## Attachment 6. Sundance Helicopters General Maintenance Manual

DCA12MA020 Maintenance Factual Report



# **General Maintenance Manual**

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Manual No;

1

**Ouality Assurance** 

Assigned To:

Revision; 4 DEC, 01 2011

Sundance Helicopters, Inc General Maintenance Manual Highlights of Revision 4 Dated DEC 01, 2011

Cover Page.
Pages 3 & 4 LOEP
Page 6 List of Revisions
Page 17 Chapter 2 Organization Chart Change. Added Quality
Supervisor. Engine Shop and Repair Shop.
Page 22 Chapter 4 Added Quality Supervisor.
Pages 29 thru 32 Chapter 4. Added Quality Supervisor's duties and responsibilities.
Pages 148 & 149. Modified internal audit form to include training records.

Corrections to spelling and formatting made.

Jack L. Weese Manager Quality Assurance Sundance Helicopters, Inc General Maintenance Manual

Revision: Original JUNE 01, 2010

Comment Report

Please complete this form to transmit your comments, questions, or suggestions concerning the General Management Manual. Attach any reference pages, marking areas where changes or questions apply.

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Position:		_ Dept:
Date Submitted:		
e-mail Address:		
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Additional Comments:

#### Preface

#### Description

Manual Rights. The General Maintenance Manual has been prepared for the exclusive use of company personnel under the direction and authority of the company and shall, at all times, remain company property. The holder hereof acknowledges and agrees this Sundance Helicopters Inc. General Maintenance Manual contains or may contain trade secrets, copyrighted material and commercial and proprietary information, privileged and confidential, to the interest of the company.

In the event this General Maintenance Manual is sold or distributed to any other party, no warranty or guarantee, expressed or implied, is made as to the accuracy, sufficiency or suitability of the logistics contained herein or of any revision, supplement or bulletin hereto. It is understood and agreed to by such other party that it shall release, indemnify and hold the company, its officers, employees, and agents harmless against any and all claims or actions of whatever nature which may arise or claim to arise from the use hereof.

## Purpose.

The purpose of this manual is to assure the utmost in aircraft maintenance safety. This General Maintenance Manual (GMM) provides policy and procedural guidance based on a solid, safety-based, aircraft maintenance philosophy. It has been prepared to cover the policies and procedures governing the aircraft maintenance principles of Sundance Helicopters Inc., under its Air Carrier Certificate. It provides firm guidelines to enable all affected company personnel to carry out their assigned duties and responsibilities in accordance with company policies and FAA regulations.

## User.

Company personnel are responsible for knowing and complying with information contained within the GMM.

## Suggestions/Comments.

Individuals discovering a discrepancy or making a recommendation should contact the company using the "Comment Report".

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Revision: 4 DEC. 01, 2011

## **Record of Revisions**

If local printing is conducted, insert and remove pages as indicated on the revision cover letter.

Follow the guidance in Chapter 1 "Revisions" for the insertion & recording of manual revisions.

For missing pages, contact the Director of Maintenance.

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## Chapter 1: Manual Administration.

1.1 Purpose.

This chapter provides guidance for the...

- 1. Availability of this manual.
- 2. Compliance with this manual.
- 3. Revision of this manual.
- 4. Understanding of the manual formatting.
- 5. Application of standard symbols or methods.

## • Note •

The General Maintenance Manual (GMM) is accepted by the Federal Aviation Administration (FAA). Where a Code of Federal Regulations (CFR) is referenced in this manual, compliance with the written procedures are in compliance with the applicable CFR.

## 1.2 Primary User Manual.

Source: 14 CFR 135.21(a), (d) (1), (2), and (g), 14 CFR 135.23(s).

The GMM is a primary user manual for the Sundance Helicopters' Inc. personnel. All maintenance personnel will use this manual in the course of their duties.

## • Note •

A primary user manual is defined as a manual that contains the compiled general policies and procedures for the conduct of a user's assigned duties for a specific company job category. The GMM provides policies and procedures for evaluation of all company departments and personnel on a routine basis. This manual is available to all maintenance personnel via hard copy located in the Quality office and maintenance facility.

## **1.3 Management Controls.**

A management control is defined as a task or procedural step specifically identified by management as requiring a special action on the part of the employee to ensure that the work product meets the required and identified standards of completion and/or regulatory compliance.

All employees are expected to exercise special care ensuring that the work product meets company standards. To further emphasize the need for the employee to exercise special care, words such as "confirm," "verify," "review," etc. are used.

## **1.4 Availability of This Manual.**

Source: 14 CFR 135.21(a), (d) (1) and (2) (g).

The GMM is available and accessible to all departments, on the company "G" drive, when performing their assigned duties. To comply with this policy, a current copy of this manual will be assigned to the maintenance facility and maintained by the Quality Assurance Dept.

## **1.5 Compliance with This Manual.**

Source: 14 CFR 135.21(e).

Each employee must comply with policies and procedures provided in this manual. New or updated standards, policies, and procedures are communicated by published Maintenance MEMO. These changes must be adhered to until permanently placed in the manual by revision.

#### • Note •

Following the policies and procedures of this manual ensures compliance with the Code of Federal Regulations (CFRs) and satisfy the company's highest standards of care and safety. When the user identifies any policy or procedure that might not be consistent with a CFR, that information must be immediately communicated to the Director of Maintenance.

## • Note •

Follow the procedures outlined in the GMM, report policy or procedures that have the potential to cause unsafe consequences using the comment form on page 1 under "Additional Comments".

## • Warning •

Persons performing company duties without this manual in current status are subject to company disciplinary and FAA enforcement action.

## 1.6 Maintenance and Ownership of Manual.

Source: 14 CFR 135.21(b) and (e).

The master copy of this manual will be held at the company's principal base of operations. The content of this manual is managed and updated by the Director of Maintenance and is the express property of the company.

## 1.7 Revisions.

Source: 14 CFR 135.21(e) and 135.23.

1.7.1 Posting Revisions.

The current version of the General Maintenance Manual is posted on the company "G" drive. All company personnel will be notified of manual revisions through the following methods:

1. Posted Notification.

2. Recurrent Training.

1.7.2 List of Effective Pages (LEP).

Source: 14 CFR 135.23.

An LEP (beginning at "Master List of Effective Pages") is available for the original and all revisions to this manual. The LEP is required by the FAA as a controlling reference for the page currency of the manual. Review the LEP to verify that all pages of the manual are current. Only the current LEP is posted and published in the manual. Each revision contains a summary reflecting important information concerning the revision.

## **1.8 Identifying Revisions.**

1.8.1 Revision Summary.

Each revision submitted to the CHDO for acceptance will contain a revision summary statement, notating the highlights of changes in the revision.

1.8.2 Change Bars.

Black vertical change bars, in the right hand margin, are used to highlight the location of revised or deleted information on a newly published page. With the next revision of a page previous change bars are deleted. Change bars will not be used...

1. Opposite the new date on a revised page.

2. To indicate format and page number changes.

3. On index pages or other pages normally generated automatically.

4. On contents pages.

5. To indicate spelling corrections.

## 1.8.3 Record of Revisions.

The "Record of Revisions" will indicate the revision's effective number, date, and revision summary.

## 1.8.4 Local Printing.

Users are authorized to print the General Maintenance Manual locally. However, in doing so, the company considers locally printed pages as an "uncontrolled copy". Users are held responsible for printing and using, locally printed "uncontrolled copy". Each user is responsible for destroying outof-date, revision summaries and pages.

## • Note •

Out-of-date and the old revision summary pages/revisions must be completely destroyed. Verify any out-of-date pages are irretrievably destroyed by shredding, cutting, tearing, or another form of destruction, ensuring that the information cannot be successfully pieced together.

## 1.8.5 Proposing Revisions.

The success of the company manual system depends on employees bringing professional insights to bear on its procedures and policies. The company welcomes and encourages such communication to ensure the company operates at peak performance. An employee may propose changes to the GMM manual by using the Comment form on page 1. Further questions about the management of the company GMM manual are directed to the Director of Maintenance. All revisions to this manual will be posted within 14 business days after receipt of acceptance from the CHDO.

## **1.9 Rules of Construction.**

The following apply to the use of specific terminology within the text of all company manuals:

1. CFR, CFR's, FAR, or FAR's:

This acronym is an abbreviation for Federal Aviation Regulations (FARs) which is included in Title 14 Code of Federal Regulations (CFRs).

2. Includes:

The word "includes" means "includes but is not limited to".

3. Internet:

"Internet" refers to a network of Web pages that offers content without prior authorization.

4. Gender:

The male or female gender may be used in a generic sense to designate both sexes.

5. May:

The word "may" is used in a permissive sense to state authority or permission to do an act. Compliance is not mandatory.

#### 6. Refer to:

Where further discussion or reference is suggested the notation "Refer to" directs the reader to material located in another paragraph, chapter, or manual. In these cases the referenced location is specific as to manual, chapter, and paragraph.

7. Singular or Plural:

Singular or plural is used in a generic sense to designate either.

8. Will, Shall, and Must:

The words "will," "shall," and "must" are used in an imperative sense to state the requirement to accomplish the act prescribed. Compliance is mandatory.

## 1.10 Positioning of Manual Content.

This manual contains text that is used for several purposes. Due to the use of embedded CFR requirements, the user must comply with the requirements listed in all forms and manual content.

## 1.10.1 Policy.

Text providing guidance regarding the goals or standards of the organization is considered "policy". Policy may be inserted anywhere in the text even within a procedural step. Examples of policy within the procedural step would be to establish a control (or standard) for the acceptable completion of that step. Throughout this manual references to CFR's have been expressed as or embedded in company policy.

## 1.10.2 Information.

Text that provides pertinent background or further clarifies the policy or a specific procedural step is considered "information" throughout this manual information is provided that contains embedded discussion taken from FAA and other government advisory documents.

## 1.10.3 Instructions.

Text that provides a listing of the possible considerations when accomplishing a task is defined as "instructions". Instructions differ from "procedures" in that the successful accomplishment of the tasks is not predicated on their accomplishment in a specific order. Throughout this manual there are "instructions" that are taken, in part or as group, from the CFR's and FAA advisory documents.

#### • Note •

An example of an "instruction" is an explanation of how to complete a form.

1.10.4 Procedures.

Text that provides a specific order of accomplishment or series of tasks is considered a "procedure". The procedure may have 2 or more detailed steps.

Throughout this manual there are "procedures" that lead to a completed result necessary to meet the CFR requirements. Procedures in this manual are usually, but not in all cases, enclosed in a numeric procedural table depending on the complexity.

## 1.11 Use of a Note, Caution, or Warning.

1.11.1 Note.

• Note •

These additions to the text are used to highlight or emphasize important points. They call attention to the user about safety and precautionary or additional information to make the job safe, easier, and efficient. A Note, Caution, or Warning must be adhered to and not ignored.

A Note provides amplified information, instruction, or emphasis. It calls attention to methods that enable a user to perform a job easier or wiser. If applied to consecutive procedural steps is placed under the topic heading for those steps.

1.11.2 Caution.

CAUTION

A Caution is an instruction about a hazard, if ignored, could result in damage to an aircraft component or system. It addresses specific methods and procedures that must be followed to avoid damage to equipment. If applied to consecutive subtasks/steps is placed before the first subtask/ step. If applied to several non-consecutive subtasks/steps, is placed before the applicable subtask/ step.

1.11.3 Warning.

WARNING

A Warning is an instruction about a hazard, if ignored, could result in injury, loss of aircraft control, or loss of life.

1.11.4 "Intentionally Left Blank".

"Intentionally Left Blank" is printed on any page that contains no text or graphics. Usually this is the even page at the end of a chapter.

## 1.12 Manual Contents and Philosophy.

#### 1.12.1 Outline.

The GMM is one manual comprised of multiple chapters sharing philosophical, policy, procedural, control, process measurement, and interface attributes. The aforementioned provides for the curricula, records retention, reporting, assessment, evaluation, and audit policies and procedures fulfilling regulatory requirements described in 14 CFR 135 and other FAA guidance.

## 1.13 Manual Overall Quality and Content.

Source: 14 CFR 135.23.

1.13.1 Delegated Authority.

This manual contains the policies and procedures for the conduct of activities performed or supervised by company or personnel, contractors, or others performing auditing functions. The Director of Maintenance is responsible for ensuring this manual has been interfaced properly with the policy and procedures for parallel tasks that are performed by other specialties and included in other manuals.

## 1.13.2 Interfaces for Manual Consistency.

## Table 1.1 Manual Interfaces.

The Director of Maintenance is delegated the authority to authorize revisions to this manual provided the revisions are accepted by the FAA Principal Maintenance Inspector (PMI). All proposals for manual revision must be coordinated with the Director of Maintenance prior to the final draft. The Director of Maintenance must ensure that proposed revision to this manual do not conflict with other company manuals.

## 1.13.3 Process Measurement.

The Internal Evaluation Program (IEP) Monitors and analyzes the performance and effectiveness of company programs and is conducted as outlined in chapter 8 paragraph 8.3 (Internal Audit Program) of this manual. IEP audits evaluate the performance and effectiveness of company programs in producing the desired results, including those functions performed by contracted companies and vendors. The IEP does not relieve departments of the responsibility to conduct ongoing evaluations of their own procedures to ensure compliance with company policy and procedure, the CFR's, and other external requirements.

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#### **Chapter 2: Organization and Communications.**

This chapter provides an outline of the company's maintenance organization as well as critical points of contact through telephone, fax, and e-mail contacts.

#### 2.1 Purpose.

Reference CFR 119.9 (a) and (b).

Pursuant to the above referenced regulation, the company Operating Certificate Number will be prominently displayed on the inside of the lower right hand windshield of every aircraft operated by the company and made legible to persons standing on the ground.

#### 2.2 Management Personnel.

Source: 14 CFR 135.23(a).

This information is also provided in the company approved GOM. It is addressed in this manual to provide a quick reference for maintenance personnel.

2.2.1 Appointment.

Source: 14 CFR 119.69.

Sundance Helicopters Inc has appointed the following persons to the management positions listed;

Director of Operations	Kurt Barton
Chief Pilot	Burl Boyd
Director of Maintenance	Kyle Reynolds
Individuals' business address;	5 5
Sundance Helicopters, Inc.	

5596 Haven St.

Las Vegas, NV. 89119

## 2.3 Critical Department Telephone Numbers.

Key Telephone Number: 702-736-0606 (800) 653-1881(Toll Free to Main Switchboard)

## 2.4 Corporate Identification.

2.4.1 Air Carrier.

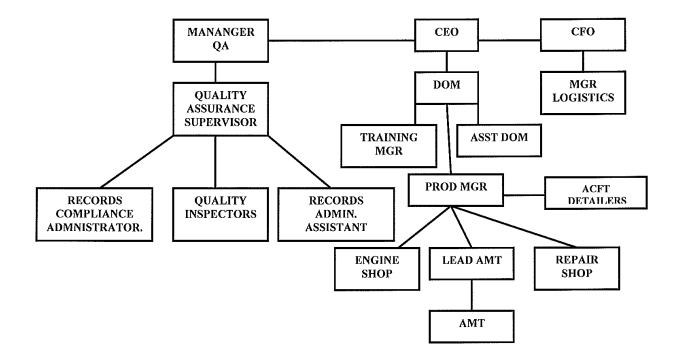
Source: 14 CFR 119.9(a) and (b).

The company, as an air carrier, will use only its Operations Specification Certificate number as the identifier associated with operating aircraft. 2.4.2 Aircraft. Source: 14 CFR 119.9(b).

All aircraft listed on Sundance Helicopters Inc. operating certificate will be marked as specified in the above reference.

2.4.3 Business and Postal Address.
Source: 14 CFR 119.47(a) and (b).
Sundance Helicopters, Inc.
5596 Haven St.
Las Vegas, NV. 89119

The company's principal base of operations, main operating base, and main maintenance base are located at the above address. The company will, at least 30 days before it proposes to establish or change the location of its principal base of operations, its main operations base, or its main maintenance base, provide written notification to its Certificate Holding District Office (CHDO).



## 2.5 Maintenance Department Organization.

#### • Note •

Maintenance employee assignment roster for each position listed above is maintained by the Director of Maintenance and is available on the company "G" drive. Sundance Helicopters, Inc General Maintenance Manual Revision: Original JUNE 01, 2010

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## Chapter 3: Commitment to Safety.

#### 3.1 Discussion.

All air carriers are compelled under Title 49, Code of Federal Regulations (CFR, Chapter 44701) to provide service with the highest degree of Safety in the public interest. In concert with the Federal Aviation Administration, System Safety has been designed into Sundance Helicopters core values and is a corner stone of the corporate culture. It serves as a basis for all activities from planning to execution at all levels.

Safety is a participatory practice that every Sundance Helicopters' employee is expected to place in the forefront of everyday activities.

## 3.2 Requirements.

Sundance Helicopters is committed to maintaining the system safety approach in the design of its manuals, training programs, and Internal Evaluation Program. System safety attributes ensure safety is an integral part of operational procedures. As such, system safety attributes are designed into this manual. These attributes include the following categories;

3.2.1 Responsibility.

An identifiable, qualified, and knowledgeable person who is ultimately accountable for the overall quality of a program. Responsibility for a manual or program resides with one person and cannot be delegated. See chapter 4 for assigned duties and responsibilities.

## 3.2.2 Authority.

An identifiable, qualified, and knowledgeable person with power to establish and modify a process.

## 3.2.3 Procedures.

Step by step description of how processes are to be performed.

## 3.2.4 Controls.

Checks and restraints designed into a system to ensure a desired result is achieved.

## 3.2.5 Process Measures.

An assessment of a particular process that identifies and corrects known or potential problems.

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## **Chapter 4: Job Descriptions.**

## 4.1 General.

A person in a supervisor, manager or director position may, at his discretion, appoint another person in an acting capacity during his absence from duty. He may also elect to delegate his authority over processes and procedures that he is directly responsible over. This does not relieve him of his responsibilities. He is still ultimately responsible for the processes and procedures for which he has delegated the authority. The supervisor, manager or director will notify the person he is delegating authority, verbally or electronically (via e-mail), to ensure they understand their duties and authority.

## 4.2 Director of Maintenance

Source: 14 CFR 135, 119.69(a) and 119.71.

- 4.2.1 Duties and Responsibilities.
  - A. The person assigned to the position must meet the regulatory qualifications required as referenced above.
  - B. Responsible for operational control of company aircraft with respect to aircraft maintenance.
  - C. The Director of Maintenance may delegate to other personnel, but retains responsibility.
  - D. The Director of Maintenance reports to and is held accountable to the CEO. His prime duty is to make decisions of an airworthiness nature and supervise all maintenance and inspections of company aircraft. Duties include but are not limited to;
    - 1. Establishment and supervision of the aircraft maintenance programs.

2. Ensure maintenance performed on aircraft, engines, and accessories is in compliance with all applicable Federal Aviation Regulations and all manufacture's approved data.

3. Scheduling in house maintenance, (routine, non-routine) and contract maintenance including numbers of personnel, and adequate facilities for the required scheduled or unscheduled maintenance.

4. Training, supervising and assisting maintenance personnel in the procedures, methods and practices to be followed when performing maintenance functions on company aircraft.

5. Supervising maintenance activities, including aircraft modifications and repair of airframe structures, engines and accessories.

6. Ensure all equipment, facility and tooling are maintained in serviceable condition.

7. Ensure all precision tools and equipment that require calibration are calibrated I/A/W manufacture's and company policies.

8. Ensure that required current data is available to maintenance personnel to include but not limited to:

a. Manufacture's airframe, engine and appliance maintenance manuals.

- b. Required Instructions for Continued Airworthiness.
- c. Required FAA form 8110-3.

9. Coordinate with the Director of Operations, and the Manager of Quality Assurance for all Maintenance Work Flow procedures and their accomplishment.

- 10. Coordinates with Logistics Dept. to establish minimum parts stock.
- 11. Hiring of maintenance personnel.
- 12. Supervise Quality Dept. to establish and maintain approved vendors list for outside maintenance and procurement of required replacement parts for company aircraft.
- 13. Ensures all company aircraft have current empty weight CG documentation as required per configuration.
- 14. Provide maintenance forecasting for budgetary considerations and timely procurement of required materials.
- 15. Schedule maintenance personnel as required to meet aircraft maintenance requirements.
- 16. Submit required correspondence and reports to CHDO.
- 17. Initiate, amend and sign for operations specifications relating to aircraft maintenance.
- 18. Advise the CEO as to the status of maintenance programs and the current and projected maintenance requirements.
- 19. Review maintenance performance data to evaluate programs,
- determine trends, and project requirements and capabilities.
- 20. Amends companies;
  - a. General Maintenance Manual.
  - b. Maintenance program.
  - c. Maintenance staffing requirements.
  - d. Maintenance training program.
  - e. Maintenance facilities.
  - f. Aircraft Logbook and recording requirements.
  - g. Aircraft Minimum Equipment List (MEL) deferred maintenance process.
- 21. Ensure all aircraft records are maintained per the company General Maintenance Manual.
- 22. All other duties at the discretion of CEO.

4.2.2 Qualifications.

Source: 14 CFR 119.69 (d), 119.71(e) and 135.23(a)

1. Must hold a mechanic certificate with airframe and powerplant ratings.

2. Have 3 years of experience within the past 6 years maintaining aircraft as a certified mechanic, including, at the time of appointment as Director of Maintenance, experience in maintaining the same category and class of aircraft as the certificate holder uses.

3. Complete required company training.

## 4.3 Assistant Director of Maintenance.

- 4.3.1 Duties and Responsibilities.
  - A. Reports to the Director of Maintenance.
  - B. Provide technical support to all assigned Aircraft Maintenance Technicians (AMTs). Duties include but are not limited to;

1. May be delegated by the DOM the authority to perform all duties listed under, "Director of Maintenance".

2. All other duties at the discretion of the Director of Maintenance.

4.3.2 Qualifications.

1. Must hold a mechanic certificate with airframe and powerplant ratings.

2. Have 3 years of experience within the past 6 years maintaining aircraft as a certified mechanic, including, at the time of appointment as Assistant Director of Maintenance, experience in maintaining the same category and class of aircraft as the certificate holder uses.

3. Have 3 years of experience within the past 6 years repairing aircraft including 1 year in the capacity of approving aircraft for return to service.

4. Complete required company training.

## **4.4 Production Manager.**

- 4.4.1 Duties and Responsibilities.
  - A. Report to Director of Maintenance.
  - B. Provide technical support to all assigned Aircraft Maintenance Technicians (AMTs). Duties include but are not limited to;

1. Ensure all hangars, shop equipment, and special tools in a serviceable working condition and current calibration status.

2. Ensure all personnel assigned to the maintenance facility properly executes maintenance entries on maintenance forms and work records mandated by the company General Maintenance Manual.

3. Ensure proper handling and preservation of all articles while in work or storage.

4. Monitor maintenance duty time requirements as stated in the GMM.

5. Ensure proper completion and documentation of major repair and alteration processes.

6. Management of personnel, programs, policies and procedures of the maintenance facility to ensure compliance with all required FAR's, airworthiness of aircraft, and a safe work environment.

7. Report maintenance scheduling delays to the Director of Maintenance.

8. Establish work assignments and their completion by maintenance personnel and redirect work assignments as required.

9. Coordinate with Quality Assurance Dept. as necessary for technical evaluation of repairs and modifications.

10. Coordinate with Logistics Dept. for projected maintenance.

11. All other duties at the discretion of the Director of Maintenance.

## 4.4.2 Qualifications.

1. Must hold a mechanic certificate with airframe and powerplant ratings.

2. Have 3 years of experience within the past 6 years maintaining aircraft as a certified mechanic, including, at the time of appointment as Production Manager, experience in maintaining the same category and class of aircraft as the certificate holder uses.

3. Have 3 years of experience within the past 6 years repairing aircraft, including 1 year in the capacity of approving aircraft for return to service.

4. Complete required company training.

## 4.5 Lead AMT.

- 4.5.1 Duties and Responsibilities.
  - A. Reports to Production Manager.
  - B. Provide technical support to all assigned Aircraft Maintenance Technician(s) (AMTs). Duties include but are not limited to;

1. Maintain all hangars, shop equipment, and special tools in a serviceable working condition and current calibration status.

