REQUIREMENTS

Test equipment must be calibrated at periodic intervals established initially based on information from the original manufacturer of the M&TE or established by Rockwell Collins, Inc..

In the event that no calibration interval is provided by the manufacturer, the interval of 1 year will be assigned initially.

These intervals will reviewed automatically by the TEMS database at the time of recording a new calibration and work entry.

TEMS uses a method to calculate the change of the calibration interval that is a common practice in industry.

The final result is achieved by analyzing the combination of the past 2 CRIS statuses assigned to the past calibrations and the one assigned to the current. The CRIS code may have 4 different statuses as described below:

"1" – It must be assigned if the calibration results are found to be within the manufacturer (or Rockwell Collins) specifications;

"3" - It must be assigned if any adjustment on M&TE is needed to return it to meet the specifications;

"5" – It must be assigned in case a failure is found and repaired on an M&TE that may change the calibration specifications then the code "5" must be assigned.

"0" – If it is the first entry on TEMS and no calibration has been done. Another code that may

"X" – In case the M&TE does not require a periodic calibration.

In example (refer to Appendix A – Calibration Interval Adjustment Schedule Tables 1 and 2):
If the an M&TE has an interval of 1 year and had received codes "X" and "1" on previous calibrations and "1" at the current then the new interval will be extended to 18 months. But if it receives a status of "3" the interval will be reduced to 11 months. Continuing to the next cycle if receiving a status "1" then the interval will not be changed.
In this way the extensions or reductions to the calibration intervals will be done smoothly
The Quality Representative or designee will communicate to the Test Equipment Coordinator any change on TEMS that reduces the interval of calibration of an M&TE so that cannot compromise the operation of the Repair Station in the future cycle.

Procedures

The Test Equipment Coordinator or designee will:

1. Issue the calibration recall due date report to the Maintenance Leader, as appropriate, during the first week of each month;
2. Coordinate the creation of work orders to the repair shop as necessary for the execution of the calibration/ prev. maintenance/ repair of the M&TEs (only non-standard test equipment like test Panels or automated test stations manufactured by Rockwell Collins, Inc. or other vendors).
3. Coordinate the removal of the standard M&TEs listed on report to be sent to be calibrated by a supplier;
4. Will verify the physical integrity of the M&TE received calibrated by a supplier and will complete the calibration label with the due date in accordance with the interval assigned and forward all calibration reports to the Quality Representative for review;
5. Update the records of history on TEMS and assign the proper CRIS code.

The Quality Representative will:

1. Review the calibration reports and certificates to assure for proper completion of tests per Rockwell Collins requirements or manufacturer's calibration procedures, record and traceability of standards, calibration date, accuracy and acceptability of results.
2. Hold the M&TE and communicate to the SMS Safety Manager in case is noticed a calibration result does not meet the specifications that may have affected the operation of an article released to service. An investigation of the deviations will be conducted in conjunction with the outside calibration laboratory and Collins Headquarter Engineering before the M&TE is released to the shop for normal use. If needed, the Test Equipment Coordinator or the Acc. Manager will remove the instrument from use or replace it. The results will be recorded on the calibration database.
3. Communicate to the Accountable Manager in case of any product has been certified for return to service by a test equipment verified to be out-of-tolerance and will track all articles that may have been affected by the suspected M&TE and will recall for testing and certification.

The Repair Station technician executing calibration work on test panels and benches will:

1. Perform the calibration following the calibration procedures issued by Rockwell Collins, Inc. or issued by original manufacturer when calibration M&TEs at the repair shop;

Complete the work order after finishing the work, will forward it to an inspector for review, will complete the calibration certificate and report and will create and affix the calibration/ preventative maintenance label on M&TE.

Any tool or test equipment requiring periodic calibration will be identified by a calibration label.

The label will identify the unit by type, serial number, last calibration date and the due date.

The label provided by an outside calibrator will be accepted if containing at minimum the cal date and the due date fields and will not be removed and another label will be created and placed.

Seven labels will be used to identify all items used as test equipment (refer to Appendix A):

1. **NOT CALIBRATED** - applicable to those pieces of test equipment or tools that do not need to be calibrated and are dependent on calibrated M&TE for applications requiring them to be within specified limits(e.g. power supply), M&TE used only as an indicator, troubleshooting aid and test panels not capable of making quantitative measurements that provide mechanical/ electrical functions or connections that do not have calibratable parameters, or provide stimulus or control between units that are characterized by on/ off go/ no-go operation.

2. **PREVENTIVE MAINTENANCE - Proc. CBZ - 96-04** - applicable to those pieces of test equipment or tools for which scheduled preventive maintenance care (such cleaning; lubrication of mechanical adjustment) is required, despite of the calibration cycle (if any).

3. **CALIBRATED - Proc. CBZ - 96-05** - applicable to those pieces of test equipment and tools that do require periodic calibration as recommended by the manufacturer. Calibration must be accomplished using acceptable calibration procedures. This label will not be applied if the outside calibrator provides its own label.

4. **CALIBRATION LIMITED - Proc. CBZ - 96-06** - applicable to those pieces of test equipment and tools for which partial periodic calibration is performed, due to failure on some function and excluding not used functions or portions of the spectrum that are not covered by the test equipment specifications as required on manufacturer’s manual of the article to be returned to service . Explanation of limitations will be present on label.

5. **TEST AID** – Test aids are production items (radio, module, card, etc.) used as devices to assist in the test of another production item. Test aids may also include piece parts that reside at a test station area for troubleshooting purposes. Test Aids do not require periodic performance testing/calibration against OEM specifications unless otherwise specified in the applicable maintenance document. Any operational failure (malfunction) of a test aid would be noticeable to the station operator/user and would not result in bad product being accepted.

At a minimum, test aids will be revalidated annually to applicable OEM performance requirements unless otherwise specified in the applicable maintenance document. Test Aid functionality or performance that is not applicable, or critical, to the test configuration of the unit under test is not required to meet all of the OEM acceptance test requirements for the Test aid.

6. **TEST ACCESSORY** - Test accessories are items that do not require calibration tags or records and may be comprised of production items. Production items built into a test accessory are not required to be individually identified as a "Test Aid" when supported by the test accessory documentation. They are defined as items not intended for or inherently capable of either making quantitative measurements or providing modified outputs of the item under test. When this label is applied any other label must be removed.

7. **TESTED OK** – applicable only to those production items used as devices to assist in the test of another production item that need to be revalidated annually and are applied in conjunction with the label TEST AID.

Details of each tool or equipment requiring periodic calibration are entered into the computer database and test results on calibration report for calibration control.

The due date for labels 3 and 4 is considered to be midnight of the last day of the calendar month (fiscal month may still be in effect because of procedure change affecting test equipment inventory reporting period end). This day is calculated by adding the assigned calibration interval in months to the current calendar month of calibration. The due date will be shown on the label attached to each test equipment that requires calibration of preventive maintenance.

Recertification of LRUs (Rental/ Exchange Pool units)

Any LRU stored at the stockroom as part of the Rental/ Exchange Pool units will be controlled as an M&TE regarding their shelf life specified on Std Shop Practices Manual for each type.

1. The Inventory & Order Administrator will maintain a database updated to reflect the current status of those products (Type, CPN, S/N and the latest certification date per airworthiness form attached).

2. The Inventory & Order Administrator or the designee in case of absence will apply the Unserviceable Tag (cpn 074-5126-200) if the due date is expired and will advise the Maintenance Leader to schedule the recertification of the LRU;

3. In case the LRU is not listed on the latest Controlled Capabilities Document the Inventory & Order Administrator will proceed for shipping the article to an approved subcontractor for maintenance.

4. The Inventory & Order Administrator will store the LRU to the Rental/ Exchange Pool shelf after the article is recertified.

13.3 – INTERNAL CALIBRATION

To assure traceability to NIST/INMETRO or equivalent certifying body equipment calibrated in house must be done following this procedures.

ENVIRONMENT CONTROL

The environment shall be free of excessive vibration, noise, RF interference and have power line regulation and clean. Above all temperature must be within 25ºC±5ºC(64.4ºF to 82.4ºF) and with humidity at 45%±40%RH. Temperature and humidity is recorded by a termohigrometer,

Rockwell Collins items used as Test Aids shall be tested using CMM final test procedures.

Test Equipment shall be calibrated using either Rockwell Collins CSP (Calibration/Service Procedure) or to OEM specifications.

Measurement Standards used shall be traceable back to NIST/INMETRO or equivalent certifying body, be listed on the calibration report (with their calibration certificate number) and uncertainty shall be at least 4 times more accurate than the one in calibration unless otherwise specified. Whenever necessary to use a combination of standards for a measurement use arithmetic addition, RSS, partial derivatives or distribution analysis as required (use CSP definition when available).

Calibration report must be signed by executer and inspector (when necessary) with execution and expiration date clearly defined.

Calibration table must include target measurement and tolerances of all relevant points.

The report is kept for at least five years of two calibrations whichever is longer.

When performed using automated test the calibration log shall be saved on the calibration directory and appointed in the calibration report.

The technician performing the calibration needs to have the training or experience necessary to execute the calibration. If he is working on a Top Level Test Aid, training on the TL CPN is required. Otherwise the personnel needs to have knowledge on how to operate the standards, test equipment used to calibrate, unit under test and calibration procedures.

13.4 – LOAN OF TOOLS, TEST EQUIPMENT AND CONTROL OF RECORDS

Some tools and test equipment doesn't have a backup available on site and may need loan from the Loan Pool or other Collins Aerospace owned sites, when that happens the Test Equipment Coordinator must order it through the support and if required need to open a ticket.

The start point is checking the TEMS database through data mine to verify if the same (or similar) tool/TE is available on another location and with that information notify the support with the TEMS (#460) number of the tool that is currently unavailable and an estimative of the time during which the loaner will be needed and request that the record of the last calibration is sent together with the unit.

When it arrives the calibration record must be included into the archive together with the site owned ones and the equipment after installation must be validated to be working as expected. After the loan need have ended it must be returned to the same location.

14.0- CORRECTIVE ACTION AND AUDIT

14.1 - CORRECTIVE ACTION

Service Center corrective action requirements to damaged or wrong parts received, technical data errors or units repeated return from customer are communicated by the Quality Representative to the Technical Support Department and to the Quality Assurance located at the manufacturing facility in Cedar Rapids, Iowa.

Before an article is approved for return to use or service, the Quality Representative or designee is responsible for communicating any discrepancy to Technical Support via Technical Database System "Teams 2000" or via e-mail. Technical Support provides corrective actions back to the service center via Technical Support Bulletin (TSB), Technical Support Procedure (TSP), Temporary Revision (TR), Manual Revision, Service Bulletin (SB) or Service Information Letter (SIL), as applicable.

In addition, if a unit returns within 90 days, it will be treated as a repeat return unit. This data will be collected on a monthly base by Rockwell Collins administration in Cedar Rapids that synthesizes it to give a measure of quality performed by each Service Center. The Quality Representative is responsible for analysing and determining the root cause of the problem and applies within a week time the corrective action focus for the purpose of reducing customer rejects.

A file of all applicable corrective actions will be maintained at the Repair Station. Reference to the TSB's may be noted within the applicable Maintenance Manuals at the location affected during the interim period until superseded by a revision or temporary revision.

14.2 - COMPANY AUDIT PROCEDURE

Internal quality audits are conducted as per quality audit plan within the company and on subcontractors, as applicable. The detailed instructions to perform the internal audits will be found on Appendix A Internal Audit Forms.

1. The Quality Representative will schedule yearly internal quality audits to ensure that all the activities within the facility are audited at least once a year and audit the subcontractors for calibration at least once every two years.

2. The Quality Representative will assign qualified internal auditors and define the areas to be audited within the Repair Station;

3. The internal auditor will use the Forms INTERNAL AUDIT CHECKLIST, Audit Discrepancy Report and FOD CHECKLIST (Instructions and Forms on Appendix A) to perform the audits, record the findings and return the forms to the Quality Representative;

4. The Quality Representative will analyze the findings if exist and will assign a due date for execution and will forward to the Accountable Manager.

5. The Accountable Manager will assign the corrective actions to the Repair Station employee in charge of the area audited and as soon as the action is taken the audit report will be returned to the Quality Representative;

6. The Quality Representative will perform the follow up close out the audit by signing the Final Acceptance block and input the date on Final Acceptance block of the form.

7. In the case of an event or incident, customer or airworthiness authority feedback, The Quality Representative will perform an unscheduled or follow up audit in any area;

8. The Quality Representative will file the reports at the Quality Department files for a retention period of 10 years plus the current year.

Self Evaluation Audit

For the purpose of the Self Evaluation of the Repair Station as required by *14 CFR Part* 145.215(c) these audit reports will also be used to record that the Repair Station has all of the housing, facilities, equipment, material, technical data, processes, and trained personnel in place to perform the work on the articles listed on the Repair Station CCD.

Before any inclusion of an item on the CCD a separate internal audit will be performed to determine if the Repair Station meets the requirements of *14 CFR Part* 145.215(c).

The audits may be conducted by the Quality Representative himself or a qualified representative delegated by him.

The Quality Representative is responsible for all audits conducted in the company.

Auditor must be independent of the area being audited.

Any non-conformance found during the audit is to be recorded and corrective action is expected within an agreed time frame. All audit findings shall be summarized on a quality audit report and copied to the Accountable Manager.

The Quality Representative or inspector designated will conduct internal quality audits and corrective action in accordance to the latest revision of Internal Audit Procedure and audit subcontractors per minimum items listed on "Subcontractors Questionnaire Audit" form (see Appendix B).

This questionnaire will be revised and updated by the Quality Representative anytime is needed in order to comply with new industry practices and requirements to the laboratories of calibration per international standard ISO/IEC 17025, new FAA requirements concerning calibration services and to meet relevant quality needs related to the service provided by the subcontractors for services of calibration.

The Quality Representative or a designated inspector conducts scheduled audits and assigns personnel at the affected area to initiate the correction actions for those discrepancies found. Time is also defined for completion or required corrective actions and shall not exceed 30 days. After correction actions are implemented, Quality Representative or assigned back-up will accept and file related records at Quality Department.

The audit of the selected subcontractors will be performed on subcontractor's site if needed or by sending the "Subcontractors Questionnaire Audit "form (see Appendix B) by mail. The form should have all items completely answered by subcontractor's representative. Quality Representative will add comments, list any applicable correction action (if applicable) and sign off the form after final acceptance of subcontractor service.

INDEX OF FORMS SAMPLES

Temporarily tags and forms without revision control and date will receive a stick with this information, when replaced they will follow the design in this appendix.

INDEX OF FORMS SAMPLES – CONTINUED

FAA Form / Tag 8130-3 for "Return to Service"

The FAA Form 8130-3 will be used by this repair station for "Return-to-Service" of a top level unit or a subassembly from a top level unit after performing repair and / or alterations when shipped within the United States (state-side).

