Professional Pilots Aircraft Maintenance
246 S. Meadow Road B13
Plymouth MA 02360

Federal Aviation Administration

Repair Station Manual

Certificated Repair Station Number:

ZKFR180L

Federal Aviation Regulations and procedures in this manual require that this documentation shall not be changed without prior notification and approval from Professional Pilots Aircraft Maintenance. The Federal Aviation Administration (FAA) Flight Standards District Office (FSDO) must receive an electronic copy of the revised manual.

1.1 Chapter I Repair Station Manual – Table of Contents (145.209)

Chapter II Quality Control Manual – Table of Contents (145.211)

Appendix A Forms – Table of Contents (145.211)

1.1 Record of Revisions (145.209(j)) and 211(c)(4))

Revision Date	Level	Description of Revision	Approved By
09/12/2006	A	Original Issuance for Certification	Jason Pereira
11/20/2007	B	Revision of Floor Plan	Stephen Bonvino
04/03/08	C	Revision of Form PPAM-02	Stephen Bonvino
1/26/09	D	Pg. 11, 53 – 54.	Stephen Bonvino
5/25/09	E	Pg. 2-3, 7-9, 11-13, 17-22, 27-29, 31-32, 35-36, 43, 58, 62	Robert Frye
1/10/10	F	Pg 2, 4, 5, 12, 19-20, 37-38, 53-55	Robert Frye
3/4/11	G	Pg 19, 20, 29	David Sheehy
2/17/12	H	Pgs 2-5, 8-9, 11-12, 17, 19-20, 22-26, 28-34, 38, 42-43, 46, 48, 50, 52-53, 64, 73, and Appendix B	David Sheehy
1/28/14	I	Rev I not used	David Sheehy
1/28/14	J	Page 1-81	David Sheehy
11/18/2015	K	Removal of NDT	David Sheehy

1.2 Terms and Abbreviations

The following is a list of terms and abbreviations that many be used in this manual and throughout the aviation industry.

AC	Advisory Circular
AD	Airworthiness Directive
BASA	Bilateral Aviation Safety Agreement
CAA	Civil Aviation Authority
14 CFR	Code of Federal Regulations – Title 14 - Aeronautics and Space
CCD	Controlled Capabilities Document
DAR	Designated Airworthiness Representative
DER	Designated Engineering Representative
EASA	European Aviation Safety Agency
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulations – Slang term for CFR'S
FSDO	Flight Standards District Office
ICAW	Instructions for Continued Airworthiness
OEM	Original Equipment Manufacturer
PAH	Production Approval Holder
PAI	Principal Avionics Inspector – FAA
PMI	Principal Maintenance Inspector – FAA
PMA	Parts Manufacturer Approval
STC	Supplemental Type Certificate
SUPS	Suspected Unapproved Parts
TCDS	Type Certificate Data Sheet
TSO	Technical Standard Order

1.3 **Manual Purpose (145.209(k))**

This Repair Station Manual (RSM) establishes Federal Aviation Administration (FAA) accepted practices and procedures to which all work under the repair station rating will be performed. The contents of this manual have been prepared in accordance with the current Federal Aviation Regulations (FAR's) and industry standards.

This Repair Station Manual provides a detailed explanation of the maintenance and inspection system employed by this repair station. It covers the receiving of articles through the final inspection of those articles processed at this facility. The general inspection and repair of an article is performed in accordance with current FAR's and adherence to procedures in this manual will ensure compliance to those regulations.

This repair station will maintain and/or alter only those articles for which it is rated. For a complete list of authorized articles and limitations refer to FAA Operations Specifications and Controlled Capabilities Document (CCD) number **PPAM-07** issued in association with the Air Agency Certificate. This repair station will not maintain or alter any product for which it is not rated, or if it requires technical data, equipment, materials, facilities, or trained personnel that are not available.

The Accountable Manager is responsible for maintaining this manual in electronic format. The manual is uploaded on the corporate intranet, making it accessible to all repair station employees. Supervisors, Inspectors, and personnel authorized to approve an article for return to service are held responsible for thoroughly understanding its contents. Any section of this manual that is printed will expire on midnight of that date. This information will be clearly annotated in the footer of each page.

1.4 **Arrangement (145.209(k))**

On the cover page of the RSM is company's address along with the FAA issued repair station number.

The RSM is divided into three parts; Chapter I - Repair Station Manual; Chapter II - Quality Control Manual and Appendix A – Forms. A single table of contents is provided for the entire document.

Chapter I, RSM, contains the regulatory requirements of 14 CFR 145.209, Repair Station Manual Contents. Chapter II contains the regulatory requirements of §145.211, Quality Control System; and Appendix A contains examples of maintenance and inspection forms.

Each chapter contains a sequentially numbered section which represents a key topic required by FAR's or company policy. Sections not consisting of general information are broken down into procedural subsections containing purpose, scope, references, and the procedure.

The right hand area of the header contains the key topic to which the section addresses; the chapter number or Appendix A; and section number. The footer contains the individual page number along with the total number of pages in the manual and revision level and revision date. Refer to the Record of Revisions to determine the status of the manual.

Several sections in this manual refer to a “Repair Station General Information Manual.” This manual serves as a single point filing system for various forms and rosters. The different sections within the General Information Manual are sequentially numbered, and a table of contents is provided. The General Information Manual is maintained by the Accountable Manager.

1.5 Manual Revision and Distribution (145.209(j)) and 211(c)(4))

1.51 **Purpose** FAA regulations require a certificated repair station to maintain a current repair station manual. Adherence to this procedure ensures consistency in the manual revision process. Any company employee can suggest a revision to the manual, or a revision may be required by the regulating authority. In either case the following procedure must be followed.

1.52 **Scope** Applies to any revision generated for this repair station manual.

1.53 **References** None

1.54 **Revision Procedure**

1. Any suggested revision to the manual will be made and forwarded to the Accountable Manager via internal e-mail or by a written and dated statement.

2. The suggestions will be reviewed during normal business days to determine their criticality. Critical suggestions are those that may affect article airworthiness. These types of suggestions will be addressed upon receipt. Grammatical error suggestions will be kept on file in the General Information Manual and addressed at the next major revision.

3. The Record of Revisions will be amended to indicate the revision level; date; and description.

4. The entire manual will be re-dated and the revision level amended by changing the footer of each page.

5. Revised sections will be identified by a black vertical bar in the right margin of each affected page. Remove the black bar(s) from the previous revision.

6. The Accountable Manager is authorized to make revisions to the RSM.

NOTE: Each revision is effective when issued. The FAA will be on the normal distribution list for all manual revisions as they occur. If the FAA should request a revision based on a regulatory (Federal Aviation Regulation) non-compliance finding, then that revision will be produced in accordance with the preceding procedures.

If any maintenance/administrative actions performed under revision were found not acceptable to the FAA then this repair station will; make the appropriate corrections to this manual; and process those actions in accordance with Taking Corrective Actions on Deficiencies section located in Chapter II.

1.6 Distribution Procedure

1. Convert the manual to read only file; remove the obsolete version from the company intranet and upload the new manual.

2. A CD (compact disc) or e-mail copy of the revised manual will be created and immediately forwarded to the FAA along with a transmittal letter notifying them of the change and revision level.

3. The initiating individual will ensure that company personnel are trained on how to access the document. Employees will also be provided training on any substantial manual revisions that affect their job descriptions or workflow.

2.0 Housing and Facilities (145.209(c))

The repair station is housed in a 13,800 square foot hangar/office complex of steel beam and metal construction, with a poured concrete floor. The hangar doors are normally operated electrically but can be opened manually. An office complex occupies the back wall of the complex and the rooms that will be used by the repair station are depicted on the facility floor plan.

Office space is divided between two floors. The bottom floor houses 400 square feet of office space that is considered part of the repair station which accommodates the part room, Accountable Manager's office, and maintenance office. The upper level consists of 400 square feet of office space that is considered part of the repair station which accommodates the maintenance library and training room. Refer to the facility floor plan on the following page. These rooms are separated by walls and doorways and are 2 x 4 and drywall construction. All rooms contain fluorescent light fixtures and 110 volt single- phase electrical outlets. The lower office space is heated and cooled by a centrally located HVAC system. The upper office is heated and cooled by a space heater and Air conditioning unit. The remaining rooms are not considered part of the repair station.

110 volt single-phase outlets are located throughout the hangar. 250 volt, 100 amp electrical service is also available. Lighting is supplied by fluorescent light fixtures. A 110 PSI electrically driven air compressor supplies filtered compressed air through fixed piping.

The hangar is heated by a radiant heat system which is controllable by thermostats. The hangar is equipped with fire extinguishers which are located thought out the facility and an overhead water sprinkler system.

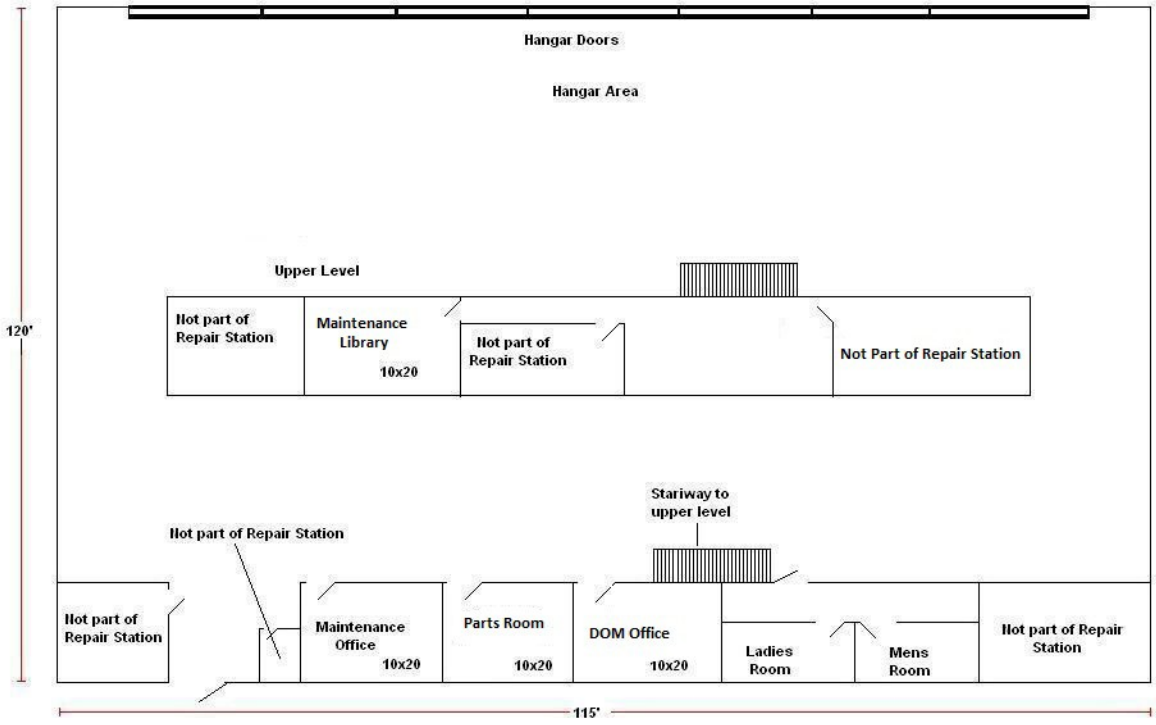
Large equipment such as aircraft jacks, cleaning equipment, hydraulic mule, and hoists etc. are stored throughout the perimeter of the hangar. Smaller hand tools and calibrated equipment is located in storage cabinets within the hangar.

The hangar facilities are ample enough to accommodate the largest aircraft listed in the Controlled Capabilities documents. The facility contains suitable, segregated maintenance areas for the disassembly, cleaning, and reassembly of aircraft components.

The size, construction, provisions, and layout, comprising this facility, provide for the proper protection of articles from weather elements.

2.1 Floor Plan – Repair Station Layout (145.209(c))

The following diagram depicts the area within the facility designated as the repair station.



2.2 Equipment and Materials (145.209(c))

The equipment and materials required for maintenance are determined by the manufacturer of each article and are maintained by this repair station. Common equipment is stored around the perimeter of work area in the hangar. Basic materials which are consumed in the maintenance process are stored in the Parts Cage located on the lower level of the office complex. The master list of tooling required to perform maintenance is contained in the manufacturer's service documents which are maintained by the company.

Each technician maintains his or her own set of aviation hand tools and equipment. Any personally owned tools or equipment requiring calibration are listed on a "Calibration List" and maintained on the company computer network system.

Any special handling requirements of sensitive tools and equipment will be conducted in accordance with the manufacturer's recommendations.

2.3 Lease of Equipment

2.3.1 **Purpose** Proper planning for maintenance includes verifying that the appropriate equipment, materials, and tools are in place at the time article maintenance is to be performed. Lease is generally reserved for unique and costly equipment which is seldom required for use. However, situations may arise when company equipment is out of service for repairs or calibration. It will be necessary to properly coordinate projected work requiring lease/rent equipment well in advance. In any case the following procedure applies.

2.3.2 **Scope** Applies to the leasing of equipment from and outside source.

2.3.3 **References** Calibration of Measuring and Test Equipment section in Chapter II.

2.3.4 **Procedure**

1. This manual contains appropriate procedures to ensure that required equipment, material, and tools are in place and under the facility's control when the work is performed. Once it is determined that an equipment need exists, the following procedures apply.

    i. If a decision is made to purchase the required equipment then no further action is needed. However, it may be necessary to add this equipment to the calibration system. If this is the case, see the "Calibration of Measuring and Test Equipment" section located in Chapter II. If lease option is exercised, proceed.

    ii. Locate a vendor that carries the equipment required.

    iii. Receive, from the vendor, a written contract of terms.

iv. Ensure the contract allows the equipment to be available at the facility for a time period necessary to perform the work scheduled. The contract will remain on file in the Repair Station General Information Manual until the equipment is returned.

v. Arrange equipment delivery to the repair station.

vi. Some leased equipment may require calibration/verification be performed before use. If this is the case, make arrangements with the vendor to include calibration in the lease contract. In any event the repair station will ensure that, before use, the equipment is calibrated to a standard derived from the National Institute of Standards and Technology and that a Calibration Control ID is assigned no matter the length of the lease.

vii. If any leased equipment requiring calibration is going to remain under the control of the repair station for longer than its calibration cycle it must be added to the calibration system in accordance with the "Calibration of Measuring and Test Equipment" section located in Chapter II of this manual.

2.4 Operations – (145.209(c))

2.4.1 **Purpose** The following information is a comprehensive step by step procedure of how this repair station functions. Further details for specific steps are located in other sections of the manual have been clearly annotated.

2.4.2 **References** Repair Station General Information Manual
Appendix A - Forms

2.4.3 **Operations Overview**
The maintenance process begins with the receipt of a work request. Upon receipt, company personnel make a determination if the work scope is within the certificate and ratings issued by the FAA. The appropriate facilities, tooling, equipment and technical data will be available along with trained and/or experienced personnel to perform the work. A personnel roster is maintained which contains the names of individuals within the company that have been determined to be qualified to supervise, inspect, and return to service any article maintained. The "Company Organization" section of this manual provides a specific break down of the duties, responsibilities and authority assigned to each management position by title.