2. Ensure all personnel assigned to his/her group properly executes maintenance entries on maintenance forms and work records mandated by the company General Maintenance Manual.

3. Ensure proper handling and preservation of all articles while in work or storage at the maintenance facility.

4. Ensure all maintenance personnel assigned to their group utilize the current technical data required for conducting maintenance within the maintenance facility. The data will include but not be limited to;

a. Manufacturer's maintenance manuals.

b. Service bulletins, parts specifications, related FAA approved

data, ICA and other technical data used by the Maintenance facility.

5. Maintenance personnel duty time requirements assigned to their group.

6. Report maintenance scheduling delays to the Production Manager.

7. Establish work assignments and their completion by maintenance personnel assigned to his/her group and redirect work assignments as required.

8. Coordinate with Quality Assurance as necessary for technical evaluation of repairs and modifications.

9. Document compliance of maintenance in accordance with procedures as outlined in the company General Maintenance Manual.

10. All other duties at the discretion of the Production Manager.

4.5.2 Qualifications.

1. Must hold a mechanic certificate with airframe and powerplant ratings.

2. Have 3 years of experience within the past 6 years maintaining aircraft as a certified mechanic, including, at the time of appointment as Lead AMT experience in maintaining the same category and class of aircraft as the certificate holder uses.

3. Have 3 years of experience within the past 6 years repairing aircraft, including 1 year in the capacity of approving aircraft for return to service.4. Complete required company training.

#### 4.6 AMT.

4.6.1 Duties and Responsibilities.

- A. Reports to Lead AMT.
- B. Perform all aircraft maintenance functions I/A/W current FAR's and approved data. Duties include but are not limited to;

1. Maintain all hangars, shop equipment and special tools in a

serviceable working condition and current calibration status.

2. Properly execute maintenance entries on maintenance forms and work records mandated by the company General Maintenance Manual.

3. Ensure proper handling and preservation of all articles while in work or storage at the maintenance facility.

4. Report maintenance scheduling delays to the Lead AMT.

5. Coordinate with Quality Assurance as necessary for technical evaluation of repairs and modifications.

6. All other duties at the discretion of the Lead AMT.

7. Complete required company training.

4.6.2 Qualifications.

1. Must hold a mechanic certificate with airframe and powerplant ratings.

2. Have 3 years of experience within the past 6 years maintaining aircraft as a certified mechanic, including, at the time of appointment as AMT, experience in maintaining the same category and class of aircraft as the certificate holder uses.

3. Complete required company training.

## 4.7 Manager of Quality Assurance.

4.7.1 Duties and Responsibilities.

A. Reports to Director of Maintenance.

- B. Overall responsibility for the company internal audit program for departments and approved vendors for maintenance and parts.
- C. Overall responsibility for the company Maintenance Review Board program objectives.
- D. Responsible for Quality Control System personnel and required training. Duties include but are not limited to;

1. Recommend programs to ensure and enhance satisfactory performance of aircraft maintenance.

2. Coordinate with the Director of Maintenance for approval of outside maintenance facilities and aircraft vendors.

3. Maintain reports and records of auditing and evaluations of outside maintenance facilities and aircraft vendors.

4. Maintain currency regarding regulations contained in 14 CFR, Operations Specifications, appropriate airworthiness requirements, safety standards and safe operation practices.

5. Monitor company procedures and recommend changes to assure compliance with existing Federal Aviation Regulations and company policies as referenced in the General Operations Manual and General Maintenance Manual.

6. Issuance of Quality Alert Notice(s) (QANs) as defined in the General Maintenance Manual.

7. Monitor General Maintenance Manual (GMM) maintenance and inspection policies, procedures, content, and revisions, including revisions of other technical manuals, amendments to company Operations Specifications.

8. Monitors SDRs as related to Technical Review Board.

9. Reports Suspected Unapproved Parts to local FAA with follow-up.

10. Monitors calibrated tools and test equipment.

11. Ensures that audit finding discrepancies and corrective actions are tracked, archived and reported to the appropriate company department Managers for analysis.

12. All other duties at the discretion of the Director of Maintenance.

## 4.7.2 Qualifications.

1. Must hold a mechanic certificate with airframe and powerplant ratings.

2. Have 3 years' experience within the past 6 years maintaining aircraft as a certified mechanic, including, at the time of appointment as Manager of Quality Assurance, experience in maintaining the same category and class of aircraft as the certificate holder uses.

3. Have 3 years of experience within the past 6 years repairing aircraft, including 1 year in the capacity of approving aircraft for return to service.

4. Must be knowledgeable of the Aircraft Manufacturer's Maintenance Manual, inspection and maintenance specifications, and applicable Federal Aviation Regulations.

5. Must be knowledgeable of all company auditing, evaluation, and reporting procedures.

6. Complete required company training.

## 4.8 Quality Assurance Supervisor.

4.8.1 Duties and Responsibilities.

A. Reports to Manager of Quality Assurance.

B. Ensure the processes used by the Quality Inspectors are within the requirements of approved company and FAA requirements. Duties include but are not limited to;

1. Assign and monitor Quality Inspectors.

2. Recommend programs to ensure and enhance satisfactory performance of aircraft maintenance.

3. Maintain currency regarding regulations contained in 14 CFR, Operations Specifications, appropriate airworthiness requirements, safety standards and safe operation practices.

4. Monitor company procedures and recommend changes to assure compliance with existing Federal Aviation Regulations and company policies as referenced in the General Operations Manual and General Maintenance Manual.

5. Monitor General Maintenance Manual (GMM) maintenance and inspection policies, procedures, content, and revisions, including revisions of other technical manuals, amendments to company Operations Specifications.

#### 4.8.2 Qualifications.

1. Must hold a mechanic certificate with airframe and powerplant ratings.

2. Have 3 years' experience within the past 6 years maintaining aircraft as a certified mechanic, including, at the time of appointment as Manager of Quality Assurance, experience in maintaining the same category and class of aircraft as the certificate holder uses.

3. Have 3 years of experience within the past 6 years repairing aircraft, including 1 year in the capacity of approving aircraft for return to service.

4. Must be knowledgeable of the Aircraft Manufacturer's Maintenance Manual, inspection and maintenance specifications, and applicable Federal Aviation Regulations.

5. Must be knowledgeable of all company auditing, evaluation, and reporting procedures.

6. Complete required company training.

## 4.9 Quality Control Inspector

4.9.1 Duties and Responsibilities.

A. Reports to Quality Assurance Supervisor.

B. Ensure the processes used by the AMT are within the requirements of approved company and FAA requirements. Duties include but are not limited to;

1. Execute required checklists and paperwork for incoming inspections.

2. Determine if any specific operation or maintenance function has approved technical data, adequate resources, and tools to accomplish the maintenance.

3. Utilize current technical data required for conducting inspections within the maintenance facility. The data will include but not be limited to manufacturer's maintenance and overhaul manuals, service bulletins, parts specifications, ICA, related FAA approved data and other technical data.

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4. Perform hidden damage inspections if the aircraft discrepancies were caused by incursion or environmental factors.

5. Perform final inspection of maintenance functions as required per GMM.

6. Complete all forms as required during a maintenance function and are reviewed and organized appropriately.

7. Ensure all part racks, or holding areas designated to domicile aircraft articles are properly identified.

8. Ensure serviceable and unserviceable parts are segregated from one another.

9. Ensures that devices and special tools that require calibration are

within the limits of expiration and bear an identification tag to that effect.

10. Execute the administration of Major Repair and Alteration

(Airframe, Powerplant or Appliance), FAA Forms 337.

11. Maintain currency with industry standards, inspection techniques, and regulatory requirements.

12. When returning an aircraft to service, ensures that it is completed in accordance with the General Maintenance Manual policies and procedures as well as regulations contained in 14 CFR.

13. All other duties at the discretion of the Quality Assurance Supervisor.

4.9.2 Qualifications.

1. Must hold a mechanic certificate with airframe and powerplant ratings.

2. Have 3 years' experience within the past 6 years maintaining aircraft as a certified mechanic, including, at the time of appointment, as QC inspector, experience in maintaining the same category and class of aircraft as the certificate holder uses.

3. Have 3 years' experience within the past 6 years repairing aircraft, including 1 year in the capacity of approving aircraft for return to service.4. Must be knowledgeable of all company auditing, evaluation, and reporting procedures.

5. Must be knowledgeable of the Aircraft Manufacturer's Maintenance Manual, inspection and maintenance specifications, applicable Federal Aviation Regulations.

6. Complete required company training.

## 4.10 Records Compliance Administrator.

- 4.10.1 Duties and Responsibilities.
  - A. Reports to Quality Assurance Supervisor.
  - B. Monitor, evaluates, and makes recommendations to improve the records department. Duties include but are not limited to;

1. Report record discrepancies to the Quality Assurance Manager.

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2. Identify recurring possible problems with aircraft records keeping procedures or particular aircraft.

3. Generate reports as required.

4. Update computer database for tracking of all parts that have time, cycle, date or any designated usage limit.

5. Monitor the aircraft records to ensure accuracy of component times and subsequent record entries by running periodic audits.

6. Audit aircraft records to ensure compliance of required Service Bulletins and Airworthiness Directives.

7. Audit work packages and aircraft logbook sheets for accuracy and completeness.

8. All other duties at the discretion of the Quality Assurance Supervisor.

4.10.2 Qualifications.

1. Must be knowledgeable of aircraft records and tracking systems.

2. Must have a minimum of 3 years of experience in maintaining aircraft records.

3. Complete required company training.

## 4.11 Records Administrative Assistant.

4.11.1 Duties and Responsibilities.

A. Reports to Quality Assurance Supervisor.

B. Monitor, evaluates, and makes recommendations to improve the records department. Duties include but are not limited to;

1. Report record discrepancies to the Records Compliance Administrator.

2. Identify recurring possible problems with aircraft records keeping procedures or particular aircraft.

3. Generate reports as required.

4. Update computer database for tracking of all parts that have time, cycle, date or any designated usage limit.

5. Monitor the aircraft records to ensure accuracy of component times and subsequent record entries by running periodic audits.

6. Audit aircraft records to ensure compliance of required Service Bulletins and Airworthiness Directives.

7. Audit work packages and aircraft logbook sheets for accuracy and completeness.

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8. All other duties at the discretion of the Quality Assurance Supervisor

- 4.11.2 Qualifications.
  - 1. Must be knowledgeable of aircraft records and tracking systems.
  - 2. Must have a minimum of 3 years of experience in maintaining aircraft records.
  - 3. Complete required company training.

## 4.12 Maintenance Training Manager.

- 4.12.1 Duties and Responsibilities.
  - A. Reports to the Assistant Director of Maintenance.
  - B. Overall responsibility for maintenance training program. Duties include but are not limited to;

1. Training company maintenance employees primarily, but not limited to, Maintenance Department employees. This includes technical and nontechnical training.

2. Assist and conduct training on all company aircraft and equipment.

3. Coordinate with Records Department to ensure proper documentation of all training records.

4. Participate in the updating of maintenance training programs.

5. Participate in the development, planning and organization of new subject training.

6. Ensure maintenance personnel are trained in the proper use and care of precision tooling, measuring devices, and test equipment, and that appropriate tools and equipment are used as specified in all maintenance technical data.

7. All other duties at the discretion of the Assistant Director of Maintenance.

- 4.12.2 Qualifications.
  - 1. Must be knowledgeable of rotor wing aircraft systems.

2. Must have 3 years experience instructing and evaluating maintenance curriculum.

- 3. Familiar with company and technical procedures.
- 4. Complete required company training.

## 4.13 Aircraft Detailers.

- 4.13.1 Duties and Responsibilities.
  - A. Reports to Production Manager.
  - B. Duties include but are not limited to;
    - 1. Clean aircraft as required.
    - 2. Complete required company training.

# Chapter 5:

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#### **Chapter 6: Maintenance.**

#### 6.1 General Maintenance Procedures.

Source: 14 CFR 43.13(b).

#### 6.1.1 Policy.

Sundance Helicopters is primarily responsible for ensuring...

All aircraft and their engines, systems, and appliances will be maintained in a continuous state of airworthiness by a program of preventative and corrective maintenance designed to secure the maximum safety and effectiveness. This program is established in accordance with the requirements of the Federal Aviation Regulations. Overhaul, repair, and maintenance will be accomplished at facilities, which comply with the Federal Aviation Regulations. Established maintenance, inspection, overhaul period and time limits will be adhered to in accordance with company Operations Specifications.

All workmanship, procedures, and inspections will be of the highest quality and be performed in accordance with manufacturer's airframe, engine, and appliance maintenance procedures. Instructions for continued airworthiness will be followed where applicable. Special maintenance and/or inspection requirements not tracked in the company maintenance computerized tracking system will be notated and tracked on the, "Aircraft Maintenance Log", Form SDM-001. These items may include but not limited to the following:

1. Retorque of M/R and/or T/R retention hardware.

2. Re-servicing of dynamic components after initial installation.

3. Special inspection(s) after installation of equipment.

### Maintenance Memorandum (MM).

#### 1. Purpose.

The Maintenance memorandum is used to notify the AMT of minor maintenance issues. These issues may include but not limited to documentation, standard operating procedures, trends that need to be addressed or corrected.

#### 2. Procedures.

The MM is drafted and issued by the Director of Maintenance. When the information contained in the MM is integrated into the GMM, the MM will be posted as, "cancelled".

## **Quality Alert Notice (QAN).**

#### 1. Purpose.

The QAN is a Sundance Helicopters internal publication. It is used to alert maintenance technicians of particular technical issues that effect maintenance procedures, repetitive discovered discrepancies, or any technical information that the Director of Maintenance requires to be disturbed to all maintenance technicians.

The QAN will identify the finding; convey any immediate action required and supply supporting data to the technicians at the maintenance facility. QAN(s) are issued by the Quality Assurance Department and posted within the maintenance facility. When the information contained in the QAN is integrated into company or manufacturer's written guidance, the QAN can then be posted as "cancelled" in the master list of QAN(s).

#### 2. Procedures

A QAN may be requested by the Director of Maintenance or designee, Manager of Quality Assurance or designee or as a result of finding by the MRB.

All required information for the QAN will be collected and analyzed to determine the appropriate action to be taken within the text of the QAN.

#### 3. Records.

The Manager of Quality Assurance or designee will maintain a master list of all QANs issued. The list will contain the following:

a. QAN sequence number that is based on the next issue number and year.

(1-09, 2-09, 3-09 etc.).

b. Issue date.

c. Subject.

d. Action required

e. Status; Active or Cancelled.

f. Aircraft model effected.

6.1.2 Corrective Maintenance Policy.

Source: 14 CFR 135.413(a).

The Corrective Maintenance Policy consists of correcting discrepancies found by Operations or Maintenance Department(s) personnel.

Company operations and maintenance personnel will record their discrepancies in the "Aircraft Maintenance Log, Form SDM-001. Use Form SDM-002 for continuation if current maintenance log exceeds 3 ea. discrepancies.

1. Company aircraft may not resume operations until the discrepancy is either corrected or deferred per the approved MEL.

2. Maintenance discrepancies which cannot be corrected and are deferrable, per approved aircraft MEL, will be transferred to the "Deferred Discrepancy Log, Form SDMEL-001".

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6.1.3 Unscheduled Off-Site Maintenance.

Source: 14 CFR 135.23(h).

The following procedures will be in effect when arranging for maintenance away from home base:

1. The Pilot-In-Command (PIC) will contact the Director of Maintenance (or designee) and inform him of the required maintenance.

2. The PIC will then contact the nearest qualified maintenance agency which will coordinate with the Director of Maintenance (or designee) to effect the necessary corrective action.

3. The Director of Maintenance (or designee) will verbally authorize the person or agency and ensure that the maintenance is performed under the requirements of the General Maintenance Manual and all applicable Federal Aviation Regulations (FARs).

4. Upon completion of the corrective action, the maintenance provider will sign off all corrected discrepancies in accordance with the GMM. The person signing off the work must detail all work performed and include the date, aircraft total time, full name, certificate number and type.

5. If no qualified maintenance provider is available, it may be necessary for the Director of Maintenance (or designee) to dispatch company maintenance personnel to resolve the discrepancy.

6. All discrepancies will be cleared, either by proper corrective action or by authorized transfer to the "Deferred Discrepancy Log, Form SDMEL-001". Refer to the specific aircraft MEL before the aircraft will be released for flight.

7. If an interruption of flight is caused by a mechanical defect, the company Aircraft Maintenance Technician (AMT) will ensure the Director of Maintenance is notified immediately prior to operation of the aircraft after deferral or repair of the discrepancy. If the Director of Maintenance cannot be reached then contact the Assistant Director of Maintenance

6.1.4 Maintenance Corrective Action.

Source: 14 CFR 43.7(b) and (c), 14 CFR 43.9(a) (1) through (4), 14 CFR 43.11, CFR 91.405(a), 14 CFR 135.411(a).

1. Items are cleared from the "Aircraft Maintenance Log, Form SDM-001 by indicating corrective action taken in the "Corrective Action" section of the sheet.

2. Maintenance personnel will enter corrective action in the sequence in which the work was accomplished.

3. The sign-off must clearly show the date, aircraft total time, work performed, and signature to include certificate number.

4. The corrective action taken will provide sufficient information concerning the work accomplished to allow future trouble shooting, if its necessary. 5. If an installed item is inspected, tested, analyzed, or otherwise determined to be airworthy for continued flight, such inspection, test, etc. will be described in the aircraft Maintenance Log (Form SDM-001).
6. An appropriately certificated AMT or Certified Repair Station authorized by the Director of Maintenance (or designee) must sign off all entries of maintenance corrective action. The individual signing off a corrective action item is indicating that, with respect to the work just performed on that item, the aircraft is in condition for safe operation, and that no known deficiency in airworthiness exists.

### 6.1.5 Maintenance Recording Procedures.

Source: 14 CFR 43.5(a) through (c), 14 CFR 43.9(a) (1) through (4), 14 CFR 43.11(a)(1) through (3) and (a)(7), 14 CFR 91.417 (a)(1)(i)(ii),14 CFR 91.417 (a)(2)(i) through (vi).

### Background.

While other sections contain references to maintenance recording, this section is intended to compile all maintenance recording criteria for ease of use.

### General Maintenance Recording.

Company maintenance personnel are required to make an entry in the maintenance record of any article or equipment that has undergone preventative maintenance, maintenance, rebuilding, or alteration. This must be accomplished for each aircraft, aircraft engine or appliance and must containing the following information:

1. A description and reference to approved data for the work performed.

2. The completion date of that work.

3. The name of the person performing the work, if other than the person approving the work for return to service.

4. If the work performed on the aircraft, airframe, aircraft engine, appliance, or component part has been performed satisfactorily, the signature, certificate number, and kind of certificate held by the person approving the work.

5. For major repairs or major alterations, the repair form authorized by or furnished by the FAA will be executed properly. Major repairs or major alterations will be reviewed by the Manager of Quality Assurance (or designee) for compatibility and possible changes in operating limitations or flight data.

6. If a repair/alteration results in any change in the aircraft operating limitations or flight data contained in the approved aircraft flight manual, those changes must be coordinated through the Manager of Quality Assurance (or designee) and approved by the FAA prior to operation of the aircraft.

General Maintenance Records.

In addition to recording requirements detailed above, records containing the following information will be kept as detailed below:

1. The total time in service of each airframe, each engine and each rotor.

2. The current status of each life-limited parts of each airframe, engine, rotor, and appliance.

3. The time since last overhaul of all items installed on the aircraft which are required to be overhauled on a specified time basis.

4. The current status of applicable airworthiness directives (AD), including for each the method of compliance, the AD number and the revision date. When the AD requires recurring action, the date and time next due.

### • Note •

Copies of each record specified above shall be retained as aircraft permanent records.

6.1.6 Maintenance Personnel Duty Time.

This section describes company policies and procedures ensuring maintenance personnel do not exceed the specified maintenance duty time limits set by the company, and are fit for duty during a call back.

### Policy.

Each person directly employed by the company to perform maintenance, preventative maintenance, or alterations at the maintenance facility will not exceed 14.0 consecutive hours on duty, excluding breaks, in any one 24-hour period unless direct verbal approval by the Director of Maintenance (or designee). Employees will not accept call back work unless fit for duty.

## Fitness for duty. (Call back)

Employees are primarily responsible for determining their fitness for duty. It is understood that beyond the normal duty day and standard work week, employees may from time to time engage in activities that are physically demanding or tiring and for whatever reason may impair their ability to perform complex maintenance tasks.

### Limits.

Maintenance personnel will not be assigned a duty schedule exceeding the above stated limits or provisions. It is the responsibility of affected employees to notify maintenance management, prior to exceeding duty time limits. Maintenance personnel subject to call back will notify their supervisor, of their fitness for duty, if they have been involved in any personal activity that may hinder their ability to work without fear of reprisal or consequence.

### 6.2 General Maintenance Safety Practices.

#### 6.2.1 Hazard Reporting.

In keeping with the company's commitment to safety in the workplace, all employees shall report safety hazards without delay to their immediate supervisor and complete a hazard report as instructed in the company Safety Manual.

### 6.2.2 General Safety Practices.

Report all accidents and injuries, no matter how slight, to your supervisor at once. Supervisors are required to make a report to the company's Benefits Coordinator. Report all damaged, missing or out of order safety equipment to your supervisor.

1. Do not block fire exits or fire extinguishers.

2. Smoking is allowed only in designated areas.

3. Wear eye goggles when working on or servicing high pressure hydraulic systems, oxygen systems, and any other time that high pressure liquids or gasses present a hazard.

4. Electric cords must have GFCI plugs when working with electrical tools or equipment when you are wet or in an area where you are working is wet or damp.

5. Always wear goggles, safety glasses, or a face shield when cleaning with compressed air. Compressed air shall not be used for cleaning purposes except where reduced to less than 30 psi and then only with effective chip guarding and personal protective equipment.

6. Clean spilled oil and fuel immediately and have drip pans and buckets available when necessary.

7. When transporting aircraft batteries always cover the terminals (with plugs or electrical tape) and carry in such a matter as to keep the main terminals away from belt buckles or other conductive objects.

8. When necessary, disconnect or remove the aircraft battery before starting work.

9. Always keep your body out of the prop-arc path of rotors.

- 10. Wear eye goggles, protective gloves, and proper respirators when handling harsh or acidic/caustic type chemicals including: alodine, MEK, acetone, paint strippers, aircraft wash, etc.
- 11. Do not use damaged electrical devices with particular attention given to electrical extension cords. Inspect before each usage.
- 12. Clamp or otherwise secure all small objects to be drilled, sanded, milled, etc. Always clamp sheet metal before drilling. Never hand-hold these items.
- 13. Mechanics should not wear rings, watches, or loose necklaces to prevent injury. Likewise, do not wear loose fitting clothing around turning machinery, tools, aircraft, etc. Dress appropriately or wear the uniforms provided by the company.

14. If on jacks, do not permit anyone to work under and inside an aircraft simultaneously unless proper precautions are taken such as cribbing, or aircraft is attached to a hoist as a backup in case the aircraft falls from the jacks.

15. All slings and lifting devices must have a weight-bearing lift limit tag and the rating must not be exceeded. All slings must be inspected for serviceability prior to use.

16. No employee is authorized to work in confined spaces without proper safety equipment.

17. Always place oil rags in self-closing metal containers.

18. When in the area of the tail rotor, employees will notify the pilot their whereabouts and planned activities.

19. Verbally warn all personnel working on or in the immediate area of an aircraft before:

a. Electrical power is turned on;

b. A rotor is rotated, even by hand;

c. Hoisting or otherwise repositioning an aircraft or component;

d. A control system is actuated;

e. Touching an aircraft that is on jacks

f. Employees required to solely perform maintenance without another AMT must notify another company employee to allow monitoring to ensure personnel safety.

g. Motoring of a free turbine.

6.2.3 Aisles and Passageways.

1. Do not block fire exits.

2. Aisles and passageways will be kept clear and in good repair and no obstructions across or in aisles that could create hazards.