Instructions for Filling out the 8130-3 form as referenced by FAA Order 8130.21( ):

Block	Minimum Requirements/Instructions For Completion
3	Unique Number generated by the system for tracking.
4	Name, address of the Collins Service Center/Base *and designator*.
5	Enter the RDR (Repair Data Report) number as the Work Order number
6	Enter "1" in this block.
7	Enter the equipment model number and description.
8	Ten-digit Collins Part Number (CPN).
9	Enter quantity.
10	Enter serial number of a top level unit or MCN of a top level subassembly.
11	This field will contain an applicable entry identified as: Modified, overhauled, rebuilt, new, repaired, altered, inspected, and prototype to reflect the majority of the work performed.
12	Write the"Customer Order No.XXXX". Write "TESTED and/or REPAIRED PER MANUAL (complete cpn, revision number or Temp. Rev. number and the date of issue), that was utilized to return a unit/assembly to service (in accordance to the work performed in Block 12). Write in any service bulletin(s) that were installed, the identity of any air directive(s) that were complied with, specify required regulatory information, and any other information that may be informative and/or applicable to work performed (e.g. JAA Certification Number). Write in (upon customer request) any compliance with customer engineering orders. If the item is a subassembly, then add the sentence "Item 1 referenced above is a subassembly of a top level unit, it shall be the users responsibility to test/verify ultimate end items airworthiness upon completion of this subassembly." Write the CPN of parts installed during the maintenance.
13-(a to e)	(Export, Conformity, or Identification). Leave blank.
14.a	Check the appropriate box indicating which regulations apply to the completed work.
14.b	Signature of the individual authorized by the repair station with a continuing airworthiness maintenance program to approve the product for return-to-service as prescribed in 14 CFR Part 43 (i.e. repairman certificate).
14.c	Enter the repair station license number.
14.d	Name (typed or printed) and person ANAC license number.
14.e	Date in the format dd/mm/yyyy.

AUTHORIZED RELEASE CERTIFICATE

FAA FORM 8130-3, AIRWORTHINESS APPROVAL TAG

1. Approving National Aviation Authority/Country:	2.	3. Form Tracking Number:
FAA/United States		RCB-0074/16

4. Organization Name and Address:	5. Work Order / Contract, or Invoice Number:
ROCKWELL COLLINS DO BRASIL LTDA 1090, Rua Ambrósio Molina, Prédio F - Eugênio de Melo - São José dos Campos - São Paulo - BRAZIL - CEP(ZIP) 12247-000 - (Z5RY553Y)	00216935

6. Item	7. Description:	8. Part Number:	9. Quantity:	10. Serial Number:	11. Status / Work:
1	FMC-5000	822-0891-008	1	1D14G	REPAIRED

12. Remarks: RETURN TO SERVICE

REPLACED THE BATTERIES. PERFORMED TEST PROCEDURE PER MANUAL 523-0818582-701113 Ed/Rev 1/7 Mar 21/14.

Service Bulletin Installed: None.

Complied with airworthiness directive: None

Customer Repair Order:WO:1402694

13a. Certifies the items identified above were manufactured in conformity to:

☐ Approved design data and are in a condition for safe operation.

☐ Non-approved design data specified in Block 12.

13b. Authorized Signature: N/A

13c. Approval / Authorization No.:

13d. Name (Typed or Printed):

13e. Date (dd/mm/yyyy):

14a. ☒ 14 CFR 43.9 Return to Service ☐ Other regulation specified in Block 12.

Certifies that unless otherwise specified in block 12, the work identified in Block 11 and described in block 12 was accomplished in accordance with Title 14, Code of Federal Regulations, part 43 and in respect to that work, the items are approved for return to service.

14b. Authorized Signature

14c. Approval / Certificate No.: Z5RY553Y

14d. Name (Typed or Printed): WAGNER ASSIS CHAVES

14e. Date (dd/mm/yyyy): 09/Mar/2016

User / Installer Responsibilities

It is important to understand that the existence of this document alone does not automatically constitute authority to install the aircraft engine/propeller/article.

Where the user / installer performs work in accordance with the national regulations of an airworthiness authority different than the airworthiness authority of the country specified in Block 1, it is essential that the user / installer ensures that his / her airworthiness authority accepts aircraft engine(s)/propeller(s)/article(s) from the airworthiness authority of the country specified in Block 1.

Statements in Blocks 13a and 14a do not constitute installation certification. In all cases, aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user / installer before the aircraft may be flown.

Calibration Interval Adjustment Schedule Tables

The recall interval of calibrated M&TE is determined from the following tables.

Table 1– New Interval Decision Table

Previous Calibration Recall Tolerance Codes	Incoming Tolerance Code 1	3	5
x 0.....	-	D	-
x 1.....	P	D	-
x 3.....	-	M	D
x 5.....	-	D	D
1 0.....	P	D	-
1 1.....	P	D	-
1 3.....	-	M	D
1 5.....	-	D	D
3 0.....	-	M	D
3 1.....	-	M	-
3 3.....	-	M[1]	M
3 5.....	-	M	D
5 0.....	-	D	D
5 1.....	P	D	-
5 3.....	-	M	D[1]
5 5.....	-	D	D[1]

1 Do not release instrument without investigating cause of trend.
Note: The symbol "-" denotes no interval change.

Table 2–Interval Adjustment Schedule

Current Interval	New Interval P	M	D	Current Interval	New Interval P	M	D
1.....	2	1[1]	1[1]	9.....	11	7	8
2.....	3	1[1]	2	10.....	12	8	9
3.....	4	2	3	11.....	12	8	10
4.....	5	3	4	12.....	18	9	11
5.....	6	4	5	18.....	24	10	12
6.....	8	4	5	24.....	36	12	18
7.....	9	5	6	36.....	48	18	24
8.....	10	6	7	48.....	60	24	36
				60.....	60	36	48

1 Do not release instrument without investigating cause of trend.

FAA Repair Station Z5RY553Y
PERSONNEL ROSTER AND AUTHORIZATIONS

Ref.	Auth.Code.	Name	Job position/ Function	ANAC Certification No/ GROUP	RETURN TO SERVICE										OTHER					Authorized signatures/initials
					R			IN				ACC								
					1	2	3	1	2	3	4	1	2	3	IRL	ICP	PRE	HD	IPR	
1071	A	Felipe P. Teixeira	Chief Inspector	Engineer CREA 5062940699																
1081	B	Adelson M. Moraes	Parts and Customer Units Inspector	ANAC 353250 AVIONICS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
1040	C	Cesar L. Esquin	Parts and Customer Units Inspector	ANAC 921023 AVIONICS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
1059	C	Wagner A. Chaves	Parts and Customer Units Inspector	ANAC 820787 AVIONICS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
1084	D	Laurry N Dias	Parts Inspector	N/A												X				

Authorizations Legends

Authorizations for Return to Service

Radio Class 1: Comm Equipment	**R1**	Instruments Class 1: Mechanical	**IN1**	Accessories Class 1: Mechanical	**ACC1**
Radio Class 2: Nav Equipment	**R2**	Instruments Class 2: Electrical	**IN2**	Accessories Class 2: Electrical	**ACC2**
Radio Class 3: Radar Equipment	**R3**	Instruments Class 3: Gyroscopic	**IN3**	Accessories Class 3: Electronic	**ACC3**
		Instruments Class 4: Electronic	**IN4**		

Inspections

Incoming Receiving LRU **IRL**/ Parts **ICP** Preliminary Inspection **PRE** Hidden Damage Inspection **HD** In Process Inspection **IPR**

Authority Codes

A – Management **B** -Supervisor **C** – Inspector **D** - Receiving/Shipping/Stockroom

EXAMPLE OF INSPECTOR AND RETURN TO SERVICE ROSTER. CURRENT ON THIS REVISION DATE, FOR LATEST CHECK FILE

Approved: _____
Mariana R Santos – Accountable Manager

Rev 26 Date Aug/23/2023
Form: ROSTER

Print Date: Aug/23/2023

Rockwell Collins

MANAGERS AND SUPERVISOR ROSTER

Brazil Service Center - SJC

1 **Name:** Mariana Ribeiro Santos
Title: Managing Director/Accountable Manager

Signature:_____

2 **Name:** Felipe Pereira Teixeira
Title: Quality Manager/EH&S Coordinator/SMS Manager

Signature:_____

3 **Name:** Adelson Marcon Moraes
Title: Maintenance Leader/Test Equiqpment Coordinator

Signature:_____

4 **Name:** Cesar Llopar Esquin
Title: Maintenance Leader

Signature:_____

EXAMPLE OF SUPERVISOR AND MANAGER ROSTER. CURRENT ON THIS REVISION DATE, FOR LATEST CHECK FILE

Approved:_____Rev 6 Date 23/Aug/2023 Print Date: 23/Aug/2023
Accountable Manager

Airworthiness Directive Compliance Form Model

Rev Date 16/12/2019	ADCF				Rev 0 Form: ADCF
Airworthiness Directive Compliance Form					
1- Tail Number:		2 - AD Number:			
3 - Effective Date:		4 - Due (Calendar Date/Hours/Cycle):			
5 - Aircraft ( ) Engine( ) Propeller ( ) Equipment ( )					
6 - Terminal ( ) Recurring ( ) Partial ( )					
7 - Applicable ( ) Not Applicable ( )					
8 - Justification of Non Applicability:					
9- Airworthiness instruction reference:					
10 - Other reference document:					
11 - Aeronautical product affected					
Manufacturer	Model		P/N		S/N
12 - AD Compliance data					
TSN	CSN	TSO	CSO	TSLI	CSLI
Location:					Date:
13 - Compliance method utilized: Reference to Field 9 ( ) FAA AMOC ( )					
Description:					
14 - Results:					
Reference Work Order:					
15 - Trouble report:					
16 - New due date (Calendar Time/Hours/Cycles):					
17 - Technician:			18 - Signature		
19 - Supervisor/Inspector:			20 - Signature		
21 - Company: Rockwell Collins do Brasil Ltda.			22 - Location (City/State) São José dos Campos - SP		

Airworthiness Directive Compliance Form Filling Instructions

1. Tail Mark: Fill with aircraft tail mark e.g. PT-XYZ. When customer don't inform fill with (N/A).
2. AD Number: Fill with designator (like FAA, ANAC or EASA) and number. Eg.: AD 95-12-03
3. Effective date: Fill with AD effective date
4. Due (Calendar Time/Hours/Cycles): Fill in accordance with AD information type and value
5. Mark with "X" the field of the type of product.
6. Action: Mark with "X" the type of AD based on the information provided within it.
7. Applicability: Mark with "X" if the AD is applicable or not to the specific product being worked after revision of the AD text.
8. Justification of Non Applicability: Eg.: Not applicable to S/N or P/N
9. Airworthiness Instruction reference: Fill with the reference gave on AD. Eg.: SB 94-108; etc.;
10. Other reference document: Fill with other documents listed on AD. Eg.: SIL 95-23; etc.;
11. Affected aeronautical product: Fill the data *with CPN when entered Service Center*.
12. AD Compliance data:
Fill with the data informed by customer (if none informed write "N/A") TSN - CSN: Time Since New - Cicles Since New; TSO-CSO: Time Since Overhaul - Cicles Since Overhaul; TSLI - CSLI: Time Since Last Inspection - Cicles Since Last Inspection ;
Location: where the equipment is located. Eg: RH engine, stockroom, etc. Date: Time when the AD was applied
13. Compliance method utilized: Mark if information on Field 9 was used or a FAA approved Alternative Mean of Compliance. If AD is not applicable then fill description with "N/A (field 8)"
14. Results: Describe method used and results. Eg. Complied with section 8 of SB-94-108 and tested IAW CMM number 527-XXXXXX passed. Inform the work order as reference. *If CPN changed with compliance of AD include the new CPN on this field.*
NOTE: If AD isn't applicable fill Results with "N/A (field 8)"
15. Trouble Report: When applicable describe reason why AD can't be complied and contact FAA.
16. New due date (Calendar Time/Hours/ Cycles): When a partial or recurring compliance was done write the new due date (calendar time/hour/ cycle). If terminal action was performed then write "N/A".
17. Technican: Name and license number of the technician that applied the AD or analyzed non applicability;
18. Signature: Technician shall sign in this field
19. Supervisor/Inspector: Name and license of the supervisor or inspector that oversaw the work
20. Signature: Supervisor/Inspector shall sign in this field
21. Company: Always filled "Rockwell Collins do Brasil LTDA."
22. Location (City/State): Always filled "São José dos Campos-SP".

FAA Form / Tag 8120-11 for "Suspected Unapproved Parts Notification Form"

OMB Approved 2120-0552
Expires11/30/2022

Instructions for Completing FAA Form 8120-11, Suspected Unapproved Parts Report

Paperwork Reduction Act Statement:

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a currently valid OMB Control Number. The OMB Control Number for this information collection is 2120-0552. Public reporting for this collection of information is estimated to be approximately 30 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, completing and reviewing the collection of information. All responses to this collection of information are voluntary. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Parkway, Fort Worth, TX 76177-1524.

Privacy Act Statement:

This statement is provided pursuant to the Privacy Act of 1974, 5 U.S.C. § 552a. The authority for collecting this information is contained in 49 U.S.C. 44701. The principal purpose for which the information is collected is to support Suspected Unapproved Parts (SUP) investigations and management reports. Submission of this information is voluntary and is necessary to support the FAA's commitment to promote safety. Information developed from this form is covered under the Privacy Act system of records DOT/FAA 852 and the routine uses of that system will apply. These routine uses include sharing of information with law enforcement agencies for use in civil and criminal investigations, as well as the Department of Transportation prefatory routine uses, which are available at https://www.transportation.gov/individuals/privacy/privacy-act-system-records-notices. Individuals who submit reports may request confidentiality of personal information to the extent permitted by the Freedom of Information Act (5 USC 552) and the Privacy Act (5 USC 552a).

An electronic copy of FAA Form 8120-11, Suspected Unapproved Parts Report, is available on the FAA website at http://www.faa.gov/aircraft/safety/programs/sups. You may complete the electronic FAA Form 8120-11 and send it to the FAA Hotline email: FHIS@faa.gov.

The instructions below correspond to numbered blocks on the Suspected Unapproved Parts Report:

1. Record the date the part was discovered.
2. Record the part name (or a description of the part).
3. Record the part number or identification number of the part.
4. Record the serial number on the part, if applicable.
5. Record the quantity of parts.
6. Record the assembly name and assembly number (where the part was or could be installed).

Record additional part numbers on page 3 or on a blank sheet of paper with the same information. Example:

Part Name: **Strut** | Part Number: **1234** | Serial Number: **678** | Quantity: **1** | Assembly Name: **Main Landing Gear** | Assembly Number: **68788X**

7. Record the type of aircraft the part was (or could be) installed on.
8. Record the complete name and address of the company or person who produced, repaired, and/or sold the part. Do not list a P.O. Box address unless a street address is not available. Check the box that describes the company or person and provide the certificate number, if known (see explanations of participants below).

   Air Carrier - An FAA-certificated company or person who undertakes directly by lease, or other arrangement, to engage in air transportation.

   Distributor - A broker, dealer, reseller or other person or agency engaged in the sale of parts.

   Manufacturer - The original equipment manufacturer (OEM.)

   Mechanic - A person holding an FAA mechanics certificate with airframe and/or powerplant ratings.

   Other - Record other type of business.

   Owner/Operator - The owner or operator of an aircraft.

   Production Approval Holder - A company or person holding one of the following three types of FAA production approvals: production certificate, parts manufacturer approval, or technical standard order authorization.

   Repair Station - An FAA-certificated repair station.

   Supplier - A company or person who furnishes aircraft parts or related services, at any tier, to the producer of a product or part thereof.

   Unknown – If not known, check this box.

9. Record a brief narrative stating why you believe the part is not approved. Include a description of the part (improper configuration, suspect marking, different material, etc.), where it was obtained, and what type of documentation was supplied with it.
10. Record the complete name and address of the location where the part was found. Check the appropriate block to reflect the affiliation of the company or person who discovered the part.
11. Record the date the FAA Form 8120-11 is being submitted.
12. Check this box if you request anonymity (do not wish to provide your identity), and do not complete 13 or 14.
13. Record your name, address and phone number, if desired. This information will enable the FAA to contact you for additional information, if necessary.
14. Check this box if you request confidentiality of your personal information recorded in block 13.
15. Check this box if you have provided additional information (photos, invoices, certification statements, etc.).