The article vital statistics are recorded and a Work Order is generated with a unique tracking number. The Work Order is supplemented with the necessary technical information, references to the manufacturer's inspection standards and the work scope is assigned.

The article is processed through the repair system and at a minimum will be inspected in accordance with the Preliminary Inspection section of this manual. Additionally, if the article was involved in an accident, a Hidden Damage Inspection must also be performed.

All maintenance performed will be accomplished in accordance with the standards contained in 14 CFR 43. Any article determined to be non-repairable will be identified and segregated pending disposition.

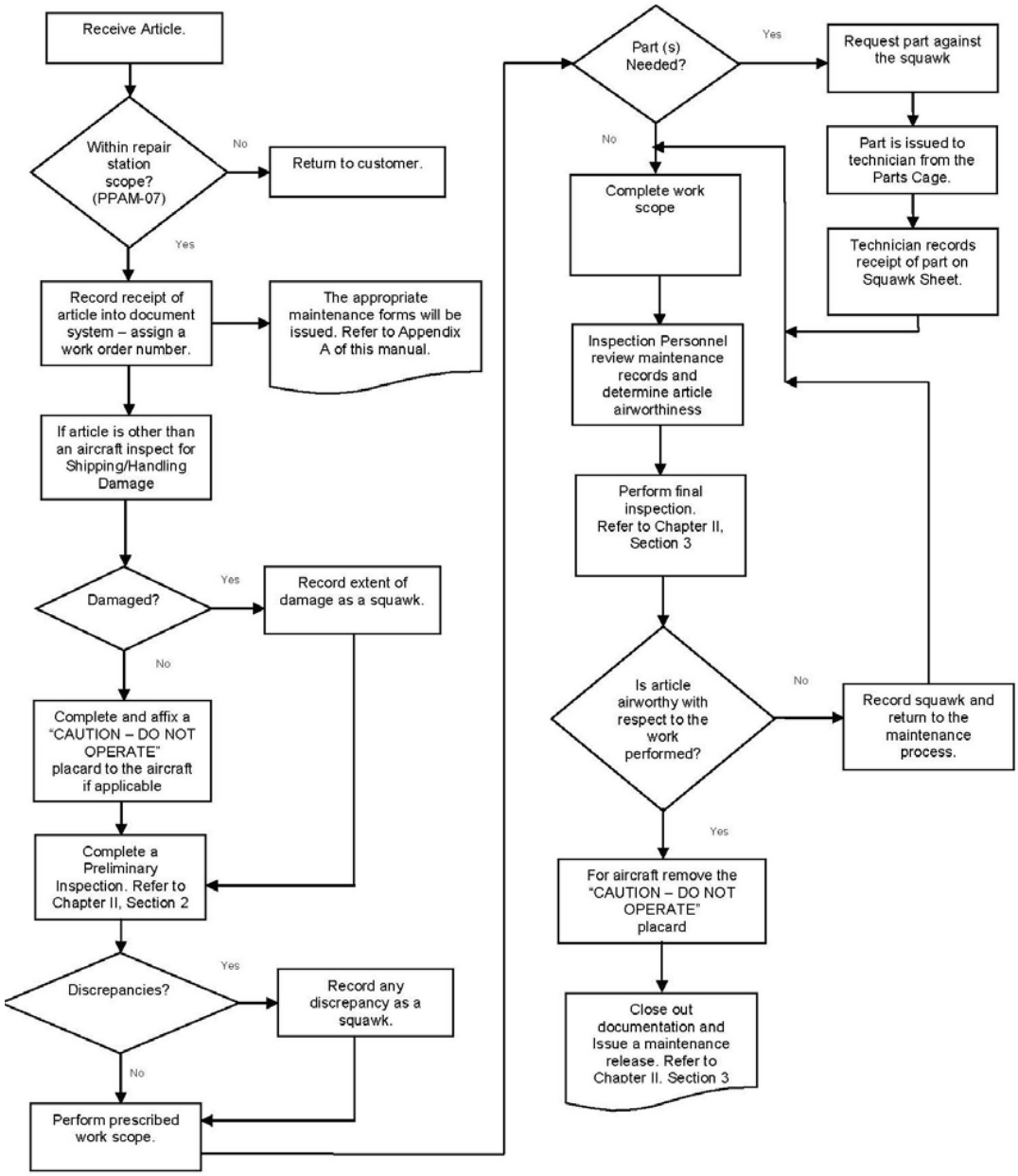
Component parts that require maintenance beyond that of this repair station will be tagged with a "Repairable" part tag and forwarded to an appropriately rated repair station. A list of "FAA Approved" repair stations that have been determined to be capable to perform various functions is maintained.

Only consumables that have cleared the "Inspecting Incoming Raw Materials" section of this manual will be used in the repair process. Any article deemed rejected will be tagged, quarantined and repaired, (if within the scope of the repair station) or, if not repairable, eventually scrapped or returned to the customer.

Once the work scope is completed the Work Order package is audited for accuracy and completeness by an appropriately qualified individual. If everything is satisfactory a maintenance release will be issued, returning the article back to service. The Work Order package will be retained for a period of no less than two years.

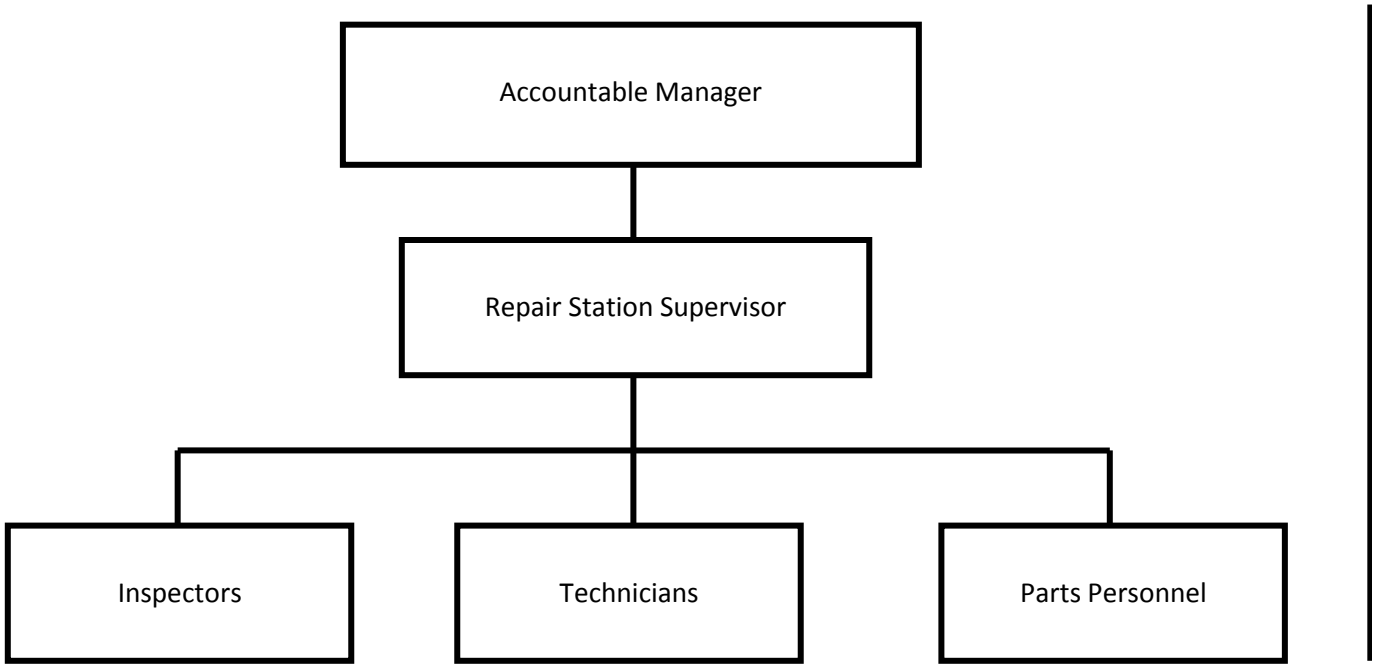
The following flow chart depicts the normal process flow.

2.5.1 **Process Flow**



3.1 **Organizational Chart (145.209(a))**

3.2



3.3 **Duties, Responsibilities and Authority – (Reserved)**

3.4 Duties, Responsibilities and Authority – Accountable Manager

This position is responsible for and has the authority over the overall operation of the repair station which includes the following summary.

3.4.1 Summary

1. Responsible for business development.
2. Ensure the proper housing, facilities, equipment, tools, and materials are provided.
3. Maintain an adequate and knowledgeable staff to plan, perform, supervise and inspect the maintenance being performed on all articles.
4. Provide guidance and supervision at the management level for maintenance operations.
5. Provide planning and coordination of activities between the departments and their support functions.
6. Ensure that the facilities, equipment, tools, and materials are maintained in working order.
7. Comply with the procedures in Chapter I, Section 1, detailing the Manual Revision and Distribution System.
8. Comply with the procedures in Chapter I, Section 4, detailing Repair Station Personnel Roster.
9. Comply with the procedures in Chapter I, Section 6, detailing Contract Maintenance.
10. Comply with the procedures in Chapter I, Section 7, detailing Work Performed at Another Location.
11. Comply with the procedures in Chapter I, Section 8 detailing Controlled Capabilities Document.
12. Comply with the procedures in Chapter I, Section 9, detailing Records and the Recordkeeping System.
13. Comply with the procedures in Chapter II, Section 4 ensuring all work is performed in accordance with current FAA regulations and Technical Data and that technical data maintained or used is current.
14. Comply with the procedures in Chapter II, Section 8, detailing Proficiency of Inspection Personnel.
15. Comply with the procedures in the company FAA approved Training Program.

NOTE Based on necessity or absence the Accountable Manager may delegate authority to any qualified individual. This delegation does not relieve the Accountable Manager of the overall responsibility of compliance.

3.3 Duties, Responsibilities and Authority – Repair Station Supervisor

This position has the responsibility for and overall authority over the technicians which includes the following summary.

3.3.1 Responsible To

Accountable Manager

3.3.2 Summary

1. Provides planning, guidance and supervision for the maintenance operations.
2. Consults with and coordinates the activities of maintenance personnel.
3. Administer the technical aspects of the maintenance operations.
4. Provide assistance, instruction, and supervision to personnel in the performance of their duties.
5. Perform the duties and responsibilities of a Technician when required.
6. Comply with the procedures in Chapter I, Section 5, detailing the Air Carrier Maintenance.
7. Comply with the procedures in Chapter II, Section 5, detailing Taking Corrective Action on Deficiencies.
8. Responsible for ensuring technicians perform all maintenance in accordance with applicable technical data, industry standards, and procedures contained in this manual
9. Ensure compliance with the procedures in Appendix A for any forms used.
10. Comply with the procedures in the company FAA approved Training Program.

NOTE: The Repair Station Supervisor may delegate authority to any qualified individual. However, this delegation does not relieve the Repair Station Supervisor of the overall responsibility of compliance.

NOTE: In the absence of a Repair Station Manager the Accountable Manager assumes the duties.

3.4 Duties, Responsibilities and Authority –Technicians

The Technicians are responsible for performing maintenance as assigned, which includes the following summary.

3.4.1 Responsible To Repair Station Supervisor

3.4.2 Summary

1. Ensure comprehension of assigned task(s) before initiating maintenance. If necessary communicate concerns or questions with the Repair Station Supervisor.
2. Perform all maintenance in accordance with applicable technical data, industry standards, and procedures contained in this manual.
3. Perform maintenance with the highest quality of workmanship avoiding any act which may endanger personnel or cause damage to equipment and articles.
4. Perform all maintenance using proper tools and equipment.
5. Ensure that the manufacturer's safety precautions are taken before initiating maintenance.
6. Complete Work Order package forms in accordance with the instructions contained in Appendix A of this manual.
7. Notify the appropriate Supervisor immediately of any condition that arises which might represent a problem or unsafe condition.
8. Own and maintain sufficient hand tools to perform duties efficiently and effectively.
9. Maintain tools, equipment, and the work area in a safe and orderly condition.

3.5 Reserved

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3.6 Duties, Responsibilities and Authority – Inspectors

The Inspectors have the authority to perform the necessary inspections of articles for the repair station which includes the following summary.

3.6.1 Responsible To Accountable Manager

3.6.2 Summary

1. Ensure comprehension of assigned task(s) before initiating the inspection. If necessary communicate concerns or questions with the Accountable Manager.
2. All Inspectors must be listed and properly authorized on the Repair Station Personnel Roster contained in the Repair Station General Information Manual.
3. Perform all inspections in accordance with applicable technical data, industry standards, and procedures contained in this manual.
4. Perform inspections with the highest quality of workmanship avoiding any act which may endanger personnel or cause damage to equipment and articles.
5. Perform all inspections using proper tools and equipment.
6. Ensure all articles and materials used in the maintenance process are in an airworthy and serviceable condition.
7. Ensure that calibrated tools used during the maintenance process have not surpassed their calibration cycle.
8. Ensure that all parts and materials used in the maintenance process that contain a shelf life have not surpassed the manufacturer's expiration limits; and that the proper documentation exists to provide traceability.
9. Notify the Accountable Manager immediately of any condition that arises which might represent a problem or unsafe condition.
10. Ensure Work Order forms are completed in accordance with the instructions contained in Appendix A of this manual.
11. Comply with the procedures in Chapter II, Section 3 detailing Final Inspection and Return to Service.

3.7 Duties, Responsibilities and Authority – Parts Personnel

3.7.1 Responsible To Accountable Manager

3.7.2 Summary

1. Controls, handles, and tracks equipment, parts and supplies and ensures they are received, stocked and shipped in accordance with governmental regulations and PPAM policies and procedures as required.
2. Organizes and maintains supply areas.
3. Ensures stockroom security and cleanliness.
4. Locates and acquires parts/materials using reputable resources and approved vendors.
5. Ensures parts/materials are properly stored, segregated and identified, and complies the Shelf Life program per Chapter II, Section 1.
6. Maintains the Shelf life and inventory spreadsheets
7. Performs the month end shelf life inspection detailed in Chapter II, Section 1.
8. Oversees inventory-related projects.
9. Ensures compliance with hazardous materials/dangerous goods regulations.
10. Maintains awareness and monitors for the threat of Suspected Unapproved Parts (SUPS)
11. Carefully handles aircraft parts during transactions, shipping and receiving to avoid damage.
12. Performs procedures for receiving inspections per Chapter II, Section 1 when approved and added to the Repair station Roster.

NOTE: In the absence of any Parts Personnel the Accountable Manager assumes the duties.

4.0 Rosters (145.161 and 145.209(b))

4.1 **4.1 Purpose** FAA regulations require a repair station to maintain a personnel roster or rosters that list managers, supervisors, and inspectors. The roster must contain individuals within the repair station that are authorized to perform certain functions, such as approval for return to service, or that hold certain management and supervisory positions. This roster must be current and accessible for review by the FAA.