3. Permanent aisles and passageways are to be appropriately marked.

4. Proper, "Exit," "To Exit," or "Not an Exit" signs should be appropriately marked.

6.2.4 Cylinders and Compressed Gas.

Compressed gas cylinders will be kept away from excessive heat (above 125° F), will not be stored near elevators or where they may be damaged or upset, and will be stored at least 20 feet from highly combustible materials.
 Acetylene cylinders will be stored and used in a vertical valve end-up position only. Oxygen and acetylene cylinders in storage will be separated from fuel/gas/propane cylinders by at least 20 feet or by a 5 foot high barrier having at least a <sup>1</sup>/<sub>2</sub> hour fire rating.

3. Valve protection caps will be in place except when a cylinder is in use.

4. All cylinders must be chained or bench strapped at all times to prevent them from being knocked over or falling.

5. All cylinders should be considered as full and should be handled with care.

6. Open fuel/gas cylinder valves only with tools specifically designed and provided for that purpose. If oxygen cylinder valves cannot be opened by hand, they should be tagged to that effect, set aside, and returned to the supplier.

7. Do not use pressurized cylinders unless a regulator is attached to the cylinder valves.

8. Cylinder valves should be closed when work is finished, before the cylinder is moved or when the cylinder is empty.

6.2.5 Jacking and Hoisting.

1. Make sure the jacking, lifting or hoisting equipment is in good working condition. Ensure lifting requirements do not exceed placarded limits of equipment.

2. Never place any body part under the object being lifted.

3. When working underneath an aircraft on jacks, no person may enter the aircraft, unless precautions are taken such as, cribbing or aircraft is attached to a hoist as backup in case the aircraft falls from jacks.

4. Do not place tool boxes or equipment, etc. under an aircraft that is elevated.

5. Keep the area under the aircraft clear of obstacles.

6. Always make sure the weight of the object you are lifting does not exceed the rated capacity of the lifting device (hoist and slings).

7. All aircraft on jacks must have a warning sign on each side stating, "AIRCRAFT ON JACKS."

6.2.6 Personal Protection.

Reference appropriate MSDS.

Eye and face Protection.

1. Equipment such as face shields are required to protect the eyes and face in an area where toxic or caustic substances might spray or splash or where there is a possibility of injury from flying particles, chips or sparks. 2. If employee's vision requires corrective lenses, the goggles must fit over the glasses or have prescription safety glasses. All approved safety glasses have a marking of Z87.1 from ANSI (American National Standards Institute). Contact lenses can increase eye hazards, since chemicals that are splashed on to the eyes tend to seep under lenses and get trapped. In addition, soft contact lenses may absorb some vapors and gasses. Employees should inform other workers if they wear contact lenses, so that lenses may be removed in an emergency.

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3. Eye and face protection equipment use is required where there is a reasonable probability of injury that can be prevented by such equipment.

WARNING

Use of eye protection is mandatory for drilling, sanding, milling, riveting, sawing, and grinding.

4. Eye protection must be worn while performing "Engine Compressor Washing" operations and anytime high pressure liquids are used.

Hearing Protection.

Whenever noise levels are above allowable limits, employees must be given and required to wear equipment such as earplugs or ear muffs, to protect hearing. Employees are required to wear hearing protection when exposed to noise levels over 90 dBA.

## WARNING

Any employee who believes they have been overexposed to noise (greater than 85 dBA averaged over an 8 hour day) should contact the Safety Department. Hearing protection against noise exposure must be worn anytime aircraft are being ground run or during any other operation that could result in hearing damage.

Hand Protection.

When handling toxic liquids or particles, employees must wear gloves that are impervious to such substances. These gloves should also protect the forearms. They must be kept sanitary to prevent dermatitis. Gloves must be inspected frequently for pin holes and discarded when holes are found.

### • Note •

Use low pressure compressed air to test gloves for holes.

Respiratory Protection.

When painting, sanding, or grinding, use a respirator when harmful contaminates are in the area. Use only respirators approved by the National Institute of Occupational Safety and Health (NIOSH).

Flammable and Combustible Liquids.

1. Smoking is not allowed in areas where flammable or combustible liquids are stored.

2. All flammable and combustible liquids are to be stored in a suitable fireproof/suppressive storage area.

3. Only approved safety cans with spring loaded caps may be used as containers for flammable materials.

## Hand Tools.

1. All hand tools shall be kept in good condition. Handles of tools shall be kept tight in the tool, and wooden handles shall be free of splinters or cracks. Wedges, chisels, etc. shall be free of mushroomed heads. Wrenches shall not be used when sprung to a point that slippage occurs.

### Power Tools.

1. Goggles or a face shield must be worn when operating power equipment such as drills, saws, sanders, etc.

 Protective shields and barriers will remain on the power equipment and are provided to protect personnel against flying chips and similar hazards.
 Machines designed for a fixed location are to be securely anchored to

prevent "walking," upsetting, or moving.

4. Impact wrenches will not be used when performing maintenance on company aircraft.

5. Rivet Squeezers - personnel using pneumatic rivet squeezers must wear safety goggles to prevent eye damage in the event that a rivet becomes propelled from the tool. Extreme caution must be followed to prevent head or body injuries.

6. Do not remove grounding prongs from electrical equipment.

## Painting.

1. All spray painting shall be accomplished in an approved spray booth with the exception of touch-up painting. If provided, paint booth doors must be closed.

2. No open flames or spark producing equipment (including lighting and drying lamps) within 20 feet of spraying areas, except explosion proof lights approved by the Safety Department.

3. "NO SMOKING" signs shall be posted at all flammable materials spraying areas and storage rooms.

4. When stripping paint use an approved respirator.

## WARNING

Due to poor warning characteristics, while working with paint containing isocyanides, use a fresh air-supplying respirator ONLY.

Welding.

1. Welding is to be performed only by authorized company personnel or approved vendors.

2. Proper shielding and eye protection to prevent exposure of personnel from welding hazards will be provided.

3. Portable fire extinguishers must be available at all times during welding operations and a fire guard must be on hand.

Work Stands and Ladders.

1. Ladders and work stands are to be maintained in good condition and defective units must be reported / or replaced immediately. Follow all equipment safety placards

# WARNING

A safety harness is required for all man-lift equipment.

Toxic Chemicals.

Adequate ventilation is to be provided whenever toxic chemicals are being used. Clean parts with solvents approved by the OEM or other parts manufacturer. Degreasing or other operations involving chlorinated hydrocarbons will be located so that vapors from these operations will not react or be drawn into the atmosphere surrounding any welding operations.

6.2.7 Flight Line General Safety Rules.

1. A running aircraft is never to be approached from the rear. Always stay in clear view of the individual operating the aircraft.

a. Keep all rags, papers, and other objects from being blown by rotor wash which can subsequently cause foreign object damage or debris (FOD) to an engine compressor or dynamic aircraft component.

2. Observe and follow all placards regarding servicing. Employees shall get help from a supervisor if something is not clearly understood.

3. Maintain a safe ground speed when towing an aircraft.

4. Do not move an aircraft without a wing walker.

5. Find all dropped objects at once, catch all safety wire clippings and discard properly.

6. When washing an aircraft, be careful not to damage fragile items such as antennas, tail rotors, windows, outside air temperature (OAT) probes, angle of attack vanes, etc., with brushes, ladders, etc.

7. Cover all static and pitot openings and any additional exterior openings prior to washing. It may be necessary to allow the pitot tube to cool first if the heating element has been on. Ensure that all covers are removed prior to operation of the aircraft.

8. Always have a fire extinguisher available during starting, Auxiliary Power Unit (APU) operations, and fueling.

9. When polishing a windshield, do not use the OAT probe as a hand hold.

10. Never polish a windshield dry. Secure all loose objects on the ramp area.

11. Never approach a running helicopter with ladders or other long objects that may contact the turning blades.

12. Make certain that all external power cords, grounding wires, etc. have been disconnected before giving the clear signal to the pilot. This also includes tie down lines and FOD covers.

13. Report all damage and hangar rash inflicted to an aircraft, (no matter how slight you may think it is), to your immediate supervisor.

14. Never drive any vehicle under the rotor system while in operation.

15. Immediately perform a clean-up of spilled oil and/or fuel.

16. An external fire extinguisher (not the one in aircraft) must be within 100 feet of all ramp / run-up operations.

17. When in the area of the tail rotor, employees will notify the pilot their whereabouts and planned activities.

6.2.8 Other Safety Practices.

1. While performing aircraft maintenance refer to the pertinent manuals, service bulletins, drawings, etc. being careful to adhere to Part 43 of the Federal Aviation Regulations. If you do not understand a job, see your supervisor.

2. Always use a check list and the appropriate technical manuals while performing an inspection or maintenance.

3. Sign-off items, "As You Go," listing all discrepancies.

4. Have all your work inspected by an authorized individual. Never return an aircraft to service without a final inspection and a sign-off.

5. Do not work with any equipment that you do not know how to operate.

6. Maintain clean working areas, keep them neat and orderly, using the "Clean as You Go" principle.

7. Catch all safety wire and cotter pins clippings and discard in a proper manner.

8. Find all dropped nuts, bolts, etc., immediately. Waiting may cause an employee to forget, increasing the possibility of FOD.

9. Do not grind non-ferrous metal such as aluminum, brass, etc. on a bench grinder as the fillings will be deposited on the face of the grinding wheel which can result in overheating and subsequent failure of the grinding wheel.

10. When drilling with a hand drill, never drill a hole without first determining what is on the other side. Use drill stops as required.

11. Use the correct tool for the task you are doing.

12. Never allow oxygen, grease or oil to come in contact with each other.

13. Fill out all cards and forms completely, do not leave any items, "Blank."

14. Cap all disconnected lines and fittings.

15. Cover all engine intakes, exhaust outlets, bleed valves, and any other openings that are subject to FOD. Perform this as soon as the cowlings are removed.

16. Use standard torque values when special torque is not called out. Discard all overtorqued fasteners.

17. All defective or unserviceable parts must be tagged as such and delivered to an isolated storage area as soon as practical.

18. Keep lead-acid batteries and related test equipment and hand tools away from Ni-Cad batteries.

19. Do not leave any of the following items inside an aircraft at the end of a work shift or job tasking:

a. Personal tools.

b. Shop tools or equipment.

c. Wire or ty rap clippings.

d. Loose hardware.

e. Avionics or other equipment that has yet to be installed.

f. Maintenance manuals or aircraft records; Work stools, etc.

20. Complete the job or tag if not completed.

21. Ground Safety personnel will monitor to ensure general maintenance safety practices are observed.

## 6.3 Maintenance Personnel Qualifications.

Source: 14 CFR 43.3(a); 14 CFR 65.21; 14 CFR 135.95 (a) and (b).

6.3.1 General Policies.

The purpose of this section is to provide guidance to ensure that maintenance personnel employed by Sundance Helicopters Inc are properly certificated and qualified for the tasks they are authorized to perform.

Each person directly in charge or those who perform required inspections and those employed to perform maintenance, preventative maintenance, or alterations on company aircraft are required to hold an FAA Mechanics Certificate with Airframe and Powerplant ratings for specific job qualifications. 6.3.2 Maintenance Certificate Requirement Procedures.

The purpose of the maintenance certificate requirement process is to establish the certificate requirements for personnel directly employed by Sundance Helicopters Inc. for the performance of maintenance, preventative maintenance, or alterations of company aircraft. Non certificated personnel may be hired. Refer to paragraph 6.4.

During new hire/rehire indoctrination, the certificate held by the individual will be verified for legitimacy and current status. If any person has not revisited their current address information with the FAA, it should be accomplished at this time.

If the new/rehired employee certificate(s) cannot be verified by the FAA, the employee is subject to termination or other processes as determined appropriate by Human Resources and/or maintenance management.

Newly-hired or rehired mechanics shall provide a copy of their Mechanic Certificate to the Maintenance Training Manager. The Maintenance Training Manager shall.....

1. Make a copy of the new hires/rehires Mechanic's Certificate.

2. Verify the certificate by accessing the current FAA Airmen Inquiry web site.

3. Print a copy of the authenticity to keep in the employee's training folder.

4. File the verification results from the FAA in the employee's training folder.

5. Perform initial basic indoctrination training for all new maintenance personnel.

### • Note •

The Basic Indoctrination training syllabus will be developed and modified as necessary by the Maintenance Training Manager. The Maintenance Training Manager will ensure that all training documentation is placed in the individuals training file.

6.3.3 Maintenance Personnel, Privileges and Limitations. Source: 14 CFR 43.3(a) and (b), 14 CFR 65.81(a).

Privileges.

A certificated AMT may perform or supervise the maintenance, preventative maintenance or alteration of an aircraft or appliance, or a part thereof, for which he is rated (but excluding major repairs to, and major alterations of, rotors, and any repair to, or alteration of, instruments), and may perform duties within the limitations listed in the "Limitations" paragraph of this section.

1. A certificated AMT may not perform or supervise the maintenance, preventative maintenance, or alteration of, or approve and return to service, any aircraft or appliance, or part thereof, for which he is rated unless he has satisfactorily performed the work concerned at an earlier date. If he has not so performed that work at an earlier date, he may show his ability to do it by performing it to the satisfaction of the Administrator or under the direct supervision of a certificated and appropriately rated AMT who has had previous experience in the specific operation concerned.

2. The supervisory AMT will document the on the job training in accordance with the OJT Form SDTRG-003. (See chapter 12)

Limitations.

The company prohibits a certificated AMT from exercising the privileges of his certificate and rating unless he understands the current instructions of the manufacturer and maintenance manual of the specific operation concerned.

The Company prohibits a certificated AMT from supervising or approving a company aircraft for return to service unless he/she have been appropriately trained or have previous experience in the work concerned.

The company prohibits a certified AMT from exercising the privileges of his certificate and rating unless, within the preceding 24 months, he has for at least 6 months...

1. Working as a mechanic under his certificate and rating;

2. Technically supervised other mechanics or supervised in an executive capacity, the maintenance or alteration of aircraft or any combination of the above.

## 6.4 Maintenance Accomplished by Non-Certificated Personnel

Source: 14 CFR 43.3(d).

## 6.4.1 Policy.

All maintenance of company aircraft performed by non-certificated personnel, employed by the company, must be supervised, approved and signed for by a company certificated AMT.

## 6.4.2 Procedure.

 The AMT must personally observe the work being done to the extent necessary to ensure it is being properly done and the company AMT must be readily available, in person, for consultation. However this paragraph does not authorize the performance of any inspection required by Part 91 or Part 125 or any inspection performed after a major repair or alteration.
 Print the name (not signature) of the non-certificated personnel in the appropriate corrective action statement of the maintenance record.

### 6.5 Equipment Calibration Systems.

Source: 14 CFR 43.13(a).

### 6.5.1 Purpose.

The purpose of this chapter is to describe the policies and procedures of the Equipment Calibration System used by Sundance Helicopters. The program is to assure that equipment, which is out of calibration, is not used on aircraft maintained under 14 CFR 135. The program also conveys the responsibilities of all company personnel with respect to equipment calibration procedures.

Sundance Helicopters has established a preventative maintenance and control program for precision tooling, measuring devices, and test equipment used by maintenance personnel. The program controls the scheduling and tracking of such units for their scheduled periodic checks, inspections, and calibrations.

1. No tool or test equipment requiring periodic inspection, test, or calibration may be used on an aircraft or its components by company employees unless the tool or test equipment has been inspected, tested, or calibrated within the preceding 12 months. Recertification date is based on the end of the 12<sup>th</sup> month in which the unit was previously calibrated.

2. All company AMT(s) using precision tooling, measuring devices, and test equipment have the responsibility to check for current calibration prior to use of the equipment.

### 6.5.2 Calibration and Turn-In Requirements.

Precision tooling, measuring devices, and test equipment that have been damaged, or are suspected to have internal damage will be tagged with form SDM-003RP and returned to the approved vendor for repair and calibration. All tools will be calibrated and traceable to the National Institute of Standards and Technology (N.I.S.T.) or manufacturer's specifications. Original or copies of the current calibration certificates will be kept on file in the logistics dept.

## 6.5.3 Use of Personal Equipment.

The company will calibrate employee-owned, precision, equipment that is used at the workplace, however, if the equipment is calibrated for company use, the equipment will follow the guidelines as described in this manual and be listed in the company equipment calibration control system. Once accepted into the program, the company will assume responsibility for the cost of re-calibrating, however, the company is not responsible for the cost of repairs.

At such time, the employee may elect to have the equipment repaired, at their expense, for continued usage or it will be removed from the calibration control system and the workplace.

### 6.5.4 Records.

The Manager of Logistics Will...

1. Maintain a computer-based system listing all tools and equipment that require periodic inspection, testing or calibration. The list will be current at all times by listing as a minimum:

a. Each tool or equipment part number.

b. Serial number.

- c. Description, last inspection/test/calibration date,
- inspection/test/calibration interval and next due date.

2. Maintain a filing system that retains copies of the equipment calibration history, including the most recent calibration certificate. The last calibration certificate will be retained. This history of calibration will be used to establish grounds for an extension or reduction in the calibration cycle. If the equipment consistently maintains calibration for three years, as indicated on the certificates by no repairs or adjustments, then the Manager of Quality Assurance can apply or an extension of the calibration cycle with their local FAA Flight Standards District Office (FSDO). Conversely, if the equipment fails before reaching its next calibration date consistently, then its calibration cycle will be reduced.

### Information Label.

An information label, attached to all calibrated equipment, will list the necessary details so the user can determine the state of calibration of the equipment. The label must contain the equipment serial number, the date of last calibration and the next due date for calibration. If equipment is found that does not have the information label attached, the equipment will be quarantined until the records can be verified and a new label can be made using form SDCAL-001.

### Error Chart.

In the event that an error chart accompanies the equipment from calibration, the equipment serial number will be written on the chart and affixed to the tool. However, if this is not feasible, then the chart will be attached to the equipment carrying case in full view.

## "For Reference Only" Placards.

Special tooling and test equipment that is not used as a function of returning the aircraft to service and is not tracked in the calibration system will be placarded "For Reference Only". The placard should be clearly visible to any technician before utilization of that piece of equipment.

### Notification.

A written notice of calibration due will be provided to the Production Manager during the first week of the month the equipment is due for calibration. The Production Manager will ensure that the equipment holder is notified.

### Tool Control.

All company owned tools and equipment will be domiciled in the Logistics Department area. When needed for maintenance, the tool or equipment will be signed-out by the individual receiving the tool or equipment using form SDTL-001. A Logistics Department representative will note the time and date when the tool or equipment was returned.

## 6.5.5 Outgoing Equipment Procedure.

After notification, the equipment holder will deliver the equipment for calibration to the logistics department for shipping to an approved facility for calibration.

### 6.5.6 Incoming Equipment Procedure.

1. All incoming equipment will receive an incoming check by assigned personnel at the maintenance facility for company owned and personally owned tools to ensure the equipment has proper certification and a label affixed to the unit.

2. If the equipment does not have a label, then an information label (form SDCAL-001) will be initiated using the information received on the calibration certificate and attached to the equipment.

## 6.5.7 Addition of Equipment.

The Logistics Department must be notified upon the addition of any equipment requiring calibration. After notification, the Logistics Department will issue the equipment a numerically ascending serial number for company owned tools and the manufacturer's serial number for personal owned tools, request the calibration certificates and initiate a file for the equipment certificates. The AMT will assure that an information label is attached to the unit before being placed into service.

Newly-purchased equipment requiring calibration must be calibrated in accordance with the company equipment calibration system. If the equipment comes with a calibration certificate, the certificate will be delivered to the Logistics Department to be implemented into the company calibration control systems and will be acceptable for one year from date of calibration.

## 6.5.8 Deletion of Equipment.

Upon notification of equipment deletion, the Logistics Department will immediately remove the records from the equipment calibration system files for that equipment.

## 6.5.9 Missing Equipment.

Upon notification of missing equipment, the Logistics Department will pull the active file on the equipment and segregate it from the active files. The record will be maintained for a period of one year from notification in case the tool is found.

6.5.10 Questionable Equipment (e.g.: Drops, Accidents, etc.).

When the accuracy of calibrated equipment is questionable, it will be immediately quarantined, tagged as unserviceable, and the Logistics Department will be notified. The previous user will be contacted to establish what effect, if any, it may have had on previously accomplished work.

## 6.6 Maintenance Interruption.

6.6.1 Policy.

To reduce the risk of mistakes being made during hands on maintenance, all distractions should be reduced as much as possible.

## 6.6.2 Procedure.

It is company policy that if any AMT is interrupted during a maintenance procedure, the maintenance sequence will be reviewed three maintenance steps prior to where interruption occurred.

## 6.7 Aircraft Flight/Maintenance Logbook.

Source: 14 CFR 91.417(a) (2), 14 CFR 135.21(d), 14 CFR 135.65(a).

## 6.7.1 "Aircraft Logbook, Form SDM-001".

Is the record used to record total time in service for the airframe, engine(s), and rotor(s).

## 6.7.2 Entries.

Source: 14 CFR 135.21(d), 14 CFR 91.417(a), 14 CFR 43.9 & 43.11.

All corrective actions entered on Form SDM-001 must meet the requirements of the above-referenced regulations.

## 6.7.3 Location.

The Aircraft Maintenance Logbook is kept in a metal clipboard in the aircraft or with the aircraft records during maintenance activities.

### 6.8 Airworthiness Release.

6.8.1 Required Forms.

Source: 14 CFR 43.5.

The following forms are used by company maintenance and operations personnel to determine the airworthiness of a company aircraft prior to 14 CFR 135 operations:

1. Aircraft Maintenance Log, Form SDM-001;

2. Recurring Airworthiness Directive Status. Form SDAD-001

3. Deferred Item Log, Form SDMEL-001.

6.8.2 Location.

These forms are to be kept in the aircraft metal clip board.

### 6.9 Scheduled and Unscheduled Maintenance.

Source: 14 CFR 91.405(a), 14 CFR 135.421(a) and (b)

### 6.9.1 Defined.

Sundance Helicopters defines maintenance into two categories throughout this manual. These categories are Scheduled Maintenance, sometimes defined as, "Routine Maintenance" and "Unscheduled Maintenance, sometimes defined as, Non-Routine Maintenance." All work is performed in accordance with the standards and procedures set forth in the manufacturers' maintenance manuals, GMM, airworthiness directives, ICA, and specific subject or component manuals.

### 6.9.2 Scheduled Maintenance.

A group of tasks, accomplished at specific intervals that prevent the deterioration of the safety and reliability levels of the aircraft.

### 6.9.3 Unscheduled Maintenance.

A group of tasks resulting from discrepancies found during Scheduled Maintenance, reports of malfunctions, and data analysis, used to restore equipment to acceptable safety and reliability levels.

## 6.10 Cannibalization.

### 6.10.1 General.

Cannibalization of parts from aircraft, engines or components is not a desired program, but may be required when parts are not readily available. Serviceable parts from one aircraft or engine may be installed on another aircraft or engine.

### 6.10.2 Authorization Policy.

Cannibalization requires authorization and completion of form SDCAN-001 and can only be authorized by the following personnel;

- 1. Director of Maintenance
- 2. Assistant Director of Maintenance

### 6.10.3 Restrictions.

All parts or units considered for cannibalization must be researched to ensure compatibility, programming requirements, or any procedure that must be followed prior to installation on another aircraft. The research must include AD status, if AD is recurring, when next action is required.

### 6.10.4 Cannibalizing Part(s) From Aircraft.

The authorizing person is responsible to ensure the AMT, accomplishing the cannibalization, properly completes and distributes the necessary documentation.

## 6.11 Disposition of Life Limited Parts.

Source: 14 CFR 43.10, 14 CFR 45.16

### 6.11.1 Definitions.

Life Limited Part;

Is a part for which a mandatory replacement time limit is specified in the type design, the Instructions for Continued Airworthiness, or the maintenance manual.

## Life Status;

Total accumulated cycles, hours, or any other mandatory replacement limit of a life limited part.

## 6.11.2 Policy.

Sundance Helicopters tracks and manages life limited parts and components to deter the installation or continue in service of parts or components that have reached their life limit. These components are tracked via the company computerized tracking system.