Forward the completed FAA Form 8120-11, Suspected Unapproved Parts Report, to:

Federal Aviation Administration
Office of Audit and Evaluation, (Room 811)
800 Independence Avenue, SW, Washington, DC 20591

FAA Form 8120-11 (7/2018) Supersedes Previous Edition — Local Reproduction Authorized

SUSPECTED UNAPPROVED PARTS NOTIFICATION FORM – Front Page

OMB Approved 2120-0552
Expires 11/30/2022

SUSPECTED UNAPPROVED PARTS REPORT

1. Date the Part Was Discovered:		2. Part Name:
3. Part Number:		4. Part Serial Number:
6. Quantity:	8. Assembly Name and Number: Name: Number:	7. Aircraft Make & Model: Make: Model:

8. Name, Address, and Description of the Company or Person Who Supplied or Repaired the Part:

Name:		Street Address:
City:	State:	Zip Code:
Country:		Phone Number:

Check One of the Following Applicable to the Company or Person Who Supplied or Repaired the Part:

☐ Air Carrier - Certificate #	☐ Supplier
☐ Mechanic - Certificate #	☐ Production Approval Holder
☐ Repair Station - Certificate #	☐ Manufacturer
☐ Distributor	☐ Other
☐ Owner/Operator	☐ Unknown

9. Description of the Issue: (attach additional sheet if necessary)

10. Name and Address of (the Company or Person) Where the Part Was Discovered:

Name:		Street Address:
City:	State:	Zip:
Country:		Phone Number:

Check One of the Following Applicable to the Company or Person Who Discovered the Part:

☐ Air Carrier - Certificate #	☐ FAA Inspector
☐ Mechanic - Certificate #	☐ DOT/Office of Inspector General
☐ Repair Station - Certificate #	☐ Defense Criminal Investigation Service
☐ Distributor	☐ Other Government Agency
☐ Supplier	☐ Foreign Civil Aviation Authority
☐ Production Approval Holder	☐ Owner/Operator
☐ Unknown	☐ Other

11. Date of this report

12. ☐ Check this box if you request anonymity - *Do not complete block 13.*

13. Name and Address of the Reporter:

Name:	Street Address:	
City:	State:	Zip Code:
Country:	Phone Number:	

14. ☐ Check this box if you request confidentiality.

15. ☐ Check this box if you have attached additional information.

FAA Form 8120-11 (7/2018) Supersedes Previous Edition — Local Reproduction Authorized

SUSPECTED UNAPPROVED PARTS NOTIFICATION FORM – Rear Page

OMB Approved 2120-0552
Expires 11/30/2022

-

Part Name	Part Number	Serial Number	Quantity	Assembly Name	Assembly Number

FAA Form 8120-11 (7/2018) Supersedes Previous Edition

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FAA Form / Tag *8070-1 for "Service Difficult Report"*

Will be filled within 96h of the occurrence verification, Part 121 or 135 must receive a copy of the report through the e-mail informed on their documentation.

All Submitters - Instructions for Completing FAA Form 8070-1

Major Equipment Identity

TITLE	ENTRY
Aircraft Powerplant Propeller	Identify major equipment related to problem. Enter manufacturer, model, and serial number per FAA/MANUFACTURER type certificate data sheet. If amateur built, use plan or kit name. Use military model designators when appropriate. Avoid colloquial names and market titles.
N-	Aircraft Registration Number.

Problem Description

Date	Give date problem occurred (i.e., 7-1-84).
Text	Whenever possible, describe conditions subsequent to, or leading up to, the reported problem: (a) Identify the cause for malfunction and emergency measures execute. (b) Include compliance or noncompliance with Airworthiness Directives, Service Bulletins, STC's, and PMA's. (c) Provide any significant fact you feel may help to reduce or eliminate recurrence (i.e., cycles, landings, and suggested changes).
Part Name	Skin, rib, shaft, Venturi, transistor, capacitor, etc. Avoid colloquial names.
Mfg. Part Number	Alphanumeric part identifiers assigned by manufacturer.
Part Condition	Cracked, bent, burned, corroded, shorted, etc.
Part/Defect Location	L.H. alternator, audio, R.H. outboard, range switch, etc.
Part TT	Total service time on part in whole hours (i.e., 00531).
Part TSO	Service time on part since overhaul in whole hours (i.e., 00200)
Comp/Appl Name	Fuselage, wing, alternator, carburetor, VOR receiver, etc.
Manufacturer	Comp/appl manufacturer: Beech, Cessna, Prestolite, Bendix, Collins, etc.
Mfg. Model/Number, Serial Number	Alphanumeric model and serial numbers or identifiers assigned by comp/appl manufacturer (i.e., ALU8403, NAS3A1, 51 RVII). Do not repeat "MAJOR EQUIPMENT IDENTITY" in these locations.

Submitted By

Submitter	As noted on form.

FAA District Offices - Refer to FAA Order 8010.2

U.S. GOVERNMENT PRINTING OFFICE: 1984-461-823-21521

FORM APPROVED
OMB No. 2120-0663 Exp. 10/31/2020

U.S. Department of Transportation Federal Aviation Administration

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

Service Difficulty Report
AERONAUTICAL EQUIPMENT

RIS- WS 8070-1	
Control No.	
ATA	Code

MAJOR EQUIPMENT IDENTITY

Enter pertinent data	MANUFACTURER	MODEL/SERIES	SERIAL NUMBER	-N-
AIRCRAFT				
POWERPLANT				
PROPELLER				

PROBLEM DESCRIPTION

DATE	STATUS	CARRIER	ATA	AIRCRAFT TYPE	N-	CONTROL NO.

TEXT

SPECIFIC PART CAUSING PROBLEM

PART NAME	MFG. PART NUMBER	PART CONDITION	PART/DEFECT LOCATION

COMPONENT/APPLIANCE ABOVE PART INSTALLED ON	Report whole hours	PART TT	PART TSO

COMP/APPL NAME	MANUFACTURER	MFG. MODEL/NUMBER	SERIAL NO.

SUBMITTED BY

SUBMITTER (Check one)	A	B	C	D	E	F	G	H	I	P. S. L.	ALERT	OPER/D.O.
	CARRIER	REP ATA	OPER	MECH	AIR TAXI	MFG	FAA	OTHER	Spec			

PROC PROC. | NATURE | STAGE | STAT | ROLL | Flame | SYS. | SYS.

ADDITIONAL COMMENTS

FAA Form 8070-1 (11-84) SUPERSEDES PREVIOUS EDITION

Shaded Areas are for FAA USE ONLY

Form - Unserviceable Tag (CPN 074-5186-200)

Color: Dark Red

Instructions for Application

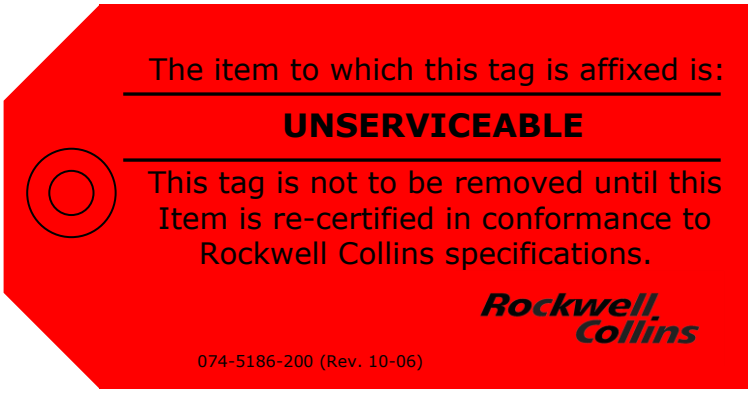
This tag is to be attached to all Line Replaceable Unit (LRU) while the unit is in any area of this repair facility and will be affixed in:

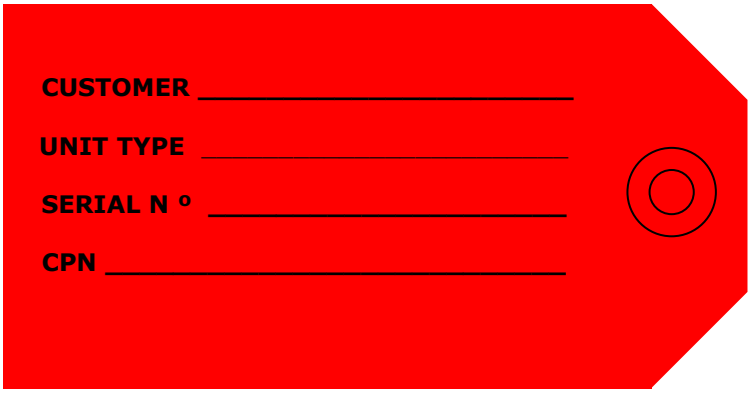
- Any unit or subassembly at the time is received at the Service Center receiving area for repair, overhaul, re-certification or test.
- Any subassembly that has been separated from an end item by the customer for separate repair, modification or test prior to certification in the top level assembly.
- Any unit that is being returned to customer with no airworthiness tag applied - no repair/final test was completed. In this case only, information of customer and unit will be present at the rear.

Removal

This tag is to be removed at the time the unit passes on final inspection and the FAA Form 8130-3 is applied in place.

RED TAG - UNSERVICEABLE





Form - Warning Tag (CPN 074-8269-500)

Color: Red

Instructions for Application

This tag is to be affixed to equipment which, despite being in conformance to the related equipment instruction book or company-approved document, is not necessarily configured to conform to the end customer's intended use.

The technician must fill the opposite side with customer name, unit type, serial number and CPN to ensure that this tag belong a specified unit.

RED TAG – WARNING
(Adjustments/Strapping Required)

Form - Quarantine Tag

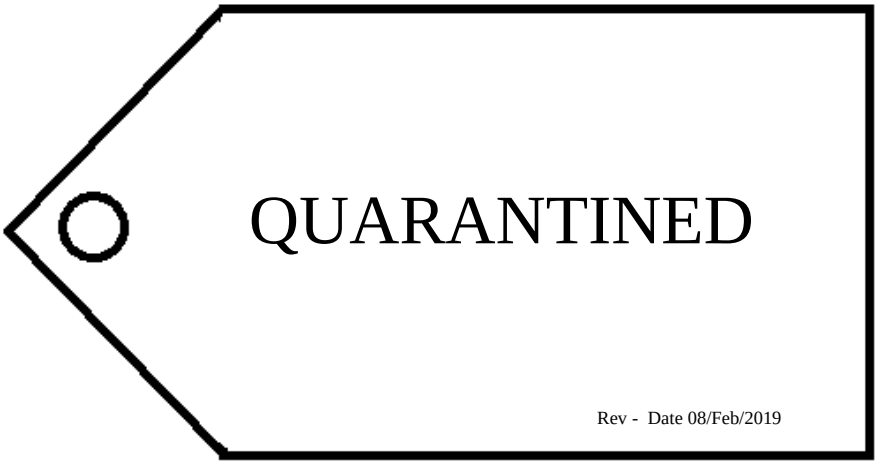
Color: White

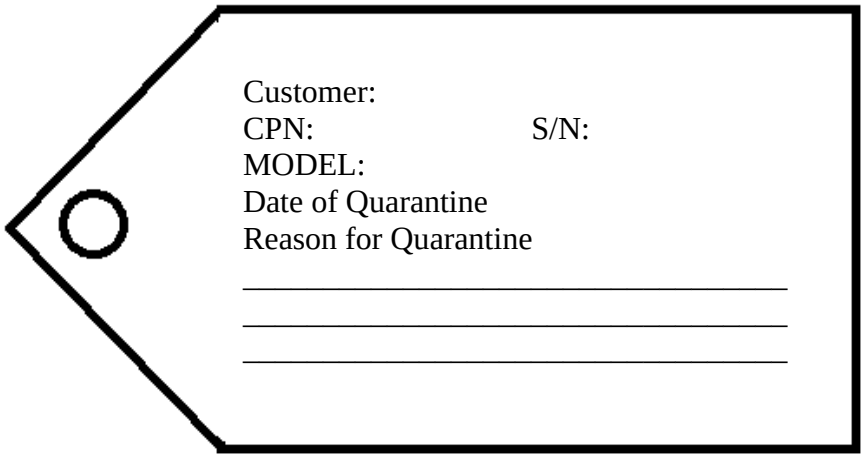
Instructions for Application

This tag is to be affixed to equipment which have been determine to wait for disposition at the quarantine, be it because of lacking paperwork, SUP status or any other that prevents it from entering the regular work flow. It shall not be removed until situation is cleared and equipment allowed to enter repair floor.

The technician must fill the opposite side with customer name, unit type, serial number and CPN to ensure that this tag belong a specified unit. He must also fill out the reason for entrance on quarantine and date of entrance.

WHITE TAG – QUARANTINE
(Adjustments/Strapping Required)





Instruction to fill the calibration report

1. Report's name/tracking number: RCB "Equipment's name"/ddmmyy
2. Bench it's installed
3. Manufacturer(s) name
4. Model of the equipment
5. Description of the equipment (e.g. O'scope, Multimeter, etc)
6. Serial Number
7. Inventory Number (as registered on the equipment)
8. Collins Part Number (if available)
9. TEMS# as indicated on the sticker in the equipment – Calibration control number
10. Calibration Procedure (e.g Manufacturer Specs, Collins Procedure XYZ, CMM, etc)
11. Fill if the equipment needed repair, adjustment or if was within tolerance
12. Corrective Actions – Fill out all the corrective actions needed to return equipment to work within the tolerance
13. Observations – Fill out any special conditions that calibrator needs to know, or that were found during calibration
14. Standards used – Include Manufacturer, Model, Serial Number, Description, Calibration due date and Certificate of Calibration Number of the standard. Include all standards used.
15. Include tables, graphics, instructions and others required to conduct the calibration. Also include tolerances and space to fill out the results.
16. Date of calibration, date of the report, due date for next calibration, period and name of the calibrator – Signed at the end.

Rockwell Collins

CERTIFICADO DE CALIBRAÇÃO

1. RCB GSLAB/010219

Rockwell Collins do Brasil Ltda
COM 7412-05/ANAC FAA Repair Station Z5RY553Y
Rua Ambrósio Molina, 1090
Prédio F – Eugênio de Melo
12247-000 S.J. Campos – SP – Brasil
Tel: (55) 12 3908-6205 FAX: (55) 12 3908-6204

2. Aplicação na bancada:AHRS

3. Fabricante: Starret/ Standridge
4. Modelo: GRADE A/ 199
5. Descrição: Pedras de Granito
6. Num.série: 90467/ -

7. Ativo RCB: 475/235
8. CPN: N/A
9. TEMS: 4600750311
TEMS: 4600750313

Ambiente da calibração:
Temperatura: (23+/- 2) ºC
Umidade Relativa: (45 +/- 10) %

10. Procedimento de calibração: RCB 002/2003.

11. I. Recebido no estado: ☑ Dentro da tolerância ☐ Fora da tolerância ☐ Falha Operacional

12. II. Ações Corretivas: Nenhuma. As pedras foram recalibradas devido à mudança de localização dentro da oficina.

13. III. Observações: Cada divisão (0,0005 *in/ft*) no mostrador do nível de precisão equivale a um desnível de 0,0024 graus. A incerteza obtida é declarada com o fator **k** igual a 1,96 para um nível de confiança de aproximadamente 95 %. A calibração da pedra Standridge é feita tomando-se as medidas sobre o conjunto pedra e bandeja giratória GENISCO 1100.

IV. Padrões utilizados: Os padrões de medidas listados a seguir possuem rastreabilidade ao NIST e/ou RBC(INMETRO):

14.