4.2 **4.2 Scope** Applies to any manager, supervisor, or inspector; those inspectors who make airworthiness determinations; and any individual who signs maintenance releases.

4.03 References Repair Station General Information Manual

4.1.4 Procedure

1. The Repair Station Personnel Roster is kept in the Repair Station General Information Manual.
2. The Accountable Manager is responsible for complying with the procedures in this section.
3. The roster will be revised within **5** business days each time that an individual listed is terminated, reassigned, or their duties or scope of assignment change, or to reflect the addition of any personnel.
4. A determination of qualifications for each individual added to the roster, or the assignment of an additional authority(s), will be made by evaluating the total years of relevant experience; on the job training; company in house training; personal interview; and past employment training history, or at the discretion of management.
5. Any manager or technician; each supervisor directly in charge of maintenance functions; each person authorized to approve articles for return to service, (authorized to sign a maintenance release) and each authorized inspector, must be added to the roster
6. Personnel will be evaluated by management to determine if they are familiar with the methods, techniques, practices, aids, equipment, and tools used to perform maintenance.
7. Once a successful determination is made, revise the list by adding the appropriate information in each block.
8. A summary of employment for each individual listed will be kept on file and must be maintained in a current condition. This summary must be revised when any of the following information changes
    - Present title;
    - Total years of experience and the type of maintenance work performed;
    - Past relevant employment with names of employers and periods of employment,
    - Scope of present employment and;

- The type of mechanic or repairman certificate held and the ratings on that certificate, if applicable.

9. This repair station shall not use the services of a person directly in charge of maintenance or alteration unless that person has been added to the roster required by this section.

NOTE Each person authorized to perform final inspection; approve articles for return to service; and each supervisor must be certificated in accordance with 14 CFR 65.

5.1 Air Carrier Maintenance (145.205 and 145.209(g))

5.2 **Purpose** If this repair station performs maintenance, preventive maintenance, or alterations for an air carrier conducting operations under 14 CFR Part 135 that use a FAA Approved Continuous Airworthiness Maintenance Program (CAMP), then that maintenance must be performed in accordance with that CAMP.

Refer to 5.0.6 for aircraft operating under 14 CFR part 135 using an Approved Aircraft Inspection Program (AAIP) or other inspection programs. The following procedures ensure that the air carrier has provided the repair station with the appropriate information necessary to meet the regulatory obligations.

5.3 **Scope** Applies to any maintenance requests for air carriers conducting operations under 14 CFR Part 135 that use an FAA Approved CAMP.

5.4 **References** Repair Station General Information Manual

5.5 **Procedure**

NOTE The air carrier may provide the repair station with the applicable sections of its CAMP. On the other hand, the purchase order from the air carrier could clearly state the source of the data (manufacturer's or the air carrier's manual) used to perform the requested maintenance along with any other requirements of its program. If the company manuals are provided, they will be located in the repair station. The following procedures are necessary before any work is performed.

1. The Repair Station Supervisor will request information from the carrier pertaining to at least the following issues.

    i. Training requirements for the work being performed on the carrier's behalf.

    ii. Special maintenance or alteration instructions per engineering orders, build lists, and other methods, techniques, and practices in the operator's manual in accordance with 14 CFR 43.13(c)

    iii. Recordkeeping requirements.

2. Record any training received in accordance with company procedures.

3. Once a purchase order is received from the carrier ensure that this repair station has the appropriate trained personnel, tools, equipment and technical data.

4. Ensure the work scope is within the authorization of the repair stations certificate and ratings.

5. Conduct a thorough review of the purchase order to ensure that the air carrier has clearly specified which technical data will be used for performing the maintenance. Any questions or revisions must be addressed to the carrier.

6. Generate a Work Order package.

7. If the carrier requests the use of special forms and instructions integrate them into the Work Order package. Annotate the work scope on the appropriate Work Order form.

8. All maintenance will be performed in accordance with the carrier's instructions and the procedures contained in this manual.

5.1.6 FAA Approved Aircraft Inspection Program (AAIP) or Other Inspections

1. Aircraft requiring Progressive, Approved Aircraft inspection Programs (AAIP) or other inspection programs contained in 14 CFR 91.409(f), will be accomplished in accordance with the instructions in those FAA Approved programs. Hard copy and/or software inspection programs will be made available by the operator when the maintenance is to be performed.
2. Other aircraft requiring a 100 hour, annual or progressive inspection as referenced in 14 CFR 91.409(a) will be inspected in accordance with §43.15(c) or (d).

5.1.7 Required Inspection Items (RII)

1. A CAMP or AAIP may contain the requirements for RII's. The carrier not this repair station will provide a list of RII's.
2. The carrier must ensure that the inspectors are trained on RII procedures, including how the inspection will be performed and recorded.
3. RII certificates of authorization/letters will be maintained by the Accountable Manager and kept in the Repair Station General Information Manual. At no time will an Inspector be allowed to perform an RII function if their certificate or authority has expired.

6.0 Contract Maintenance (145.209(h), 145.217, and AC145-9)

6.1.1 **Purpose**

1. This repair station must have the material and equipment necessary to perform the functions appropriate to its ratings. However, it need not have the tools and equipment for functions it is authorized to contract out pursuant to its FAA approved list of maintenance functions. The repair station must request approval before it can contract a maintenance function if this repair station is authorized to perform that function. If the FAA approves the contracted maintenance function, the repair station can determine who will perform the maintenance.

   NOTE: Maintenance functions are a step or series of steps in the process of performing maintenance, preventive maintenance, or alterations which result in approving an article for return to service.

2. (AC145-9) Purchase of maintained parts from another repair station (including exchanges), brokerage and using another certificated repair station to perform work that is outside the original repair station's ratings are not maintenance functions requiring FAA approval. These are instances where the purchasing repair station is not exercising the privileges of its certificate. When a repair station requests work or sells a previously maintained article (including type certificate products) it is acting solely as a distributor. Although the purchasing repair station may induct the part through its receiving inspection process, it is merely relying on the work previously performed at another certificated entity and is not exercising the privileges under 145.201(a)(2).

6.1.2 **Scope** Applies to any FAA approved article contracted out for maintenance.

6.1.3 **References** FAA Approved Contract Maintenance Functions

6.1.4 **Procedures- FAA Certificated Facilities (Repair Stations) A. Within the scope of PPAM's ratings**

1. FAA approval of a maintenance function (*not the facility*) is required if this repair station is authorized to perform that function but determines it is necessary to contract it out.

2. PPAM designee will forward a maintenance function approval request to the FAA PMI which contains the maintenance function(s) to be contracted out.

3. Once approval is received for the maintenance function it will be added to the FAA Approved Contract Maintenance Functions list located in the Repair Station General Information Manual. FAA approval for the maintenance function must be received before using a contracted facility.

4. The Accountable manager is responsible for determining that the contracted facility is properly rated to perform the maintenance by reviewing their certificate and operations specifications by verbal or written contact. Vendor operations specifications shall be kept on file with a letter of approval and reviewed bi-annually. Once approved, vendors will be added to the approved vendors list. See Section 6.0.6.

NOTE Based on necessity or absence the Accountable Manager may delegate authority to any qualified individual . This delegation does not relieve the Accountable Manager of the overall responsibility of compliance.

5. The repair station performing the maintenance function is responsible for providing the approval for return to service of the work performed.

6. Articles received from a certificated facility must be properly processed through the Receiving Inspection - Post Contract Maintenance (FAA Repair Stations) procedures contained in Chapter II, Section 1.

B. **Outside the scope of PPAM's ratings**

1. FAA approval for a maintenance function outside the scope of this repair station's rating is not required. (*See Section 6.0.1 Purpose*)

2. The Accountable manager is responsible for determining that the contracted facility is properly rated to perform the maintenance by reviewing their certificate and operations specifications by verbal or written contact. Vendor operations specifications shall be kept on file with a letter of approval and reviewed bi-annually. Once approved, vendors will be added to the approved vendors list. See Section 6.0.6.

   NOTE Based on necessity or absence the Accountable Manager may delegate authority to any qualified individual (*typically Accountable Manager*). This delegation does not relieve the Accountable Manager of the overall responsibility of compliance.

3. The repair station performing the maintenance function is responsible for providing the approval for return to service of the work performed.

4. Articles received from a certificated facility must be properly processed through the Inspecting Incoming Raw Materials procedures contained in Chapter II, Section 1.

6.1.5 **Procedure- Non-Certificated Facility/Person – within PPAM's ratings only.**

1. FAA approval of a maintenance function (not the facility/person) is required if this repair station is authorized to perform that function but determines it is necessary to contract it out.

2. PPAM designee will forward a maintenance function approval request to the FAA PMI which contains the maintenance function(s) to be contracted out.

3. Once approval is received it will be added to the FAA Approved Contract Maintenance Functions list located in the Repair Station General Information Manual. FAA approval for the maintenance function must be received before using a contracted facility/person,

4. The Accountable Manager is responsible for determining that the contracted facility/person is properly rated or capable to perform the maintenance by

reviewing material, equipment and personnel by verbal or written contact. For facilities/persons without an FAA certificate, the contract must include a clause permitting FAA inspections while working on the contracted article.

NOTE The ability to inspect a non-certificated facility/person can only be accomplished while the contract is in force. This requirement does not give FAA Inspectors access to non-FAA-certificated facilities/persons if there is no work being performed under contract for PPAM.

NOTE Based on necessity or absence the Accountable Manager may delegate authority to any qualified individual (*typically Accountable Manager*). This delegation does not relieve the Accountable Manager of the overall responsibility of compliance.

5. The Accountable Manager is responsible for determining that the contracted facility follows a quality control system equivalent to the system followed by this repair station. In cases where the contracted facility does not have a published quality control system, the facility will be required to meet PPAM's quality control system's requirements when performing work on the article. This will include the facility supplying the appropriate material traceability and using calibrated equipment. PPAM will supply the vendor with any required documentation or calibrated tooling to accomplish the contract maintenance if it cannot be provided by the vendor in a manner satisfying all applicable FAR requirements.

   NOTE Based on necessity or absence the Accountable Manager may delegate authority to any qualified individual (*typically Accountable Manager*). This delegation does not relieve the Accountable Manager of the overall responsibility of compliance.

6. Any Vendor information shall be kept on file with a letter of approval and reviewed bi-annually. Once approved, vendors will be added to the approved vendors list. See Section 6.0.6.

7. Articles received from a non-certificated facility must be properly processed through the Receiving Inspection - Post Contract Maintenance procedures contained in Chapter II, Section 1.
   a) In addition to the Receiving Inspection - Post Contract Maintenance procedures, any article being received back from a non-certificated facility will require a PPAM Inspector to verify by inspection or test that the work was performed satisfactorily and providing the approval for return to service of the work performed.
   b) The inspection/test does not have to be performed by PPAM if it can be determined by review of the paperwork provided by the contracted facility. The paperwork must set forth the exact steps performed and the inspections and tests performed otherwise PPAM will be required to perform them.
   c) If satisfactory, the PPAM inspector must complete a serviceable tag for the part using a similarly worded statement, *"(Work done) performed at (name of facility). Inspected/tested and found ok for service (per reference)."*

8. The FAA will be notified of revisions to contract information during their normal surveillance by being provided access to the list of contract providers.

6.1.6 **Procedure – Approved Vendors List.**

1. A list of approved contract maintenance facilities/persons will be maintained by the Accountable Manager in the General Information Manual that includes the name, air agency certificate number (if appropriate), ratings (if any), primary contact, phone #, audit date, and next audit due date. The list will also denote if the vendor is an approved maintenance function facility. Other pertinent information will be kept in the vendor file. The list will be revised each time a vendor is approved, removed, or reviewed.

2. The FAA will be notified of revisions to contract information during their normal surveillance by being provided access to the list of contract providers.

7.1 Work Performed at Another Location (145.209(f) and 145.203)

7.1.1 **Purpose** FAA regulations permit the performance of maintenance away from the repair stations main location, for example, an aircraft on the ground or in preparation of a ferry flight. If maintenance is to be performed at a location other than the repair station, certain procedures must be followed to ensure the airworthiness of the article maintained. The maintenance would have to be performed in the same manner as when performed at the repair station; all necessary personnel, equipment, material, and technical data is available at the place where the work is to be performed; and this manual contains procedures governing work performed at another location.

7.1.2 **Scope** Applies to any work performed at another location.

7.1.3 **References** Repair Station Manual
Appendix A, Forms
Repair Station Personnel Roster

7.1.4 **Procedure**

1. When a work request is received it must be authorized by the Accountable Manager or his delegate.
2. Ensure that the requested work is within the scope of the repair station ratings and operations specifications.
3. The Accountable Manager or his delegate will coordinate the work request.
4. The appropriate technician(s) will be assigned. Ensure at least one technician is authorized to sign maintenance releases. This technician should also be responsible for communications between the field and the repair station.
5. Determine if the equipment, material, and technical data is available.
6. Generate the appropriate Work Order package.
7. Dispatch technician(s) to the field with equipment, tools, materials, and appropriate technical data and forms as needed.
8. The technician in the field will be responsible for complying with the appropriate sections of this manual. The technician shall not deviate from any established procedures. The procedures will be the same as if the work was performed at the fixed location.
9. The proper precautions will be taken to prevent foreign object damage to any area open for maintenance if an aircraft is left out in the elements for any length of time. Any cowlings or panels will be reinstalled until the appropriate repairs can be completed.
10. Upon completion of the maintenance task(s), ensure that the appropriate record entries are completed, returning the article to service in accordance with “Final Inspection and “Return to Service” section in Chapter II of this manual.
11. The Accountable Manager or his delegate will notify the PMI by e-mail, with a read receipt, within 24 hours providing the N-number of the aircraft, location and the scope of the work performed.

8.1 Capabilities Document (145.209(d) and 145.215)

8.1.1 **Purpose:** A certificated repair station with a limited rating may elect, in lieu of operations specification, to use a capabilities document. This document contains articles that the repair station is authorized to perform maintenance on, which are within the scope of the rating(s) issued by the FAA. The capabilities document allows a repair station to add articles without prior FAA approval; provided the article is within the scope of those current rating(s). Additionally, the repair station must perform a self-evaluation prior to adding the article to the document to ensure it is capable of performing the maintenance. If the repair station chooses to use a capability document, the repair station manual must: contain procedures for revising that document and notifying the FSDO, including how often the FSDO will be notified of revisions; procedures for the self-evaluation required for revising the document; the methods and frequency of such evaluations; and, contain the procedures for reporting the results to the appropriate manager for review and action.

8.1.2 **Scope:** Applies to any article added to the repair station controlled capabilities document.

8.1.3 **References:**

1. Repair Station General Information Manual
2. Form PPAM-06 Controlled Capabilities Document Self Evaluation Checklist
3. PPAM-06A Controlled Capabilities Document Self Evaluation Handbook (Appendix B)
4. Form PPAM-07 Controlled Capabilities Document located in the Repair Station General Information Manual

8.1.4 **Procedures:**

1. The Accountable Manager is responsible for the Controlled Capabilities Document program.

2. A self evaluation is necessary each time that this repair station desires to add an article to its Controlled Capabilities Document (CCD).