### 6.11.3 Procedures.

Life limited parts are controlled using one of the following methods:

1. Temporary removal of life limited parts for the purpose of performing maintenance when the part is removed and reinstalled in the same position without accumulating additional time in service only requires a maintenance record entry in the "Aircraft Maintenance Log Form SDM-001or Discrepancy List SDM-002. The entry will document the removal and reinstallation of the part or component to its original location.

2. Life limited parts removed from aircraft must be documented in the "Aircraft Maintenance Log, Form SDM-001" or Discrepancy List SDM-002 having both the part number and serial number.

3. Life limited parts removed from aircraft may also be tagged using either a "Repairable Tag - Green, or "Serviceable Tag -Yellow, or "Rejection Tag - Red, as required by the

condition and disposition of the part.

4. Life limited parts may also be legibly marked using a non permanent pen showing the parts current life status. The life status must be updated each time the part is removed from the aircraft. If the mark is removed the part must either tagged or document as outlined above or remarked in accordance with 14 CFR 45.16.

5. Life limited parts may also be marked using a permanent method showing life limited status as outlined in 14 CFR 45.16.

6. Life limited parts that have been removed from service and are no longer serviceable will be segregated after identification, tagging or marking using one of the methods described above to ensure the part is stored separately from parts that are currently eligible for installation.

7. Life limited parts may also be mutilated to preclude their installation on a type certificated product. The mutilation must render the part beyond repair and incapable of being reworked to appear airworthy.

8. Life limited parts that are sold or otherwise transferred, must transfer with that part the component historical service record, the appropriate tag (red, green, or yellow) or other record that to comply with 14 CFR 43.10 unless the part is mutilated before it sold or transferred.

## 6.12 Maintenance Work Flow.

### 6.12.1 General.

Maintenance work flow is defined as the steps and protocols necessary to ensure maintenance and inspection requirements are coordinated between all of the Sundance Helicopters departments directly associated with aircraft operations.

## 6.13 Missing or Mutilated Certificate of Airworthiness/Registration.

Source: 14 CFR 47.49(a), 14 CFR 91.203(b).

6.13.1 Aircraft Operation.

Source: 14 CFR 91.203(b), 14 CFR 135.25(a) (1).

The company will not operate an aircraft unless...

1. It is registered as a civil aircraft of the United States and carries an appropriate current airworthiness certificate. This certificate must be displayed in the aircraft certificate pouch and has priority over all others. This certificate must bear the signature of an FAA representative.

2. It has a current U.S. registration certificate. This certificate will be carried in the aircraft certificate pouch.

6.13.2 Missing or Mutilated Certificate.

If the aircraft airworthiness certificate or registration certificate is missing or mutilated beyond recognition proceed as follows:

A. Aircraft Airworthiness Certificate;

1. Notify the Director of Maintenance immediately.

2. The Director of Maintenance will notify the FAA and request that the airworthiness certificate be reissued.

B. Registration Certificate;

1. Notify the Director of Maintenance immediately

2. The Director of Maintenance will request a copy of the current registration certificate from:

FAA Aircraft Registration Branch P.O. Box 25504 Oklahoma City, OK 73125-0504

## 6.14 Special Flight Permit/Aircraft Ferry Procedures.

Source: 14 CFR 21.197(a), 14 CFR 21.199(a) and (b), 14 CFR 91.203(a) (1).

6.14.1 Procedure.

The below procedure will be followed when an aircraft ferry permit (Special Airworthiness Certificate) is required for the purposes of maintenance or repair to an aircraft which is away from home base maintenance facilities when such maintenance or repair requirements arise:

 The PIC or AMT will inform the Director of Maintenance (or designee) of the condition which may require a ferry flight for maintenance or repairs.
 a. The Director of Maintenance (or designee) may contact the Original Equipment Manufacturer (OEM) for concurrence (if applicable). 2. The Director of Maintenance or Assistant Director of Maintenance will coordinate with the Chief Pilot (or designee) on flight limitations, availability of crew and scheduling.

3. A properly certificated company AMT, as assigned by the Director of Maintenance or Assistant Director of Maintenance, will inspect the aircraft to determine it is in a safe condition prior to the intended ferry flight.

The on-site AMT will supply the Director of Maintenance with the following information:

1. The current location of the aircraft.

2. The identifier of the aircraft's intended destination.

3. Whether the aircraft will require a fuel stop prior to intended destination.

4. A fax number to where the Special Airworthiness permit will be sent.

5. Review the Special Flight Permit for any additional inspection / limitations imposed by the issuing inspector.

### • Note •

Initial application for the ferry permit will be made to the Certificate Holding District Office, using FAA Form 8130-6 completing blocks 2 & 7 only, by the Director of Maintenance or Assistant Director of Maintenance. If recommended, coordination with local airworthiness authority may be required.

The AMT will make an entry in the, "CORRECTIVE ACTION" section of the "Aircraft Maintenance Log, Form SDM-001 stating the aircraft has been inspected and is determined to be in a safe condition for the intended flight as per the approved Special Airworthiness permit. This statement will include the aircraft total time and date. All Special Airworthiness Permits issued will be attached to the current white logbook page and become part of the aircraft's permanent records.

Upon completion of the Special Airworthiness Permit designated operations, the original discrepancy will be re-entered in the aircraft Maintenance Log.

#### • Note •

The aircraft is not approved for return to service until the appropriate corrective action is taken.

## 6.15 Maintenance Check Flights/Non-Routine Flight Operations.

Source: 14 CFR 91.407.

## 6.15.1 Defined.

A Maintenance Check Flight is defined as a flight of the aircraft to determine the validity of a discrepancy or the accomplishment of a maintenance function as required in the appropriate maintenance manual or company maintenance procedures. 6.15.2 Procedure.

Before any maintenance check flight is conducted the pilot must review the intention and requirements of the flight. All maintenance entries will be reviewed.

 When the necessity of a Maintenance Check Flight is determined, a discrepancy will be entered by the AMT into the "DISCREPANCY" column of the Aircraft Maintenance Log, Form SDM-001 stating, "A Maintenance Check Flight(s) is/are requested to check the <insert system> system."
 Upon successful completion of the maintenance check flight, the PIC will enter into the "CORRECTIVE ACTION" column of the "Aircraft Maintenance Log, Form SDM-001", the following statement: "Complied with maintenance check flight requirement for <insert system>."

## 6.15.3 Performing Flights.

A maintenance check flight will be performed after any of the following maintenance procedures has been accomplished:

- 1. Maintenance functions on adjustable flight controls.
- 2. Replacement of engine(s).
- 3. Maintenance of engine control systems.
- 4. Replacement of any flight control surface (e.g.; Main Rotor Blade, Tail Rotor Blade etc.).
- 5. Navigational instrument changes (as needed).
- 6. Major airframe or component repairs or alterations.
- 7. Anytime Maintenance or Operations determines that an operational check flight is required.

## 6.16 Aircraft Starting.

6.16.1 Background.

Aircraft starting authorization ensures qualified personnel are available to operate company aircraft during the performance of maintenance activities. An AMT who has not completed this training in the last 12 months will not ground operate an aircraft.

## 6.17 Outside Maintenance (Out-Source Organizations).

Source: 14 CFR 135.413(b) (2).

## 6.17.1 Policy.

Sundance Helicopters may make arrangements with another person or organization for the performance of any maintenance, preventative maintenance, or alterations. Any person or organization contracted to perform maintenance, preventative maintenance, or alterations must be approved and appear on the Company's Approved Vendor List. The Approved Vendor List is found on "G" drive of the company server. This does not relieve Sundance Helicopters of the responsibility for the airworthiness of its aircraft, including airframes, aircraft engines, appliances, and parts thereof; and the performance of the maintenance, preventative maintenance, and alteration of its aircraft, including airframes, engines, appliances, emergency equipment, and parts thereof, in accordance with the General Maintenance Manual.

### 6.18 Electrostatic Sensitive Devices (ESD) Protection.

#### 6.18.1 Assembled Units.

Any unit considered an ESD sensitive device, or containing an ESD subassembly, must be handled appropriately during installation, removal and storage. Many units that are fully assembled with all covers and shields in place are not normally considered ESD devices, but caution should be exercised if the ESD status of a unit is unknown, or if the unit is placarded with specific ESD warnings or handling instructions.

Storage of ESD sensitive devices should be in anti-static bags or anti-static containers. Units may have connectors protected with cap plugs or covers, but theses cap plugs or covers are not mandatory if the unit is placed in an anti-static bag or container. Unit vendors usually ship new or repaired ESD sensitive devices in protective shipping bags or containers, all units should remain in theses containers until ready for use and all ESD packaging should be saved for reuse on removed units. When anti-static bags are used thy must be large enough to completely cover the unit.

Prior to removing ESD sensitive devices from anti-static bags or containers a technician should either be connected to a properly grounded workstation, or briefly touch a known earth or airframe ground source to dissipate any electrostatic charge that may have built up on the technician's person.

When removing and installing ESD sensitive devices care should be taken not to touch exposed leads or contacts to ungrounded personnel or other objects. Once a unit is removed from an aircraft it should immediately have connector cap plugs or covers installed or placed into a suitable anti-static bag or container. Any ESD sensitive devices that are installed in an aircraft should remain connected to its respective aircrafts' system connectors at all times. Any ESD sensitive devices that have aircraft system connector(s) disconnected for any period of time while the unit remains mounted in the aircraft should have connector cap plugs or covers installed to protect the unit until the aircrafts' system connector(s) are once again reconnected.

### 6.19 Pitot Static Systems.

Source: 14 CFR 91.411(a) (2), Appendix E, Paragraph (c) to 14 CFR 43.

6.19.1 Inspection Requirement.

Whenever a pitot static system is opened for reasons of repair, inspection, etc., the system will be inspected and tested in accordance with Appendix E, Paragraph (a) to 14 CFR 43.

Following installation or maintenance of the static system, transponders or altimeters where data correspondence error could be introduced, the integrated system must be tested, inspected and found to comply with Appendix F, of 14 CFR Part 43.

## 6.20 Airworthiness Directives, Service Bulletins, Service Notes.

6.20.1 Policy.

Source: 14 CFR 39(as applicable), 14 CFR 43.9(a) (1) through (4).

The Director of Maintenance (or designee) will determine the applicability of all Airworthiness Directives (AD), Service Bulletins (SB) and Service Notes which may apply to company aircraft and equipment operated by the company. A master list of AD verification will be kept in a book by the Records Department for each aircraft.

6.20.2 Procedures.

Emergency Airworthiness Directives.

The Director of Maintenance (or designee) may receive notification of an Emergency AD from the FAA, the manufacturer or another source.

1. Director of Maintenance (or designee) will immediately review the Emergency AD to determine applicability and consider all options for compliance, with particular attention to the schedule for compliance.

2. Director of Maintenance (or designee) will identify the numbers of company aircraft or equipment affected.

3. Director of Maintenance (or designee) will then notify those AMTs who will be directly responsible for compliance with the AD and provide them a copy of the AD.

4. The AMT will execute an entry in the Maintenance Log (Form SDM-001) describing the AD. The entry will include the AD number and amendment number. This will create an open discrepancy and will include any limitations regarding operation of the aircraft.

5. Director of Maintenance (or designee) will contact and inform Operations if the AD requires the aircraft to be removed from service.

6. Operations will adjust the aircraft availability status to reflect current circumstances.

7. If it is necessary to relocate the aircraft and it is allowed by the AD, the Director of Maintenance (or designee) will follow the provisions in "Special Flight Permit/Aircraft Ferry Procedures".

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8. When the AD has been properly complied with, the AMT will sign off the discrepancy on the, "Aircraft Maintenance Log, Form SDM-001", stating the AD number, revision date, amendment number, date of compliance, the aircraft total time, specific method of compliance and if recurring the next aircraft total time or date as applicable.

9. The AMT will notify Director of Maintenance (or designee) of compliance.

10. Operations will adjust the aircraft status list.

11. Upon receipt of the permanent log entry for Emergency ADs, the Aircraft Records Department will annotate the aircraft's airworthiness directive verification book by placing a copy of the log entry in the book and the airworthiness directive will be added to the compliance list for the aircraft.

Airworthiness Directives, Biweekly. (Normal Issue)

1. Director of Maintenance (or designee) will determine the applicability of (normal issue) ADs, options for compliance and the schedule for compliance. 2. Recurring Airworthiness Directive Sheet, kept in the aircraft metal clip board, will be properly annotated by the AMT to show the current status of applicable recurring ADs. For one-time ADs, that have not been complied with, the time or date due when compliance is required will be monitored by the Director of Maintenance to ensure the AD is C/W on time.

3. Director of Maintenance (or designee) may request an Alternate Method of Compliance (AMOC), in accordance with the provisions of the individual AD.

4. When an AMOC is granted by the FAA, the Director of Maintenance (or designee) will direct a copy of the AMOC to be filed with the aircraft permanent records by the Records Department.

5. The Director of Maintenance will communicate the provisions of the AMOC to the Assistant Director of Maintenance, and AMTs responsible for compliance with the AD.

6. Documentation will be accomplished as stated above.

Service Bulletins and Service Letters.

1. The Director of Maintenance (or designee) will determine the applicability of Service Bulletins (SB) and Service Letters (SL) as well as the options and schedule for compliance.

2. The Director of Maintenance will order the necessary parts or kits as required by the SB or SL and make them available to the AMT when the aircraft is scheduled in for maintenance.

3. Service Bulletins and Service Letters (compliance instructions) will be recorded on, "Aircraft Maintenance Log, Form SDM-001".

4. Upon receipt of the permanent log entry for the SB or SL, the Aircraft Records Department will annotate the aircraft's records.

5. The Aircraft Records Department will add the SB or SL to the SB or SL Compliance List for the aircraft.

### 6.21 Inspection Status/Life Limited Parts...

Source: 14 CFR 91.417(a) (1) (ii) and (iii), 14 CFR 91.417(a) (2) (i) and (ii).

### 6.21.1 Documentation.

Records must contain the following information:

1. The total time in service of the airframe, engine, and rotors.

2. The current status of life-limited parts of each airframe, engine, rotors and appliance.

3. The time since last overhaul of each item installed on the aircraft which are required to be overhauled on a specified time basis.

4. The identification of the current inspection status of the aircraft, including the time since the last inspections required by the inspection program under which the aircraft and its appliances are maintained.
5. The current status of applicable airworthiness directives and safety directives including for each, the methods of compliance, the AD or safety directive number and revision date, if the airworthiness directives and date when the next action is required.

### • Note •

The Quality Assurance Department will monitor to ensure compliance of these procedures.

## 6.22 Maintenance Library/Publications.

6.22.1 Compliance with Approved Maintenance Practices and Publication.

Repair of company aircraft and accessories will be made in accordance with 14 CFR 43, manufacturer's recommendations and other approved data.

6.22.2 Publications.

The following publications will be used while performing maintenance and inspection of aircraft operated by the company:

1. Fuel Quality Manual.

- 2. General Maintenance Manual.
- 3. General Operations Manual.
- 4. Minimum Equipment List(s).
- 5. Safety Policies and Procedures Manual.
- 6. Aircraft Flight Manual.
- 7. Appropriate Airframe and Engine OEM manuals.

- 8. Instructions for Continued Airworthiness.
- 9. Airworthiness Directives, Service Bulletins or other approved data.

6.22.3 Specific Aircraft Maintenance Manuals.

The aircraft maintenance manuals, supplied by the manufacturer, contain the basic maintenance information pertinent to a specific type of aircraft. They include a description of the aircraft, its systems and components, as well as the detailed instructions and procedures necessary to perform maintenance on the aircraft.

6.22.4 Specific Powerplant Maintenance Manuals.

The powerplant maintenance manuals, supplied by the manufacturer, contain the basic maintenance information pertinent to a specific type of powerplant. They include a description of the powerplant, its systems and components, as well as the detailed instructions and procedures necessary to perform maintenance on the powerplant.

6.22.5 Specific Component Manuals.

The Component Manuals contain instructions for the repair, test, or bench check of components and accessories, as supplied by the manufacturer or vendor.

## 6.23 Manual Currency.

### 6.23.1 Purpose.

The purpose of the Manual Revision Control System is to assure that every effort is made to supply the most recent data available to all technicians. The word "Manual" is to mean any data that is utilized in the maintenance or inspection of company aircraft.

## 6.23.2 Procedure.

The following procedures will be followed to assure that all manuals are up to the latest revision number produced by the manufacturer of the product;

1. The manufacturer of each product manual will be contacted at end of each month to determine the latest revision number for all manuals tracked (unless the manufacturer supplies the information in printed form at least quarterly). Each library will have the latest OEM revision status form posted.

2. The manual revision status is available via the manufacture's web site.

## "For Reference Only" Placards;

Any manual that is not current or on a manual revision control system should be marked "For Reference Only";

1. All placards should be readily visible to any technician subsequent to the use of the manual.

2. All manuals marked in this fashion should be segregated from other manuals that are currently tracked by a revision control system and will not be used as reference to return an aircraft to service.

#### • Note •

An audit of manuals and their revisions will be completed on a quarterly basis. See the audit form SDA-001 for items to be checked. The revision of manuals will be reviewed using the most current listing, or on-line service and the manuals record of revisions to determine that all revisions shipped in the previous month or year, as applicable, have been received and incorporated into the appropriate manuals. At the prescribed interval (annual), the manuals will be inspected for their overall condition. This includes such criteria as torn or missing pages, binder condition and legibility. The audit forms do not have a calendar limit for retention, and is at the discretion of the Director of Maintenance.

## 6.24 Aircraft Parking and Storage.

6.24.1 Safety Compliance.

The following items must be complied with when any company operated aircraft is parked on the ramp:

1. Rotor wing aircraft will be secured during static periods as specified in the appropriate aircraft maintenance manual.

## 6.25 Aircraft De-Fueling.

Aircraft de-fueling will be accomplished I/A/W the applicable aircraft maintenance manual. Recovered fuel (Jet A) will be stored in the company provided recovery system. Recovered fuel may be returned to an aircraft using the company provided recovery system. The recovery system will be maintained I/A/W the company Fuel Quality Manual to include required filter replacements and quality testing.

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## **Chapter 7 Inspection.**

### 7.1 Procedures.

Source: 14 CFR 135.411(a) (1).

## 7.1.1 General.

The company is responsible for the airworthiness of its aircraft. The Quality Assurance Department verifies that the quality of maintenance/inspection conforms to the standards prescribed by FAA regulations, manufacturer's recommendations, and company policies and procedures.

## 7.1.2 Inspections.

Inspections are performed referring to appropriate documents including inspection checklists. From these documents, the specifics related to the inspection task can be determined. In most cases, the inspection form indicates a maintenance manual reference. Any discrepancies identified during inspections are documented on an, "Discrepancy List /Maintenance Log, Form SDM-001or SDM-002".

## Required Avionics Inspections.

Avionics inspections occurring, according to calendar schedule, will comply with OEM manufactured equipment or FAA regulatory requirements. Refer to, "Forms" chapter 12 for procedures and disposition.

### 24-Month.

Must be performed by approved avionics personnel or appropriately related facility.

### 12-Month ELT.

May be performed by the company AMT.

## 7.1.3 Inspections during Maintenance.

Maintenance and Inspection Personnel will inspect the areas in and around their work locations during the course of all maintenance, inspection, and servicing activities. Inspections during maintenance activities include the area around, adjacent to, and near the activity. All abnormalities or defects will be recorded on the appropriate documents for inclusion into the work package.

## 7.1.4 Special Inspections.

Are inspections which are necessitated by a particular event, such as hard landing, lighting strikes, overspeed, etc.. Special inspections are accomplished and documented in accordance with the maintenance procedures contained in this manual or by referencing instructions in the appropriate manufacturer's maintenance manuals. For a list of special inspection requirements refer to the manufacturer's maintenance manual.

7.1.5 "Not inspection item".

Not Applicable statement "N/A".

Items that are not applicable must be annotated, "N/A" and initialed by the AMT accomplishing that inspection.

## 7.2 Records.

7.2.1 Prior to Releasing Aircraft to Service;

1. A review of the aircraft records is performed at the completion of each scheduled maintenance/inspection. The individual responsible for returning the aircraft to service must determine that all items have been completed and properly signed by the person or persons that performed the work. This review is accomplished by verification that all required signatures are present on the inspection checklist.

Inspections complied with by the maintenance facility will be returned to service by a Quality Control Inspector. The Quality Control Inspector will confirm that all items have been completed and properly signed off by the person or persons that performed the work. This review is accomplished by verification that all required signatures are present on the work package.
 The inspection checklist will be forwarded to the Aircraft Records Department when completed and retained until the inspection is repeated or superseded.

### • Note •

During completion of all checklists, aircraft records, or other documentation all required information will be entered.

## 7.3 Quality Control Inspection System.

7.3.1 Purpose.

The QC system was developed to enhance Sundance Helicopters commitment to safety. It is the company's belief that a second set of eyes looking at specific critical maintenance performed will serve to aid in the continued safe operation of Sundance Helicopters' aircraft.

#### 7.3.2 Procedures.

1. The following maintenance procedures require a company assigned inspector to sign, initial or stamp to approve for return to service;

a. All maintenance functions requiring a safety. (safety wire, cotter pin etc.)

b. Prior to installation of cowlings or panels that would cover a safety or work procedure.

c. Any maintenance procedure involving a flight control or drive train assembly.

d. Reassembly of a component.

e. Installation of engines, main gearbox or tail rotor gearbox.

f. Installation of all fuel lines, hydraulic lines and oil lines. (Rigid or Flexible)

2. The assigned QC inspector will review all work packages for completeness to include insuring there are no open blocks. After review the inspector will sign, initial or stamp the cover sheet as indicated.

3. The assigned QC inspector will review all serviceability tags to ensure correct information and will sign, initial or stamp the component serial number verification block.

#### 7.3.3 Roster.

The Manager of Quality Assurance will...

Maintain a current roster of assigned inspectors. To include signatures, initials and assigned stamp number. Assigned stamp number constitutes inspector's signature. Ensure all inspectors have proper training. Ensure all inspectors are fully informed about procedures, techniques, and new equipment in use and are competent to perform their applicable duties.

### 7.3.4 Training.

Policy.

A Quality Control Inspector is trained to exercise the responsibility for maintaining an environment which manages the aspects and processes of airworthiness and safety for aircraft and products that are having maintenance conducted under a maintenance transaction.

1. An inspector is also trained to analyze the use of acceptable and approved technical data that is used to maintain a given aircraft or product approving both aircraft and related products for return to service in accordance with methods, techniques, and practices prescribed in the Manufacturers Maintenance Manual or ICA(s). Training will be documented using Form SDTRG-006.

2. Training of new inspectors will be conducted under initial and on a recurrent 12 month basis.

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Inspectors will be trained in the following areas:

1. Regulatory requirements per 14 CFR 21, 23, 25, 27, 29, 39, 43, 65, 91, 119, and 135 as they apply to the maintenance of aircraft and their related products operated under 14 CFR 91 and 135.

- 2. Type Certificate Data Sheets.
- 3. Type Design.
- 3. PMA products.
- 4. Detecting suspected unapproved aircraft parts.
- 5. Separation, identification, and preservation of aircraft parts and products that are under on going maintenance.
- 6. Hidden damage, initial, on going, and final inspections of aircraft and related products.
- 7. Tool calibration requirements.
- 8. Products and consumables that have expiration limitations placed on them.
- 9. Parts that are to be removed in serviceable condition for use on other aircraft.
- 10. Technical Standing Order (TSO) products.
- 11. Supplemental Type Certificate (STC) products.
- 12. The developing and identification of approved technical data.
- 13. Administration and organization of technical records.
- 14. Aircraft maintenance records.
- 15. The applicability, use of, and execution of FAA forms.
- 16. The organization and revision of manufacture's maintenance manuals.
- 17. Receiving inspection of aerospace products and determining the eligibility, quality, and identification of aeronautical products.
- 18. Parts and products identification and tagging.

### 7.4 Parts Serviceability Tags.

7.4.1 Forms SDM-003S (Yellow) SDM-003RP (Green) SDM-003X (Red). These forms will be used to...

1. Identify all parts removed from an aircraft for inspection or repair/overhaul (refer to Section 12, "Repairable Tag - Green, Form SDM-003RP").

2. Parts that have been repaired and/or inspected serviceable (refer to Section 12. "Serviceable Tag (Yellow), Form SDM-003S".