Fabricante	Modelo	Número de série	Descrição	Valido até	Certificado
Starret	199	N/A	Nível de Precisão	26/FEB/2018	Instrucall 275/16

15. V. Resultados da Calibração:

Pedra de granito Standridge

Eixo da Medida	Lim. Inferior (º)	[1]Valor Medido (º)	Lim. Superior (º)	Incerteza (º)
Longitudinal	$-30{\cdot}10^{-3}$	0	$+30{\cdot}10^{-3}$	$1{,}2{\cdot}10^{-3}$
Transversal	$-30{\cdot}10^{-3}$	0	$+30{\cdot}10^{-3}$	$1{,}2{\cdot}10^{-3}$

Pedra de granito Starrett

Eixo da Medida	Lim. Inferior (º)	[1]Valor Medido (º)	Lim. Superior (º)	Incerteza (º)
Longitudinal	$-30{\cdot}10^{-3}$	0	$+30{\cdot}10^{-3}$	$1{,}2{\cdot}10^{-3}$
Transversal	$-30{\cdot}10^{-3}$	0	$+30{\cdot}10^{-3}$	$1{,}2{\cdot}10^{-3}$

$$^{1}medida \cdot 10^{-3}(^{\circ}) = \left[\text{arctg}\left(\frac{\text{nºdivisões} * 0{,}0005\text{in} * 0{,}0254\text{m}}{\text{ft} * 0{,}3048\text{m}}\right)\text{rad}\right] \cdot 1000$$

16. Calibrado em: 01/Feb/19 Data do Relatório: 01/Feb/19 Próxima Calibração : 31/Ago/19

Periodicidade: 6M Calibrado por: Jever A Santos

Form. CertCal Rev 2 Abr/12

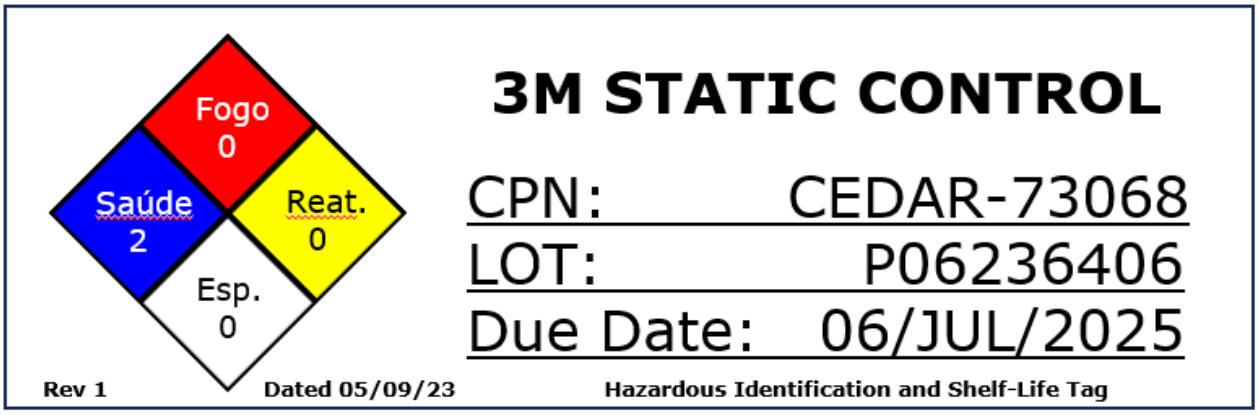
Form - Hazardous Identification and Shelf-Life Tag

Color: White

Instructions for Application

1. Hazard Classification – Fill out using the information on the MSDS or manufacture tag
2. Model or name of the chemical or shelf-life part
3. CPN (Collins Part Number) as identified on the CofC (Certificate of Conformance)
4. LOT: Copy the lot number/batch listed on the chemical container/paperwork
5. Due Date as in the manufacture tag, engineering document or other acceptable documentation.

Hazardous Identification and Shelf-Life Tag
(Adhesive attached to the chemical or part)



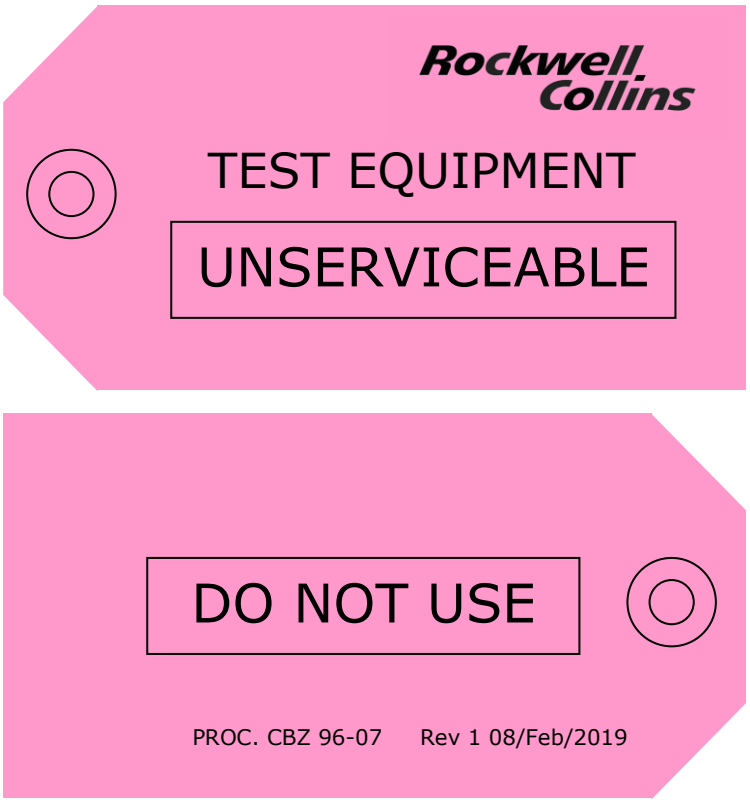
Form – Test Equipment - Unserviceable Tag (Proc CBZ 96-07)

Color: Pink

Instructions for Application

This tag is used to identify the Test Equipment that is out of the calibration or with defect.

PINK TAG - OUT OF SERVICE - TEST EQUIPMENT



Calibration Labels to Test Equipments

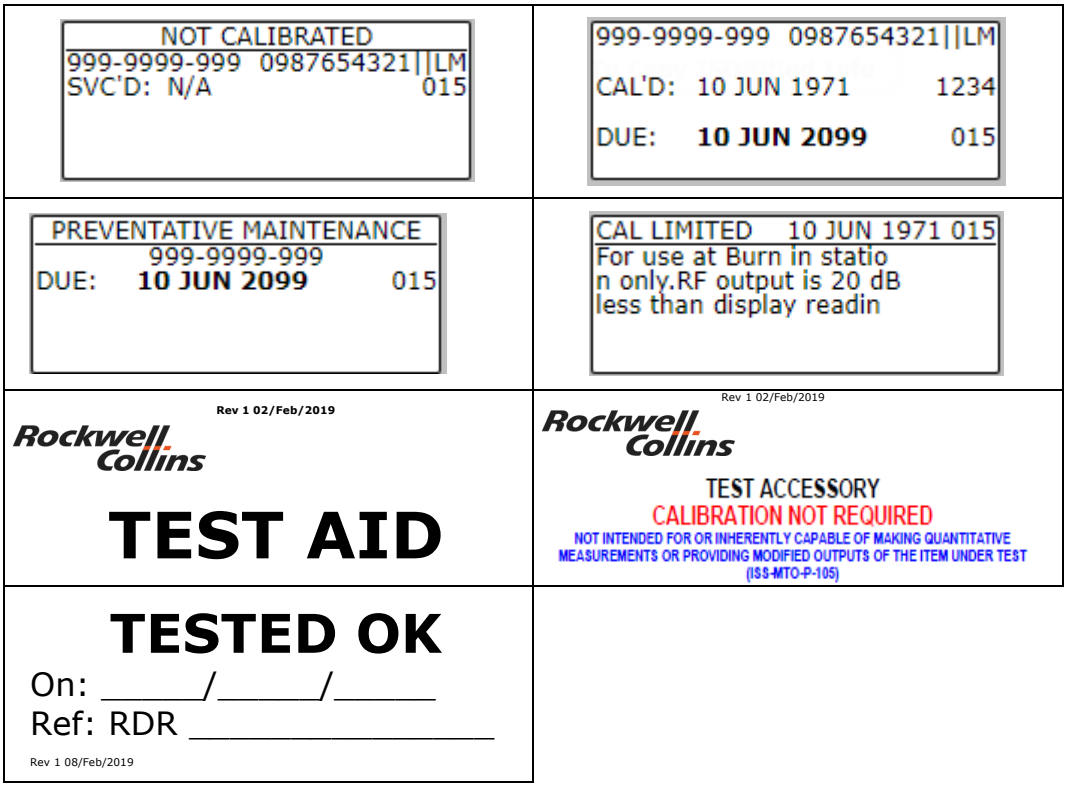
Instructions to fill the labels

The labels must be filled with calibration date, equipment type, serial number and due date if applicable.

The "Calibration Limited" must be filled with information specifying the limits of calibration performed in this test equipment.

The "Tested OK" label must be filled with the date the Test Aid was serviced/ recertified and with the number of the Repair Data Report created.

LABEL ADHESIVE



Form – REPAIR DATA REPORT (CPN 074-6165-200)

The Repair Data Report is a data collection form automatically printed by our computer system during the Final Inspection. Repair technician's will record information relative to the work performed with clock number. Space is provided for Inspector's signature, ANAC certificate number and FAA Repair Station number on this Form. The Repair Data Report will be kept on file for a period of not less than three (3) years.

The blocks are fulfilled with the following information:

1. **Equipment Type**
   a. Identify the model of equipment
2. **Equipment serial number**
   a. Identify the Serial Number of equipment
3. **Equipment part number**
   a. Identify the Collins Part Number of Equipment
4. **Subunit Part Number**
   a.
5. **Subunit MCN Number**
   a.

20. **Reason for Return**
    a. This is a required entry field. Here, the technician must enter the one condition which best explains why the product was returned for servicing. Six possible responses are allowed. They are:

    • Pre-Alert (RR0)
      Advance notification received from customer.

    • Defect (RR1)
      The customer believes the product was not functioning correctly.

    • Recertify (RR2)
      The product was merely sent to the Service Center/Base for recertification

    • Revision (RR3)
      The product was sent to the Service Center/Base for Service Bulletin installation, revision, or other modification work.

    • Overhaul (RR4)
      The equipment was sent for a complete overhaul.

    • Other (RR5)
      The reason for the product's return is not one of the five listed above. This category covers all other reasons for return.

26. Failure Occurred

a. If the equipment was returned due to failure and the point at which the failure occurred is known, the correct response must be entered. Exception: If the equipment was not sent to the service center because of failure or the point at which the failure occurred is not known then leave this field blank; that is, do not enter any of the three possible responses. The three responses are:
- Receiving
- Install/Check Out
- Operating Use

27. Cause of Failure

If the equipment has a failure in it, the code associated with the one condition which best describes the failure should be entered. If the equipment does not have a failure in it, code "5" (NTF) should be entered. Allowable entries and their meanings are:

1 – Workmanship: The failure was due to a Collins Manufacturing or previous Collins servicing error, such as a missing or wrong part, parts improperly installed or positioned, pinched or shorted wires, wiring errors, unsatisfactory connections, etc.
2 – Component: The failure was due to electrical or mechanical parts or assemblies, which do not function properly.
3 – Induced: The failure was induced by the customer, the operator, a Non-Collins repair facility, an act of God, shipping damage, or customer misuse or lack of knowledge.
4 – Lack of Rev/SB: The failure was due to the lack of a revision, service bulletin, SIL, rework or conversion being installed in the unit.
5 – NTF: No Trouble Found; The product tested and operates OK.
6 – ADJ/ALIGN: The failure was due to improper electrical or mechanical adjustment or alignment.
7 – Other: The cause of the failure is not one of the six listed above. Note: This "Other" cause should be obvious from the data entered in the "Description of What Was Wrong With The Equipment" and/or "Description of Service Work Performed" sections of the repair record.
8 – Precautionary component replacement
9 – Precautionary Alignment/Optimization
A – Corrupt Software
B – Not Required
C - Cleaning

28. Workmanship Code

Workmanship - A failure was found that was caused by a Rockwell Collins manufacturing error, a previous Rockwell Collins servicing error, a non-Collins servicing error, or a servicing error from an unknown location. Workmanship errors include, but are not limited to, missing or wrong part, parts improperly installed or positioned, pinched or shorted wires, wiring errors, unsatisfactory connections, wrong software installed, etc. Note that the Workmanship code applies to any workmanship error caused by a servicing activity at any service facility regardless of location.

Special Edits/Entries:
00 – No Workmanship Problem Exists.
01 – Wrong Part
02 – Reversed Part
03 – Missing Part
04 – Damaged Part
05 – Solder Defect

06 – Wiring Error
07 – Short
08 – Loose/Incorrect Hardware
09 – Foreign Material
10 – Mechanical Alignment
11 – Test Adjustment or Alignment
12 – Wrong Location

29. Workmanship Loc (CKT SYM)
Special Edits/Entries:
1 – Manufacturing Caused.
2 – Service Center/Base Caused
3 – Unknown Location Caused

30. Components Part Number (used in Unit)

31. Circuit Symbol
The exact location of the defective or failed removed part, as noted by both the reference designator and the circuit symbol. (ex: If the Q3 Transistor was replaced on the 860E-5 IF Amplifier Card, A2A1Q3 should be entered)

32. DEF (Part Defect Code)
Every failed part that is removed from the unit must have a Part Defect Code entered in this column. There are many possible defect codes to choose from. In selecting which code to use, the technician should choose the single Defect Code which best describes why the component was replaced or removed. Refer to Appendix 3 for list of available defect codes.

34. Date Code
Failed Parts Record

35. Check primary component fail
A flag indicating that a particular Failed Part was the primary cause of failure of the equipment being serviced.
Values are:
Y = Yes
N = No

36. Explanation (Verify Part Defect Code)
Explanation of why a specific part failed.
Required: YES, for any Parts Failed Record with a Defect Code of 4, 8 or 11.

52. Date Received
Date the unit was received for repair

53. Date Completed
The date that the completed repair was shipped (or physically left the service center going) back to the customer.

54. Customer Code
A code assigned to identify the customer.

56. Warranty Repair (Y/N)

Selection of these radio buttons is determined by the service center manager or his/her delegate.

If the customer did not request warranty, "No" should be entered, and no other information is required.

If the customer did request warranty, "Yes" should be entered, and the "Was warranty granted?" question answered.

If the answer to the "Warranty Repair Granted?" question is yes, enter "Y". No other information is required.

If the response to the "Was warranty granted?" question is no, select "No" and select the appropriate reason that warranty was denied from the "Reason Warranty Denied" drop down menu in the Maintain Repair Configuration screen of the electronic service order.

Blank/NA – if Not Applicable

59. Customer/Related RPT No.

60. ETM Reading

Elapsed Time Meter reading at the time of equipment receipt. Leave blank if not informed, will be printed "Not Informed".

65. Profit Center/Equip. PCI

66. Profit Center/Equip. SP

67. Sales Order Number

Repair Order (Sales Order) - Used for billing and shipping the unit back to the customer. Processed in an electronic format (SAP). Fill as informed per customer, if not informed leave blank.

70. Job Charge

72. Name Plate Contract No.

73. Purchase Order/Contract

The customer's purchase order number. If not informed leave blank.

80. User Defined Field 1

Information entered at the direction of a Program Office, or Quality Assurance, to flag the repair as being a part of some special program, or meeting the criteria for some type of special tracking.