3. Appoint a qualified individual to conduct the self evaluation.

4. The self evaluation will be conducted in accordance with Form PPAM-06 Controlled Capabilities Document Self Evaluations Checklist to determine if the proposed article is within the scope of the repair station rating(s). This checklist further establishes whether this repair station possesses adequate housing, facilities, equipment, material, technical data, processes, and trained personnel commensurate with the article.

5. If a determination is made that the proposed article is outside the scope of this repair stations current ratings, an application must be made for an additional rating. Contact the Principal Inspector at the local FSDO for instructions.

6. If results are satisfactory the article may be added to Form PPAM-07, Controlled Capabilities Document.

7. Notify the Principal Inspector at the local FSDO of the revision by providing a copy of the CCD within 5 business days.

8. A revised copy of the Form PPAM-07 will remain on file in the Repair Station General Information Manual along with the completed Form PPAM-06 Controlled Capabilities Document Self Evaluation Checklist.

9. If this repair station is no longer qualified to perform maintenance on an article listed on PPAM-07 Controlled Capabilities Document, then it will be removed. Notify the Principal Inspector at the local FSDO by providing a copy of the revised CCD with 5 business days.

9.1 Records and Recordkeeping System (145.209(j))

9.1.1. **Purpose** Federal regulations require a description of the required records and the recordkeeping system used to obtain, store, and retrieve the required records. Additionally, the regulations require samples of the inspection and maintenance forms and instructions for completing such forms.

9.1.2 **Scope** Applies to all records, forms, and reports initiated and retained by this repair station.

9.1.3 **References** Appendix A

9.1.4 **General Information**
All inspection and maintenance records, forms, and reports are contained in the Forms section of Appendix A. If a form, record, or report, is required by any section of this manual it may be listed in the "Reference" paragraph. When multiple forms can be used a general reference to Appendix A will be made.

An individual file is maintained for each technician by the Accountable Manager in his office which contains the employees name, initials and signature along with a copy of his/her FAA issued certificate(s) if applicable. These records also contain the employees training history along with any other pertinent data deemed appropriate.

All maintenance record entries must be carefully accomplished in a clear, concise and legible manner that can be easily read and understood by anyone. Illegible or poorly written records could result in time control errors or improper/unnecessary maintenance actions. Only those individuals listed on the rosters discussed in Section 4 of this Chapter are authorized to inspection functions and sign maintenance releases. All personnel entering information on forms used by this repair station will ensure the following;

- All entries, that are not computer generated, are to be made using permanent ink.
- All record entries are to be legibly written in English.
- All record entries describing parts, materials, discrepancies, and corrective actions must utilize words, descriptions, or other verbiage consistent with manufacturer's data or other appropriate industry standards.
- Technicians will enter their initials or signature on any paper records or reports in the appropriate space provided. Refer to Appendix A for examples.
- Return to service record entries initiated by authorized personnel will be signed and contain this repair station's full name and certificate number.

9.1.5 **Description - Standard Records, Forms, Rosters and Reports**
The Personnel Roster; FAA Approved Contract Maintenance Functions; Contract Maintenance Providers; Controlled Capabilities Document; RII documents; and Cause and Corrective Action Reports are kept in the Repair Station General Information

Manual. These records are initiated and updated as required by the individual sections of this manual.

9.1.6 Maintenance Records and Forms Used to Show Compliance With 14 CFR 43 (145.219)

All Work Orders contain the inspection and repair information necessary to demonstrate compliance with the requirements of 14 CFR 43. Refer to Appendix A for typical forms used by this facility. These records maintained by the Accountable Manager and are stored by work order number in the QA/Maintenance Library for one year and can be accessed upon request. Work order packages beyond 1 year are stored in archives for a minimum of two years. These records will include a copy of the maintenance release issued along with all the hard copy forms/reports used in the maintenance of the article.

9.1.7 Electronic Data Security

The repair station uses a "server based" computer system which is controlled by the Accountable Manager. The Accountable Manager runs a full backup of all electronic media on the system every other day.

The Accountable Manager maintains the computer system security to include controlled access; protecting confidential information; protecting information to ensure that it can't be altered (this manual is uploaded in a read only format); prevention of password duplication; and training to include the requirements necessary to authorize access to the computer software system. Since each workstation is server-based and contains no inherent attributes that enable or disable access, there is no need for each workstation to be audited.

The Accountable Manager retains a list of each employee's assigned user name and password. If an employee permanently leaves, then that user name and password is retired.

The information stored by the computer system pertaining to the repair station is available to both the National Transportation Safety Administration (NTSB) an FAA personnel. If the computer hardware or software system is not compatible with the NTSB's or FAA's system then this repair station will provide a representative or employee to assist. The system is capable of producing paper copies of stored information upon request.

Quality Control System (145.211)

1.1 Inspecting Incoming Raw Materials (145.211(c)(1)(i))

1.2 **Purpose** FAA regulations require the use of approved materials in the repair of aviation articles. Proper incoming inspection procedures ensure that only approved materials and supplies are used in the repair process. It is the policy of this repair station to ensure that all aviation products conform to all applicable FAA, and other requirements regarding quality, workmanship, performance and product integrity.

1.3 **Scope** All incoming materials and supplies used in the repair of articles.

1.4 **References** FAA Advisory Circular 20-62, Eligibility, Quality, and Identification of Aeronautical Replacement Parts, as revised PPAM-04 Monthly Shelf Life Inspection Record

1.5 Procedure

All component parts, standard hardware, and materials for stock are ordered as required. At a minimum, parts and supplies received shall be inspected in accordance with the following steps.

1. Inspect the packaging for proper identification, and any signs of alteration or damage.

2. Verify that the actual part(s) and delivery receipt reflect the same information.

3. Verify that the part(s) marking and other identification is proper and has not been altered.

4. Inspect for a match between the marking on the part(s) and the description on the receiving label.

5. The part(s) will be placed in stock or released for installation.

6. For component parts, the documentation will remain with the part until such time it is installed in a customer's article. This documentation will be provided to the customer upon release of the article.

7. Standard hardware and material documentation will remain with each lot until such time it is completely used.

8. Materials, parts, and supplies shall be stocked and preserved in accordance with manufacturers procedures if applicable.

1.6 Non-conforming Parts and Materials

Any non-conforming parts or supplies can be tagged with a Condemned/Unairworthy tag and placed in a segregated area in the Parts Care pending disposition.

1.7 Shelf Life

1. All materials, parts, and supplies, containing a manufacturer's shelf life will be stored and protected on in the Parts Room in accordance with manufacturer's instruction, if any.

2. These materials will be inspected by the end of each month to determine their status. Use Form PPAM-04 to record the completion of this inspection.

3. Any item determined to be expired will be removed from inventory.

4. It is the responsibility of each technician to physically verify that each item is within shelf life limits before use. If it is determined that an item has expired it will be immediately removed from inventory.

1.8 Receiving Inspection - Post Contract Maintenance

1. Verify associated documentation matches article part and serial number.

2. Verify all discrepancies have been cleared.

3. Visually Inspect unit for quality of workmanship.

4. If the article is determined to be unairworthy it will be identified with a Condemned/Unairworthy tag and returned to the contract maintenance provider. Refer to Appendix A for instructions on completing the tag.

5. If the article is acceptable it may be released for installation.

If a component has been contracted to an FAA certificated repair station ensure, upon return, that it is accompanied by the appropriate maintenance record. This documentation normally consists of an FAA Form 8130-3 Authorized Release Certificate or a "Serviceable Parts Tag." In any case, the record(s) must meet the requirements of 14 CFR 43.9. This original information will be provided to the customer and a copy will remain with the Work Order. The article need only receive a general inspection to ensure freedom from shipping damage, unless other instructions are provided.

NOTE If contracted maintenance exhibits discrepancies it will be processed in accordance with the Taking Corrective Action on Deficiencies section located in Chapter II.

1.9 Detecting and Reporting Suspected Unapproved Parts (SUPS)

1. This SUPS reporting system is a voluntary program and can be used at the discretion of this repair station. If there is any doubt as to the authenticity of any part segregate it immediately. Tag the part with a Condemned/Unairworthy tag, and bring the part to the attention of management for discussion and disposition.

2. The latest revision of FAA AC 21-29, Detecting and Reporting Suspected Unapproved Parts, is located in the Repair Station General Information Manual. It contains the FAA Form 8120-11, Suspected Unapproved Parts Notification.

2.1 Preliminary/Hidden Damage Inspections (145.211(c)(1)(ii) and (iii)

2.2 **Purpose** FAA regulations require a preliminary inspection to be accomplished on an article before it enters the repair process. The purpose of this inspection is to determine the article's state of preservation, to identify any obvious defects and to check for compliance with applicable Airworthiness Directives (ADs) and, if required, service bulletins associated with the AD requirement. Additionally, all articles involved in an accident must be inspected for hidden damage.

NOTE Verification of applicable Airworthiness Directives will be accomplished during the course of scheduled manufacturer recommended inspection(s), AAIPs, CAMPs, or off aircraft component repairs/overhauls. Aircraft entering the repair station for unscheduled maintenance will only require a check for compliance with Airworthiness Directives in regards to the item on the aircraft being worked.

2.3 **Scope** Applies to all FAA approved articles maintained by this repair station.

2.4 **References** Work Order

2.5 Procedure – Preliminary Inspection

1. The requirement for a preliminary inspection will be recorded on Form PPAM-01 Work Order by the assigned technician..

2. This inspection is intended to be a thorough "preliminary" assessment to determine if the part is repairable.

3. Verify if the work scope is within the repair station certificate and ratings issued by the FAA. If not, contact the Accountable Manager before proceeding.

4. Inspect the article for condition, obvious damage, overall airframe or article condition, and whether a hidden damage inspection will be required. A functional test may be performed as part of the preliminary inspection if deemed appropriate and should be recorded on Form PPAM-02 Discrepancy Worksheet stating so. If the contracted work scope is for scheduled manufacture recommended inspection(s), AAIPs, CAMPs, or off aircraft component repairs/overhauls then research all applicable ADs.

5. Any discrepancies discovered during this inspection and any specific instructions will be recorded on Form PPAM-02 Discrepancy Worksheet.

6. These discrepancies will be evaluated and addressed in the same manner as a regular discrepancy.

2.6 Procedure – Hidden Damage

1. This inspection is **only** required for articles that have been involved in an accident. The inspection will include a search for any damage that could result from an accident, such as fire or heat damage. The inspection is not limited to the area of obvious damage but will include a thorough and searching inspection for damage in adjacent areas. The article will be disassembled to the point necessary to perform this inspection.

2. The requirement for a hidden damage inspection will be recorded as a squawk on Form PPAM-02.

3. Any discrepancies discovered during this inspection will be recorded on Form PPAM-02.

2.7 Continuity of Inspection/Maintenance Responsibility

1. If at any time an Inspector/Technician cannot fulfill his or her duties during the maintenance process the appropriate Supervisor will be informed; the Repair Station Personnel Roster will be reviewed and a properly qualified Inspector/Technician will be tasked with completing the job.

2. A Pass Down Log will be maintained in the Maintenance Office in order to brief the incoming inspector/technician regarding the status of in progress inspection/maintenance tasks currently in work if multiple work shifts are being utilized. (i.e.; Day shift, Night shift)

3.1 **Final Inspection (145.211(c)(1)(vii)**

3.2 **Purpose** FAA regulations require final inspection and return to service of all articles maintained by this repair station. Final inspection must include a review of all documents used during the maintenance as well as inspection of the article. Additionally, the person responsible for performing this inspection must be thoroughly familiar with the applicable regulations and the inspection methods, techniques, practices, aids, equipment and tools used to determine airworthiness of articles.

3.3 **Scope** Applies to any article repaired.

3.4 **References**

3.5 **Procedure - Final Inspection**

All maintenance records must be thoroughly audited for completeness and accuracy prior to issuance of the airworthiness release for return to service. Review of each Work Order should consist of the following

1. A qualified and properly authorized inspector must inspect the article and determine it to be airworthy with respect to the work performed and ensure that all maintenance was performed in accordance with 14 CFR 43.

2. If any discrepancies are discovered during final inspection, ensure they are recorded on Form PPAM-02 Discrepancy Worksheet and corrected.

3. Review the documentation to ensure that it is correctly and completely entered.

4. Provide a maintenance release in accordance with the “Return to Service” section of this manual.

3.1 **Procedure - Return to Service (145.211(c)(1)(vii)**

3.2 **Return to Service – Routine Aircraft Maintenance (43.9)**

The following is an example of the elements necessary to complete a routine maintenance releases commonly used by this repair station. This information will be recorded on Form PPAM-03 Maintenance Transaction Report (MTR). Only company personnel listed on the Repair Station Personnel Roster and authorized to sign a maintenance release can perform this function.

This information will normally be entered into the MTR. If the article is an aircraft battery an FAA Form 8130-3 can be used. In all cases the information provided must meet the requirements of 14 CFR 43.9 and shall include

i. A description (or reference to data acceptable to the Administrator) of the work performed;
ii. The date of completion of the work performed;
iii. The signature of the person approving the work;

iv. The Work Order number; and
v. The repair station name and FAA certificate number.

1. A copy of the maintenance release, MTR or FAA Form 8130-3 will remain on file with the Work Order.

3.3 Return to Service - Aircraft Inspections (43.11)

The following is an example of the information required for a maintenance record entry for aircraft which have undergone an inspection and determined to be airworthy. This information will be recorded on Form PPAM-03 MTR. Additionally, all inspection programs approved under §91.409(f) and used by this repair station will be completed and recorded in accordance with the instructions in the operators program. In all cases the record entry must the requirements of 14 CFR 43.11. Only company personnel listed on the Repair Station Personnel Roster and authorized to sign a maintenance release can perform this function.

1. This entry will include;

    i. The type of inspection and a brief description of the extent of the inspection;
    ii. The date of the inspection and the aircraft total time in service;
    iii. the signature of the person approving for return to service;
    iv. The repair station name and FAA certificate number.

2. A copy of the MTR will remain on file with the Work Order.

4.0 Technical Data (145.211(c)(1)(v))

4.1 **Purpose** FAA regulations require each person performing maintenance to use the methods, techniques, and practices prescribed in the current manufacturer's maintenance manual, Instructions for Continued Airworthiness, or other methods, techniques, or practices acceptable to the Administrator. This repair station may not approve for return to service any article unless the maintenance was performed in accordance with data and practices acceptable to the FAA. Adherence to procedures in this section will ensure that all work performed is done in accordance with current, applicable methods, techniques, and practices.

4.2 **Scope** Applies to all technical data necessary for performing repair station maintenance operations.

4.3 **References** FAA Internet Site

4.4 **General Information**

This repair station maintains the manufacturer's maintenance manual for the particular articles contained in the CCD. These manuals are maintained and accessed through Compact Disc, OEM online access and digital format and are located in the Maintenance Library.