3. Parts that are to be scrapped (refer to Section 12, "Rejection Tag (Red), Form SDM-003X".

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#### • Note •

Inspection panels (access covers, fairings cowlings etc.)

removed for access will be inspected and appropriately tagged upon removal, placed on carts, shelves or the equivalent. The entire group of parts will be identified with a single appropriate tag.

#### 7.5 Aircraft Weight and Balance.

Source: 14 CFR 135.23(b).

7.5.1 Weighing Requirements.

1. The AMT or approved maintenance facility will provide to the Operations Department new weight and balance data after physical reweigh of the aircraft using the appropriate forms. See chapter 12.

2. Weight changes will be entered in the Aircraft Flight Manual and in the aircraft file maintained in the 14 CFR 135 Maintenance Department files. The Flight Manual containing the current physical weighing record and all subsequent revisions must be carried aboard the aircraft at all times.

### 7.5.2 Descriptions and General Standards.

Empty Weight.

The empty weight of an aircraft is the aircraft weight less the following;

1. All fuel, except unusable fuel. System fuel is that amount required to

fill the system up to the outlets to the engine.

2. Crew and baggage.

- 3. Drainable antidetonant injector and deicing fluids, where applicable.
- 4. Removable passenger service equipment, food, magazines, etc.,

including all required water, portable O2 and loose medical equipment.

5. Emergency survival equipment (over water, tropical, arctic).

6. Other non-required equipment, variable for flights.

Adjusted Empty Weight.

The adjusted empty weight established by Sundance Helicopters for a particular aircraft will include the following standard items, in addition to the empty weight of the aircraft, unless otherwise specified;

1. Drainable antidetonant injector and deicing fluids, where applicable.

2. Removable passenger service equipment, food, magazines, etc., including all required water and cockpit O2.

3. Emergency survival equipment (over water, tropical, and arctic).

#### Aircraft Zero Fuel Weight.

The zero fuel weight of an aircraft is the maximum weight authorized for such aircraft without fuel. The weight of fuel carried in the fuselage will be deducted from such maximum. When zero fuel weight limitations or equivalent restrictions are specified, proper provision for loading will be made by the operator so that such structural limitations are not exceeded.

#### 7.5.3 Aircraft Weights.

The actual weight and balance of each aircraft will be established by physical weighing in accordance with current Federal Aviation Regulation or as required by DOD contract. After physical weighing of the aircraft is completed, in accordance with the appropriate manufacture maintenance manual, "Empty Weight and Balance Revision, Form SDWB-002 will be used to record the data and placed in the appropriate section of the aircraft flight manual. In addition, "Aircraft Weight & Balance Configuration Chart Form SDWB-003 as applicable will be used to record Empty Weight per configuration and placed in the appropriate section of the aircraft flight manual.

The Director of Operations will be notified when a configuration change is made to an aircraft. The appropriate flight manual weight and balance section can also contain specific weight and balance forms which provide specific weight and balance information for various configurations often installed in the aircraft.

#### 7.5.4 Records.

When physically re-weighing the aircraft all previous weighing records will be removed from the Rotorcraft Flight Manual (RFM) and sent to the Records Department to be placed in the appropriate aircraft archives. The new actual physical re-weigh of the aircraft will be placed in the Aircraft Flight Manual. Actual Weighing form SDWB-001.

When revising the aircraft weight by means of computation, the AMT will reference the current date, weight, arm, and moment at the top of the new, "Aircraft Weight & Balance Record form SDWB-002. Once the revision is completed the revised form will be marked (superseded) and date superseded.

#### • Note •

All weight and balance entries for Sundance Helicopters' aircraft will be in standard (Pounds and Inches).

#### 7.6 Service Difficulty Reports (SDR).

Source: 14 CFR 135.415 as applicable to Rotorcraft.

#### 7.6.1 Policy.

A report will be submitted to the FAA Offices in Oklahoma City, OK within the next 96 hours after the date of occurrence. However, a report due on a weekend or holiday may be submitted the next work day.

#### 7.6.2 Procedure.

The report will be accessed online, via the FAA website, whenever any failure, malfunction or defect occurs concerning any of the following;

1. Fires during flight and whether the related fire-warning system functioned properly.

2. Fires during flight not protected by related fire-warning system.

3. False fire-warning during flight.

4. An exhaust system causing damage during flight to the engine, adjacent structure, equipment, or components.

5. An aircraft component causing accumulation or circulation of smoke, vapor, or toxic or noxious fumes in the crew compartment or passenger cabin during flight.

6. Engine shutdown during flight because of flameout.

7. Engine shutdown during flight due to foreign object ingestion or icing.

8. Engine shutdown during flight when external damage to the engine or aircraft structure occurs.

9. A fuel or fuel-dumping system that affects fuel flow or causes hazardous leakage during flight.

10. Aircraft structure requiring major repair.

11. Cracks, permanent deformation, or corrosion of aircraft structures, if more than the maximum acceptable to the manufacturer or the FAA.

12. Aircraft components or systems that result in taking emergency actions during flight (except action to shutdown an engine).

13. SDRs will also be submitted for any other failure, malfunction, or defect occurring in an aircraft or is detected at any time if the failure, malfunction, or defect has endangered or may endanger the safe operation of the aircraft.

Each report required by 14 CFR 135.415(a) will include the following;

1. The type and identification number of the aircraft.

2. The name of the operator.

3. The date.

4. The nature of the failure, malfunctions, or defects.

5. Identification of the part and system involved and time since last overhaul, if known.

6. Apparent cause of the failure, malfunction or defect

7. Other pertinent information necessary for complete information.

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### 7.7 Aircraft Conformity/Acceptance Inspection.

Source: 14 CFR 135.25(a) (2).

### 7.7.1 Background.

Sundance Helicopters will ensure all aircraft are registered as a civil aircraft of the United States and carry an appropriate and current airworthiness certificate and that aircraft operated under their approved operating certificate are in an airworthy condition and meet the applicable airworthiness requirements, including those relating to identification and equipment.

All aircraft added to Sundance Helicopters Operating Certificate must conform to the items listed on "FAR 135 Conformity Checklist, Form SDC-001". This form can be obtained from the Director of Maintenance (or designee). Instructions for completing this form are in chapter 12 of this manual.

## 7.7.2 Aircraft Acceptance.

During acceptance of an aircraft, from the OEM or Approved Vendor, the following items will be checked for accuracy and completion;

- 1. Aircraft is configured as per the purchase agreement.
- 2. All documentation is properly notated and available, including;
  - a. Airworthiness certificate.
  - b. Aircraft registration certificate.
  - c. Flight Logbook(s).
  - d. Flight Manual and required supplements.
- 3. Airframe and Engine Maintenance Manuals.
- 4. Wiring Diagrams for installed equipment/avionics.
- 5. FAA Form 337(s) to include ICA and required supplements.
- 6. Optional Equipment Operating Manuals.
- 7. Current Weight and Balance and Equipment List (currency not to exceed 90 days).

8. Perform physical inspection of aircraft to include serial number verification.

- 9. Inventory all fly away equipment as per purchase agreement.
- 10. During acceptance flight, ascertain positive engine power assurance check per the manufacturer's flight manual; verify proper operation of all installed equipment, and an auto-rotation RPM check.
- 11. All paperwork except the aircraft logbook will be delivered to the Records Department.
- 12. Verify compliance with all applicable Airworthiness Directives for airframe, engine and appliances.

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## 7.8 Adding/Removing Aircraft.

Source: 14 CFR 91.417(b) (2).

#### 7.8.1 Adding Aircraft.

When adding aircraft to Sundance Helicopters certificate the following will be provided the FAA for review;

1. Aircraft Maintenance Records.

2. Airworthiness Directive Summary.

3. Completed "FAR 135 Aircraft Acceptance Inspection, Form SDC-001".

4. The aircraft as equipped for 135 operations.

5. Request in writing to CHDO to add aircraft to Sundance Helicopters, Inc Operations Certificate.

6. When adding aircraft from a previous 14 CFR 135 operator ensure previous operators maintenance schedule corresponds to the company's maintenance schedule. Additional inspections and / or maintenance may be required to accomplish coordination.

7.8.2 Removing Aircraft.

The Director of Maintenance will submit a request to the CHDO requesting removal of the aircraft from Sundance Helicopters Inc. Operating Certificate.

### 7.9 Accident/Incident Procedures.

For information regarding reporting and procedures after an accident or incident refer to the Company General Operations Manual.

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## **Chapter 8 Quality Assurance.**

## 8.1 Maintenance Review Board (MRB).

## 8.1.1 Purpose.

The purpose of the program is to track technical issues and provide a record of follow up. The MRB was established to enhance the company's aircraft operating safety/airworthiness. To accomplish this data will be collected, recorded, and provided to the Safety Department for analysis regarding the Maintenance Department, vendor auditing and internal company auditing. Once gathered, the information will be used to identify maintenance processes which will produce hazardous conditions affecting airworthiness, or processes causing unnecessary expense. When a process is identified, it will become an agenda item for the next MRB meeting or a candidate for immediate action depending on the severity.

## 8.1.2 Data Gathering.

## Data Collection.

Data may be gathered from sources listed below and forwarded to the Quality Assurance Department for use in the MRB Program;

- 1. Service Difficulty Report.
- 2. Repetitive discrepancies generated by scheduled and non-routine inspection items.
- 3. Component Teardown Reports (when requested).
- 4. Completed deferred discrepancy forms.
- 5. Accident/Incident Investigation Reports.
- 6. Logistics Trend Reports.

7. Other data will come in the form of bulletins and notices from aircraft and component manufacturers, FAA, and other organizations deemed appropriate for our program.

## Data Examination.

Communication between all departments and Quality Assurance concerning problems, trends, or anything that could affect safe operation of company aircraft cannot be over stressed. On a periodic basis, the Manager of Quality Assurance and Director of Maintenance will examine information collected during the course of analysis and surveillance and assess trends and problems that affect aircraft safety and airworthiness. This examination of the data gathered by the Manager of Quality Assurance will be used to determine if special action is required to correct any undesirable or potentially dangerous situations. This situation might be an example of a discrepancy occurring too often, an incorrect troubleshooting technique, or a case of an improper procedure being followed.

## Component Teardown Reports.

The MRB may elect to request a teardown report from any agency as a means to evaluate a part's performance and/ or conditions after removal. This process may also be used in-house during component inspections and/or repairs such as engine inspections. When the completed teardown report arrives from the vendor, a copy of the report will be filed with the Director of Maintenance along with the original request for the report. This data will be reviewed at the next scheduled MRB meeting. The Technical Review Board will review the incoming report to assess if any further action is required.

### 8.1.3 MRB Meetings.

The Manager of Quality Assurance will convene the MRB for meetings on a regular basis (at a minimum, once per each quarter). This meeting will be chaired by the Manager of Quality Assurance (or designee) and will cover open MRB items for current status. All attending members are encouraged to present any items of concern during the open discussion portion of the meeting. Those individuals, assigned follow-up actions, will be afforded an opportunity to present their written and verbal reports. If a member or group is charged with a follow up assignment, that member or group will be held responsible for the accomplishment of their assignment by the due date assigned.

The MRB will determine action, as necessary, for the correction of any deficiencies found in the company's maintenance and/or inspection programs. However, if during the course of surveillance an airworthiness, safety or regulatory finding exists, the responsible manager will be notified for immediate corrective action.

The Manager of Quality Assurance may take immediate corrective action without prior approval of the MRB. if the finding proves to be an overall fleet problem, a Quality Alert Notice will be issued. The Manager of Quality Assurance will provide to the Board, all pertinent details of the action taken during the next MRB meeting.

### 8.1.4 MRB Composition.

The board consists of the following members;

- 1. CEO.
- 2. Manager of Quality Assurance.
- 3. Director of Maintenance.

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4. Director of Safety and Regulatory Compliance.

5. Director of Operations.

6. Any other individuals such as maintenance, flight operations, government representative(s), manufacturer's representative(s), etc., may be invited whenever appropriate.

#### • Note •

The Manager of Quality Assurance will ensure minutes of the MRB meetings are recorded for the purpose of maintaining a formal account of each meeting. The Master Technical Review Board list will be updated after each meeting and a copy will be provided to each attendee.

8.1.5 Board Action.

1. When findings requiring action occur, the Manger of Quality Assurance (or designee) will take the appropriate measures conveying all necessary actions required by maintenance personnel.

2. When positive trends exist, the Board may present its findings to the FAA as grounds for extending the maintenance interval of an aircraft, system or components whenever safety considerations permit.

3. The following actions may be taken but not limited to;

a. QAN.

b. OEM/Vendor notification.

c. FAA notification.

4. If the corrective action required is a major alteration or repair of a system or component, then a QAN will quote the applicable approved data, ensuring the appropriate procedures are followed.

5. If different procedures or troubleshooting techniques are needed, then chapter and page number will quoted, appropriate manuals or other publications.

Immediate action can be taken by routing the QAN to the technician on duty. However, if parts need to be obtained, DER engineering approval secured, or further information gathered, the QAN would be held by the Director of Maintenance pending receiving parts, approved data and/or completion of research. These QAN will then be routed to maintenance personnel for completion. The aircraft will not be operated until required maintenance has been accomplished.

A lack of maintenance/inspection findings may be construed as indicating a low failure rate in evaluating aircraft systems and/or structures. When an aircraft or system has demonstrated good performance, as shown by three or more consecutive inspections without negative findings, consideration may be given to applying for an extension of the inspection interval. Additional justification, to apply for an amendment to the Operations Specifications, will come in the form of favorable teardown reports in combination with the use of an analysis system, and the lack of pilot and maintenance complaints.

## 8.2 Vendor Audit Program.

### 8.2.1 Background.

This program provides a process of vendor oversight used during the course of preventive maintenance, maintenance, repair, and alteration. In order to meet approval standards, the vendor must supply copies of their Repair Station Operations Specifications or a copy of their Airframe & Power Plant certificate, and/or Inspection Authorization and Anti-Drug Plan / AMPP Certification Statement.

The collection of data will involve surveillance of the actual audit process, receiving inspections, condition reports from vendors, and premature component removal(s). After data analysis, the primary means of distributing collected data will be during the MRB meetings. However, if immediate action is required, all Sundance Helicopters appropriate maintenance and logistics personnel are notified by electronic means and the vendor is removed from the Approved Vendor's list.

#### 8.2.2 Processes.

The process involves vendor audit and exception procedures for use when a vendor is found in noncompliance.

#### Vendor Identification.

The type of vendor falls into four categories;

- M. Manufacturer.
- S. Supplier.
- V. Vendor.
- C. Calibration Facility.

### 8.2.3 Vendor Audit Schedule.

The vendor audit process revolves on a schedule of mail audits on a 24 month bases.

### 8.2.4 Audit Procedure.

Mail Audits.

A mail audit form (Vendor Questionnaire) will be used to request pertinent information about a vendor's management, insurance, quality system program, technical data, equipment calibration, facilities and other areas. All mail audits sent out will have a response deadline of 30 days to ensure timely completion.

The Manager of Quality Assurance (or designee) will assess the completed mail audit for acceptability and make a determination as described under the approval process. A vendor's self-audit form can be accepted if it lists all of the pertinent information required.

#### 8.2.5 Approval Process.

1. After receipt of the vendor's response, the Manager of Quality Assurance (or designee) will determine the acceptance of the response.

2. If the response is acceptable, then the vendor will remain active on the approved vendor list.

3. If the response is not acceptable, the Manager of Quality Assurance (or designee) will initiate additional communication with the intent of resolving any open findings or concerns.

4. If an appropriate response is not received in a timely manner, the vendor will be removed from the Approved Vendor List. The Logistics Department will be notified via E-Mail that the vendor has been removed from the Approved Vendor List.

#### 8.2.6 Final Disposition.

1. When completed, the audit packets will be filed and retained in Manager of Quality Assurance under the name of the facility.

2. Superseded company records will be maintained for a period of two years and segregated from the active files. These files will be used to maintain vendor information in case of reactivation within that period.

3. The Manage of Quality Assurance (or designee) will maintain a computerized listing detailing the status of the Vendor Audit Program.

#### 8.2.7 Approved Vendor List.

The Approved Vendor List identifies usable vendors for 14 CFR 135 aircraft from which Logistics/ Parts may purchase. The list is available on the company "G" drove.

#### One Time Approval.

Only the Director of Maintenance (or designee) can approve a one-time parts purchase or vendor usage.

1. In order to approve the one-time usage of a class I or Class II vendor, the vendor must supply copies of their Repair Station Operations Specifications or their Airframe & Power Plant and/or Inspection Authorization License and Anti-Drug Plan/AMPP certification Statement.

#### • Note •

A one-time approval does not constitute a basis for admittance onto the Approved Vendor List, nor should it be used as an authority to utilize a vendor on a repetitive basis. 8.2.8 Vendor Surveillance.

1. Should an approved vendor develop a negative trend, the Manager of Quality Assurance (or designee) will notify the vendor of the finding and await their response.

2. During the waiting period, the vendor's use may be continued or suspended depending on the severity of the problem.

3. After receipt of the vendor's response, the Manager of Quality Assurance (or designee) will determine if the vendor is still eligible to remain on the Approved Vendor List.

### 8.3 Quality Assurance Internal Audit Program.

8.3.1 Purpose.

The Internal Audit Program provides insight into company organization and infrastructure. It is this program which determines not only the effectiveness of the overall organization, but individual performance within that organization.

This program primarily audits the company's maintenance, logistics and operations facility. Each audit will be performed in accordance with an audit schedule. A Quality Assurance auditor will inspect the operations, facilities, aircraft and other areas as indicated on the audit form to ensure compliance with current company publications and technical manual revisions.

#### 8.3.2 Procedures.

1. The auditor will conduct the audit quarterly using an audit form SDA-001as a guide for ensuring consistency throughout the audit process. During the audit the auditor will take detailed notes for reference during the out brief for the department management and for preparing a list of findings and concerns for the Quality Assurance Department.

2. In the event that the auditor discovers a finding that is hazardous, nonairworthy, could violate current Federal Aviation Regulations or company Operations Specifications, the auditor will notify the Directors of Maintenance, Operations and the Manager of Quality Assurance without hesitation for immediate action instructions.

3. Within seven (7) days of the audit completion, the auditor will prepare a list of findings and return the completed audit form SDA-002 and list of findings to Quality Assurance Department.

4. Within fifteen (15) days of audit completion, a written Finding Report will be sent to the Department Manager and a copy to the Directors of Operations and Maintenance containing the following:

a. Audit date.

b. Facility name.

c. Control number.

d. List of findings for physical site audits.

e. Response deadline for receipt of the written response.

5. Within 30 days after receipt of the finding report the Department Manager will draft a detailed response for the correction of the findings and action taken to ensure that the discrepancy will not reoccur.

6. The corrective action will be sent to the Manager of Quality Assurance (or designee).

7. The Manager of Quality Assurance (or designee) will assess the completed audit and forward a copy of the response to the Directors of Operations, Maintenance, and Safety.

### Approval Process.

After receipt of the response to the Finding Report, the Manager of Quality Assurance (or designee) will determine the acceptance of the response. If the response is acceptable, the audit of that department will be closed and the audit packet filed. However, if the response is not acceptable, the Manager of Quality Assurance (or designee) will issue a follow up report to either the Director of Operations, Director of Maintenance or Safety Department and request additional information to clarify or resolve the remaining open findings or concerns.

## Final Disposition.

1. When completed, the audit packets will be filed in the Quality Assurance Department. The last physical audit will be retained on file.

2. The Manager of Quality Assurance (or designee) will maintain a computerized listing detailing the status of the Internal Audit Program.

## 8.4 Annual Aircraft Records Audit.

## 8.4.1 Purpose.

An annual records audit is conducted to validate the current status of all life limited parts installed on each airframe, engine and rotor. The Director of Maintenance is responsible to ensure the audit is performed by the Quality Assurance Records Department and will validate the findings. This required audit will be conducted starting 1 January of each calendar year and will be completed no later than 60 days after initiation of the physical audit.

### 8.4.2 Procedures.

The Quality Assurance Records Department will perform an annual comprehensive physical audit of all currently installed serialized life limited components for each company aircraft operated and maintained under its KBMA477F approved operating certificate. The audit will entail verifying the component records with the existing component status sheets. The component records will be reviewed to ensure required information has been notated on the Revision: Original JUNE 01, 2010

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appropriate records. Any noted discrepancies or abnormalities will be reported to the Director of Maintenance.

## 8.5 Foreign Object Damage (FOD) Prevention Program.

#### 8.5.1 Background.

The FOD Prevention Program is managed by the Safety Department. The program is designed to eliminate injury to personnel or damage to aircraft or engines by foreign objects. The following will be adhered to when performing maintenance on any aircraft or in areas where the aircraft start up and shut down regularly;

1. Clean As You Go.

Clean up during and after each job. Have a suitable container (marked F.O.D.) in work areas to place discarded materials.

2. Tool Accountability.

Inventory your tools. Know what tools were used on a job and ensure they have all been accounted for when the job is completed. Take precautions by using protective coverings so that dropped tools do not damage any part of the aircraft.

3. Component Protection.

Protective devices will be used on all open ports of installed or removed components such as caps, plugs, covers, etc. Coverings will be placed over any exposed open areas near the job where parts or tools could be dropped. Engine inlet and exhaust covers will be installed when performing maintenance on the aircraft.

### 4. Lost Items.

Any time an item is lost during the job, a search will be conducted to determine the item is not located anywhere on the aircraft.

5. FOD Awareness.

FOD Awareness posters will be displayed around aircraft access and maintenance areas. Contact the Safety Department if posters are required.

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# **Chapter 9: Aircraft Records**

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## **Chapter 9 Aircraft Records.**

## 9.1 Record Types.

9.1.1 Time in Service Records.

Aircraft Maintenance Log, Form SDM-001.

Provides total time and/or cycles in service for each airframe and aircraft engine (as well as any discrepancies) found by company operations or maintenance personnel. Any maintenance discrepancies recorded in the log must be signed off as corrected by an authorized Aircraft Maintenance Technician (AMT), or can be deferred by the Pilot in Command (PIC), or an authorized AMT per the specific aircraft's MEL prior to departure in each instance.

Closing the Current Aircraft Logbook Page.

The aircraft assigned AMT will close the logbook. This consists of adding up any accrued flight time and cycles for that page and recording the new ending totals and will be closed by 24:00 Hrs. of each operating day.

## Normal Flight Day.

A normal flight day is composed of day or night VFR tour operations ending at 24:00 Hours.

9.1.2 Maintenance Records.

Consist of but not limited to the following;

- 1. Aircraft Maintenance Log, Form SDM-001.
- 2. Deferred Item Log, Form SDMEL-001.
- 3. Aircraft Discrepancy List, Form SDM-002.
- 4. Recurring Airworthiness Directives.

## 9.1.3 Aircraft Metal Clipboard.

A metal clipboard is provided for each company aircraft to contain time in service and aircraft maintenance records.

The metal clipboard consists of;

1. Aircraft Maintenance Log, Form SDM-001.

2. Blank "MEL Deferred Item Log, Form SDMEL-001".

3. Active "MEL Deferred Item Log, Form SDMEL-001" (if applicable).

4. Any applicable recurring AD sheets.

## 9.2 Processing.

### 9.2.1 Procedure.

1. The time in service record, "Aircraft Maintenance Log, Form SDM-001", will be delivered daily to the Records Department after closing an Aircraft Logbook page.

 Upon receipt, these completed log entries will be reviewed and audited by the Records Department for proper notation of work performed and supporting documentation. After the Aircraft Records Department has reviewed the incoming paperwork, the maintenance completed will be updated in the company's computerized maintenance tracking system.
 The Aircraft Records Department will then file the incoming paperwork

with the permanent records archives for the aircraft.

4. The Aircraft Records Department will supply the Director of Maintenance with updated information generated from the company computerized maintenance tracking system as requested.

#### • Note •

Each aircraft's computerized tracking information is available to all personnel as needed.

### 9.3 Access to Records.

Source: 14 CFR 91.417.