81. User Defined Field 2

Information entered at the direction of a Program Office, or Quality Assurance, to flag the repair as being a part of some special program, or meeting the criteria for some type of special tracking.

90. Customer Complaint/Repair Instructions

A description of the customer's complaint pertaining to his equipment's operation, or his instructions as to the nature and scope of the service work desired.

91. Initial Findings

A description of what was actually found to be wrong with the equipment, followed by the Service Bulletins that are not incorporated.

92. Repair Summary

A description of the service work performed, SBSs installed and AD accomplished will be followed by the full part number of the technical publication used to perform the test/repair. This information must input using the bar code reader and the bar code label affixed on the first pages of the publication. In other words, what was done to fix and/or service the equipment.

For tests covering requirements of 14 CFR Part 43 Appendix E verify that the unit contains a label with the date and altitude at which the test was made and that this information was recorded on the SGS Scratch Pad.

The technical publication repair and acceptance test sections or equivalents must be included in a way to narrow what sections were used to perform the repair and/or tests.

93. Revisions Installed this Return

Customer Name - Trade name of the customer per purchase order
Order Administrator – This field is no more used. Leave it blanked.
Schedule Control – This field is no more used. Leave it blanked.
Repair (Call No. item No)– This field is no more used. Leave it blanked.
Dock Report – Filled with customer information, usually the number of Nota Fiscal "NF" if not informed Leave it blanked**,** nothing will be print in this case.
Property– Filled with the date of issue of customer's "NF", if not informed Leave it blanked**,** nothing will be print in this case.
GSI Required– This field is no more used. Leave it blanked.
Repair Facility

Will always be filled with "Rockwell Collins do Brasil Ltda".

ETM Reading – This field is no more used. Leave it blanked**.**
Aircraft Tail Number

The Tail Number of the Aircraft from which the equipment being serviced was removed as provided by customer on the purchase order (PO); if there is no information complete with the term "NONE"

Aircraft Type

The Type Serial Number of the Aircraft from which the equipment being serviced was removed from (ex: B737, StarShip)as provided by customer on the purchase order (PO); if there is no information complete with the term "NONE"

Work Accomplished, scratch pad.

The SGS System will print automatically the sentence: "AIRWORTHINESS DIRECTIVES ISSUED AGAINST THIS PRODUCT?" At the end of this sentence the information input by the inspector during Receiving Inspection at the time the ADs were being verified will be printed. The possibilities will be:

"NONE" – if the SGS System did not detected any AD issued by the part number of the article;
"YES" – if there is an AD issued to this article. This an answer input by the inspector after the AD documentation is verified and confirmed the need to accomplish;

Signature (Filled by Inspector)

Certificate No. (Inspector/ANAC CODE and Repair Station number/FAA)

Technician will put his/her signature beside his printed name.

WORK ORDER – RDR (Example)

REPAIR DATA REPORT 00220100

Rockwell Collins

MAJOR UNIT IDENTIFICATION

1. T/L TYPE NUMBER	2. T/L SERIAL NUMBER	3. T/L PART NUMBER
MDC-4110	41GG94	822-1988-104

MODULE / CARD / SUBUNIT

4. S/L PART NUMBER	5. S/L MCN NUMBER	72. NAME PLATE CONTRACT NO.	73.PURCHASE ORDER/CONTRACT
		NONE	S/OS:002726/2019

REPAIR FACILITY	59. CUSTOMER/RELATED RPT.NO.	PROFIT CENTER / EQUIP.	67. SALES ORDER NUMBER
Rockwell Collins do Brasil Ltda		65.PCID 15 66.SP 03	31059

80. USER DEFINED FIELD 1	81. USER DEFINED FIELD 2	54. CUSTOMER CODE	CUSTOMER NAME
		SAP 0001034497 DATASUL 549	MAGA AVIATION

52. DATE RECEIVED	53. DATE COMPLETED	28. WORKMANSHIP CODE	ORDER ADMINISTRATOR
09-dez-2019	11-dez-2019		

56. WARRANTY REPAIR	60. ETM READING	29. WORKMANSHIP LOC (CKT SYM)	SCHEDULE CONTROL
S YES	NOT INFORMED		DATE SCHED. DATE DEL.

26. FAILURE OCCURRED	AIRCRAFT TAIL NUMBER	AIRCRAFT TYPE	REPAIR
3 OPERATING USE	PT-PTR	CHALLENGER 350	CALL NO. ITEM NO.

20. REASON FOR RETURN	27. CAUSE OF FAILURE	EMS ORDER	DOCK REPORT	PROPERTY
1 DEFECT	2 COMPONENT	31059 BRS	0009881- 1	06-dez-2019

COMPONENT DATA — Check block 35 for primary component

30. PART NUMBER	31. CIRCUIT SYMBOL	34. DATE CODE				38. EXPLANATION	32. DEF	35.
221-0124-030	A1BT1	INV:	0807573287	QTY:	1	OUT OF SPEC	4	N

GSI REQUIRED ☐ YES ☐ NO

PART DEFECT CODE
(enter in block 32)

1. SHORTED
2. OPEN
* 3. INTERMITTENT
* 4. CAUSES OUT OF SPEC COND
5. SELECTIVE REPLACEMENT RECD
6. INOPERATIVE/DEAD
7. DAMAGED/APPEARANCE/MARKIN
* 8. MECHANICAL OPERATION/FIT
9. CIRCUIT BOARD
10. UNVERIFIED
* 11. OTHER

* EXPLANATION REQUIRED (BLOCK 36)

EXAMPLE

NARRATIVE

90. CUSTOMER COMPLAINT/ .....REPAIR INSTRUCTIONS: REMOVED TO BATTERY REPLACEMENT.

91. INITIAL FINDINGS: INTERNAL BATTERY WITH LOW VOLTAGE.

92. REPAIR SUMMARY: REPLACED INTERNAL BATTERY. TESTED IAW TESTING SECTION OF MANUAL 523-0780022-T32113 Ed/Rev 2/27 Sep 01/2017.

93. REVISIONS INSTALLED THIS RETURN: NIL

WORK ACCOMPLISHED, SCRATCH PAD:

NONE - N/A

SIGNATURE Technician	NAME Technician	Last Register	Inspect Hours	Repair Hours	Test Hours	A.T.E. Hours	Mod.SB . Hours
	Adelson M. Moraes	11/12/2019	0,2	1,0	2,5	2,5	0,0
	Lucas A.R.Gomes	09/12/2019	0,0	0,8	0,0	0,0	0,0
	Wagner A. Chaves	09/12/2019	0,2	0,0	0,0	0,0	0,0

AIRWORTHINESS DIRECTIVES ISSUED AGAINST THIS PRODUCT None

THIS ARTICLE IS CERTIFIED AIRWORTHY

SIGNATURE: CERTIFICATE NO. ANAC:820787 7412-05/ANAC FAA: ZSRY553Y

Subtotal Hours	0,4	1,8	2,5	2,5	0,0
77. TOTAL HOURS:	4,7				

VERIFICATION CHECKLIST Form RCB 074-8433-377

The inspection personnel must use this form as a GUIDANCE to record the inspections results of all the four phases where the article (or a stock part) can be handled since is received at the repair station (receiving inspection), is forwarded to the shop to be disassembled and repaired (the preliminary inspection), is evaluated if it is good to be released to service (the final inspection) and until is dispatched and returned to customer (shipping inspection). The corrective actions to the discrepancies recorded on this form must be accomplished or forwarded to the repair station personnel directly involved with the article or stock part being inspected.

Instructions:

The inspection personnel must observe the following key points when filling this form electronically at the time it is visualized on the appropriate screen (phase of inspection) presented by the SGS system:
NOTE: Not All the items to be evaluated may be applicable to the condition of the article to be serviced or to the part to be stored in the stockroom in each one of the phases;

1. Select one or more blocks to mean that a "discrepancy" was found. It is mandatory to provide a related explanation in the field "Comments" of all that is noticed. It is acceptable to add any observation that may add value and safety considerations to the process of maintenance;
2. The SGS system will print automatically the default words " NONE – N/A" in the field "Comments". These words must be deleted if recording other information;

IMPORTANTE NOTE: Each phase must be initiated and ended by the same person who will record the results by inputting the individual password. If no discrepancy is found all the checkboxes must be blank.
Phases of Inspection:
RECEIVING INSPECTION: The inspection personnel must look for the documentation following the article or part, watching for mismatches, look for proper identification and adequate packaging as well as the physical appearance (pictures should be taken if damage is obvious) of the article or part.
PRELIMINARY INSPECTION: It is not applicable to stock parts. Is required that the inspection personnel must verify and record in the field "Comments" the applicability (or not) of an Airworthiness Directive and the applicability of Service Bulletins (related to the AD). The SGS system is able to identify any article that does have an AD issued against it. The standard words "No AD issued" automatically in the field will be automatically printed in the field "Comments" only when the SGS does not identify an AD. If and AD is identified the SGS will not print anything. This inspection must be accomplished with the covers removed. The **HIDDEN DAMAGE** inspection results must also be recorded during this phase if the article is part of an aircraft involved in an accident or incident;
FINAL INSPECTION: It is not applicable to stock parts. Inspection personnel must assure that all the requirements to release the article to service are met. An explanation must be provided in the field "Comments" if the article is to be released to customer with no recertification or "as is".
SHIPPING: It is not applicable to stock parts. Personnel must verify the physical integrity of the article being dispatched to customer as well as the proper packaging and paperwork required.

VERIFICATION CHECKLIST (Example)

VERIFICATION CHECKLIST

Rockwell Collins

RECEIVING Tracking No. [ ]

- [ ] Qty of parts matches P.O.*
- [ ] Container (Condition as Received)
- [ ] Reusable Container
- [ ] Incident Label (If Applicable)
- [ ] Incident Paperwork / SCIR (If Applicable)*
- [ ] Packaging (Adequate?) **
- [ ] Capabilities List *
- [ ] ESD Protection
- [ ] Customer Paperwork (If Applicable)
- [ ] Unit Physically Okay * / **
- [ ] Paperwork matches Unit / Item / Model
- [ ] Unit Part Number Matches P.O.
- [ ] Serial Number / MCN Matches P.O.
- [ ] Tamperproof Seals (Rockwell Collins Applied)
- [ ] Contamination (Liquid Spill) * / **
- [ ] Suspected Unapproved Part (SUP)*
- [ ] Product Quality Deficiency Report (PQDR)*
- [ ] Hold Condition (If Applicable)
- [ ] Repeat Return (If Applicable)

* Notify Appropriate Personnel
** Pictures Required

Comments TEST EQUIPMENT-INTERNAL CALIBRATION PURPOSE ONLY.

Signature WAGNER

PRELIMINARY INSPECTION

- [ ] There are no Service Bulletins issued to this product
- [ ] No Airworthiness Directive issued against this product
- [ ] Tamperproof Seals (Rockwell Collins Applied)
- [ ] Part Number (Unit / Worksheet / P.O.)*
- [ ] Serial Number / MCN (Unit / Worksheet / P.O.)*
- [ ] Customer P.O. Collins Papaerwork *
- [ ] Complaint Customer P.O. Collins Paperwork (If Applicable)*
- [ ] Unit Damaged **
- [ ] Suspected Unapproved Part (SUP)
- [ ] Contamination ** (Liquid Spill)
- [ ] Incident Report (If Applicable)
- [ ] Hidden Damage Inspection ** (If Applicable)
- [ ] History Analysis
- [ ] Complaint Verified
- [ ] Repeat Return / Rogue Unit
- [ ] Hold Condition (If Applicable)
- [ ] Customer Engineering Order matches referenced Document (If applicable)

* Notify Appropriate Personal / ** Pictures Required

Comments No AD issued

Signature WAGNER

(Indicates Discrepancies Found)

FINAL INSPECTION

- [ ] Capability List
- [ ] Part and Serial No - SON / RDR and Customer Paperwork
- [ ] Customer P/O requirements have been met
- [ ] Connector Pins
- [ ] Connector keying conforms to unit status (If Applicable)
- [ ] ESD Protection
- [ ] Mechanical operation verified (If Appliable)
- [ ] Loose or Missing Hardware
- [ ] Physical appearance satisfactory
- [ ] Elapsed Time Meter (ETM) recorded (If Applicable)
- [ ] Customer standing instructions met (Any requirements previously installed or are not applicable shall be recorded on the SON/RDR)
- [ ] Correct Documentation used for testing
- [ ] Correct S/W used for testing (If Applicable)
- [ ] Tamperproof Seals (Rockwell Collins Applied)
- [ ] Complied with all applicable Airworthiness Directives
- [ ] Outgoing unit mod status agrees with paperwork
- [ ] Failed parts reflected in Repair Summary and Scratch Pad
- [ ] Preliminary / initial findings are correctly completed
- [ ] Repair summary performed correctly completed
- [ ] Scratch pad correctly completed
- [ ] Re-run final test (If Selected for Audit)
- [ ] Unit properly tagged
- [ ] Software tag (If Applicable)
- [ ] Check 8130/JAA form 1 and / or other releases accuracy
- [ ] Customer required paperwork returned with unit
- [ ] Complete accurate and legible repair documentation

Comments NONE

Signature WAGNER

Date Inspected: segunda-feira, 23 de janeiro de 2017

SHIPPING

- [ ] Verify Unit SN/PN to Shipping Papers
- [ ] Verify SN/PN matches (e.g. 8130-3, JAA Form 1, etc)
- [ ] Test Data Present for Unit (If Applicable)
- [ ] Customer Container reused if Required
- [ ] ESD Protection
- [ ] Handling Damage
- [ ] Proper shipping label on package (If Applicable)
- [ ] Proper Packaging (If Applicable)

Comment

Signature LLOPAR

Date Completed

Form RCB 074-8433-377 Rev 2

VERIFICATION CHECKLIST (Example) (Cont)

VERIFICATION CHECKLIST

Tracking No: _____ (i.e. SAP or RDR #) [X] (Indicates Discrepancies Found)

STOCKROOM APPROVED AND ACCEPTABLE PART VERIFICATION RECEIVING

☐	Container (condition as received)
☐	Shipping container and packaging appropriate for items received (batteries)
☐	Appropriate ESD protection
☐	Verify the part(s) is not damaged or shows any signs of defect.
☐	Verify documentation matches part(s)/material(s) received
☐	Verify that the part(s) complies with the delivery package label
☐	Acceptance of New Part(s) Manufactured by FAA-Certificated Sources. Receiving personnel will ensure that new part(s) produced by FAA-certificated sources are accompanied by the referenced documents or other information (Certificate of Conformance (CoC), Airworthiness Approval Tag (8130-3), Authorization letter(s) for Production Certificate (PC) Holders, Supplemental Type Certificates (STC) Holder, Technical Standard Order Authorization (TSOA) Holder, Parts Manufacturer Approval (PMA) Holder, Type Certificate (TC) Holder, Direct Ship Authority Authorization (DSA), Design and Development (DD) and Owner/Operator Produced Part(s)
☐	Verify that Certification referenced documents or other information is correct and matches the part(s) and original 8130-3 form(s) are retained/controlled by stockroom
☐	Verify the part(s) PMA approved in accordance with the current FAA Part Manufacturing Approval Supplement and part(s) is marked in accordance with 14 CFR 45.15, if not verify using the Rockwell Collins PMA/TSO Catalog for part(s) eligibly (8130-3 tag)
☐	Assure Flammable, toxic, or volatile material are storage, received in appropriate packaging
☐	Segregation maintained, i.e., Approved and Un-Approved Part(s)
☐	Suspected Unapproved Part (SUP) * Inspect all material for obvious fraudulent or altered packing, data plates, or markings in accordance with FAA Advisory Circular # 21-29
☐	Product Quality Deficiency Report (PQDR) *
☐	Verify Acceptable NTR (No Tag Required) part(s) (Government, Ground Based and Test Equipment) are documented per Rockwell Collins Inc. requirements and are segregated from approved part(s)