These documents include service/maintenance manuals or instructions for continued airworthiness, standard practice manuals, and manufacturer's service bulletins and instructions.

The Accountable Manager is responsible for ensuring the repair station procures the proper Technical data for articles maintained by the repair station.

An active subscription service is maintained by the Accountable Manager and outdated Ds or other media editions are purged when a revised copy is received by the Accountable Manager. Data currency will be checked at least bi-annually by the Accountable Manager through the OEM. Verbal notification will require a written follow up.

Other FAA technical information such as FAA regulations, Orders, Airworthiness Directives and Advisory Circulars are accessed through the FAA's web site.

4.5 **Acceptable Technical Data (43.13)**

Repair Station personnel that perform maintenance on any article are responsible that the performance of such maintenance will be accomplished in accordance with the current manufacturer's technical instructions and data or other methods, techniques, and practices acceptable to the FAA (e.g. AC 43.13-1X).

4.6 **Major Repair and Major Alterations (43.5, 43.9, and 43 Appendix B)**

1. In the event that a major repair or major alteration is performed it must be accomplished in accordance with FAA approved data. This data must be specifically identified as "FAA Approved" before its use.

2. Definitions of major and minor alterations and repairs can be found in 14 CFR Part 1. Major repairs and major alterations listed by article and type are contained in 14 CFR 43 Appendix A.

3. It may be necessary to obtain FAA approved technical data for a major repair or major alteration from the manufacturer of the article, or an FAA designee. The designees normally utilized in this capacity are FAA Designated Engineering Representatives (DER). If a DER is consulted to provide technical data in support of a major repair or major alteration, (FAA Form 8110-3, Statement of Compliance with the Federal Aviation Regulations) ensure they have the proper qualifications.

4. All major repairs and major alterations will be recorded on an FAA Form 337. See Appendix A for this form and instructions.

5. In addition to completion of FAA Form 337, an aircraft maintenance record entry must be completed in accordance with pertinent sections of 14 CFR 43.

6. A copy of this form and any supporting documentation will remain on file with the Work Order.

5.1 Taking Corrective Action on Repair Station Deficiencies (145.211(c)(1)(ix))

5.2 **Purpose** FAA regulations require a corrective action to remedy an undesirable situation. The correction of deficiencies is normally an integral part of a repair station's improvement process, and could include revisions to procedures that were not working properly. In these cases, a review of the housing, facilities, equipment, personnel qualifications, and procedures should ensure that the deficiency was not a systemic problem. If the review indicates that the procedure is deficient, the corrective action should include a thorough review and improvement of the procedure. If the review indicates that the personnel lacked training or qualifications, corrective action should remedy the deficiency.

5.3 **Scope** Applies to all articles repaired by this repair station.

5.4 **References** Form PPAM-05, Cause and Corrective Action Report Advisory Circular 00-58, Voluntary Disclosure Reporting Program, as revised.

5.5 General Information

Inadequate procedures, environment, working conditions, training, instructions or resources may be contributing factors for many deficiencies attributed to human error. Corrective action requires that the root cause or causes of the deficiency be investigated and determined in order to eliminate their recurrence. The investigation must be fact-based and typically begins with an analysis of the potential causes to the deficiency. Form AP-011, Cause and Corrective Action Report, has been developed for such purpose. However, corrections of deficiencies can not be fully addressed without adherence to the following procedures.

5.6 Procedure – Articles That Have Not Been Returned To Service

1. Once a deficiency in the quality system is identified, it must be documented on Form PPAM-05, Cause and Corrective Action Report.

2. Complete all sections of Form PPAM-05 to determine root cause(s)

3. The last section of the form requires corrective action and follow-up to ensure a positive solution to the deficiency. The time frame for corrective action should be 30 days. A follow-up should be conducted within a reasonable time frame agreed to by management but should not exceed 30 days. This follow-up inspection will ensure that the solution produces satisfactory results.

4. Once the form is completed, initiate the appropriate action detailed in the correction action section. Retain a copy in the Repair Station General Information Manual.

5.7 Procedure - Articles That Have Been Approved For Return to Service

Deficiencies discovered in a quality system may often be evidence of a potential violation of the regulations, particularly if an article has already been approved for return to service. If a quality deficiency is discovered, this repair station may choose to self- disclose the issue to the FAA in accordance with Advisory Circular 00-58 (as revised). This AC describes the procedures for the voluntary reporting of potential violations of

federal regulations. This repair station will carefully review this AC for the appropriate method of notifying the FAA. A copy of this AC can be accessed through the FAA's web site. Paragraph 5.0.5 of this section will also be completed.

NOTE If a deficiency is detected in any article received that was repaired by a contract repair station then that article will be identified with a Form PPAM-01 Rejected Tag and returned to the contract maintenance provider. It is up to the provider to ensure they conduct the proper investigation as to any quality control issues in accordance with their procedures.

6.1 Calibrating Measuring and Test Equipment (145.211(c)(viii))

6.2 **Purpose** FAA regulations require that all tools, test, and inspection equipment used to determine airworthiness of articles, are calibrated to a standard acceptable to the FAA.

6.3 **Scope** Applies to any tool or test equipment used to make airworthiness determinations of any FAA approved articles maintained by this repair station.

6.4 **References** Calibration List

6.5 **Procedure**

1. All tools and equipment that require calibration are entered into a spread sheet for tracking purposes.

2. Tools and test equipment shall be calibrated at periodic intervals established on the basis of manufacturer's recommendations. If the manufacturer changes the calibration interval then this repair station will adopt those intervals based on the recommendations.

3. Tools and test equipment used for airworthiness determinations will be clearly labeled with a "next due" calibration sticker.

4. Any precision tool or piece of test equipment (company or employee owned) that is not used to make an airworthiness determination will be clearly marked "For Reference Only" or "For Ref only".

5. All tools and equipment must be calibrated by vendors that use standards traceable to the National Institute of Standards and Technology (NIST).

6. Ensure that each tool and/or test equipment is listed on the Calibration List.

7. Employee owned tools and equipment are calibrated based on need and are added to the Calibration List.

8. Ensure, before each use, that the tool or test equipment has not surpassed its calibration due date.

9. At no time will any person be permitted to perform work on an article using tools or equipment that has exceeded calibration limits. If, at any time, a tool or piece of test equipment inadvertently exceeds its calibration due date, it will immediately be removed from service and sent out for calibration.

10. Upon receiving any tool or equipment back from a calibration vendor ensure that it contains the calibration certificate; the item is marked with a sticker indicating the next due date; and update the Calibration List to reflect this information. Vendor calibrations certificates and associated documentation will be kept on file in the QA and maintenance library 's office.

11. If new tools and/or test equipment are placed in service for use by the repair station they will be added to the Calibration List but only if a determination has been made that the item has been appropriately calibrated. If calibration cannot be established forward the item to the appropriate vendor for calibration.

12. If any calibration stickers are missing or become unreadable they may be fabricated with a hand label maker. Verify the actual due date by reviewing the last calibration certificate provided by the vendor, along with the associated documentation. The fabricated label should clearly indicate the last calibration date and the next calibration due date."

NOTE If at any time a tool or piece of test equipment was used past its calibration cycle the matter will be handled in accordance with the Taking Corrective Action on Deficiencies section in Chapter II. It may be necessary to recall the article that was involved to correct the situation which may require that a Work Order be generated in accordance with the Operations section in Chapter I.

7.1 Reports of Failures, Malfunctions, or Defects (145.221)

7.2 **Purpose** FAA regulations require this repair station to notify the FAA after discovering any failure, malfunction, or defect (M or D) of an article. M or D reporting is an information system designed to provide assistance to aircraft owners, operators, maintenance organizations, manufacturers, and the Federal Aviation Administration (FAA) in identifying aircraft problems encountered during service. This program provides for the collection, organization, analysis, and dissemination of aircraft service information to improve service reliability of aeronautical products.

7.3 **Scope** Applies to all articles maintained.

7.4 **References** FAA Form 8010-4, Malfunction or Defect Report FAA Advisory Circular 20-109, Service Difficulty Program, as revised

7.5 **Procedure**

1. If any serious defect or other recurring unairworthy conditions are discovered in any article it shall be reported to the FAA within 96 hours using FAA Form 8010-4 or using the FAA SDR reporting website (https://av-info.faa.gov/SDRX).

2. This form may be completed and mailed to the local FSDO or it can be accomplished on-line via the SDR website.

3. In the case where the filing of this report might prejudice the repair station, it shall refer the matter to the Administrator for a determination as to whether it must be reported.

4. If the defect or malfunction could result in an imminent hazard to flight, this repair station shall use the most expeditious method it can to inform the Administrator.

NOTE If the report involves an air carrier operating under 14 CFR 121, 125, or 135, the information will be forwarded to the carrier, and the carrier will submit required information to the FAA to avoid duplication. Review §121.703(g), §121.704(f), §125.409(g), §125.410(f), §135.415(g), 135.416(f) for reportable items.

8.1 Proficiency of Inspection Personnel (145.211(c)(1)(iv))

8.2 **Purpose:** FAA regulations require this repair station to ensure that inspection personnel are thoroughly familiar with the applicable regulations, inspection methods, techniques, practices, aids, equipment, and tools used to determine the airworthiness of articles.

Inspection personnel must also be proficient in using the various types of inspection equipment and visual inspection aids appropriate for the article being inspected. They must also understand, read, and write English. Inspectors must be listed on the roster described in the Records of Management, Supervisory, and Inspection Personnel section of this chapter.

8.3 **Scope:** Applies to repair station personnel that are or will be authorized to perform inspections.

8.4 **References:** Repair Station General Information Manual Repair Station Personnel Roster

8.5 **Procedure:**

1. The Accountable Manager is responsible for complying with the procedures in this section.

2. Candidates must have at least 18 months of applicable experience in the type of work performed.

3. Initial qualification for each individual will be determined by evaluating;

    i. the total years of relevant experience; or
    ii. on the job training; or
    iii. company in house training; or
    iv. by reviewing employee training records, and
    v. conducting an interview with the candidate.

4. If the candidate demonstrates a thorough working knowledge and experience of the inspection system, and the applicable procedures in this manual, steps 4 through 7 may be waived for initial qualification.

5. Determine through oral interview or tests if the candidate is familiar with 14 CFR Parts;

    - 1 Definitions and Abbreviations
    - 21 Certification Procedures for Products and Parts
    - 39 Airworthiness Directives
    - 43 Maintenance, Preventive Maintenance, Rebuilding and Alteration
    - 45 Identification and Registration Marking
    - 65 Certification: Airmen Other Than Flight Crewmembers
    - 145 Repair Stations

6. Determine through personal observation or tests if the candidate is thoroughly familiar with inspection methods, techniques, practices, aids, equipment, and

tools used to determine the airworthiness of the article on which maintenance is to be performed.

7. Determine through personal observation or tests if the candidate is proficient in using the various types of inspection equipment and visual inspection aids appropriate for the article being inspected. The candidate must also be familiar with the appropriate sections of this repair station manual.

8. If the candidate does not possess the appropriate skills and technical knowledge, training may be conducted in accordance with the Training section in this section.

9. If the candidate is qualified add the individual to the Repair Station Personnel Roster in accordance with the procedures contained in Records of Management, Supervisory, and Inspection Personnel located in Chapter I.

10. Recurrent training may be conducted yearly by choosing topics listed in step 4 or other relevant subjects. This requirement can also be met by attending applicable seminars conducted by the industry or the FAA.

11. Recurrent training to maintain proficiency may be accomplished by conducting special training in new techniques. This may also be necessary after additional articles are added to the operations specifications or capabilities of the repair station, or when new inspection aids are applied.

12. Record all training in accordance with the instructions contained in the FAA approved Training Manual.

Forms (145.211(c)(3))

Condemned/Unairworthy Parts Tag (Red)

This form may be used in-house to identify any part that has been deemed unfit for use, unserviceable, rejected, not airworthy, or that cannot be repaired. This example has been reduced from the original. A block by block explanation follows.

1. Enter the part name.
2. Enter the work order number if applicable.
3. Enter the part number.
4. Enter the part serial number if applicable.
5. Enter the aircraft "N" number if applicable.
6. Enter the aircraft serial number if applicable.
7. Enter the reason(s) for rejection.
8. The technician completing the tag will initial or sign this line.
9. Enter the date the tag was issued.
10. Optional - The inspector reviewing the tag will initial or sign this line.
11. Optional - Enter the date the tag was issued.

Professional Pilots Aircraft Maintenance
246 S. Meadow Road B13 – Gate 4 NW Hangar 2 - Plymouth MA 02360
CRS: ZKFR180L

CONDEMNED/UNAIRWORTHY PARTS TAG

Part Name: 1 W.O. #: 2

Part No. 3 Serial #: 4

A/C Tail# 5 AC Serial # 6

Reason: 7

Technician: 8 Date: 9

Inspector: 10 Date: 11

Repairable Tag (Green)

This form may be attached to a repairable part that is to be sent out for repairs. This example has been reduced from the original. A block by block explanation follows.

1. Enter the part name.
2. Enter the work order number if applicable.
3. Enter the part number.
4. Enter the part serial number if applicable.
5. Enter the aircraft "N" number if applicable.
6. Enter the aircraft serial number if applicable.
7. Enter any necessary remarks which may include part total time and cycles if applicable.
8. The technician completing the tag will initial or sign this line.
9. Enter the date the tag was issued.
10. Optional - The inspector reviewing the tag will initial or sign this line.
11. Optional - Enter the date the tag was issued.

Professional Pilots Aircraft Maintenance
246 S. Meadow Road B13 – Gate 4 NW Hangar 2 - Plymouth MA 02360
CRS: ZKFR180L

REPAIRABLE

Part Name: **1** W.O. #: **2**

Part No. **3** Serial #: **4**

A/C Tail# **5** AC Serial # **6**

Remarks: **7**

Technician: **8** Date: **9**

Inspector: **10** Date: **11**

Serviceable Tag (Yellow)

This form may be attached to a part removed from an aircraft that is determined to be serviceable. This example has been reduced from the original. A block by block explanation follows.

1. Enter the part name.
2. Enter the work order number if applicable.
3. Enter the part number.
4. Enter the part serial number if applicable.
5. Enter the aircraft "N" number if applicable.
6. Enter the aircraft serial number if applicable.
7. Enter any necessary remarks which may include part total time and cycles if applicable.
8. The technician completing the tag will initial or sign this line.
9. Enter the date the tag was issued.
10. Optional - The inspector reviewing the tag will initial or sign this line.
11. Optional - Enter the date the tag was issued.