### 9.3.1 Policy.

The purpose of this section is to describe the policies and procedures utilized by the company to ensure that access to records is controlled and records are properly accounted for and safe guarded while in control of the records department. Aircraft records, required to be maintained by 14 CFR 91.417, will be made available for inspection by the FAA or any authorized representative of the National Transportation Safety Board (NTSB). It is company policy that original aircraft maintenance records will not leave company facilities without the knowledge and approval of the Director of Maintenance (or designee).

### 9.3.2 Procedure.

### Company Employees.

Employees requiring aircraft maintenance records will request the necessary records from the Records Department. Access to Aircraft records is restricted to supervisory personnel only.

Other than Company Employees.

1. The requester will provide proper identification and credentials.

2. Copies of records required to be maintained by 14 CFR 91.417 will be available for inspection when requested.

3. Copies of the records referenced above will be provided expeditiously and in sufficient quantity for the requesting parties needs. When necessary, copies will be certified as copies of true originals.

4. When original records are requested and are intended to be outside of the control of the Aircraft Records Department, those records will be closely inventoried and documented to show the specific records provided. As a safe guard against loss, copies of all original records will be made prior to the original records leaving the facilities and only after receiving the concurrence of the Director of Maintenance (or designee).

5. When the records are returned, they will be inventoried using the original inventory and when it has been determined they are complete, the original inventory sheet will be returned to the requester.

## 9.4 Records Retention.

Source: 14 CFR 91.417(b) (1).

9.4.1 Policy.

The records of the last complete overhaul of each airframe, engine, rotor, and appliance shall be retained until the work is superseded by work of equivalent scope and detail. All permanent records shall be retained and transferred with the aircraft at the time the aircraft is sold.

## 9.5 Records Transfer Procedure.

Source: 14 CFR 135.411(a)(1) and 91.419.

## 9.5.1 Policy.

The company will provide the purchaser the following records in plain language form or in coded form at the election of the purchaser at the time of sale;

1. Records containing the total time in service of the airframe, each engine and each rotor.

2. Records containing the current status of life limited parts of each airframe, engine, rotor, and appliance.

3. Records containing the time since overhaul of all items installed on the aircraft which are required to be overhauled on a specified basis.

4. Records containing the current status of applicable Airworthiness Directives (AD) including for each, the method of compliance, the AD number, and revision date if the AD requires recurring action the time and date when the next action is required.

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5. Records for each major alteration to the airframe and currently installed engines, rotors, and appliances.

9.5.2 Procedure.

1. The Director of Maintenance (or designee) will review all records for completeness and prepare an inventory sheet in duplicate containing a general description of all records transmitted.

2. The original record inventory sheet will be signed as accepted by the new owner or his agent and the copy will be retained by the company until no longer needed.

## 9.6 Lost or Destroyed Maintenance Records.

Source: 14 CFR 91.417and AC 43-9 (series).

9.6.1 Policy.

The company recognizes that occasionally maintenance records are lost or inadvertently destroyed and must be reconstructed. Any reconstructed maintenance record must be reviewed for content and accuracy by the Director of Maintenance and then notarized by a Notary Public. This must be done prior to the record being accepted by the Records Department.

### 9.6.2 Procedure.

When reconstructing maintenance records, the Records Department will accomplish the following:

1. Establish total time-in-service/time-since-overhaul (as appropriate) of airframes, engines or components using all available records (e.g. computer tracking sheets, work orders, daily flight logs, or invoices).

2. When necessary, review individual pilot logs to obtain operating times if available.

3. Review customer billing records when records may show flight times.

4. Contact vendors who may have copies of records that establish operating time.

5. Prepare a reconstructed record using the information based upon the sources listed above.

6. Execute an entry in the reconstructed record stating or (similarly worded statement);

"The maintenance record for this airframe, engine or component was lost or destroyed as the result of <state reason for loss>. This maintenance record is a reconstructed record based upon <indicate source records such as computer tracking sheets, daily flight logs, work orders and invoices, as appropriate>. Copies of source records are on file at Sundance Helicopters Inc Records Department and accompany this record. The aircraft/component total time-in-service or time-since-overhaul is <state number of hours>. I certify this is an accurate estimate (or if positively known times are proven; the actual time-in service) of the airframe, engine or component.

Date: \_\_\_\_\_\_ Signature: \_\_\_\_\_\_ A&P Certificate Number: \_\_\_\_\_ Public Notary: Affix Seal Here

7. The Aircraft Records Department will store the reconstructed record and distribute any necessary copies as required.

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### **Chapter 10 Maintenance Training.**

### **10.1 Requirements.**

Source: 14 CFR 65.81(b).

10.1.1 Mechanics.

A certificated mechanic may not exercise the privileges of his certificate and ratings unless he understands the current instructions of the approved data for the specific operation concerned.

### **10.2 Training Process.**

10.2.1 Basic Indoctrination Training.

Will be completed within sixty (60) days of the date of hire, may be conducted in part as on-the-job training under the supervision of an appropriately rated mechanic. Training will be documented using Form: SDTRG-002 & SDTRG-003 as follows;

- 1. Drug /Alcohol Training.
- 2. Time Card Procedures.
- 3. Maintenance records Procedures.
- 4. Department Policies / Procedures.
- 5. Job Responsibilities.
- 6. Work Schedules.
- 7. Aircraft Familiarization.
- 8. Flight line Procedures.
- 9. MEL / NEF Requirements.
- 10. Shop Safety.
- 11. Airworthiness Directives.
- 12. FAR 135 GOM / GMM Manual Brief.
- 13. Hazardous Materials Training. (if designated)
- 14. Logistics Department Procedures.
- 15. Suspected Unapproved Parts.

10.2.2 Annual Recurrent Training.

All AMT(s) who are assigned to the 14 CFR 135 Maintenance Department will complete annual recurrent training documented on form SDTRG-004 as follows;

- 1. Maintenance Records.
- 2. Airworthiness Directives.
- 3. MEL / NEF Requirements.
- 4. Engine Run-up (EC130). (if designated)
- 5. Engine Run-up (AS350). (if designated)
- 6. Shop Safety.

7. Flight Line Procedures.

8. Logistics Department Procedures.

9. Hazardous Materials. (if designated)

10. Suspected Unapproved Parts.

11. Other topics as determined by the previous year's issues.

## **10.3 Maintenance Training Curriculums.**

10.3.1 Policy.

Aircraft-Specific Technical Training will be conducted by the OEM as soon as practical after initial hiring and basic indoctrination is completed. Engine specific technical training will be conducted by the OEM as soon as practical after initial hiring and basic indoctrination is completed.

Special curriculums will be developed as required and entered on the maintenance technician training forms SDTRG-002 & SDTRG-003.

## **10.4 Training Folders.**

10.4.1 Policy.

All maintenance training folders with appropriate documentation, copies of certificates, and all other training data will be maintained in the Training Records Department.

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## Chapter 11 Management of Aircraft Parts.

## 11.1 Background

Source: AC 20-62(series), Subject: Eligibility, Quality, and Identification of Aeronautical Replacement Parts.

## 11.1.1 Policy.

All parts and materials, when received, require a visual receiving inspection to determine quality, eligibility, and traceability prior to installation on company aircraft.

## 11.1.2 Responsibility.

The person receiving the part, component or the material is responsible for determining the part is acceptable based on the criteria listed below;

## Eligibility.

Verify part number ordered is part number received, if not verify eligibility and applicability for the specific installation or use.

### Serial Number.

Verify serial number referenced on received documentation matches serial number on part received. (If applicable)

## Quality.

Ensure part received is in serviceable condition.

### Traceability.

Ensure all applicable documentation establishes source and history.

### AD Status.

Verify applicability of any ADs and their compliance, (If applicable) **Time/Cycles Remaining.** 

For life limited parts ensure life time/cycle has not been exceeded.

Verify through appropriate records the time/cycles on the part.

## Shelf Life.

Calendar life has not expired.

## 11.1.3 Documentation of Replacement Parts.

## Airworthiness Approval Tag.

FAA Form 8130-3 Airworthiness Approval Form identifies a part or group of parts that have received a conformity determination from production approval holders or having been approved for return to service by an authorized 14 CFR 145 Repair Station or a U.S. Air Carrier having a Continuous Airworthiness Maintenance Program. Foreign Manufactured Repaired/Overhauled/Inspected Replacement Parts.

Foreign manufactured parts for use on U.S. type certificated products may have a form similar to the FAA Form 8130-3, the Joint Aviation Authority (JAA), JAA Form One or a Europeans Aviation Safety Agency (EASA) EASA Form 1.

## New Parts Invoice/Shipping Ticket.

New parts manufactured in the U.S. for type certificated products, may identify the part by part number, serial number and nomenclature. This may provide evidence that a part was produced by a manufacturer holding an FAA approved manufacturing process.

## Maintenance Release Document (Used Parts).

A Repair Station Work Order or Repair Station serviceability tag with a release signed by an appropriately rated person, qualified for a relevant function signifies the items have been approved for return to service. The tag must positively identify the part, by part number; it may include the serial number (if appropriate) and may also reference a work order number for further information.

### • Note •

When a non-certificated person certifies they are shipping the correct part order, the only thing they are stating is that the part number agrees with the purchase order, not the status of FAA acceptability of the part.

## 11.1.4 Markings.

FAA Technical Standard Order (TSO) Markings.

1. Name and address of the manufacturer.

2. The name, type, part number, or model designation of the article.

3. The serial number or the date of manufacture of the article or both.

4. The applicable TSO number.

## Parts Manufacturer Approval (PMA) symbol.

Each PMA part should be marked with the letters, "FAA PMA" in accordance with 14 CFR 45.15, and include the following;

1. Name.

2. Trademark or symbol.

3. Part number.

4. Name and model designation of each certificated product on which the part is eligible for installation.

Standard Parts.

Parts manufactured in complete compliance with U.S. Government or industry accepted specification is "standard parts." Examples of standard parts are hardware, nuts, bolts, rivets, cotter pins, etc. that conform to National Aerospace Standards (NAS), Military Standard (MS), Air Force Navy Aero Nautical Standard (AN), Society of Automotive Engineers (SAE), Aero Space Standard (AS). These parts may be individually marked or identified with the appropriate standard symbol.

#### • Note •

Parts that are too small, or otherwise impractical to be marked, may as an alternative, be marked showing the above information on the attached tag or labeled container. If the marking on the tag is too extensive to be practical, the tag attached to a part or container may refer to a readily available manual or catalog for part eligibility information.

## **11.2 Receiving Inspection Personnel.**

11.2.1 Policy.

All receiving inspections will be performed by personnel who have been properly trained and documented.

11.2.2 Training.

Non-certificated personnel assigned to the Logistics Department will receive initial parts receiving training. Recurrent training for these non-certificated personnel will be held annually. A list of non-certificated personnel assigned to the Logistics Department that have been trained, for parts receiving requirements, is maintained by the Maintenance Training Manager. All certificated personnel receive parts receiving training during basic indoctrination with annual recurrent training.

## **11.3 Receiving Inspection.**

11.3.1 Policy.

Source: AC 20-62(series), Eligibility, Quality, and Identification of Aeronautical Replacement Parts.

1. All parts will have a receiving parts inspection prior to being installed on any aircraft.

2. Items will be inspected in an area that is dry and relatively free of dust.

3. Parts must be handled in a manner to preclude accidental damage during the receiving inspection.

4. All forms, tags, and associated documentation received with the unit will be reviewed to ensure that the part number and serial number can be verified, as shown on the applicable part and papers/invoices and that the correct parts have been received.

5. Items will be visually inspected for general appearance and for any obvious defects that would affect the airworthiness of the unit.

6. Painted or finished areas (if applicable) and all external safeties are also checked at this time.

## 11.3.2 Records.

All associated documentation and/or tags pertaining to the work performed are reviewed and processed by the parts receiving inspector and remain with the unit until installed.

Pertinent paper work can consist of one or more of...

1. FAA Form 337.

2. The manufacturer's or vendor's purchase order

3. Shipping paper, or other paper work which establishes the status of the component involved and/or records the work accomplished.

#### • Note •

Regardless of the receiving parts inspection process, the AMT installing the part has the final responsibility to determine, that part is the correct part for the installation. The part is serviceable/ airworthy when installed. The part is installed in accordance with the approved data and the correct documentation is present for traceability of that part. The AMT is responsible to see that a correct maintenance record entry has been completed in accordance with 14 CFR 43.9 approving the article for return to service. He is also responsible for coordination of any inspections required by the company quality control process.

## **11.4 Parts Identification**.

Source: 14 CFR 45.

## 11.4.1 Policy.

All parts will be tagged appropriately.

11.4.2 New and Serviceable Parts.

Will be identified with the documentation received with the part. Parts removed from an aircraft will be tagged with either a, "Serviceable Tag -Yellow, Form SDM-003S" or "Repairable Tag - Green, Form SDM-003RP", as applicable showing the current status of the part. If a repairable part, "Repairable Tag - Green, Form SDM-003RP", has been repaired or inspected and determined serviceable by Sundance Helicopters personnel, the, "Repairable Tag - Green, Form SDM-003RP", will be removed and a new "Serviceable Tag - Yellow, Form SDM-003S", will be used to identify the part. If however, a part cannot be rendered serviceable, the green tag will be removed and a "Rejection Tag- Red, Form SDM-003X", will be attached.

11.4.3 Unserviceable Parts.

Must be segregated from serviceable parts. Unserviceable parts will be returned to the Logistics Department for evaluation and feasibility of repair using "Repairable Tag - Green, Form SDM-003RP".

Parts that are determined to be not repairable (scrap) or life limited parts which have reached the mandatory replacement time limit will be tagged with, "Rejection Tag - Red, Form SDM-003X", and placed in quarantine. The Director of Maintenance will be notified as to the disposition of scrapped parts.

11.4.4 Quarantined Parts.

The company has a designated quarantine site where access to quarantine parts is restricted.

WARNING

Only supervisory maintenance or quality control personnel may remove or supervise the removal of an article from a quarantined area.

## 11.5 Suspected Unapproved Parts (SUP).

Source: AC 21-29(series), Detecting and Reporting Suspected Unapproved Parts.

11.5.1 Policy.

Any suspected unapproved part will be segregated from serviceable parts and delivered immediately to the Manager of Quality Assurance (or designee).

## 11.5.2 Definitions.

Suspected Unapproved Parts.

Refer to FAA web for current publications addressing "...part, component, or material that is suspected of not meeting the requirements of an "approved part."

An unapproved part is defined as:

A part that, for any reason, may not be "approved."

Reasons may include findings such as a different finish, size, color, improper (or lack of) identification, incomplete or altered paperwork.

11.5.3 Identifying SUP. General.

Prior to parts being received into the inventory system, receiving personnel will make every attempt to identify SUP during receiving inspection and prevent their acceptance.

Consideration Criteria;

 Confirm the packaging of the part identifies the supplier or distributor, and is free from alteration or damage.
 Verify that the actual part and delivery receipt reflect the same information as the purchase order regarding part number, serial number, and historical information (if applicable).
 Verify that the identification on the part has not been tampered with (e.g. serial number stamped over, label or part serial numbers improper or missing, vibro-etch or serial numbers located at other than the normal location).
 Ensure the shelf life and/or life limit has not expired, if applicable.

5. Conduct a visual inspection of the part and supporting documents to the extent necessary to determined if the part is traceable to an FAA approved source.

## Evaluation.

Evaluate any visible irregularities (e.g. altered or unusual surface, absence of required plating, evidence of prior usage, scratches, new paint over old, attempted exterior repair, pitting, or corrosion).

## Random Sampling.

Conduct random sampling of standard hardware packaged in large quantities in a manner which corresponds to the type and quantity of the parts.

## Parts Segregation.

Segregate parts of a questionable nature will be tagged with a "Repairable Tag - Green, Form SDM-003RP" in a secured location and marked as a, "suspected unapproved part" to eliminate unauthorized usage and attempt to resolve issues regarding questionable status of part (e.g., obtain necessary documentation, if inadvertently not provided, or determine if irregularities are a result of shipping damage and handle accordingly). Contact QA for disposition and determination.

## Parts Already Installed on Aircraft.

If suspected unapproved parts are identified as being installed on the aircraft, contact QA for disposition and determination if fleet campaign action is required to facilitate the removal of the part.

Additional Examples.

The following are examples of additional conditions to be alerted to when receiving parts;

1. "New" parts showing signs of rework.

2. "Used" parts showing signs of unapproved or inappropriate repair.

3. Parts with poor workmanship or signs of rework in the area of the part number or serial number inscriptions.

4. Used parts lacking verifiable documentation of history and FAA approval.

5. Parts with prices "too good to be true."

6. Questionable part numbers, fraudulent or suspicious Technical Standard Order or FAA-Parts.

7. Manufacturer Approval markings and/or re-identification, stampovers or vibro-etching on the data plate.

8. Parts delivered with photocopied or missing maintenance release tags.

9. Parts with a finish that is inconsistent with industry standards (discoloration, inconsistencies, resurfacing etc.).

10. New parts sold with maintenance release tags reflecting a status other than new.

11. Parts with poor documentation exhibiting incomplete or inconsistent part identity information.

12. Intact "scrap" unsalvageable parts offered in bulk weight for prices higher than for mutilated parts with identical weight and content.

11.5.4 Reporting SUP.

Reports of SUP may originate from numerous sources such as incoming/receiving inspections, audits, facility surveillance, complaints, or various service difficulty reports and should be reported to the Manager of Quality Assurance. The Manager of Quality Assurance will make a determination if in fact the suspected part should be reported as a SUP.

FAA Form 8120-11, Suspected Unapproved Parts Notification, includes instructions for completion, and identifies the information needed to initiate a SUP investigation. It is included in Advisory Circular 21-29(series) and can also be found at any FAA Office, or on the SUP Program Office web site; <u>http://www.faa.gov/aircraft/safety/</u> programs/sups/.

Forms will be completed by the Quality Assurance Department with assistance from CHDO and sent to the SUP Program Office with a copy to the CHDO. If a reporter is not willing or able to complete FAA Form 8120-11, they may report a SUP by calling the SUP Program Office. When reporting by telephone, refer to FAA Form 8120-11, as the required information (from the caller) will be transcribed onto this form.

### 11.6 Shelf Life Program.

### 11.6.1 Policy.

All aircraft articles, products, and consumables that have a shelf life consideration assigned to them by the manufacture, Military Specification, or other industry entities must be identified as such and controlled. Shelf life items include, but are not limited to, rubber products (o-rings, seals, etc.), sealant, glues, adhesives, grease, etc. In addition, any part or component with a shelf life requires marking of the expiration date.

Any product specified by the aircraft maintenance manual or included in instructions for continued airworthiness for STC - SB - TB - SI - AD or any approved maintenance procedure will have an expiration date as specified by the product manufacture.

Before use on any aircraft, all parts (o-rings, fire bottles, squibs, etc.) and supplies (adhesives, sealers, etc.) will be checked for expiration date. The shelf life will be determined by using SAE Aerospace Manual ARP 5316, as revised).

The Logistics Manager is responsible to ensure that all consumable products are stored per manufacture specifications and marked, where applicable, with required expiration date. Excess product will be stored in accordance with the manufacture recommendations and marked with appropriate expiration date, if applicable, prior to use. Products not having a shelf life limit (i.e. general cleaners, waxes, etc.) will be segregated from items that have an assigned expiration date. Refer to company "G" drive for consumables with their expiration date.

### 11.6.2 Inspection.

All consumables will be inspected on a monthly basis by logistic personnel. All items due expiration in that month will be removed and disposed of properly.

### 11.7 Parts Ordering.

### 11.7.1 Policy.

All articles required for maintaining aircraft will be ordered using a, "Parts Requisition, Form SDP-002".

### 11.7.2 Procedure.

1. "Parts Requisition, Form SDP-002", will be completed by the Technician requesting the material or part.

2. The Director of Maintenance or Designee will approve all parts requests.

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Date: 1 N- 2 Model: 3	S/N: 4 Pre- 1 5 3 4	5 6 Post- 7 flight
Tach Time     FitTime     Aircraft Total Time     Engine Total Time     Starts     Total NP Cyc       8     9     10     11     13       .     .     .     .		
Next Insp Due     AFTT     AD / SB / Components Due     AFTT       30 Hr Insp     23     24     25       100 Hr Insp     .     .     .       Fire Ext.     /     /     .		n inspected as referenced on the attached inspection inspection; determined to be in an airworthy cturn to service. & Cort. No: 30 T4 Mr 31 OAT NG TQ Initials
DISCREPANCIES	CORRECTIVE ACTION	is
Item # 34       35       Date:     36       Name:     37	38           Date:         39           AFTT:         40           Signature & Cert. No:	-(41)
Date: Name:	Date: AFTT: Signature & Cert. No:	
Date: Name: Maintenance Log Verific	Date: 42 AFIT: Signature & Cert No:	SDM-001 Revision: Original

#### Sundance Helicopters, Inc General Maintenance Manual

#### Revision: Original JUNE 01, 2010

**Form Number**: SDM-001 (Duplicate White & Yellow)

#### **Initiated by:** Mechanic / Pilot

#### **Instructions:**

- 1. Enter current date.
- 2. Enter aircraft registration number.
- 3. Enter aircraft model.
- 4. Enter aircraft serial number.
- 5. Enter initials of pilot performing pre flight. Each pilot that accepts the aircraft in a given flight day will perform a pre flight an initial the next pre flight box.
- 6. Enter the next log page number in sequence from previous page.
- 7. Enter initials of mechanic completing the post flight inspection. (Daily Inspection)
- 8. Enter current Tach time of aircraft. (Hobbs time)
- 9. Enter flight time of each mission.
- 10. Enter aircraft total time. Tach time + or Hobbs correction factor. (in log can)
- 11. Enter engine total time. Tach time + or Hobbs correction factor. (in log can)
- 12. Enter total number of starts for each mission.
- 13. Enter total number of engine starts (Np). Engine starts per mission + total previous starts.

#### NOTE

If aircraft is equipped with VEMD, enter total Np cycles after completion of each mission.

- 14. Enter total number of landings per mission.
- 15. Enter total number of landings. Number of landings per mission + previous total landings.
- 16. Enter total number of Ng(s) per mission.

#### NOTE

If aircraft is equipped with VEMD, enter total Ng cycles after completion of each mission.

- 17. Enter total number of Ng(s). Total number of Ng(s) per mission + previous total Ng(s).
- 18. Enter type of mission. (type of tour, type of charter etc.)
- 19. Enter initials of pilot completing through flight inspection. When initialed, pilot is indicating that he / she has preformed a through flight inspection to include inspection of the center windshield on EC 130 aircraft as required by ASB 05A005 current revision. Through flight inspections are required at each shut down after landing.
- 20. Enter initials of Pilot completing mission.
- 21. Enter flight time of charter. (if applicable)
- 22. Enter any ground time of charter. (if applicable)
- 23. Enter aircraft total time or date of next inspection due.
- 24. Enter any AD/SB due or component change.
- 25. Enter aircraft total time that AD/SB or component is due.
- 26. Enter any AD/SB due or component change.
- 27. Enter aircraft total time that AD/SB or component is due.
- 28. Enter aircraft total time scheduled inspection was completed.
- 29. Enter type of scheduled inspection completed.
- 30. Enter signature and certificate number of individual completing the scheduled inspection.
- 31. Enter VEMD margin with correction factor for FDC inlet filter for T4 reading at power check for EC130 aircraft.

Sundance Helicopters, Inc General Maintenance Manual

Revision: Original JUNE 01, 2010

- 32. Enter corrected VEMD with correction factor for FDC inlet filter margin for Torque reading at power check for EC130 aircraft.
- 33. Enter required information when performing a power check on non VEMD aircraft.
- 34. Enter item number of discrepancy.
- 35. Enter discrepancy. Confer with lead mechanic prior to entry.
- 36. Enter date discrepancy was discovered.
- 37. Enter name of individual discovering discrepancy.
- 38. Enter corrective action taken to correct or defer discrepancy. All entries must meet the criteria FAR part 43 or approved MEL procedures.
- 39. Enter date corrective action was taken.
- 40. Enter aircraft total time when corrective action was taken.
- 41. Enter signature and certificate number of individual performing corrective action.
- 42. Enter initials, or stamp of lead mechanic verifying that all required information has been entered on the form and all entries are correct. This inspection will be performed at the end of the flying day.