* Notify Appropriate Personnel

Comments: _____

_____

_____

Signature: _____

(Include Comments for Blocks Checked)

074-8433-377 (Rev 06/03//2013)

ESH Form 1 – SCRAPPED PARTS LOG SHEET

Rockwell Collins

SCRAPPED PARTS LOG SHEET

(CONTROLLED WASTE FOR RECYCLING)

Container	Storage start date	Container contents	Date sent to Disposal Facility	Method of destruction	Manifest Date received	Manifest Facility Name & Number	Environmental Coordinator	S.C. Manager
1								
2								
3								
4								
5								
6								

ESH Form 1 Rev -

ESH Form 2 – HAZARDOUS WASTE LOG SHEET

Rockwell Collins

HAZARDOUS WASTE LOG SHEET

Container	date container full	Container contents	Date sent to Disposal Facility	Method of destruction	Manifest Date received	Manifest Facility Name & Number	Environmental Coordinator	S.C. Manager
1								
2								
3								
4								
5								
6								

ESH Form 2 Rev -

ESH Form 3 – Controlled Waste Label

CONTROLLED WASTE

Contents:

Date when accumulation starts:

Originator:

ESH Form 3 Rev -

ESH Form 4 – Hazardous Waste Label

HAZARDOUS WASTE

Contents:

Date when Full:

Originator:

ESH Form 4 Rev -

Employment Summary

Name: [*Full name of the employee*] **Title: [***current job position*]

Scope of present employment: [*brief description of current roles of the job position*

]

LICENSE: 1. AIRCRAFT MAINTENANCE MECHANIC (Issued by A.N.A.C. - BRASIL):
ANAC CODE [*number of* certification] LICENSE-No.[*number of the license*]
2. [*Other certification/number*]

RATINGS: 1. [*ratings of the ANAC certification*]
2. [*ratings of other certification*]

Work Record

EMPLOYER	POSITION	WORK PERFORMED	PERIOD	TOTAL YEARS
[*list the name of the employer*]	[*job position*]	[*brief description of work*]	[*month/yyyy*]	[*total*]
[*list the name of the employer*]	[*job position*]	[*brief description of work*]	[*month/yyyy*]	[*total*]
[*list the name of the employer*]	[*job position*]	[*brief description of work*]	[*month/yyyy*]	[*total*]

Total years for experience [*total*]

Signature: _[*signature of the employee*]_____

Issue Date:____/_____/_____ [*date of latest revision of employment summary in the format dd/month/yyyy*]

INTERNAL AUDIT - INSTRUCTIONS

Instructions: Form Internal Audit Checklist

There are many different audit templates depending on the bench/area being audited but they all follow the same general template and instruction given below. Letterhead of the audit report will contain the area that was audited, i.e "ATA 22 – Autopilot (APS-65 or APS-85)", location, i.e. "Brazil", sections, i.e "1 – Review Audit History", items, i.e. "1-When applicable, check and review prior audit history to see if there has been any trend in problem areas that may need further audit attention and/or corrective action".

1. **CHECK/REVIEW AUDIT HISTORY**: Check and review prior audit history to see if there has been any trend in problem areas that may need further audit attention and/or corrective action. All findings must be reported on iAudit or equivalent system and solved.

2. **HOUSEKEEPING / FOD & HUMAN FACTORS**: When Housekeeping and/or FOD and/or Human Factor sections are required on the checklist issued on SARA Tool computadorized system fill as instructed

3. and forward – Fill out the sections from 3.0 until the last one replying the questions made, i.e "Is the customer's equipment checked for foreign material during Final Inspection". If answer is N/A justify the non-applicability, if answer is no mark it as either minor or major finding. Major Finding is one that completely breaks a section of AS9100/ISO9001 or can contribute to an not airworthy condition that decreases safety level of costumer equipment certified. It can also be considered a major finding when several evidences of the same finding is verified, appointing to a systemic break of the quality system at that point. Either type of finding needs to be documented in iAudit and have root cause and correct action detailed. If the answer is yes there isn't any other information needed, but auditor may compliment the data with comments. System will record ID (i.e. for Felipe Teixeira "fpteixei") and date of execution for each item verified and the answer.

   It is required that a bench for each ATA chapter is audited per calendar year together with Training Programa, all FAA Parts applicable to the certificate and EASA Supplement**.**

   Every audit needs to be validated by the Quality Representative for acceptance.

INTERNAL AUDIT CHECKLIST

ATA 22 - Autoflight (APS-65 or APS-85)

Brazil

01. Review Audit History	Comp	Minor	Major	N/A
1 When applicable, check and review prior audit history to see if there has been any trend in problem areas that may need further audit attention and/or corrective action	◉	○	○	○
	fpteixei - 3/11/2019			

02. Housekeeping	Comp	Minor	Major	N/A
2 Is the area clean, neat and well organized prevent; loss, damage, and or FO damage/contamination of customer parts, and equipment,and for personnel safety?	◉	○	○	○
	fpteixei - 3/11/2019			
3 Are consoles and work areas free of dust or other debris and cleaned if necessary?	◉	○	○	○
	fpteixei - 3/11/2019			
4 Is static generating packaging material at least 12 inches away of exposed EDS sensitive devices or assemblies?	◉	○	○	○
	fpteixei - 3/11/2019			
6 Evaluate the work area for the Human Factors and Human Factors Program, and the effective implementation of the procedures/requirements of the program to: • Effectively detect and rectify maintenance errors that may endanger the safe operation of aircraft; • Address resources (i.e. effectively manage resource needs); • Communicate and pass along to the next shift sufficient information (i.e. shift changeover) that will allow the continuation of work or sequencing of tasks; and	◉	○	○	○
	fpteixei - 3/11/2019			

03. Work Station Organization	Comp	Minor	Major	N/A
8 Are tote pans, bins and packaging materials clean and free of foreign objects (FOD) e.g. debris (flux, dust, dirt, clippings, paint chips) loose hardware, and debris?	◉	○	○	○
	fpteixei - 3/11/2019			
9 Are scrap components, solder dross, lead trims, and solder wick controlled by planned disposal program?	◉	○	○	○
	fpteixei - 3/11/2019			
10 Are tote pan lids secured/in place or packaging material appropriately closed to eliminate the risk of FOD entering the product?	◉	○	○	○
	fpteixei - 3/11/2019			
11 Are work surfaces (including portable carts used as work surfaces) clean and free of foreign objects (e.g. screws, lead trims) and unnecessary items?	◉	○	○	○
	fpteixei - 3/11/2019			

Quality Review and Acceptance: fpteixei 3/11/2019

Instructions for opening a finding in iAudit:

The Fields "Status", "Unique ID", "Original CAP Due Date" and "Revised CAP Due Date" are all automatically filled by the system

"Site Audited", "Initiation Date", "Audit Date", "Lead Auditor Name" are self-explanatory, so fill as applicable

Audit Type: Write the type of audit (1st party for internal, 2nd party for internal to company but external to site, 3rd party for external audit)

LAPO: The name of the Quality Representative for the site

ISO/AS/EN/JISQ Standard: Write the reference for the standard under scrutiny

ISO/AS/EN/JISQ Sub-process: Write the sub-process as the área defined on standard where the finding was identified

Finding Type: Major or Minor as defined during the audit

Repeat Issue: "Yes" if same finding was found on previous audit, "no" if otherwise.

CAP Owner: LAPO shall write who is responsible for the corrective action plan

Requirement: Write the chapter and text for the requirement that was violated

Nonconforming Condition or Comment: Write the evidences of violation verified

iAudit - Finding, Comment, BP Entry

New in Version 9: On the LAPO screen, the option to save information pertaining to why a Comment is closed without initiating a CAP.

Investigate and submit Root Cause and Corrective Action plan

Click here for Help menu

Click here for status history

Status: **Awaiting CAP Submittal**
Unique ID: **21040634**
Site Audited: **RC Sao Jose Service Center**
LAPO: **Teixeira, Felipe P**
Initiation Date: **02-11-2020 13:29:46**
Audit Type: **2nd Party Internal**
Cross Reference:
Audit Date: **2/11/2020**
Lead Auditor Name: **Cooper, Cathy**
Author of Finding:
ISO/AS/EN/JISQ Standard: **9100D**
ISO/AS/EN/JISQ Sub-process: **General**
Finding Type: **Major**
Repeat Issue: **No**
Process:
CAP Owner: **Teixeira, Felipe P**
Original CAP Due Date: **3/20/2020**
Revised CAP Due Date: **03/20/2020**

Requirement:
1. Statement of Nonconformity: The process of controlling externally provided chemicals is not effective. (Site has 2 chemicals they are purchasing directly themselves from external sources). The process of controlling external calibration services is not effective.
Requirement: 8.4 Control of Externally Provided Processes, Products, and Services
8.4.1 General . . .

8.4.1.1 . . . .

8.4.3 Information for External Providers . . .

EXAMPLE

Nonconforming Condition or Comment:
Objective Evidence:
• Site currently has 2 chemicals they are buying themselves from Alquilabor and Ellsworth.
o No evidence of risks identified and managed for external providers.
o No evidence of evaluation, selection, monitoring of performance, and re-evaluation of external providers.
o No evidence of these being listed on an external provider list
o No evidence of periodically reviewing their performance
o No evidence of defining the requirements for controlling documented information created by and/or retained by the external providers.
o Site is not flowing down requirements other than what they want to buy and if there are special requirements down to the external providers they use for chemicals.

• Site is using IC Instrucall for external calibration:
o Calibration supplier is not on any register showing approval status and scope of approval.
o The last audit was performed on June 2, 2015. The RSQCM para 14.2 (1) requires audits calibration subcontractors at least once every two years.

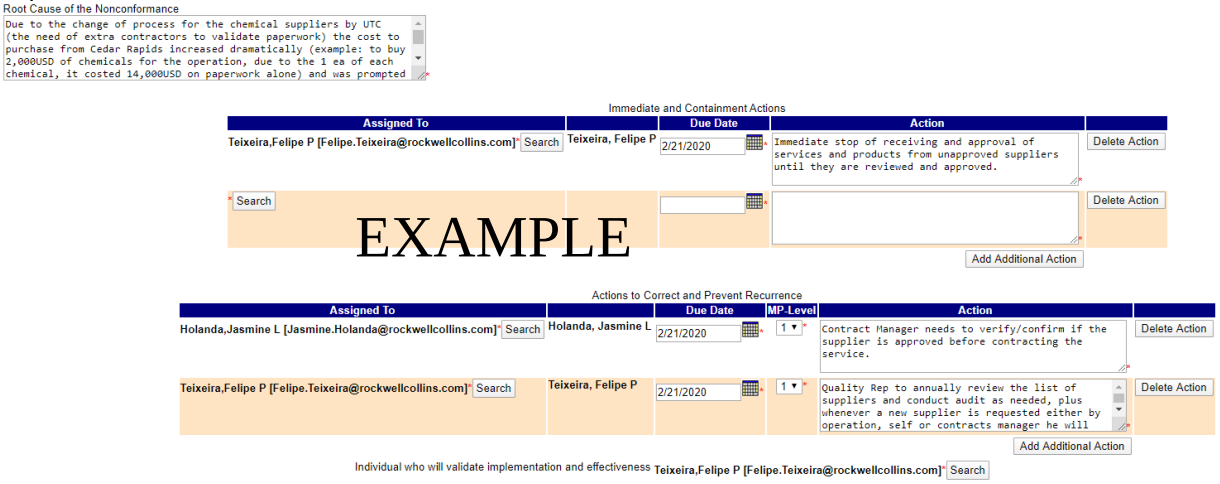
Instructions for filling a Corrective Action Plan in iAudit:

Root Cause of the non-conformance: CAP Owner shall write the root cause that was responsible for the occurrence of the non-conformity, methods like ishikawa diagram, five whys among others are advised as means to discover the root cause.

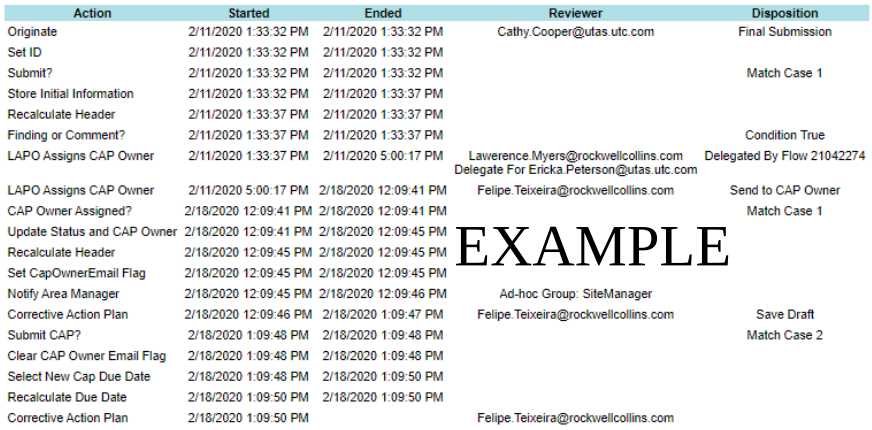
Immediate and Containment Actions: CAP Owner shall fill when required by auditor. He can assign as many tasks as necessary (using the button Add Additional Action). The CAP Owner shall defined and write a due date for the action and the person defined to execute or plan the action by the CAP Owner shall write the plan and actions he will perform to contain the finding (prevent it from keep occurring while a correction and preventive action is being planned, this may include stop of activities on the area and other rupture means).

Actions to Correct and Prevent Recurrence: Using the same instructions above the responsible for the action need to list all actions that will be performed, systems created, controls, etc that will fully correct the problem verified and also assures it won't reoccur. For that reason the responsible shall address the root cause and shall use a method such as PDCA (Plan Do Check Act) to first during plan verify that all requirements are being met, the root cause is being addressed, a goal have been set and a due date defined; after that the plan is executed in the do phase; the check phase is where we confirm if the plan execute fully corrected the problem and depending on the results we redo during the act phase.

After this the person defined by LAPO as the validator will review the root cause, immediate and containment, actions to correct and prevent recurrence. If all these were considered conforming (they defined the root cause for the finding and fully corrected the issue) he can validate the activity which then will be send to the auditor to accept and close the finding. If either reject the plan it will return to CAP Owner for redo.