Professional Pilots Aircraft Maintenance
246 S. Meadow Road B13 – Gate 4 NW Hangar 2 - Plymouth MA 02360
CRS: ZKFR180L

SERVICABLE

Part Name: 1 W.O. #: 2

Part No. 3 Serial #: 4

A/C Tail# 5 AC Serial #: 6

Remarks: 7

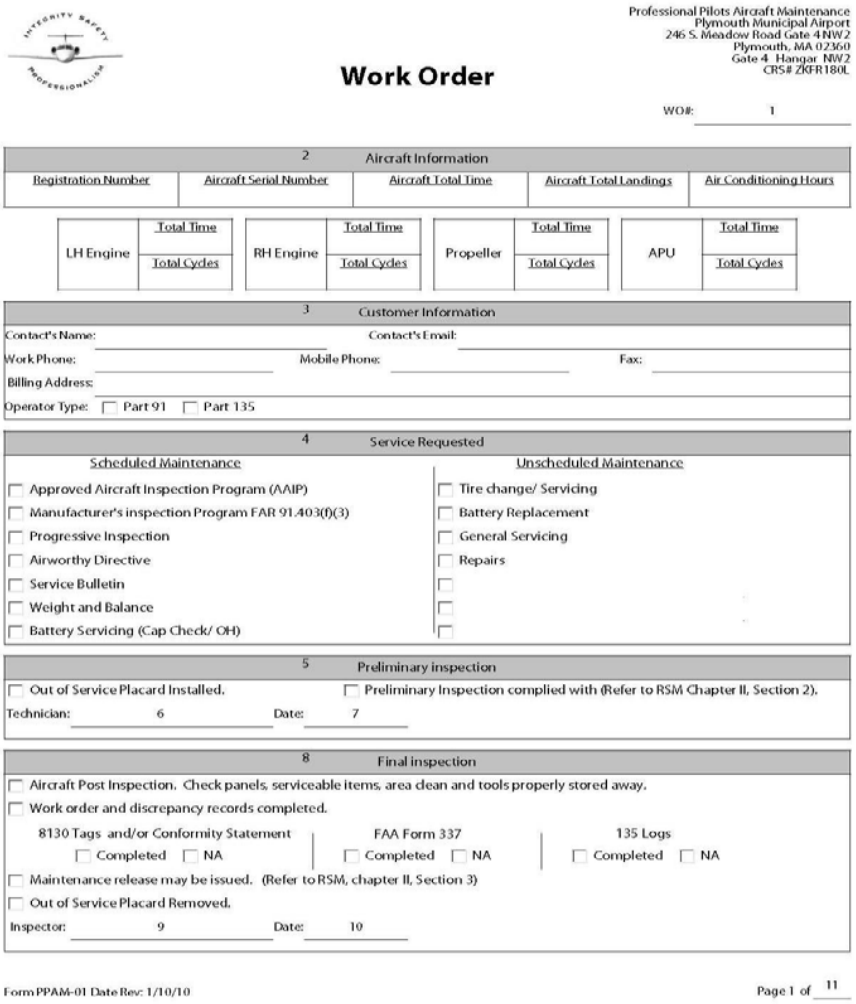
Technician: 8 Date: 9

Inspector: 10 Date: 11

Form PPAM-01 Work Order

This form is used as the main tracking document and will be completed for each article entering the repair station system. It contains customer and article vital information. It is also used to provide the customer a brief overview of the maintenance that was performed. This example has been reduced from the original. A block by block explanation follows.

1. Enter the Work Order number.
2. Enter the aircraft information.
3. Enter the customer vital information.
4. Check off the items to be accomplished (quick overview).
5. Check off items as each preliminary inspection segment is completed.
6. Sign or initial when preliminary inspection is complete.
7. Enter the date the preliminary inspection is completed.
8. Check off the items as each final inspection segment is completed.
9. Sign or initial when the final inspection is completed.
10. Enter the date when the final inspection is completed.
11. Enter the number of pages.



Professional Pilots Aircraft Maintenance
Plymouth Municipal Airport
246 S. Meadow Road Gate 4 NW2
Plymouth, MA 02360
Gate 4 Hangar NW2
CRS# ZKFR180L

Work Order

WO#: 1

2 Aircraft Information

Registration Number	Aircraft Serial Number	Aircraft Total Time	Aircraft Total Landings	Air Conditioning Hours

LH Engine	Total Time / Total Cycles	RH Engine	Total Time / Total Cycles	Propeller	Total Time / Total Cycles	APU	Total Time / Total Cycles

3 Customer Information

Contact's Name: Contact's Email:
Work Phone: Mobile Phone: Fax:
Billing Address:
Operator Type: ☐ Part 91 ☐ Part 135

4 Service Requested

Scheduled Maintenance	Unscheduled Maintenance
☐ Approved Aircraft Inspection Program (AAIP)	☐ Tire change/ Servicing
☐ Manufacturer's inspection Program FAR 91.403(f)(3)	☐ Battery Replacement
☐ Progressive Inspection	☐ General Servicing
☐ Airworthy Directive	☐ Repairs
☐ Service Bulletin	☐
☐ Weight and Balance	☐
☐ Battery Servicing (Cap Check/ OH)	☐

5 Preliminary inspection

☐ Out of Service Placard Installed. ☐ Preliminary Inspection complied with (Refer to RSM Chapter II, Section 2).
Technician: 6 Date: 7

8 Final inspection

☐ Aircraft Post Inspection. Check panels, serviceable items, area clean and tools properly stored away.
☐ Work order and discrepancy records completed.

8130 Tags and/or Conformity Statement	FAA Form 337	135 Logs
☐ Completed ☐ NA	☐ Completed ☐ NA	☐ Completed ☐ NA

☐ Maintenance release may be issued. (Refer to RSM, chapter II, Section 3)
☐ Out of Service Placard Removed.
Inspector: 9 Date: 10

Form PPAM-01 Date Rev: 1/10/10 Page 1 of 11

Form PPAM-02 Discrepancy Work Sheet

This form is used to record each squawk for a particular article entering the repair station system. This example has been reduced from the original. A block by block explanation follows.

1. Enter the “N” number.
2. Enter the Work Order number.
3. Enter a description of the Discrepancy. Mark the appropriate box to indicate RII (Required Inspection Item) status.
4. Enter a description of the corrective action.
5. Enter Referencing Maintenance Manual information.
6. Enter the date, technician performing the task, description of work performed, time started/ended and total time.
7. Enter parts used (check marks identify parts on order or received).
    a. For serialized parts, enter the part description, part number on and off, serial number on and off, and its position on the article.
    b. For non-serialized parts, enter the part description, part number on and location.
8. The Technician completing the Discrepancy will sign or initial this line.
9. Enter the date the discrepancy was completed.
10. The inspector verifying the corrective action and workmanship will sign or initial this line, if applicable.
11. Enter the date the inspection was completed, if applicable.
12. Enter the page number and total pages of Discrepancy sheets.

Form PPAM-02 Discrepancy Worksheet

Professional Pilots Aircraft Maintenance
Plymouth Municipal Airport
246 S. Meadow Road Gate 4 NW2
Plymouth, MA 02360
Gate 4 Hangar NW2
CRS# ZKFR180L

Discrepancy Worksheet

Registration Number: 1 WO#: 2

RII Required: ☐ Yes ☐ No	Discrepancy
Item #:	
3	
Corrective Action	
4	
	MM Ref: 5

Turnover/ Time Log					
Date	Technician	Description	Time IN	Time OUT	Man Hours
		6			
				Total Hours	

Parts							
On Order	Recv'd	Description	Part Number		Serial Number		Position
			On	Off	On	Off	
☐	☐						
☐	☐						
☐	☐			7			
☐	☐						
☐	☐						
☐	☐						

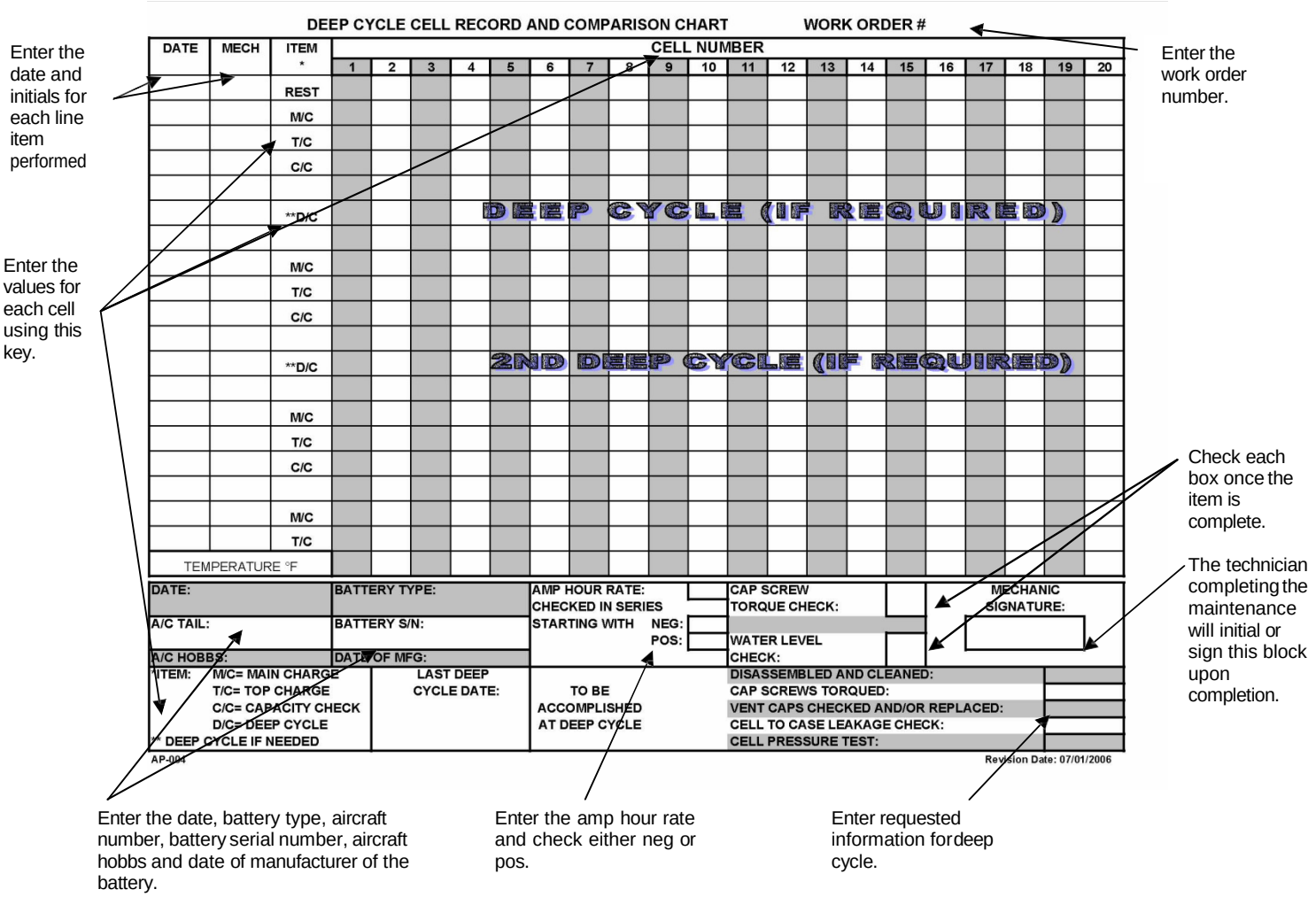
Technician: 8 Date: 9 Inspector: 10 Date: 11

Form PPAM-02 Date Rev: 1/10/10

Page 12 of

Form PPAM-02A NiCad Battery Deep Cycle Cell Record and Comparison Chart

This form is used to record each Nickel-Cadmium battery cell voltages, start/record times, and charge/discharge rates including the method of accomplishment. This example has been reduced from the original. An explanation of its use is described below. This form is used when specified by the battery manufacturers CMM or OMM for return to service.



Enter the date and initials for each line item performed

Enter the values for each cell using this key.

Enter the work order number.

Check each box once the item is complete.

The technician completing the maintenance will initial or sign this block upon completion.

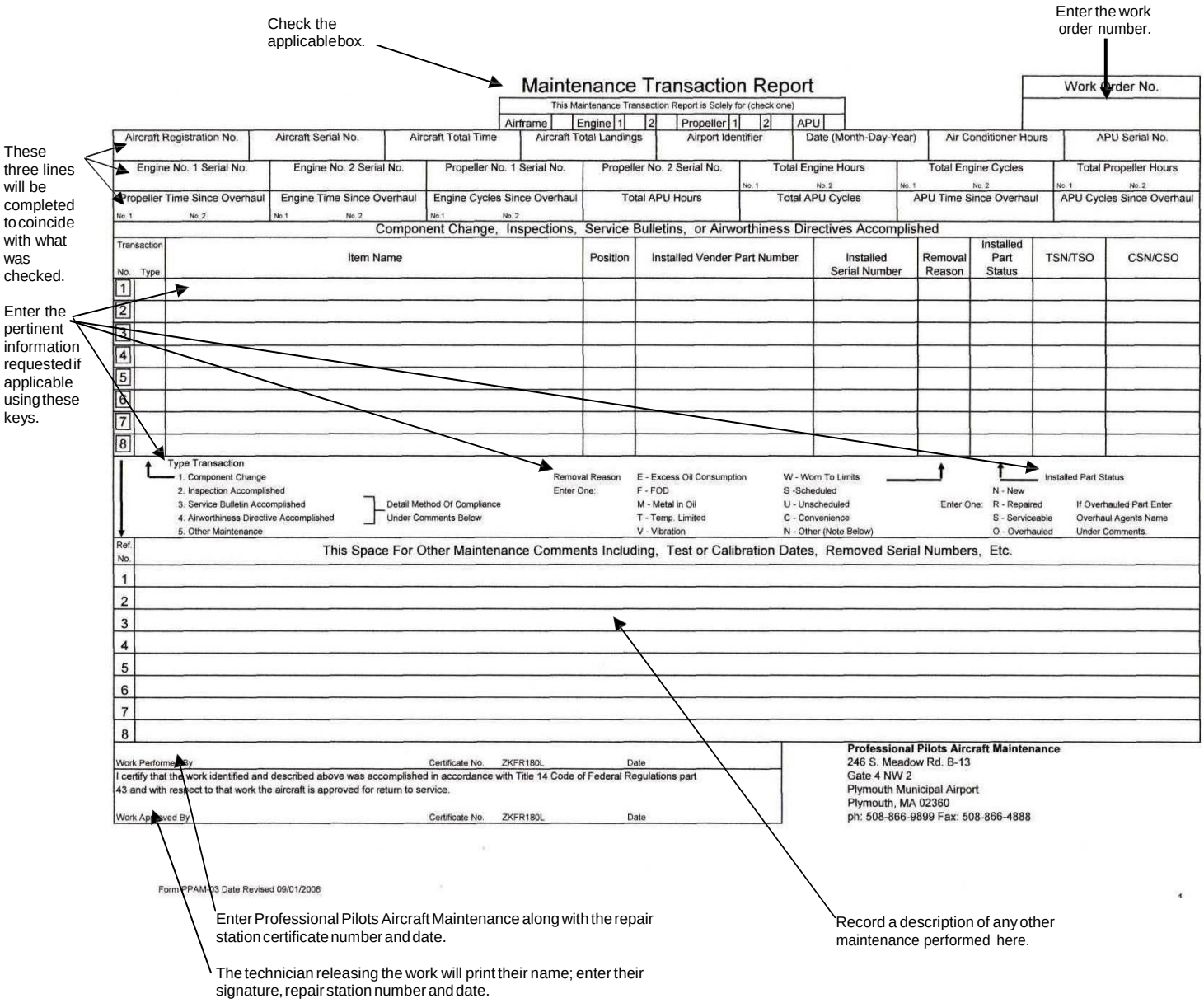
Enter the date, battery type, aircraft number, battery serial number, aircraft hobbs and date of manufacturer of the battery.