Disposition:

Retained as permanent Aircraft record.

	PANCY	DISCREPANCY LIST SUNDANCE HELICOPTER 5596 Haven Street Las Vegas, Nevada 89119 CORR	DATE S AF TT ENG TT PAGE ECTIVE ACTION	5 6 7 8 of 9
No. (10)			(12)	
Name (13) No.	Date	Signature (15)	Cert. No. (16)	Date (17)
Name No.	Date	Signature	Cert. No.	Date
Name No.	Date	Signature	Cert. No.	Date
Name	Date	Signature	Cert. No.	Date

SDM-002 Revision: Original

Form Number: SDM-002 (Single Sheet)

Initiated By: Lead Mechanic

#### Instructions

- 1. Enter Aircraft Make. (Eurocopter)
- 2. Enter Aircraft Model.
- 3. Enter Aircraft Serial Number.
- 4. Enter Aircraft Registration Number.
- 5. Enter Date Form initiated.
- 6. Enter current Aircraft total time
- 7. Enter current Engine total time.
- 8. Enter page number
- 9. Enter total number of pages.
- 10. Enter sequential discrepancy number. (start page 1 item 1)
- 11. Enter discrepancy.
- 12. Enter corrective action. Must meet requirements of FAR 43 & 91.
- 13. Enter name of individual entering discrepancy.
- 14. Enter date discrepancy entered.
- 15. Enter signature of certified mechanic performing corrective action.
- 16. Enter certification number of individual signing block 15.
- 17. Enter date corrective action completed.

Disposition:

Retained as permanent Aircraft record.

<b>SERVICEABLE</b>
<u>Desc:</u> (1)
<u>P/N:</u> (2)
<u>S/N:</u> (3)
Removed From: (4)
$\underline{\text{TSN:}} (5) \underline{\text{TSO:}} (6)$
Remarks: (7)
Mechanic: (8)
Date: 9
Component Serial Number Verification:
<u>Mechanic:</u> (10)
Sundance Helicopters 5596 Haven St. Las Vegas, NV 89119
702-736-0606 FORM SDM 003S

#### SERVICABLE TAG

Form Number; SDM-003S (Yellow)

Initiated by; Mechanic / Inspector

#### Instructions;

- 1. Enter description of component
- 2. Enter part number of component.
- 3. Enter serial number of component. (if applicable)
- 4. Enter Aircraft registration number the component was removed from.
- 5. Enter time since new of component.
- 6. Enter time since overhaul of component. (if applicable)
- 7. Enter any applicable remarks.
- 8. Enter signature of mechanic / inspector initiating tag.
- 9. Enter date tag was initiated.
- 10. Enter signature of mechanic / inspector verifying serial number (if applicable) of component. If no serial number enter N/A.

#### Disposition;

Tag will remain with component until component is installed or serviceability status changes. After installation, tag will be affixed to the appropriate form where installation was documented.

REPAIRABLE
<u>Desc:</u> (1)
<u>P/N:</u> (2)
<u>S/N:</u> (3)
Removed From: (4)
$\underline{\text{TSN:}}  (5)  \underline{\text{TSO:}}  (6)$
Remarks: (7)
Mechanic: (8)
Data
<u>Date:</u> (9)
Component Serial Number Verification:
<u>Mechanic:</u> (10)
Sundance Hellcopters
5596 Haven St. Las Vegas, NV 89119 702-736-0606
FORM SDM 003RP

#### **REPAIRABLE TAG**

Form Number; SDM-003RP (Green)

Initiated by; Mechanic / Inspector

#### Instructions;

- 1. Enter description of component
- 2. Enter part number of component.
- 3. Enter serial number of component. (if applicable)
- 4. Enter Aircraft registration number the component was removed from.
- 5. Enter time since new of component.
- 6. Enter time since overhaul of component. (if applicable)
- 7. Enter any applicable remarks.
- 8. Enter signature of mechanic / inspector initiating tag.
- 9. Enter date tag was initiated.
- 10. Enter signature of mechanic / inspector verifying serial number (if applicable) of component. If no serial Number enter N/A.

### Disposition;

Tag will remain with component until serviceability status changes. If serviceability changes tag will be destroyed.

Desc; 1
P/N: (2)
<u>S/N:</u> (3)
Removed From: (4)
<u>ISN:</u> (5) <u>ISO:</u> (6)
Remarks;
7
Mechanic: 8
Date: 9
Component Serial Number Verification:
Mechanic: (10)
Sundance Hellcopters 5596 Haven St. Las Vegas, NV 89119 702-736-0606
FORM SDM 0033

#### **CONDEMNED TAG**

Form Number; SDM-003X (Red)

Initiated by; Mechanic / Inspector

#### Instructions;

- 1. Enter description of component
- 2. Enter part number of component.
- 3. Enter serial number of component. (if applicable)
- 4. Enter Aircraft registration number the component was removed from.
- 5. Enter time since new of component.
- 6. Enter time since overhaul of component. (if applicable)
- 7. Enter any applicable remarks.
- 8. Enter signature of mechanic / inspector initiating tag.
- 9. Enter date tag was initiated.
- 10. Enter signature of mechanic / inspector verifying serial number (If applicable) of component. If no serial number enter N/A.

#### Disposition;

Tag will remain with component until component is destroyed I/A/W scrapping procedures outlined in this manual. After scrapping, tag will be destroyed.

# SUNDANCE HELICOPTERS - PARTS REQUEST SHEET

	and the second second	a constant of the second second second second	All the design of the second				
DATE AC	OFT / OTY OCK	PART NUMBER	NOMENCLATURE	IPC REFERENCE	NITIALS VENDOR	DATE ORDERED	PO #
$\bigcirc 1 (2$		4	5	6	7 8	9	(10)
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				en e			
				ann hann ann an ann an ann an an an an an an			
			and an and a second				
			an a				
			an a	an a			
				e configura Mana			
				n na kato na ka			
				annan is anna is annais			
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				anna a shararan a shararan			
				nounne na			
				antenne en			

SDP-001 Revision: Original

### PARTS REQUEST SHEET

Form Number; SDP-001 (Single Sheet)

Initiated by; Mechanic

### Instructions;

- 1. Enter date of request.
- 2. Enter Acft / stock number.
- 3. Enter quantity requested.
- 4. Enter part number of item (s) requested.
- 5. Enter nomenclature of item (s) requested.
- 6. Enter illustrated parts catalog reference number.
- 7. Enter initials of individual requesting parts.
- 8. Enter vendor parts are ordered from. (Logistics Dept.).
- 9. Enter date parts ordered. (Logistics Dept.).
- 10. Enter parts order number of request. (Logistics Dept.).

Disposition:

Form will be archived in Logistics Department.

	SUNDANCE PA	RTS REQUEST FOR	<u> </u>	U 2 BINE S/N_	Return Oni	
QTY	PART NUMBER	DESCRIPTION	SERIAL NUMBER	CONDITION	PO#	BIN LOCATION
(5)	6	(7)	(8)	(9)	(10)	(11)
				¥. (		
ļ						
	- 					
			_			
Request	Date			Requested By	(13)	)
Aircraft /	Engine Total Time at Install			Approved By	(15	)
	WITE COPY - PARTS	YELLOW COPY - TRACKING	/ RETURN	SDP-002 Revisio	n; Original	

Revision: 1 FEB 22, 2011

Form Number; SDP-002 (Two page, carbon)

Initiated by; Mechanic

#### Instructions:

- 1.) Circle "S" (for scheduled) or "U" (for un-scheduled) maintenance.
- 2.) Check the block to the right of "Return Only" to return items issued not used. Use a <u>new</u> form to return all unused items filling in blocks 5, 6, 7, 8 (if applicable), and 10 using the information from the original request form along with blocks 3 (or 4), 12, and 13.
- 3.) Enter the Aircraft's Registration Number of the aircraft if the item is to be installed on the airframe.
  - i. <u>NOTE:</u> All <u>scheduled</u> inspections, whether airframe or engine, are to be signed out under the "N" number.
- 4.) Enter the Engine Serial Number if the item is to be installed on an engine (part number was taken from the ENGINE Illustrated Parts Catalog).
- 5.) Enter quantity of part number requested
- 6.) Enter the Part Number from the Illustrated Parts Catalog, STC, Instructions for Continued Airworthiness, or source from where the item is approved for installation.
- 7.) Enter description of item as listed in data from item #6.

#### Note:

Items 8 thru 11 and 15 will be entered by the Logistics Department Personnel.

- 8.) Enter issued item's Serial Number.
- 9.) Enter issued item's condition.
  - a. "N", New
  - b. "S" Serviceable
    - i. Serviceable items may be overhauled, repaired by a vendor, or returned to stock serviceable.

10.) Enter PO (Purchase Order Number).

11.) Enter Bin Location where part was pulled from, in the Logistics Department.

12.) Enter Date item is requested.

13.) Enter initials of person requesting the item

14.) Enter the Total Time of the Aircraft or Engine as appropriate. (see # 3 or 4).

15.) Enter initials of Logistics Department personnel issuing item.

Disposition:

This two page form (White and carbon Yellow) will be archived as follows:

- 1.) The Yellow copy will be kept by maintenance and be filed with the Inspection/Maintenance package.
- 2.) The White copy will be archived in the Logistics Department.

# SUNDANCE HELICOPTERS SCRAP PARTS LOG

AIRCRAFT S/N	DATE	PART NUMBER	PART S/N	DISCRIPTION	QTY	HOW DISPOSED OF
	(2)	(3)	(4)	(5)	(6)	(7)
						· · · · · · · · · · · · · · · · · · ·
						**************************************
			······································			······································
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			·····			
				**************************************		1
						104000 /
		· · · · · · · · · · · · · · · · · · ·				
						P. Canada Company
			· · · · · · · · · · · · · · · · · · ·			······································
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				·····		
						NR
						······································

SDP-003 Revision: Original

### SCRAP PARTS LOG

Form Number; SDP-003 (Single Sheet)

Initiated by; Assistant DOM.

### Instructions;

- 1. Enter Aircraft serial number part was removed from.
- 2. Enter date part was scraped.
- 3. Enter part number of part scraped.
- 4. Enter serial number of part scraped.
- 5. Enter description of part scraped. (per IPC).
- 6. Enter like quantity of part (s) scraped.
- 7. Enter method of scrapping and disposition of part (s).

Disposition:

Form will be maintained by Assistant DOM.

SUNDANCE	HELICOP	FERS, INC.
Aircraft	Weighing	Record

Aircraft Model: 1	Serial No: 2	Registration: (3)	Date: 4
Jack Points     Weigh (pound)       Right S/N:     5)     6)       Left S/N:     6)       Tail S/N:     6)	s) (inches) (inch/pounds) 7 (8) 0.00 0.00 0.00		
<b>Total</b> (11)	0.0 (12)V/0! (13) 0.00	#DIV/0! (14) 0.00	
Scale Mfg: 15 Model No: 16 Calibration date due: 17			
Aircraft Configuration durin Fuel: Oil: 7 place seating Ballast: Without Belly Ca Without Cargo M	urgo Hook		

I certify that this aircraft has been weighed I.A.W. Manufactures instructions.

Name:	(19)	Signature:	20
Certificate:	(21)	Date:	22

SDWB-001 Revision: Original

Aircraft Weighing Record Form Number: SDWB-001 (Single Sheet)

Initiated by: DOM

#### Instructions:

- 1. Enter Aircraft model.
- 2. Enter Aircraft serial number.
- 3. Enter Aircraft registration number.
- 4. Enter date Aircraft weighed.
- 5. Enter serial numbers of the right, left and tail weighing kit load cells.
- 6. Enter weight readings, in pounds, of the right, left and tail load cells.
- 7. Enter ARM, in inches, of Aircraft jack points.
- 8. Enter moment as calculated from blocks 6 & 7. (Formulated cells)
- 9. Enter ARM, in inches, for lateral CG calculations.
- 10. Enter lateral CG moment as calculated. (Formulated cells)
- 11-12-13-14 Enter Totals for longitudinal and lateral CG calculations. (Formulated cells)
  - 15. Enter name of manufacture of kit used.
  - 16. Enter model number of weighing kit used.
  - 17. Enter calibration date of weighing kit used.
  - 18. Enter configuration of Aircraft at weighing.
  - 19. Enter printed name of individual certifying Aircraft weighing.
  - 20. Enter signature of individual certifying Aircraft weighing.
  - 21. Enter certificate number of individual certifying Aircraft weighing.
  - 22. Enter date of Aircraft weighing.

Disposition:

Current record will be kept in Aircraft flight manual. Superseded record will be maintained in Aircraft permanent file.

# SUNDANCE HELICOPTERS, INC. AIRCRAFT WT and BAL AMENDMENT RECORD

Aircraft M	lodel:		1	Serial Number:	2	Re	Registration Number:		3	)
Data	¥	0.4				eight Ch			Running T	
Date	<u> </u>	Out	Description		Weight	Arm	Moment	Weight	<u>C.G.</u>	<u>Moment</u>
	ļ,		Aircraft as Weighed					0.0	#DIV/0!	0.0
(4)		5)	6		(7)	(8)	9 0.0	(10)	(11)	(12)
							0.0			
							0.0			
										****
-										
							TOTAL	(13) 0.0	#DIV/0!	0.0

SDWB-002 Revision: Original

### AIRCRAFT WT and BAL AMENDMENT RECORD

Form Number: SDWB-002 (Single Sheet)

Initiated by: DOM

#### Instructions:

- 1. Enter Aircraft model.
- 2. Enter Aircraft serial number.
- 3. Enter Aircraft registration number.
- 4. Enter date of weight change entry.
- 5. Enter whether item is being installed or removed. (In or Out)
- 6. Enter description of item being installed or removed.
- 7. Enter weight of item being installed or removed.
- 8. Enter ARM, in inches, of item being installed or removed.
- 9. Enter moment of item being installed or removed. (Formulated cell)

10-11-12 Cells formulated to automatically enter running totals per weight change entry.

13. Cells formulated to automatically enter running totals.

Disposition:

Current record will be kept in Aircraft flight manual. Superseded record will be maintained in Aircraft permanent file.

#### Sundance Helicopters, Inc General Maintenance Manual

Revision: Original JUNE 01, 2010

SUNDANCE HELICOPTERS, INC.

Aircraft WT and BAL Configuration Chart

Aircraft Model:	(1) Serial Number: (2)		Registra	tion Number:	3
Date	Description	Weight	Arm	Moment	<u>C.G</u>
	Empty Weight (7 place w/ mirror, w/ hook, w/ rear seat cushions, w/ ballast)	4 0.0	#DIV/0!	0.0	#DIV/0!
	Remove Cargo Hook	-5.0	124.3	-621.5	
	Remove Cargo Mirror	-2.5	11.0	-27.5	
	Remove Geneva Dual Front Seat	-34.5	67.5	-2,328.8	
	Install Copilot Seat	23.3	63.4	1,477.2	
	Install Dual Controls	5.1	44.1	224.9	
	Install Cargo Basket	42.0	133.6	5,611.2	
	Remove Right Doors	-30.9	76.4	-2,360.8	
	Remove All Doors Numbers are examples only. Refer to	each An	craft7	leight -4,721.5	
	Remove Ballast & Balance record for correct calculat				
	Remove Rear Seat Cushions	-18.0	103.0	-1,854.0	

### Aircraft Equipped Configuration Chart

Type	Description	Empty WL	Moment	C.G.
A	7 place seating + Cargo Hook + Mirror	0.0	0.0	#DIV/0!
В	7 place seating + Cargo Hook w/o Mirror	-2.5	-27.5	11.0
С	7 place seating w/o Cargo Hook w/o Mirror	-7.5	-649.0	86.5
D	7 place seating + Cargo Hook + Mirror + Basket	42.0	5,611.2	133.6
E	7 place + hook + mirror right doors off, w/o cushions	-48.9	-4,214.8	86.2
F	7 place + hook + mirror, right doors off, w/o cushions + basket	-6.9	1,396.4	-202.4
G	7 place + hook + mirror all doors off, w/o cushions	-65.3	-16,251.8	248.9
H	6 place seating + Cargo Hook & Mirror w/o ballast w/o cushions	-72.2	-19,819.5	274.5
I	6 place seating + Hook & Mirror + Dual Ctrls w/o ballast w/o cushions	-67.1	-19,594.6	292.0
J	6 place + hook + mirror, right doors off, w/o cushions w/o ballast	-103.1	-22,180.3	215.1
к	Configuration "J" + Dual Con trols	-98.0	-21,955.4	224.0
L	Configuration "J" + Basket	-61.1	-16,569.1	271.2
М	6 place + hook + mirror, all doors off, w/o cushions, w/o ballast	-134.0	-24,541.1	183.1
Ν	Configuration "M" + Dual Controls	-128.9	-24,316.1	188.6
0	6 place scating w/o Cargo Hook w/o Mirror w/ ballast	-18.7	-1,500.5	80.2
P	6 place + hook + mirror, w/o cushions + dual ctrls w/ ballast	-24.1	-2,480.6	102.9
Q	6 place + hook + mirror, all doors off, w/o cushions w/ ballast	-91.0	-7,427.1	81.6
R	6 place + hook + mirror, w cushions + w/ ballast	-11.2	-851.5	76.0
s	6 place + hook + mirror, w cushions + w/ ballast + dual controls	-6.1	-626.6	102.7

SDWB-003 Revision: Original

Sundance Helicopters, Inc General Maintenance Manual Revision: Original JUNE 01, 2010

#### Aircraft WT and BAL Configuration Chart

Form Number: SDWB-003

Initiated by: DOM

#### Instructions:

- 1. Enter Aircraft model.
- 2. Enter Aircraft serial Number.
- 3. Enter Aircraft registration number.
- 4-5-6. These cells are formulated to automatically indicate Empty Weight CG per configurations elected. (A-B-C etc.)

Disposition:

Current record will be kept in Aircraft flight manual. Superseded record will be maintained in Aircraft permanent file.

### SUNDANCE HELICOPTERS, INC.

#### Aircraft Weight and Balance Configuration Change Record

Aircraft Mode	el: (1	) Serial Number:	2 Registration Number:	3
Date	Configuration Changed To	Name	Signature	Cert. Number
4	5	6	(7)	8
**************************************				
[				
				х 

SDWB-004 Revision: Original

Aircraft Weight and Balance Configuration Change Record

Form Number: SDWB-004

Initiated by: DOM

Instructions:

- 1. Enter Aircraft model.
- 2. Enter Aircraft serial number.
- 3. Enter Aircraft registration number.
- 4. Enter date of configuration change.
- 5. Enter corresponding letter of configuration change.
- 6. Enter name of individual completing configuration change.
- 7. Enter signature of individual completing configuration change.
- 8. Enter certificate number of individual completing configuration change.

Disposition:

Current record will be kept in Aircraft flight manual. Superseded record will be maintained in Aircraft permanent file

### SUNDANCE HELICOPTERS INC

PERSONNEL	EMPLOYMENT SUMMARY					
Name:1 Date Of Hire2						
Títle:	3					
Years Of Experience						
In General Aviation Maintenance	4) AS A&P Technician 5					
Maint. AS350 Series6	Maint. EC130 Series7					

#### Previous Employment Record (At Least 5 Years)

FROM: (month & Year)	TO: (month & Year)	COMPANY AND LOCA	TION	TYPE OF WORK:	TITLE
	Present	Sundance Helicop Las Vegas, NV			
8	9	(10)		(1)	(12)
Scope of p	resent empl	oyment	(13)		_
Authorized	Inspector:	(14) If yes set	Yes Inspector roster f	No or stamp number and	] d signature.
FAA Certifi	cates, rating	gs and number: 15_			
		_			
		_			
		_			
			***		
Signature_		(16)	Initials	Date	

SDTRG-001 Revision: Original

#### PERSONNEL EMPLOYMENT SUMMARY

Form Number: SDTRG-001 (Single Sheet)

Imitated by: Assistant DOM (Training Manager)

#### Instructions:

- 1. Enter name of employee.
- 2. Enter date employee was hired.
- 3. Enter employee title.
- 4. Enter employee's years of experience in general aviation maintenance.
- 5. Enter employee's years of experience as an A&P technician.
- 6. Enter employee's years of experience performing maintenance on AS350 series Acft.
- 7. Enter employee's years of experience performing maintenance on EC130 series Acft.
- 8. Enter employee's previous employment. (From)
- 9. Enter employee's previous employment. (To)
- 10. Enter employee's previous employment. (Company and Location)
- 11. Enter employee's previous employment. (Type of work performed)
- 12. Enter employee's previous employment. (Titles held)
- 13. Enter scope employment with Sundance Helicopters.
- 14. Enter whether or not employee is be an inspector. (Yes or No).
- 15. Enter FAA certificate, ratings and numbers of employee.
- 16. Enter signature, initials of new employee and date signed.

Disposition:

To be retained in employee's training file.

Sundance Helicopters, Inc General Maintenance Manual

Revision: Original JUNE 01, 2010

#### SUNDANCE HELICOPTERS, INC.

#### MAINTENANCE TRAINING PROGRAM

	INC	OCTRINA	TION SYLLA	BUS	
		2	3	4	(5)
TRAINING TASK	TRAINEE INITIALS	INTR. INITIALS	DATE	ACTUAL HOURS	REMARKS
FAA Drug / Alcohol Training					
Time Card Procedures					
Maint. Records Procedures					
Department Policies / Procedures					
Job Responsibilities					
Work Schedules					
Aircraft Familiarization					
Flight Line Procedures					
MEL / NEF Requirements					
Shop Safety					
Airworthiness Directives					
FAR 135 GOM / GMM Manual Brief					
Hazardous Materials Training					
Parts Department Procedures Suspected Unapproved Parts					
(SUPS) Previous Employer Drug / Alcohol Background Check					
A & P Certificate History Check					
Pre Employment Drug Test Results Received					
Transfer To Safety Sensitive Position					
TECHNICIAN NAME	6			INSTRUCTOR	7
TECHNICIAN SIGNATURE	8			SDTRG-002	Revision: Original

### INDOCTRINATION SYLLABUS

Form Number: SDTRG-002 (Single Sheet)

Initiated by: Assistant DOM (Training Manager)

### Instructions:

- 1. Enter Trainee's initials for each subject completed.
- 2. Enter Instructor's initials for each subject covered.
- 3. Enter date each subject was completed.
- 4. Enter actual time each subject was covered.
- 5. Enter any appropriate remarks.
- 6. Enter name of trainee.
- 7. Enter name and signature of Instructor.
- 8. Enter signature of trainee.

Disposition:

To be retained in employee's training file.

Sundance Helicopters, Inc General Maintenance Manual

Revision: Original JUNE 01, 2010

#### SUNDANCE HELICOPTERS, INC.

#### MAINTENANCE TRAINING PROGRAM

	ON THE JOB TRAINING SYLLABUS				
	1	2	3	4	5
TRAINING TASK	TRAINEE INITIALS	INTR. INITIALS	DATE	ACTUAL HOURS	REMARKS
MEL Training					
Engine Run Up (EC130)					
Engine Run Up (AS350)					
Inspections EC130					
Inspections AS350					
General Maintenance EC130					
General Maintenance AS350					
Parts Department Procedures					
Incoming & Receiving Inspections Procedures					
Hazardous Materials Training					
TECHNICIAN NAME	6	I	INSTE	RUCTOR	(7)
TECHNICIAN SIGNATURE	8			SDTRG-003	B Revision: Original

### ON THE JOB TRAINING SYLLABUS

Form Number: SDTRG-003 (Single Sheet)

Initiated by: Assistant DOM (Training Manager)

### Instructions:

- 1. Enter Trainee's initials for each subject completed.
- 2. Enter Instructor's initials for each subject covered.
- 3. Enter date each subject was completed.
- 4. Enter actual time each subject was covered.
- 5. Enter any appropriate remarks.
- 6. Enter name of trainee.
- 7. Enter name and signature of Instructor.
- 8. Enter signature of trainee.

Disposition:

To be retained in employee's training file.