A log of the actions is saved on the system as seem below



Action	Started	Ended	Reviewer	Disposition
Originate	2/11/2020 1:33:32 PM	2/11/2020 1:33:32 PM	Cathy.Cooper@utas.utc.com	Final Submission
Set ID	2/11/2020 1:33:32 PM	2/11/2020 1:33:32 PM		
Submit?	2/11/2020 1:33:32 PM	2/11/2020 1:33:32 PM		Match Case 1
Store Initial Information	2/11/2020 1:33:32 PM	2/11/2020 1:33:37 PM		
Recalculate Header	2/11/2020 1:33:37 PM	2/11/2020 1:33:37 PM		
Finding or Comment?	2/11/2020 1:33:37 PM	2/11/2020 1:33:37 PM		Condition True
LAPO Assigns CAP Owner	2/11/2020 1:33:37 PM	2/11/2020 5:00:17 PM	Lawerence.Myers@rockwellcollins.com Delegate For Ericka.Peterson@utas.utc.com	Delegated By Flow 21042274
LAPO Assigns CAP Owner	2/11/2020 5:00:17 PM	2/18/2020 12:09:41 PM	Felipe.Teixeira@rockwellcollins.com	Send to CAP Owner
CAP Owner Assigned?	2/18/2020 12:09:41 PM	2/18/2020 12:09:41 PM		Match Case 1
Update Status and CAP Owner	2/18/2020 12:09:41 PM	2/18/2020 12:09:45 PM		
Recalculate Header	2/18/2020 12:09:45 PM	2/18/2020 12:09:45 PM		
Set CapOwnerEmail Flag	2/18/2020 12:09:45 PM	2/18/2020 12:09:45 PM		
Notify Area Manager	2/18/2020 12:09:45 PM	2/18/2020 12:09:46 PM	Ad-hoc Group: SiteManager	
Corrective Action Plan	2/18/2020 12:09:46 PM	2/18/2020 1:09:47 PM	Felipe.Teixeira@rockwellcollins.com	Save Draft
Submit CAP?	2/18/2020 1:09:48 PM	2/18/2020 1:09:48 PM		Match Case 2
Clear CAP Owner Email Flag	2/18/2020 1:09:48 PM	2/18/2020 1:09:48 PM		
Select New Cap Due Date	2/18/2020 1:09:48 PM	2/18/2020 1:09:50 PM		
Recalculate Due Date	2/18/2020 1:09:50 PM	2/18/2020 1:09:50 PM		
Corrective Action Plan	2/18/2020 1:09:50 PM		Felipe.Teixeira@rockwellcollins.com	

Instructions: Check the appropriate block on "Compliance" column and provide the ADR number referenced to the Internal Audit Checklist form (item 2) if a discrepancy is found.

FOD AUDIT CHECKLIST

Station or Area: _____ **Audit Start Date: _____**

Audit Completed By: _____ **Audit Completion Date:_____**

Audit Accepted By:_____
(Q-Rep or Back-up)

QUESTION	COMPLIANCE	COMMENTS / ADR # (Record ADR # Comments Optional)
HOUSEKEEPING (Applicable to All)		
Are floors clean and free of dirt, waste, and liquids?	☐ Yes ☐ No ☐ N/A	
Are aisles free of furniture, wastebaskets, boxes, storage, etc. to insure minimum width for passing?	☐ Yes ☐ No ☐ N/A	
Are recyclables, waste, and scrap discarded in the appropriate containers?	☐ Yes ☐ No ☐ N/A	
Are rags/industrial towels stored in prescribed containers?	☐ Yes ☐ No ☐ N/A	
Are personnel cleaning at designated intervals so it is evident "clean-as-you go" practices are in place?	☐ Yes ☐ No ☐ N/A	
Is unworn clothing stored on the same coat rack where clean room smocks are stored?	☐ Yes ☐ No ☐ N/A	
Is the Test Console/work bench where customer units are being worked free of non work related books, magazines or newspapers?	☐ Yes ☐ No ☐ N/A	
Are air vents periodically maintained to avoid dust, dirt, and debris from entering units?	☐ Yes ☐ No ☐ N/A	
WORK STATION ORGANIZATION		
Are tote pans, bins and packaging materials clean and free of foreign objects (FOD) e.g. debris (flux, dust, dirt, clippings, paint chips) loose hardware, and debris?	☐ Yes ☐ No ☐ N/A	
Are scrap components, solder dross, lead trims, and solder wick controlled by planned disposal program?	☐ Yes ☐ No ☐ N/A	
Are tote pan lids secured/in place or packaging material appropriately closed to eliminate the risk of FOD entering the product?	☐ Yes ☐ No ☐ N/A	
Are work surfaces (including portable carts used as work surfaces) clean and free of foreign objects (e.g. screws, lead trims) and unnecessary items?	☐ Yes ☐ No ☐ N/A	
Are tools and fixtures clean and in good working order prior to use?	☐ Yes ☐ No ☐ N/A	
Are personnel properly storing parts, modules, units, etc. to ensure protection from debris and ESD damage?	☐ Yes ☐ No ☐ N/A	
Is loose hardware on the work station arranged in a manner that precludes the risk of FOD from entering the product?	☐ Yes ☐ No ☐ N/A	
Is all work in process properly stored to prevent damage to parts, materials, etc.?	☐ Yes ☐ No ☐ N/A	
Are beverages in the shop area in approved containers and incompliance with minimum distance requirement to avoid spillage and no tobacco products/smoking, eating, or storing of food/drink found where customer units are stored or worked?	☐ Yes ☐ No ☐ N/A	

QUESTION	COMPLIANCE	COMMENTS / ADR # (Record ADR # Comments Optional)
EQUIPMENT HANDLING Receiving		
In accordance with FAA segregation guidance; does the receiving area adequately protect the customer's equipment from damage, contamination, foreign objects?	☐ Yes ☐ No ☐ N/A	
Are personnel aware of the reporting requirements for notifying the customer of any damage, contamination, foreign objects present during receiving?	☐ Yes ☐ No ☐ N/A	
EQUIPMENT HANDLING Applicable to All		
Is there a system to handle customer's equipment by racks, bins, shelves, bags or tote pans to prevent damage and or contamination, and foreign objects from entering the customer's equipment?	☐ Yes ☐ No ☐ N/A	
Is there sufficient workspace or areas for the proper segregation and protection of the customer's equipment during all maintenance or modifications e.g. only one unit disassembled at a time?	☐ Yes ☐ No ☐ N/A	
Is equipment requiring special climatic conditions segregated to ensure that personnel performing maintenance or modifications meet the standards required by the OEM documentation?	☐ Yes ☐ No ☐ N/A	
Is there a process in place to control and prevent the storage of customer equipment on the floor even if in an approved tote pan?	☐ Yes ☐ No ☐ N/A	
Is there an adequate and appropriate storage area to safely store customers' reusable shipping containers and to protect them from environmental damage and or foreign material?	☐ Yes ☐ No ☐ N/A	
Does the process require the presence of the final test technician if the equipment seals are removed (e.g. during product/station audit)following final inspection? Is the process followed?	☐ Yes ☐ No ☐ N/A	
Is there an ESD program in place? Is the system audited and verified as effective?	☐ Yes ☐ No ☐ N/A	
Are test jigs/aids used for handling the customer's equipment properly maintained, utilizing ESD precautions (e.g. ESD safe area or grounded work surface), as applicable.	☐ Yes ☐ No ☐ N/A	
Final Inspection (Inspectors)		
Is the customer's equipment checked for foreign material during Final Inspection?	☐ Yes ☐ No ☐ N/A	
Is there a check list requirement to check for loose hardware e.g. foreign objects (FOD) or missing hardware during final inspection?	☐ Yes ☐ No ☐ N/A	
Are all ESD protective cap plugs and the applied warranty seal verified as secure at final inspection?	☐ Yes ☐ No ☐ N/A	
Are all materials (e.g. totes, protective sleeves/bags) that have intimate contact with the customer's equipment clean and free of contamination or foreign objects?	☐ Yes ☐ No ☐ N/A	
Shipping Area		
Does Shipping verify that ESD protective cap plugs, protective bags and equipment seals properly applied and intact?	☐ Yes ☐ No ☐ N/A	
Are materials used in the packaging, handling and shipping that have intimate contact with the customer's equipment clean and free of contamination or foreign objects?	☐ Yes ☐ No ☐ N/A	
Do the Shipping personnel follow FAA segregation guidance to assure the customer's equipment is adequately protected from damage, contamination and foreign objects?	☐ Yes ☐ No ☐ N/A	

MT&E Equivalency Form

Interoffice Memo Page 1 of 2

Date: [month dd, yyyy]

From: _____

To: _____

Subject: Use of Alternative Test Equipment

Rockwell Collins

As part of our certification and compliance with the various Airworthiness Authorities, we are required to provide documentary evidence to support the use of alternate test equipment in the Repair / Overhaul / Testing of avionics equipment to the items specified in the relevant maintenance manual.

Manufacturer: ROCKWELL COLLINS, INC.

Manual Number: _____

Equipment Type: _____

Equipment nominated for use in the Repair/ Overhaul / Testing procedures.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Equipment investigated and found to be a suitable alternative for the application. (Include Specifications if available)

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

(Investigated by) Signed: _____

(Checked by) Signed: _____

MT&E Equivalency Form Rev -

MT&E Equivalency Form (cont)

Alternate Equipment Continued

Equipment Type: _____

Equipment nominated for use in the Repair/ Overhaul / Testing procedures.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____

Equipment investigated and found to be a suitable alternative for the application.
(Include Specifications if available)

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____

(Investigated by) Signed: _____

(Checked by) Signed: _____

PARTS SCRAP CONTROL

PARTS SCRAP CONTROL — Collins Aerospace

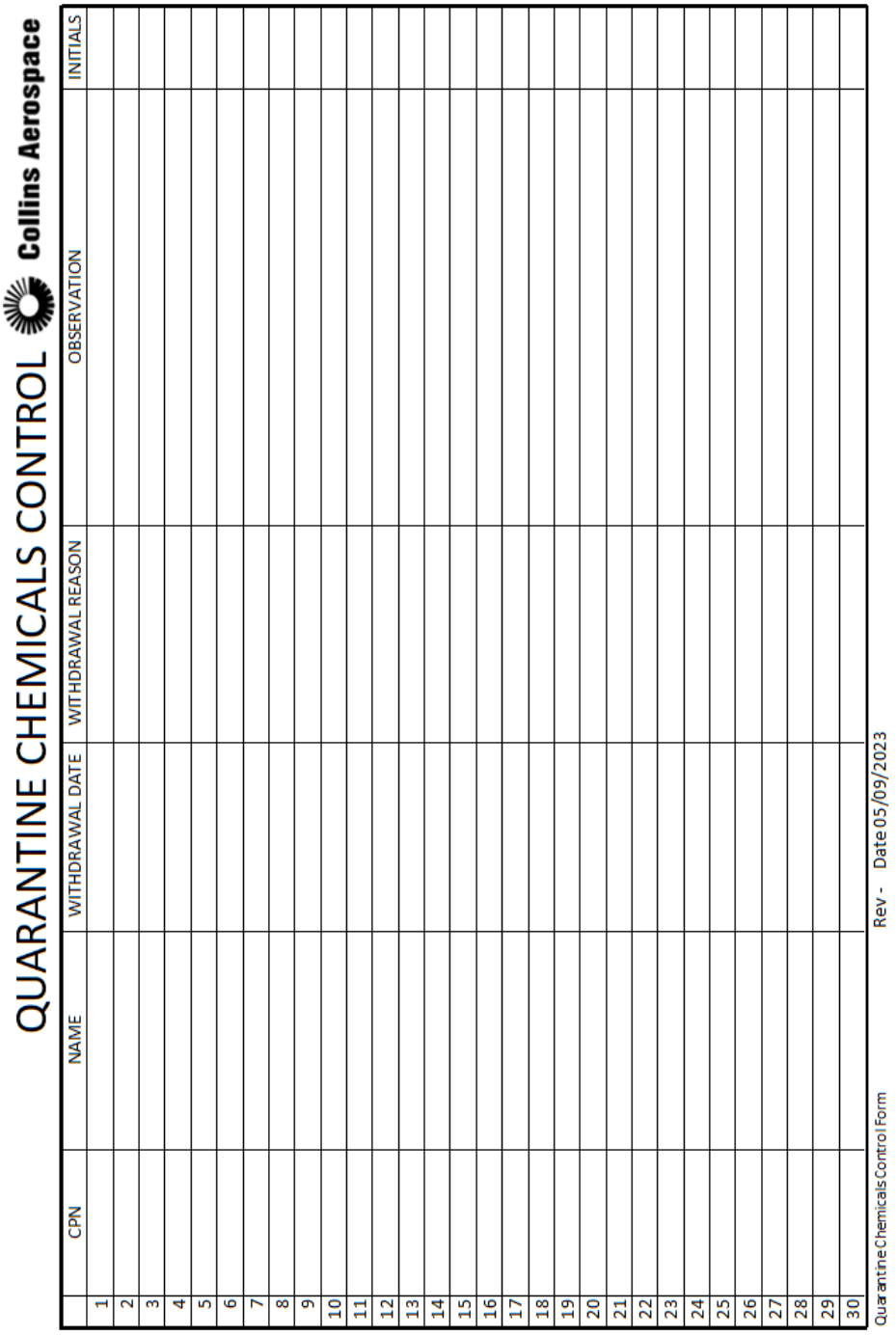
RDR	CPN	SN (If Applicable)	QTY	NAME	SCRAP DATE	BOS (Y/N)	OBSERVATION	INITIALS

Parts Scrap Control Form Rev - Date 05/09/2023

Instructions for filling Scraps Form:

RDR: Include the work order from where this part was remove; CPN: Part Number; SN: If the part is serialized include it; QTY: Quantity; Name: Part Name like in the CMM; Scrap Date: Date when this part was removed; BOS(Y/N): Inform if the part is Bad out of Stock; Observation: Include additional relevant information; Initials: Include your initials

QUARANTINE CHEMICALS CONTROL



QUARANTINE CHEMICALS CONTROL Collins Aerospace

	CPN	NAME	WITHDRAWAL DATE	WITHDRAWAL REASON	OBSERVATION	INITIALS
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
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27						
28						
29						
30						

QuarantineChemicalsControlForm Rev - Date 05/09/2023

Instructions for filling Quarantine Chemicals Form:

CPN: Part Number; Name: Part Name like in the chemical label; Withdrawal Date: Date when this part was removed; Withdrawal Reason: Inform reason for removal, like it is expired or; Observation: Include additional relevant information; Initials: Include your initials

AIR SAFETY REPORT

Collins Aerospace
An RTX Business

RELATÓRIO DE PREVENÇÃO – RELPREV
AIR SAFETY REPORT - ASR

De acordo com as regulamentações brasileiras este relato (ou parte dele) somente será usado para a prevenção de acidentes aeronáuticos, a fim de aumentar a segurança operacional. Este relato não precisa ser identificado. Caso o relator se identifique, o mesmo será informado sobre as medidas adotadas e não será punido por relatar.

In accordance with Brazilian regulations, this report (or any part of it) shall only be used for preventing aeronautical accidents, and has the sole purpose of enhancing safety. This report does not need to be identified. Should the reporte, however, chose to identify him/herself, he/she will be informed on the measures adopted and shall not be punished by reporting.