Enter the amp hour rate and check either neg or pos.

Enter requested information for deep cycle.

Form PPAM-03 Maintenance Transaction Report (MTR)

This form is normally used as a maintenance release to satisfy the requirements of 14 CFR parts 43.9 and 43.11. An originally signed MTR will be provided as a permanent aircraft maintenance records and a copy will be retained with the work order file. This example has been reduced from the original. An explanation of its use is described below.



Form PPAM-04 Monthly Shelf Life Inspection Record

This Form is used to document the monthly inspection of all materials which contain a shelf life that are used in the maintenance process located in this facility. The completed forms are kept on file in the Repair Station General Information Manual and are purged every three months. The inspection will be conducted before the last day of each month. This example has been reduced from the original. A block by block explanation follows.

1. The date completed will be entered next to the corresponding month.
2. The person completing the inspection will enter their initials for the month.

Professional Pilots Aircraft Maintenance			**Repair Station Number: ZKFR180L**		
Monthly Shelf Life Inspection Record					
Month	**Date Completed**	**Initials**	**Month**	**Date Completed**	**Initials**
January 2014			May 2016		
February 2014			June 2016		
March 2014			July 2016		
April 2014			August 2016		
May 2014			September 2016		
June 2014			October 2016		
July 2014			November 2016		
August 2014			December 2016		
September 2014			January 2017		
October 2014			February 2017		
November 2014			March 2017		
December 2014			April 2017		
January 2015			May 2017		
February 2015			June 2017		
March 2015			July 2017		
April 2015			August 2017		
May 2015			September 2017		
June 2015			October 2017		
July 2015			November 2017		
August 2015			December 2017		
September 2015			January 2018		
October 2015			February 2018		
November 2015			March 2018		
December 2015			April 2018		
January 2016			May 2018		
February 2016			June 2018		
March 2016			July 2018		
April 2016			August 2018		
Form PPAM-04			**Date Revised: 1/28/14**		

PPAM-05 Cause and Corrective Action Report

This is a three page form intended to be used as a guide in determining root cause(s) of deficiencies in a quality system. The first four sections provide the general categories associated with most quality system failures. This form is not meant to be restrictive. Space is provided in each section to describe the event in more detail. If additional space is needed it is permissible to attach as many blank sheets of paper as needed. Be sure to number these explanations with the correct section and sub event.

Once each section is evaluated a corrective action plan can be addressed. The corrective action is recorded in Section V and has a 30 day limit for implementation. The corrective action must be approved by the Accountable Manager. A follow-up should be conducted within a 30 day time frame.

Section I General Information

1. Enter the reference number for this occurrence. Reference numbers start at 001.
2. Enter today's date.
3. Enter the name of the individual responsible for conducting the interview/investigation.
4. Enter the actual date the event occurred. If not known, enter the date discovered.
5. Enter the time the event occurred if known. If not known enter "unknown."

The remaining blocks in this section are self explanatory; check all that apply.

Section II Event

This section is used to describe the actual event. Check all that apply. If "other" box is checked, provide an explanation in the space provided.

Section III Maintenance Error

This section is used to identify the maintenance error(s) that caused the event. It contains five categories. Check all that apply. If "other" is checked for any category, provide an explanation in the space provided.

Section IV Contributing Factors

This section contains subsections a through j. These subsections may not all apply and should be marked accordingly.

Section V Corrective Action

Enter the corrective action(s) to be accomplished. This corrective action should be implemented within a 30-day time period and approved by the Accountable Manager. If more than 30 days in required it will be annotated in this section and a reason will be provided.

Section VI Follow Up

Follow-up action is recorded in this section.

This form is kept on file in the Repair Station General Information Manual.

Form PPAM-05 Cause and Corrective Action Report (page 1)

Cause and Corrective Action Report

Section I General Information

Reference Number: _____
Date: _____
Interviewers Name: _____
Date Event Occurred: _____
Time of Event: _____
Shift Change Error: ☐ N/A ☐ Yes (explain)
_____

Check type of maintenance
☐ In-House
☐ Work Performed at Another Location by this Repair Station.

Section II Event

Check all that apply:

☐ Aircraft Damage	☐ Flight Cancellation
☐ Rework	☐ In-Flight Shut Down
☐ Personal Injury	☐ Other Event (explain below

_____
_____

Section III Maintenance Error

Please select the maintenance error(s) that caused the event:

1. Installation Error	☐ b. Too much fluid
☐ a. Part not installed	☐ c. Wrong type fluid
☐ b. Wrong part installed	☐ d. Required servicing not performed
☐ c. Improper location	☐ e. Access not closed
☐ d. Incomplete installation	☐ f. Damaged on installation
☐ e. Extra parts installed	☐ g. Other (explain below)
☐ f. Damaged on installation	4. FOD/Airplane/Equipment Damage
☐ g. Unit not properly closed	☐ a. Material left in aircraft
☐ h. Other (explain below)	☐ b. Debris on ramp
2. Fault Isolation/Test/Inspection Error	☐ c. Debris falling into open systems
☐ a. Did not detect fault	☐ d. Tools/equipment used improperly
☐ b. Not found by fault isolation	☐ e. Other (explain below)
☐ c. Not found by operational/functional test	5. Personal Injury Error
☐ d. Not found by inspection	☐ a. Slip/trip/fall or struck by
☐ e. Access not closed	☐ b. Caught in/on/between
☐ g. Other (explain below)	☐ c. Hazard contacted (e.g. electricity, hot, cold)
3. Servicing Error	☐ d. Hazardous environment (heat cold, humid)
☐ a. Not enough fluid	☐ e. Other (explain below)

Describe the specific maintenance error (e.g., T6 probe installed in wrong location)

_____
_____
_____

Section IV Contributing Factors

☐ N/A A. Information (e.g., work instructions, maintenance manuals, service bulletins, maintenance tips, parts manual, repair station manual, etc.)

☐ 1. Not understandable	☐ 5.Update process too long/complicated
☐ 2. Unavailable/Inaccessible	☐ 6. Incorrectly modified tech data
☐ 3. Incorrect	☐ 7. Information not used
☐ 4. To much/conflicting Information	☐ 8. Other (explain below)

Describe specifically how the selected factors contributed to the error

_____
_____
_____

Form PPAM-05 Page 1 Date Revised: 08/01/2006

Form PPAM-05 Cause and Corrective Action Report (page 2)

Cause and Corrective Action Report

Section IV Contributing Factors

☐ N/A B. Tools/Equipment/Safety Equipment

☐ 1. Unsafe	☐ 5. Miscalibrated/Out of calibration
☐ 2. Unreliable	☐ 6. No instructions
☐ 3. Layout of controls or displays	☐ 7. Incorrectly used
☐ 4. Unavailable	☐ 8. Other (explain below)

Describe specifically how the selected factors contributed to the error

☐ N/A C. Design/Configuration/Parts

☐ 1. Complex	☐ 4. Parts incorrectly labeled
☐ 2. Inaccessible	☐ 5. Easy to install incorrectly
☐ 3. Parts unavailable	☐ 6. Other (explain below)

Describe specifically how the selected factors contributed to the error

☐ N/A D. Job/Task

☐ 1. Repetitive/monotonous	☐ 3. New task or task change
☐ 2. Complex/confusing	☐ 4. Other (explain below)

Describe specifically how the selected factors contributed to the error

☐ N/A E. Technical Knowledge/Skills

☐ 1. Skills	☐ 3. Task planning
☐ 2. Task knowledge	☐ 4. Other (explain below)

Describe specifically how the selected factors contributed to the error

☐ N/A F. Individual Factors

☐ 1. Physical health	☐ 6. Personal event (e.g.. family problem)
☐ 2. Fatigue	☐ 7. Workplace distraction
☐ 3. Time constraints	☐ 8. Other (explain below)
☐ 4. Peer pressure	
☐ 5. Complacency	

Describe specifically how the selected factors contributed to the error

Form PPAM-05 Page 2 Date Revised: 08/01/2006

Form PPAM-05 Cause and Corrective Action Report (page 3)

Cause and Corrective Action Report

Section IV Contributing Factors

☐ N/A G. Organizational Factors

☐ 1. Quality of support (e.g. engineering)	☐ 6. Procedures not followed
☐ 2. Company polices	☐ 7. Procedure not documented
☐ 3. Not enough staff	☐ 8. Work group norm (habits)
☐ 4. Corporate change	☐ 9. Other (explain below)
☐ 5. Work process/procedure	

Describe specifically how the selected factors contributed to the error

☐ N/A H. Environment/Facilities

☐ 1. High noise level	☐ 5. Vibration
☐ 2. Hot	☐ 6. Cleanliness
☐ 3. Cold	☐ 7. Inadequate ventilation
☐ 4. Humidity	☐ 8. Other (explain below)

Describe specifically how the selected factors contributed to the error

☐ N/A I. Leadership/Supervision

☐ 1. Planning/organization of tasks	☐ 3. Delegation/assignment of tasks
☐ 2. Prioritization of work	☐ 4. Other (explain below)

Describe specifically how the selected factors contributed to the error

☐ N/A J. Communication

☐ 1. Between departments	☐ 3. Vendors
☐ 2. Between technicians	☐ 4. Other (explain below)

Describe specifically how the selected factors contributed to the error

DATE:	**Section V Corrective Action**	30 Day Limit

Approved: ☐ Yes ☐ No Director of Maintenance Signature:

Section VI Follow Up – Not to Exceed 30 Days

Due Date: Acceptable ☐ Yes ☐ No (if no explain below and recommend action)

Form PPAM-05 Page 3 Date Revised: 08/01/2006

Form PPAM-06 Controlled Capabilities Document Self Evaluation Checklist

This form is used as a self evaluation tool when adding an article to the Controlled Capabilities Document (CCD). This form contains eight elements which are considered essential in determining if the repair station is capable of performing the work scope. If any areas are deficient, corrective action must be annotated. All deficient areas must be corrected before an article can be added to the CCD. Once completed this form is filed in the Repair Station General Information Manual. A block by block explanation follows.

Header Block

1. Enter the make and model or part number of the proposed article.
2. Enter the date the audit is conducted.
3. Enter the name of the individual conducting the audit.

Audit Section

The form contains eight audit elements by title. Each element is broken down by a description of the requirement. The next conformity block contains a Y (yes) or N (no). A check in the "Y" box indicates compliance. A check in the "N" box signifies noncompliance, which requires a description of the deficiency in the "Remarks, Observations, and Findings" box. If the element does not apply enter N/A in the remarks section. Once all elements have been audited proceed to the "Audit Results" box.

Audit Results

Check either the "Passed" or "Failed" box. If the "Failed" box is check enter the recommended corrective action(s).

Proposed Date for Corrective Action

Enter a proposed date for the corrective action(s) to be completed (normally 30 days). Once corrective action is complete, the Accountable Manager will evaluate the adjustment, and if acceptable, he will check the "Approved" box. He must also enter the date approved and his signature.

Controlled Capabilities Document Revision

Upon adding the article to the CCD the Accountable Manager will check the box indicating completion and enter the date. Once the revised CCD is forwarded to the FSDO check the "Revision Forwarded" box; enter the date forwarded; and the signature of the person forwarding the revision.

Form PPAM-06 CCD Self Evaluation Checklist (page 1)

Controlled Capabilities Document Self Evaluation Checklist

Proposed Make and Model of Article to Be Added: _____
Date: Auditor:

Element	Requirement	Conform Y	Conform N	Remarks, Observations, Findings
1.0 Scope (145.215)	Is the proposed article within the scope of the repair stations current rating?			
2.0 Housing (145.103)	Does the repair station have adequate housing for the proposed article? **NOTE:** If the housing is not already defined in the Repair Station Manual then an amendment to that document describing the additional housing and facilities will be required.			
2.2	A repair station with an airframe rating must provide suitable permanent housing to enclose the largest aircraft listed on the Operations Specifications.			
3.0 Facilities (145.103)	Is there sufficient work space and areas for the proper segregation and protection of articles during all maintenance?			
3.1	Is there segregated work areas enabling environmentally hazardous or sensitive operations such as painting, cleaning, welding, avionics work, electronics work, and machining to be done properly and in manner that does not adversely affect other maintenance activities?			
3.2	Are there suitable racks, hoists, trays, stands etc?			
3.3	Is there sufficient space to segregate articles and materials stocked for installation from those undergoing maintenance?			
3.4	Are the facilities lighting and control of temperature, humidity, and other climatic conditions sufficient to ensure personnel perform maintenance to the standards required?			

Form PPAM-06 **Page 1** **Date Revised: 08/01/2006**

Form PPAM-06 CCD Self Evaluation Checklist (page 2)

Element	Requirement	Conform Y	Conform N	Remarks, Observations, Findings
Facilities Note (145.103(c))	A repair station may perform maintenance outside of its housing if it provides suitable facilities acceptable to the FAA.	N/A	N/A	
4.0 Equipment (145.109)	Is the appropriate equipment necessary to perform maintenance available? **NOTE:** The equipment must be located on the premises and under the repair stations control when the work is being done.			
4.1	Is the equipment that which is recommended by the manufacturer of the article or at least equivalent to and accepted by the FAA?			
5.0 Tools (145.109)	Are the appropriate tools necessary to perform maintenance available? **NOTE:** The tools must be located on the premises and under the repair stations control when the work is being done.			
5.1	Are tools those which are recommended by the manufacturer of the article or at least equivalent to and accepted by the FAA?			
5.2	Are there suitable racks, hoists, trays, jacks, stands etc;			
5.3	Is any tool or piece of measuring and test equipment properly calibrated and added to the repair station system?			
6.0 Materials (145.109)	Are materials required in the maintenance process on hand when the work is being done? **NOTE:** Materials consist of resources necessary in the performance of maintenance. (i.e., coatings, sealants, stripping chemicals, seals etc)			
6.1	Are the proper controls in place for stored materials and is there a record keeping system that has document traceability back to the place of purchase?			
Form PPAM-06	**Page 2**			**Date Revised: 08/01/2006**

Form PPAM-06 CCD Self Evaluation Checklist (page 3)

Element	Requirement	Conform Y	Conform N	Remarks, Observations, Findings
7.0 Data (145.109)	Is the appropriate technical data available and current when the work is to be performed? Check off or enter N/A.			Airworthiness Directives: _____ Instructions for Continued Airworthiness ICAW's: _____ Maintenance Manuals: _____ Overhauls Manuals: _____ Standard Practices Manuals: _____ Service Bulletins: _____ Installation Instructions: _____ Process Specifications: _____
8.0 Personnel (145.151)	Does the repair station have an adequate staff for the proposed addition?			
8.1	Are there adequate personnel with the proper training or knowledge and experience for the proposed addition? (To include Supervisor's and			
	Inspectors. Refer to 145.153 and 155)			
8.2	Are there personnel with the appropriate rating; proper training or knowledge and experience to approve the proposed article for return to service? (Refer to 145.157)			

Audit Results

Results must be forwarded to the Director of Maintenance

☐ Passed

☐ Failed (Recommended corrective action(s))

_____
_____
_____
_____
_____
_____
_____

Proposed Date of Corrective Action(s): _____

Corrective Action Must be Evaluated and Approved (signed) by the Director of Maintenance

☐ Approved - All corrective actions have been complied with.