DADOS GERAIS DA OCORRÊNCIA (OCCURENCE INFORMATION)

LOCAL/ÁREA (PLACE/AREA)

DATA (DATE) **HORA** (TIME)

PESSOAL ENVOLVIDO E/OU PRODUTO (PERSONNEL AND/OR PRODUCT INVOLVED)

SITUAÇÃO (SITUATION):

RELATOR (REPORTER):

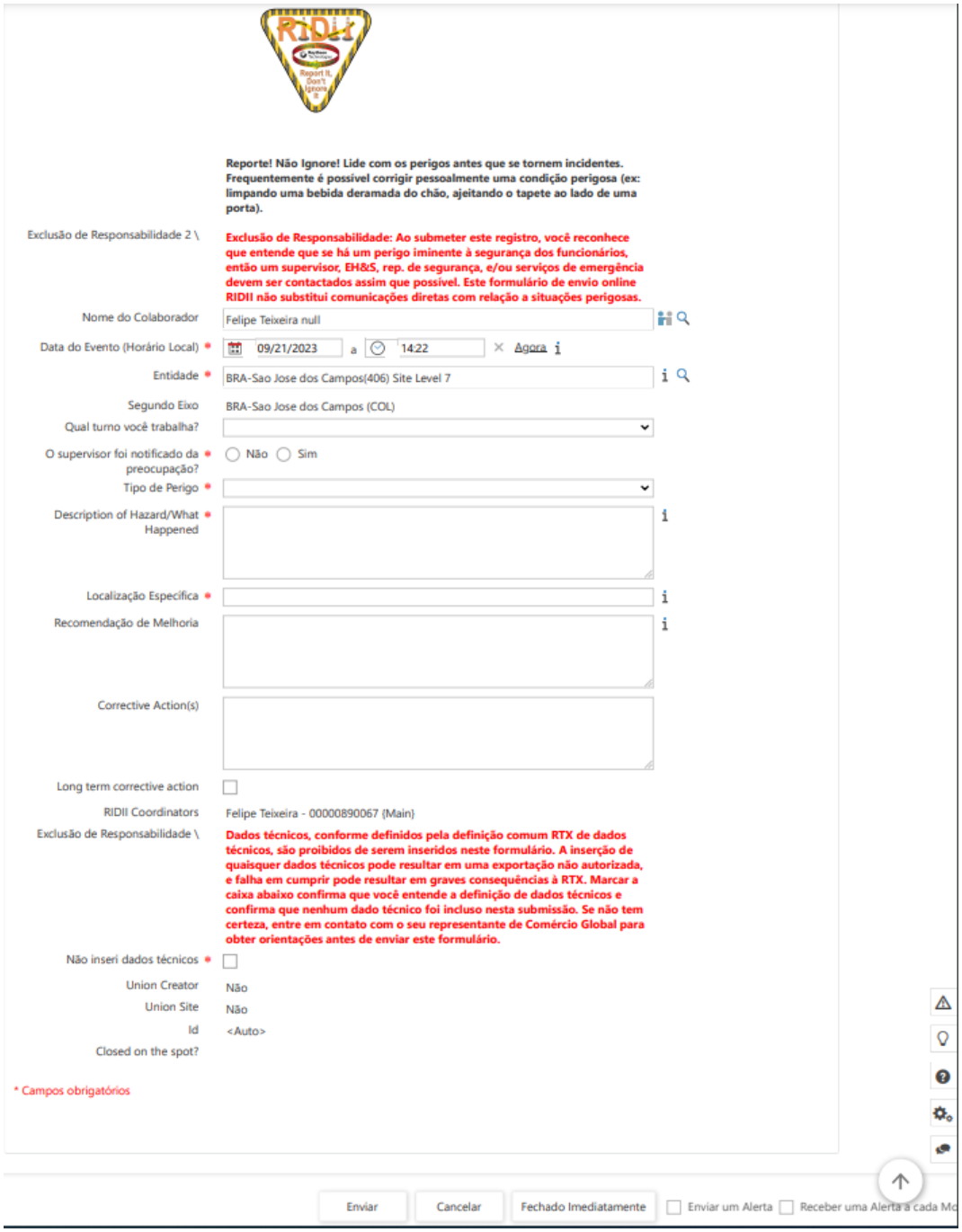
E-MAIL/TELEFONE PARA CONTATO (CONTACT INFORMATION):

Relprev Form Rev – Date 05/Sep/2023

Instructions for filling ASR Form:

Local: Area where occurred; Data: When it occurred; Hora: Time; Pessoal Envolvido e/ou Produto: List people and products involved; Situação: Describe what happened or was observed; Relator: Sign or write "Anonymous" E-mail/Telefone para contato: Include contact information or write "anonymous". This is located on the shopfloor near final inspection table and must be filled whenever a safety concern (product/process) is verified

REPORT IT DON'T IGNORE IT



Instructions for filling RIDII Form:

It is a digital form accessible from a link on the desktop called RIDII, it will automatically fill name. date and location. The filling instructions are contained in the system in front of the field (identified as the "i" with hyperlink). It must be filled whenever a safety concern for employee is noted

AUDIT QUESTIONNAIRE SURVEY

Service & Support
Government Products Repair Provider
Self Audit Checklist

Collins Aerospace

ITEMS MARKED WITH AN * ARE REQUIRED FIELDS.			
*SUPPLIER NAME:	KEYSIGHT TECHNOLOGIES MEDIÇÃO BRASIL LTDA		
*ADDRESS:	AV DR MARCOS P ULHOA RODRIGUES 939 6o ANDAR EDIFICIO JACARANDA TAMBORE – BARUERI – SP - BRAZIL 06460-040		
*PHONE #:	+55 11 42099844	*FAX #:	
*CONTACT NAME:	DANIEL VILAS	*TITLE:	FIELD ENG.
* CONTACT SIGNATURE:		*DATE:	13-Feb-20
*EMAIL ADDRESS: DANIEL_VILAS@KEYSIGHT.COM			

I acknowledge that the information provided is accurate and should my company's information change, Rockwell Collins, Inc. shall be notified within 30 days. I acknowledge the Supplier Quality System Requirements in accordance with RC-9000. In addition, I acknowledge the "Right of Access" by Rockwell Collins and our customers, to the applicable areas of all facilities, at any level of the supply chain, including sub-tier suppliers, in the work performed and to all applicable records.

Please explain any items marked as "NO" or "N/A" on this checklist in Section 13.

1. CERTIFICATION	YES	NO	N/A
A. If you are certified to any industry standards, please indicate the standard(s) and certificate number(s) below and include copies of these certificates with this completed checklist. **Please attach copies?**	☑	☐	☐

If you are certified to AS9100, please skip to and complete sections 11 – 13.

2. Quality Management System	YES	NO	NA
A. Does the facility have an established Quality Management System?	☑	☐	☐
B. Does the facility have an up-to-date quality system manual which identifies and includes information on:	☑	☐	☐
1. Organization chart, duties, responsibilities, and reporting relationship of the Quality system.	☐	☐	☐
2. Tool/test equipment calibration program/procedure	☑	☐	☐
3. Personnel training program/procedure & training adequacy reviewed?	☐	☐	☐
4. Record keeping system and retention times.	☑	☐	☐
5. Inspection procedures.	☑	☐	☐
6. Material and part identification	☐	☐	☐
7. Environmental controls as appropriate.	☐	☐	☐
8. Non-conforming product/material control including shelf life and scrap.	☑	☐	☐
9. Document control/revision.	☐	☐	☐
C. Are the facility quality system manuals current and readily available to employees?	☑	☐	☐
D. Does the facility have an internal audit and surveillance function?	☑	☐	☐
E. Does the audit function ensure compliance with customer and supplier requirements?	☑	☐	☐
F. Does audit program assure appropriate and effective corrective action?	☑	☐	☐
G. Are audit findings and corrective actions retained for a minimum of three years?	☑	☐	☐
H. Are the above records accessible to the auditor?	☑	☐	☐
I. Does the facility have an organization adequate to perform the work intended?	☑	☐	☐
J. Is there an adequate amount of supervisory and inspection personnel?	☑	☐	☐
K. Does the facility have an established procedure to provide effective corrective action for discrepancies noted during repair/rework?	☑	☐	☐
L. Does the facility maintain a list of approved Suppler/Subcontractors?	☑	☐	☐

M. Does the facility have an active Foreign Object Debris (FOD) Prevention Program?	☑	☐	☐
N. Is there a program ensure employees are aware of the importance of ethical behavior?	☑	☐	☐
3. INSPECTION	**YES**	**NO**	**NA**
A. Are inspectors properly trained and certified?	☑	☐	☐
B. Does the facility have a receiving inspection system?	☑	☐	☐
C. Does the facility have a procedure to identify customer parts?	☑	☐	☐
D. Does the facility maintain traceability on all parts and raw materials?	☑	☐	☐
4. TECHNICAL DATA CONTROL (NOTE: "Manuals in this context includes any technical data, i.e.: drawings, wiring diagrams, test specs., etc. necessary to perform the required services)	**YES**	**NO**	**NA**
A. Does the facility have the required manuals and/or specifications to perform the repair/rework in accordance with Rockwell Collins requirements?	☑	☐	☐
B. Are there established procedures for controlling revisions in approved documentation?	☑	☐	☐
C. Does the facility have a system to ensure that technical data is current?	☑	☐	☐
D. Does the facility maintain records of manual revisions?	☑	☐	☐
E. Are manual revisions up to date?	☑	☐	☐
F. Does the facility have a system to control working copies of manuals?	☑	☐	☐
G. Is technical data stored in a manner that will protect it from dirt and damage?	☑	☐	☐
H. Is the technical data properly identified and readily available to personnel performing the work?	☑	☐	☐
5. SHELF LIFE	**YES**	**NO**	**NA**
A. Does the facility have a documented shelf life program?	☑	☐	☐
B. Is there a list of parts and materials with shelf life limits?	☑	☐	☐
C. Does each shelf life item have the shelf life expiration limit & hazardous labeling displayed?	☑	☐	☐
D. Is there an adequate system to assure no items will be issued or used past expiration?	☑	☐	☐
6. TOOL AND TEST EQUIPMENT CALIBRATION	**YES**	**NO**	**NA**
A. Does the facility have a tool/equipment calibration program?	☑	☐	☐
B. Are all tools utilized on the tool calibration list?	☑	☐	☐
C. Are standards used to calibrate tools traceable to the controlling government agency (e.g. The National Institute of Standards and Technology)?	☑	☐	☐
D. Is there a system to identify each tool, its calibration frequency and its due date?	☑	☐	☐
E. Does the facility have a procedure for controlling and/or preventing out-of-service and due-for-calibration tools?	☑	☐	☐
F. Is there a procedure to control the calibration of personal tools?	☑	☐	☐
G. Are tools and test equipment in a serviceable condition?	☑	☐	☐
H. Do records:	☑	☐	☐
1. Show date calibrated?			
2. Identify individual or supplier who performed calibration or check?	☑	☐	☐
3. Show calibration due date?	☑	☐	☐
4. Contain a calibration certificate for each item calibrated by an outside agency?	☑	☐	☐
5. Record details of adjustments and repairs?	☑	☐	☐
7. COMPETENCE, TRAINING AND AWARENESS	**YES**	**NO**	**NA**
A. Does the training program determine competence for personnel affecting product Quality?	☑	☐	☐
B. Is training to achieve competence provided?	☑	☐	☐
C. Is there an evaluation of effectiveness of training?	☑	☐	☐

D. Does the training program ensure personnel are aware of the relevance and importance of their activities and contribution to the achievement of the quality objectives?	☑	☐	☐
8. HOUSING AND FACILITIES	**YES**	**NO**	**NA**
A. Is the facility of adequate to house all necessary tooling, equipment, material, parts, and personnel to perform the work?	☑	☐	☐
B. Does the housing adequately protect parts, materials and customer units from damage, theft and contamination?	☑	☐	☐
C. Is the environment appropriate to ensure personnel performing maintenance, preventive maintenance or alterations shall do so to the standard required by the part?	☑	☐	☐
E. Are storage facilities separate from shop and work areas?	☑	☐	☐
F. Do shipping and receiving areas have adequate space, lighting, shelving, security and fire protection?	☑	☐	☐
G. Is there adequate and appropriate storage space to safely store customer's shipping containers and protect them from damage?	☑	☐	☐
H. Is their adequate security and fire protection?	☑	☐	☐
I. Are good housekeeping practices implemented?	☑	☐	☐
9. STORAGE	**YES**	**NO**	**NA**
A. Are parts and materials properly identified and properly stored?	☑	☐	☐
B. Does the facility have a quarantine area for rejected parts and materials awaiting disposition?	☑	☐	☐
C. Does material part number identification match the storage container part number?	☑	☐	☐
D. Are parts and material properly protected from damage and deterioration?	☑	☐	☐
E. Are flammable, toxic or volatile materials properly identified and stored?	☑	☐	☐
F. Are sensitive parts and equipment (oxygen parts, o-rings, electrostatic sensitive devices, etc.) properly packaged, identified and stored to protect from damage and contamination?	☑	☐	☐
G. Are oxygen and other high pressure bottles correctly identified and stored?	☑	☐	☐
10. WORK PROCESSING	**YES**	**NO**	**NA**
A. Does the facility have adequate tooling and test equipment to perform the work?	☑	☐	☐
B. If the facility utilizes test equipment that differs from the OEM specified equipment:	☑	☐	☐
1. Is equivalent (i.e. equal to or better than)?	☑	☐	☐
2. Is maintenance and servicing recorded and performed per the specifications?	☑	☐	☐
3. Are records retained per the retention requirements?	☑	☐	☐
4. Is equipment listed in the calibration program?	☑	☐	☐
C. Are customer parts properly identified throughout the repair/rework and in storage?	☑	☐	☐
D. Does the shop segregate conforming from non-conforming components?	☑	☐	☐
E. Does the facility provide adequate protection of parts in work (i.e.: filtered air or clean room depending on type of part/product)?	☑	☐	☐
F. Are smoking, eating and drinking forbidden in the work area as appropriate?	☑	☐	☐
G. Are fluid dispensing cans and servicing units properly identified?	☑	☐	☐
H. Are the maintenance facility work records complete, in order and legible?	☑	☐	☐
I. Do the work records contain:			
1. The description of the work performed or reference to technical data?	☑	☐	☐
2. The date of completion of the work performed?	☑	☐	☐
3. The name of the person performing the work?	☑	☐	☐
4. The name of the person inspecting the work?	☑	☐	☐

J. Are all test and inspection records in the work package?	☑	☐	☐
K. Is overall electrostatic protection/handling procedures utilized and implemented in the facility? Are applicable electrostatic protection equipment checked in a timely manner?	☑	☐	☐
11. SHIPPING	**YES**	**NO**	**NA**
A. Are components returned in an appropriate shipping container (per a shipping standard) or as specified by the customer?	☑	☐	☐
B. Does the facility verify that identifying data (P/N, S/N, Nomenclature, Mod. No.) on the documentation and the data plate match?	☑	☐	☐
12. NON-CONFORMING PARTS	**YES**	**NO**	**NA**
A. Does the facility have a documented procedure to assure that scrapped parts are either returned to the customer or mutilated beyond repair/utilization?	☑	☐	☐
B. Does the record include the P/N and S/N of the part and the date scrapped?	☑	☐	☐

13. Explanation of items marked as "NO" or "N/A," and any other notations.

For Rockwell Collins, Inc. use only:

Approver's Name Printed: Felipe Pereira Teixeira

Approver's Signature: _____

Date Approved: February 13th 2020

Revision Summary:

1/25/2015	Section 10: Removed duplicate question. Minor format changes throughout.
5/14/2019	Updated header and added question 2.N

GLOSSARY

AN - Air Force – Navy Aeronautical Standard

ANAC – National Civil Aviation

ATE - Automatic Test Equipment

ATS - Air Transport System

BRS - Business Regional System

CCD – Controlled Capability Document

CPN - Collins Part Number

CSP - Calibration Service Procedures

CHDO - Certificate Holding District Office

CMM – Component Maintenance Manual

CMMPL – Component Maintenance Manual and Parts List

EMS - Enterprise Management System

ESDS - Electrostatic Discharge Sensitive

FAA **-** Federal Aviation Administration

FOD – Foreign Object Damage

GS – Government Systems

IB – Instruction Book

IFO - International Field Office

IPC – Illustrated Parts Catalog

LRU – Line Replaceable Units

MCN - Manufacture Collins Number

MS - Military Standard

NTSB – National Transportation Safety Board

OEM - Original Equipment Manufacturer

QCM - Quality Control Manual

RCB - Rockwell Collins do Brasil

RDR - Repair Data Report

RSM - Repair Station Manual

SCOP - Service Center Operations Procedures

SGS - Supply Management System

SUP - Suspected Unapproved Parts

TEMS – Test Equipment Management System

SC- Service Center, same as MRO (Maintenance Repair Organization) and RS (Repair Station)