Date:_____ Director of Maintenance:_____

Controlled Capabilities Document Revision

☐ Article Added to Controlled Capabilities Document. Date: _____

☐ A copy of the revised CCD will be forwarded to FAA FSDO within 5 working days.

Date Sent: _____ Sent By: _____

Form PPAM-06 **Page 3** **Date Revised: 08/01/2006**

Form PPAM-07 Controlled Capabilities Document (CCD)

The CCD contains a list of articles by manufacturer and model and includes any limitations deemed necessary. The lists are broken down by rating in a revision controlled booklet which resides in the Repair Station General Information Manual. This following is a typical form that is used within the booklet and can be amended as articles are removed or added. A block by block explanation follows.

1. Enter the type of rating. (Limited Airframe, Engine or Accessories) Accessories are further broken down by Nickel Cadmium Batteries.
2. Enter the manufacturer's name.
3. Enter the model.
4. Enter the date added.
5. Enter any necessary limitations.

Professional Pilots Aircraft Maintenance — Repair Station Number: ZKFR180L

Controlled Capabilities Document

1			
Manufacturer	Model	Date	Limitations
2	3	4	5

Form PPAM-07 — Date Revised: 08/01/2006

FAA Form 8130-3 Authorized Release Certificate

FAA Form 8130-3 will be used for approval for return to service for articles properly processed through the repair station. Use of this form satisfies the recordkeeping requirements of 14 CFR § 43.9. This form will be completed in accordance with the latest revision of FAA Order 8130-21. A copy of this Order can be accessed online through the FAA's Regulatory and Guidance Library. This following example has been reduced from the original.

1. Approving National Aviation Authority/Country: FAA/United States	2. **AUTHORIZED RELEASE CERTIFICATE** FAA Form 8130–3, AIRWORTHINESS APPROVAL TAG	3. Form Tracking Number:
4. Organization Name and Address:		5. Work Order/Contract/Invoice Number:

6. Item:	7. Description:	8. Part Number:	9. Eligibility: *	10. Quantity:	11. Serial/Batch Number:	12. Status/Work:

13. Remarks:

14. 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 13.		19. ☐ 14 CFR 43.9 Return to Service ☐ Other regulation specified in Block 13. Certifies that unless otherwise specified in Block 13, the work identified in Block 12 and described in Block 13 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.	
15. Authorized Signature:	16. Approval/Authorization No.:	20. Authorized Signature:	21. Approval/Certificate No.:
17. Name (Typed or Printed):	18. Date (m/d/y):	22. Name (Typed or Printed):	23. Date (m/d/y):

User/Installer Responsibilities

It is important to understand that the existence of this document alone does not automatically constitute authority to install the part/component/assembly.

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 parts/components/assemblies from the airworthiness authority of the country specified in Block 1.

Statements in Blocks 14 and 19 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.

FAA Form 8130–3 (6–01) *Installer must cross-check eligibility with applicable technical data. NSN: 0052-00-012-9005

FAA Form 8010-4 Malfunction or Defect Report

FAA Form 8010-4 is used to report to the FAA any failure, defect, or malfunction of an article. This form can be used for several scenarios. It is not necessary to complete all blocks. Ensure to check the “Repair Station” block, and include the company name and phone number. Complete other information blocks as applicable. A comment section is provided to allow for the recording of additional information necessary to present a concise description of the problem. Photos and additional information may be attached. Once this form is completed it will be forwarded to the local FAA office. Detailed instructions are contained in AC 20-109 Service Difficulty Program as revised, a copy of which can be accessed online through the FAA’s Regulatory and Guidance Library. This following example has been reduced from the original.

OMB No. 2120-0003

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

MALFUNCTION OR DEFECT REPORT

OPER. Control No.
ATA Code
1. A/C Reg. No. N-

Enter pertinent data	MANUFACTURER	MODEL/SERIES	SERIAL NUMBER
2. AIRCRAFT			
3. POWERPLANT			
4. PROPELLER			

5. SPECIFIC PART *(of component)* CAUSING TROUBLE

Part Name	MFG. Model or Part No.	Serial No.	Part/Defect Location.

6. APPLIANCE/COMPONENT *(Assembly that includes part)*

Comp/Appl Name	Manufacturer	Model or Part No.	Serial Number

Part TT	Part TSO	Part Condition	7. Date Sub.

8. Comments *(Describe the malfunction or defect and the circumstances under which it occurred. State probable cause and recommendations to prevent recurrence.)*

Optional Information:

Check a box below, if this report is related to an aircraft

☐ **Accident; Date** _____ ☐ **Incident; Date** _____

DISTRICT OFFICE | OPERATOR DESIGNATOR

OTHER | COMMUTER | FAA | MFR | AIR TAXI | MECH | OPER. | REP STA.

SUBMITTED BY:

TELEPHONE NUMBER ( ) —

FAA FORM 8010-4 (10-92) SUPERSEDES PREVIOUS EDITIONS

FAA Form 337 Major Repair and Alteration

FAA Form 337 serves two main purposes; one is to provide aircraft owners and operators with a record of major repairs or alterations indicating details and approval; the other is to provide the FAA with a copy of the form for inclusion in the aircraft records at the FAA Aircraft Registration Branch, Oklahoma City, Oklahoma. This repair station will complete this form for all major repairs and major alterations performed. Consult the latest revision of Advisory Circular 43.9-1, or equivalent for instructions on completion and disposition. A copy of this AC can be accessed online through the FAA's Regulatory and Guidance Library. This following example has been reduced from the original.

FAA Form 337 Major Repair and Alteration (Front)

US Department of Transportation
Federal Aviation Administration

MAJOR REPAIR AND ALTERATION
(Airframe, Powerplant, Propeller, or Appliance)

Form Approved
OMB No. 2120-0020
For FAA Use Only
Office Identification

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in civil penalty not to exceed $1,000 for each such violation (Section 901 Federal Aviation Act of 1958).

1. Aircraft	Make	Model
	Serial No.	Nationality and Registration Mark
2. Owner	Name *(As shown on registration certificate)*	Address *(As shown on registration certificate)*

3. For FAA Use Only

4. Unit Identification | **5. Type**

Unit	Make	Model	Serial No.	Repair	Alteration
AIRFRAME	*(As described in Item 1 above)*				
POWERPLANT					
PROPELLER					
APPLIANCE	Type / Manufacturer				

6. Conformity Statement

A. Agency's Name and Address	B. Kind of Agency	C. Certificate No.
	☐ U.S. Certificated Mechanic ☐ Foreign Certificated Mechanic ☐ Certificated Repair Station ☐ Manufacturer	

D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herin is true and correct to the best of my knowledge.

Date	Signature of Authorized Individual

7. Approval for Return To Service

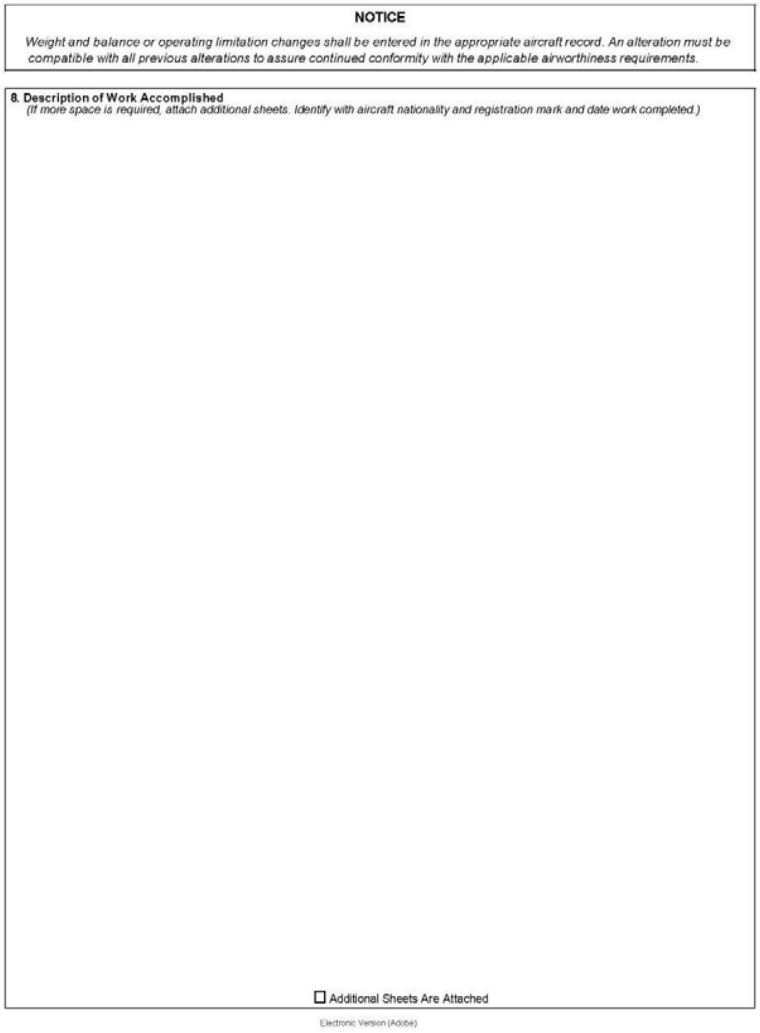
Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is ☐ APPROVED ☐ REJECTED

BY					
	☐ FAA Flt. Standards Inspector	☐ Manufacturer	☐ Inspection Authorization	Other *(Specify)*	
	☐ FAA Designee	☐ Repair Station	☐ Person Approved by Transport Canada Airworthiness Group		

Date of Approval or Rejection	Certificate or Designation No.	Signature of Authorized Individual

FAA Form 337 (12-88) Electronic Version (Adobe)

FAA Form 337 Major Repair and Alteration (Back)



NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. Description of Work Accomplished
(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

☐ Additional Sheets Are Attached

Electronic Version (Adobe)

PPAM-06A
Controlled Capabilities Document Self Evaluation Handbook

PPAM-06A
Controlled Capabilities Document Self Evaluation Handbook

Purpose

This handbook has been assembled to provide guidance to any company employee selected to perform a self evaluation for the purpose of adding an article to the repair station's Controlled Capabilities Document PPAM-07. A CCD is not mandatory by FAA regulations. Only a repair station with limited ratings has the option of using this tool.

Capabilities can be advantageous to a repair station since they provide the flexibility of adding additional articles to the list providing a satisfactory self audit has been conducted by company personnel.

Repair stations that choose to use a CCD are still issued an Air Agency certificate, with appropriate ratings, by the FAA. The operations specifications will not contain makes and models the station is authorized to perform maintenance on. Instead, these articles will be contained on the repair stations CCD.

The CCD allows a repair station to add articles to the list without prior FAA approval, provided the article is within the scope of those current ratings. However, the repair station must perform a self-evaluation prior to adding the article to the list to ensure it is capable of performing the maintenance.

If the repair station chooses to use a CCD, the repair station manual must: contain procedures for revising the list and notifying the FSDO, including how often the FSDO will be notified of revisions; procedures for the self-evaluation required for revising the list; the methods and frequency of such evaluations; and, contain the procedures for reporting the results to the appropriate manager for review and action. Another important part of this process is providing an auditor to conduct the self evaluations in an efficient, thorough, and impartial manner. The following paragraph contains information that can be used as reference when preparing for a self audit.

Auditor Profile

It is policy of this repair station that any company employee selected as auditors will be technicians experienced in working in the aircraft maintenance field with comprehensive knowledge of maintenance and FAA regulations. The auditor must be capable of remaining impartial.

The auditor in any situation must be perceived and personally committed to be competent and qualified. Confidence in audit results depends on the auditor's proficiency, independence of judgment and professional conduct. The following are traits and knowledge an auditor should adopt to ensure consistency and quality.

An auditor will be completely independent and objective. Auditors should not engage in any activity which could impair or compromise the auditor's integrity or objectivity, and that would constitute a question in regards to independence.

The auditor must be thoroughly familiar with the standard to which he/she is auditing.

Audit criteria are only guidelines and auditors should understand the subjects well enough so as not to be misled.

How an auditor presents him or herself is directly proportionate to the success of the audit. The auditor's organization and credibility with the FAA can be severely damaged if the auditor does not conduct himself in a professional manner. The FAA may elect to rescind CCD privileges if it is discovered that the repair station has not fully satisfied the requirements of the FAA regulations when conducting self evaluations for the purpose of adding articles.

Personal traits that are noteworthy for an auditor to follow:

- Good communication skills, choice of words, clarity of thought, listening, understanding, response and writing skills.
- The ability to plan, organize, observe, and analyze.
- Decision making ability; separate facts from opinion; compile information and evidence and compare with regulatory requirements.
- Ability to work independently, systematically and energetically
- Good outward appearance and conduct
- Intelligent, alert, comprehending and reasoning
- Emotionally stable, calm, self-confident, persistent, insistent and task-oriented
- Honest, reliable, constructive, helpful and diplomatic
- Good attitude, value, interest, work habits; initiative, careful, curious and open-minded

Techniques for Auditing

- Review scope of audit
- Identify any personnel to be interviewed/audited
- Confirm agenda for audit and duration of audit
- Request previous audit-report if applicable
- Review repair station manual procedures
- Answer all checklist items
- Listen, Listen, Listen

Audit Behavior

- Be professional – look the part
- Have a positive approach – be friendly
- Don't argue – stay out of the audit emotionally
- Don't be judgmental
- Don't be nit-picky – if discrepancy is noted – don't lecture
- Maintain confidentially, avoid gossip
- Give positives where rightfully earned

Checklist

PPAM-06, Capabilities Document Self Evaluation Checklist, has been prepared to use as a tool to ensue all FAA regulatory requirements are complied with. The checklist does not have to be followed in sequential order that choice is up to the auditor. However, all checklist items must be completed before the form is forwarded for disposition. A few important issues to consider when using the checklist are:

- Clarify gray areas
- Call it as you see it
- Teach as you go
- Be selective in gathering data
- Verify all data

Documentation and Debrief

- Document information on the checklist.
- Use the remarks section
- Maintain objectivity
- Accurate and **factual** details
- Discuss any findings and ensure understanding
- Offer ideas that may promote corrective action
- Obtain agreement on corrective action and date of completion. Document date on Form SA 017.
- Discuss all positive aspects of the audit and interaction with personnel
- Promote improved safety, quality and ensure compliance with all regulatory systems
- Assist with the compliance of all requirements where necessary

END