## SUNDANCE HELICOPTERS, INC.

#### MAINTENANCE TRAINING PROGRAM

RECURRENT TRAINING SYLLABUS							
	1	2	3	4	5		
TRAINING TASK	TRAINEE INITIALS	INTR. INITIALS	DATE	ACTUAL HOURS	REMARKS		
Maintenance Records							
Airworthiness Directives							
Quality Procedures (Insp)							
Engine Run Up (EC130)							
Engine Run Up (AS350)							
Shop Safety							
Parts Department Procedures							
Suspected Unapproved Parts (SUPS)							
		-					
TECHNICIAN NAME	6			TOR NAME	7		
TECH. SIGNATURE	8			SDTRG-00	04 Revision: Original		

# RECURRENT TRAINING SYLLABUS

Form Number: SDTRG-004 (Single Sheet)

Initiated by: Assistant DOM (Training Manager)

# Instructions:

- 1. Enter Trainee's initials for each subject completed.
- 2. Enter Instructor's initials for each subject covered.
- 3. Enter date each subject was completed.
- 4. Enter actual time each subject was covered.
- 5. Enter any appropriate remarks.
- 6. Enter name of trainee.
- 7. Enter name and signature of Instructor.
- 8. Enter signature of trainee.

Disposition:

To be retained in employee's training file.

## Sundance Helicopters, Inc General Maintenance Manual

Revision: Original JUNE 01, 2010

# SUNDANCE HELICOPTERS, INC.

## MAINTENANCE EMPLOYEE ROSTER

	MAINTENANCE EMPLOYEE ROSTER							
NAME	CERTIFICATE TYPE & NUMBER	TECHNICIAN	HIRE DATE	POSITION	START DATE	MAINT. INSP.	PART REC. INSP.	
(3)	(4)	(5)	6	(7)	8	9	(10)	
· · · · · · · · · · · · · · · · · · ·								
						1		
		[						
		1						
· · · · · · · · · · · · · · · · · · ·								

SDTRG-005 Revision: Original

## MAINTENANCE EMPOLYEE ROSTER

Form Number: SDTRG-005

Initiated by: Assistant DOM (Training Manager)

## Instructions:

- 1. Enter page number.
- 2. Enter total number of pages.
- 3. Enter employee's name.
- 4. Enter employee's certificate type and number as applicable.
- 5. Enter whether or not employee is an assigned Aircraft maintenance technician. (Yes or No)
- 6. Enter date employee was hired.
- 7. Enter employee's assigned position in the company.
- 8. Enter the start date of the employee's current position.
- 9. Enter whether or not the employee is assigned as a maintenance inspector. (See inspector roster)
- 10. Enter whether or not the employee is assigned as an incoming and receiving parts inspector.(See inspector roster)

Disposition:

Will be maintained by the Assistant DOM.

Revision: Original JUNE 01, 2010

## SUNDANCE HELICOPTERS, INC.

#### MAINTENANCE TRAINING PROGRAM INDOCTRINATION AND RECURRING SYLLABUS INSPECTORS

<u></u>					(5)
TRAINING TASK		(2) INTR.	(3)		REMARKS
	INITIALS	INITIALS	DATE	HOURS	
Basic Inspection Techniques					
Regulatory requirements per 14					
CFR Parts 21, 27, 29,39, 43, 65,					
91, 119, and 135 as they apply to					
the maintenance of aircraft and					
their related products operated					
under 14 CFR 91 & 135.					
Type Certificate Data Sheets;					
PMA products;					
Detecting suspected unapproved					
aircraft parts;					
Separation, identification, and					
preservation of aircraft parts and					
products that are under on going					
maintenance.					
Tool calibration requirements;					
Products and consumables that					
have expiration limitations placed					
on them;					
Parts that are to be removed in					
serviceable condition for use on					
other aircraft;					
Technical Standing Order (TSO)					
products; Supplemental Type Certificate					
(STC) products;					
The developing and identification					
of approved technical data;					
Administration and organization					
of technical records;					
Aircraft maintenance records.					
The applicability, use of, and					
execution of FAA forms;					
The organization and revision of					
manufacture's maintenance					
manuals;					
Receiving inspection of aerospace					
products and determining the					
eligibility, quality, and					
identification of aeronautical					
products.;					
Parts and products identification					
and tagging.					
TECHNICIAN NAME6		1	NSTRUCTOR	NAME	7
(8)					
TECHNICIAN SIGNATURE			_	SDTRG-00	06 Revision: Original

# INDOCTRINATION AND RECURRENT TRAINING SYLLABUS INSPECTORS

Form Number: SDTRG-006 (Single Sheet)

Initiated by: Assistant DOM (Training Manager)

## Instructions:

- 1. Enter Trainee's initials for each subject completed.
- 2. Enter Instructor's initials for each subject covered.
- 3. Enter date each subject was completed.
- 4. Enter actual time each subject was covered.
- 5. Enter any appropriate remarks.
- 6. Enter name of trainee.
- 7. Enter name and signature of Instructor.
- 8. Enter signature of trainee.

Disposition:

To be retained in employee's training file.

# Sundance Helicopters, Inc General Maintenance Manual

## Revision: 4 DEC O1, 2011

Sundance Heli	copt	ers,	, Inc.	
Auditors Name 1 Quarterly Internal A	Audit Cl	eckli		pleted 2
Auditors Name1	(3)	4	Date t Com	pleted 2
Materials	Yes	No	Correction	Remarks
Calibrated Tools	103		Required	
Master List Current;				
Out of Cal. Tools Segregated;				
Are Cal. Certs available;				
Tools & Instruments Properly Tagged;				
Calibrated Tools Properly Stored;				
Consumables	Yes	No	Correction Required	Remarks
Inspect Facility for expired Consumables;				
Are Consumables Properly Marked with Expiration Date;				
Is Consumables List Current;				
Parts Inventory	Yes	No	Correction	Remarks
			Required	
Parts Stored Properly; Check for expired Material; (O-Rings or Rubber Products)				
All Parts & Components Properly Tagged;				
All Parts Ordered from Approved Vendors;		-		
All Parts Receiving Procedures being Followed;				
Last Inventory Completed;				
Maintenance	L		Correction	
Hangars Haven,E-1 and E-2	Yes	No	Required	Remarks
Tech Manuals Current;				
Tech Manuals in good Condition & complete;				
Are Manuals being properly referenced on maintenance floor;				
Do Technicians Know how to Check Manual Status;				
Do Technician have required Certificates Available;				
Do Technicians Know Where required data is located; (ICA, STC, etc.)				
Are parts properly tagged;				
Quality Assurance	Yes	No	Correction Required	Remarks
Inspectors Roster Current;				
Inspectors Training Current;				
Internal Audits Current with documented follow up;				
Vendor Audits Current with Appropriate Files on each Vendor;				
Vendor Audit List Current;				
Records	Yes	No	Correction	Remarks
			Required	
Review Maintenance entries proper documentation; (FAR 43)				
Maintenance Logs Form SDM-001;				
Discrepancy Sheets Form SDM-002;				
MEL Deferral Sheets Form SDMEL-001;			Correction	
Manufactures Logs;	Yes	No	Required	Remarks
AD / SB Status Sheets Current;				
DMI Book Current;				
Training;	Yes	No	Correction Required	Remarks
Tracking Sheet Current;			Incounted	
Training Records up to Date;				
A&P Verifications;				
Recurrent Training up to Date;				
	L	۱ <u> </u>	• - · · · ·	
			SDA-001 Rev	vision: 1 Dated 9/9/2011l Page 1 of

### Sundance Helicopters, Inc General Maintenance Manual

#### Revision 4 DEC, 01 2011

Quarterly Internal A	udit Cl	neckli	st				
Auditors Name	Date Audit Completed						
Component Repair Shop.	Yes	No	Correction Required	Remarks			
Tech Manuals Current;							
Tech Manuals in good Condition & complete;							
Are Manuals being properly referenced;							
Do Technicians Know how to Check Manual Status;							
Do Technicians have required Certificates Available;							
Do Technicians Know Where required data is located; (ICA, STC, etc.)							
Are parts properly tagged;							
Engine Shop	Yes	No	Correction Required	Remarks			
Tech Manuals Current;							
Tech Manuals in good Condition & complete;							
Are Manuals being properly referenced;							
Do Technicians Know how to Check Manual Status;							
Do Technicians have required Certificates Available;							
Do Technicians Know Where required data is located; (ICA, STC, etc.)							
Are parts properly tagged;							
		SE	OA-001Revision	1Dated 9/9/2011Page 2 of			

# QUARTERLY INTERNAL AUDIT CHECKLIST

## Form Number: SDA-001

Initiated by: Assigned Auditor

## Instructions:

- 1. Enter Auditors Name.
- 2. Enter date audit completed.
- 3.-4. Enter whether or not line item acceptable. (Yes or No)
- 5. Enter whether or not corrective action is required.

Disposition:

Will be maintained by Quality Assurance Dept. in Internal Audit File.

Sundance Helicopters, Inc.								
ļ	Audit Findings Cor	rective Action Forr	n					
Page_1 of 2		Tracking N	umber 🤇	3)				
Date (4)	Responsible Departr	nent (5	)					
Finding; 6	1							
Cause; (7)			<b></b>					
		<u>,</u>						
Corrective Action; 8								
			·					
Corrective Action Submitted By; 9	<u></u>		Date; (10)					
Corrective Action: Accepted 11 eclined		Follow-up;12 RequiredN	ot Required					
Comments; 13								
Reviewed an Accepted By;	(14)		Date	(15)				
			SDA-002	Revision; Original				

AUDIT FINDINGS CORRECTIVE ACTION FORM Form Number: SDA-002

Initiated by: Assigned Auditor

Instructions:

- 1. Enter page number.
- 2. Enter number of pages associated with current audit findings.
- 3. Enter tracking number.

# Note;

Tracking numbers will consist of the date and a letter which will designate what category the deficiency is in.

Examples; 112709M would be November 27, 09 and manuals.

- L for Log sheets
- T for Tool Calibration
- V for Vendors
- C for Consumables
- P for Parts
- M for Manuals
- TR- for Training
- MP for Memos and Procedures
- WS for Warranty/Scrap
- 4. Enter date corrective action form initiated.
- 5. Enter responsible Department.
- 6. Enter finding.
- 7. Enter cause of discrepancy / finding.
- 8. Enter corrective action. (to be completed by dept. representative.)
- 9. Enter name of individual verifying corrective action.
- 10. Enter date of corrective action entry.
- 11. Enter whether on not corrective action is acceptable. (to be completed by Quality Assurance Dept. representative).
- 12 Enter whether or not a follow up audit is required.
- 13. Enter any appropriate comments.
- 14. Enter signature of individual reviewing and accepting corrective action report.
- 15. Enter date accepted.

# Disposition:

Maintained by Quality Assurance Dept.

# Sundance Helicopters, Inc General Maintenance Manual

# Revision: Original JUNE 01, 2010 Page 1 of 3

Jui	iuance nenco	opters CFR 135	Comorning	Checklis	
Acft. Manufacturer	Acft. Model	Serial Number	Registration #	Acft. T.T.	Total Landings
Euroconter	(2)	(3)	N (4)	(5)	(6)
Engine Manufacturer	Engine Model	Eng. Serial Number	Eng. T.T	Total Ng Cyc.	Total Np Cyc.
Turk 7 ca	(8)	9	(10)	(11)	(12)
Current Tach Reading		Certificate Number			Date
(13)		KBMA477F			(14)
FAR 135 Referenc	e:		Yes	No	<u>Remarks</u>
			(15)	(16)	(17)
FAR 135.25 Aircraft I	Requirements				$\bigcirc$
LL C. Deviatored Airora	4				
U. S. Registered Aircra	IL				
Current Airworthiness (	Certificate				
FAR 135.143 General	Requirements				
			_	,	
ATC Transponder Equi	pment				
FAR 135.149 Equipm	ent Requiremente	General			
FAR 135.145 Equipin	ient Kequirements	General			
Sensitive Altimeter Adju	ustable to Barometri	c Pressure			
				L	
FAR 135.155 Fire Ext	tinguishers Passer	nger Aircraft			
		_			
Hand Held Fire Extingu	ishers, Appropriate	Туре			
FAR 135.159 Equipme	nt Requirements:	Carrving passengers			
under VFR conditions					
conditions. Rotorcraft	max. gross take o	off weight 6000 lbs.			
or less.					
Slip Skid Indicator					
enp enta matoator					
Gyroscopic Bank-and-P	Pitch Indicator				
Gyroscopic Direction In	dicator				
A Generator Able To Su	upply All Probable c	ombinations of			
continuous in-flight elec	trical loads for requi	ired equipment and for			
e-charging the battery.					
For Night Flights:					
0 0 0					
Anticollision Light Syste	m				
nstrument lights to mai	o all instrumenta in	witches and gauges	Lunna		
easily readable, the dire					
Pilot's eyes.	,				
·					

Sundance Heliconters CER 135 Conformity Checklist

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# Sundance Helicopters, Inc General Maintenance Manual Revision: Original JUNE 01, 2010

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#### Sundance Helicopters CFR 135 Conformity Checklist

				Tetel Landana
Acft. Manufacturer Acft. Model	Serial Number	Registration #	Acft. T.T.	Total Landings
Eurocopter	Eng. Secial Number	N 4 Eng. T.T	Total Ng Cyc.	Total Np Cyc.
(7)	(9)	(10)		(12)
Current Tach Reading	Certificate Number			Date
(13)	KBMA477F			(14)
FAR 135 Reference:		Yes	No	<u>Remarks</u>
FAR 135.161 Communication and Nav operations under VFR over routes nav				
Communicate with at least one appropria on the route	ate station from any point			
Communicate with appropriate air traffic point within class B , class C , or class D E surface area designated for an airport transition	airspace or within a class			
intended.				
Receive meteorological information from	any point enroute.			
Communication and navigational equipm operations at night under VFR, over route by pilotage.	es that can be navigated	`		
Two-way radio communication equipmen normal operating conditions to fulfill the f above.				
Navigational equipment suitable for the n	oute to be flown.			
FAR 135.179 Inoperable Instruments a	nd Equipment.			<u></u>
An approved minimum equipment List.				
The CHDO has issued the certificate hole specifications authorizing operations in a approved minimum equipment list.				
FAR 135.421 Additional Maintenance F	Requirements.			
Comply with manufactures recommended	d maintenance program.			
FAR 119 Reference:				
FAR 119.9 Aircraft Requirements				
Affix Operating certificate number to wind Lower right side.	lshield.			
Airworthiness Directive Compliance.				
All Airworthiness Directives checked for c thru bi weekly dated	compliance			
Weight and Balance				

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# Sundance Helicopters, Inc General Maintenance Manual Revision: Original JUNE 01, 2010

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p	-		-						
Acft. Manufacturer	Acft. Model	Serial Number	Registration #	Acft. T.T.	Total Landings				
Eurocopter	(2)	3	N (4)		(6)				
Engine Manufacturer	Engine Model	Eng. Serial Number	Eng. T.T	Total Ng Cyc.	Total Np Cyc.				
Turb dca		9	(10)		(12)				
Current Tach Reading		Certificate Number			Date				
(13)		KBMA477F			(14)				
FAR 135 Reference	:e:		<u>Yes</u>	No	<u>Remarks</u>				
Current weight and Bal	ance record reflects	correct weight of							
installed equipment.		•							
Equipment List reflects	current installed eq	uipment.							
Placards and Marking	IS.								
All required placards ar	nd markings installe	d in appropriate							
areas of aircraft per ma		anual,	<u> </u>						
approved 337's and ST	C's.								
FAA Form 337.									
Review FAA from 337 f		opropriate return to	_	_					
service and required IC	A statements.								
Rotorcraft Flight Man	ual.								
Review RFM for current	t revision status. En	sure all required		[]					
Flight Manual suppleme									
FAR 135 Operating Eq	ulpment.								
Following equipment on									
1. GOM									
2. Pax briefing cards.	- 11 - 1- A								
<ol> <li>One 2 "D" cell flash</li> <li>4.Required emergence</li> </ol>	•	aete)							
4. Required emergene	y equipment. (ine w	55(5)							
Aircraft Status Sheet.									
Aircraft added to compa		[]							
system. Current status	sneet available for h	AA IEVIEW.							
I certify that this aircraft these standards.	meets the above re	quirements for operation	ons under FAR p	art 135 and is ir	a conformity with				
	-				_				
	(18)			(	19)				
Director of Maintenance			-	Date					

#### Sundance Helicopters CFR 135 Conformity Checklist

Director of Maintenance Sundance Helicopters, Inc. KBMA477F

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# CFR 135 CONFORMITY CHECKLIST

Form Number: SDC-001 (single sheet 2 pages.)

Initiated by: Director of Maintenance

# Instructions:

- 1. Enter Aircraft Manufacture.
- 2. Enter Aircraft Model.
- 3. Enter Aircraft Serial Number.
- 4. Enter Aircraft Registration Number.
- 5. Enter Aircraft Total Time.
- 6. Enter Aircraft Total Landings.
- 7. Enter Engine Manufacture.
- 8. Enter Engine Model.
- 9. Enter Engine Serial Number.
- 10. Enter Engine Total Time.
- 11. Enter Engine Total Ng Cycles. (N1)
- 12. Enter Engine Total Np Cycles. (N2)
- 13. Enter Current Tach reading.
- 14. Enter Date Checklist initiated.
- 15-16. Answer each Required Question. (Yes or No)
  - 17. Enter any applicable remarks.
  - 18. Enter Signature of Individual Completing Conformity Check.

(DOM or Designee)

19. Enter Date conformity check completed.

Disposition:

Will be maintained in Aircraft Permanent Records.

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Sundance Helicopters, Inc.										
Airfram	Airframe Recurring Airworthiness Directive / Service Bulletin Compliance Record									
Airworthiness	Airworthiness Directive 1 Amendment No. 2 Date 3									
Aircraft: Euro	copter Model No. 4	Aircraft Sei	rial No. 5	)						
Date of Compliance	Method of Compliance	Aircraft Total Time	Compliance next due @ Aircraft T.T. /Cycle /Date	Signature & Certification						
6	7	8	9	(10)						
-										
		-								
*										
	•									

Method of Compliance

(11)

<u>Interval</u>

(12)

SDAD-001 Revision; Original

# AIRCRAFT RECURRING AIRWORTHINESS DIRECTIVES / SERVICE BULLSTIN CONMPLIANCE RECORD

Form Number: SDAD-001 (single sheet)

Initiated by: Director of Maintenance or Designee.

Instructions:

- 1. Enter Airworthiness Directive Number.
- 2. Enter AD Amendment Number.
- 3. Enter AD Date.
- 4. Enter Aircraft Model.
- 5. Enter Aircraft Serial Number.
- 6. Enter Date of AD compliance.
- 7. Enter Method of Compliance.
- 8. Enter Aircraft Total Time at compliance.
- 9. Enter when next compliance is due.

10. Enter Signature and certificate number of individual complying with the AD.

11. Enter method of compliance. Where block 7 is a reference to the AD para, this block is used to describe procedures required to comply with the AD. 12. Enter AD recurring interval. (Every 100 hrs., 500, hrs. 6 Months etc.)

Disposition:

Will be located in Aircraft Log Metal Can until full. When full will be maintained in Aircraft permanent Records.

Serial No	
Cal. Date	(2)
Cal. Due	
SDCAL-001	

# CALIBRATION STICKER

Form Number: SDCAL-001 (Single Sheet)

Initiated by: Logistics Manager

Instructions:

- 1. Enter Serial Number of Item.
- 2. Enter Calibration Date.
- 3. Enter Calibration Due Date. (Reference Calibration Certificate.)

Disposition:

To be destroyed upon recalibration of item.

# Sundance Helicopters, Inc. Cannibalization Control Form

Aircra	aft / Engine Serial Nu	mber (1)	Aircraft / E	ngine Total	Time		<u>)</u> Date3			)	
Item No.	Part Number	Serial Number	Description	Component Time TSN/TSO Date Due Cycle Count	AD Status Recur. AD ?		Authorized By:	Date	Replacement Ordered By:	Date	Replacement PO#
4	3	0	0	3	9	0	(†)	(12)	(1)	(14)	(15)
		<b>.</b>									
	aur.,	<b></b>			-						
											ματος το
	\										<u>ин, , , , , , , , , , , , , , , , , , , </u>

SDCAN-001 Revision: Original

# CANNIBALIZATION CONTROL FORM

Form Number: SDCAN-001 (Single Sheet)

Initiated by: Maintenance Technician

## Instructions:

- 1. Enter Aircraft / Engine Serial Number of which the part is being removed.
- 2. Enter Aircraft / Engine Total Time.
- 3. Enter date form is being initialized.
- 4. Enter sequential item number.
- 5. Enter part number of part being removed.
- 6. Enter serial number of part being removed. (if applicable)
- 7. Enter description of part being removed. (per IPC)
- 8. Enter component time. (TSN / TSO /Cycle or Date limit)
- 9. Enter AD status. If recurring AD applies enter (Yes). Attach copy of Recurrent AD status sheet if applicable.
- 10. Enter aircraft or engine S/N, of unit, part installed on.
- 11. Signature of individual authorizing the cannibalization.
- 12. Enter date of authorization.
- 13. Signature of individual ordering the replacement part.
- 14. Enter date replacement part was ordered.
- 15. Enter PO# of replacement part.

Disposition:

To remain with work package.

Serial Number 3		-		Aircraft Total Time	)	te			Aircraft Total Time	1			te .			Aircraft Total Time			fe I	SDME 001 Devision Original
Model 2 Serial 1		(2)			Signature & Certificate Number	Copy to FAA (Submitter) Signature		CORRECTIVE ACTION			Signature & Certificate Number	Copy to FAA (Submitter)	Signature Date	CORRECTIVE ACTION			Signature & Certificate Number	Copy to FAA (Submitter)	Signature Date	COMAL
Registration Number					Date Corrected	Extension Repair Date					Date Corrected	Extension Repair Date					Date Corrected	Extension Repair Date		
ed Item Log				Aircraft Total Time		Delivery Date			Aircraft Total Time			Delivery Date				Aircraft Total Time		Delivery Date		
MEL Deferred Item Log	DISCREPANCY	(s		Required Repair Date	Deferred by & certificate Number	Back Order Date	16	DISCREPANCY	Required Repair Date		Deferred by & certificate Number	Back Order Date		DISCREPANCY		Required Repair Date	L Deferred by & certificate Number	Back Order Date		
ICOPTERS, INC.	DISCI			MEL Ref.	Deferred	Authorized By		DISCI	MEL Ref. Rec		Deferred	Authorized By		DISCI		MEL Ref. Rec	Deferrec	Authorized By		
SUNDANCE HELICOPTERS,	DMI #	Ð			Date Deferred	Extension Date	Reason For Extension	DMI#	CAT		Date Deferred	Extension Date	Reason For Extension	DMI #		CAT	Date Deferred	Extension Date		Keason For Extension

# Sundance Helicopters, Inc General Maintenance Manual Revision: Original JUNE 01, 2010

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#### MEL DEFERRED ITEM LOG

Form Number: SDMEL-001 (Single Sheet)

**Initiated by:** Mechanic / Pilot

#### **Instructions:**

- 1. Enter Aircraft Registration number.
- 2. Enter Aircraft model.
- 3. Enter Aircraft serial number
- 4. Enter Deferred Maintenance Item number (DMI).
- 5. Enter discrepancy as transcribed from maintenance log.(SDM-001)
- 6. Enter MEL category number. (A-B-C or D)
- 7. Enter MEL reference number. Refer to approved MEL
- 8. Enter date MEL expires.
- 9. Enter Aircraft total time at time of deferral
- 10. Enter date of deferral.
- 11. Enter signature and certificate number of individual deferring item.
- 12. Enter MEL extension date.
- 13. Enter name of individual authorizing the MEL extension.
- 14. Enter date replacement parts were ordered.
- 15. Entered expected delivery date of parts ordered.
- 16. Enter reason for extension.
- 17. Enter corrective action taken. Must meet requirements of FAR 43 & 91.
- 18. Enter Aircraft total time at corrective action.
- 19. Enter date of corrective action.
- 20. Enter signature and certificate number and kind of certificate of individual performing the corrective action.
- 21. Enter date of corrective action for MEL extension.
- 22. Enter signature of individual and date that a copy of the MEL extension was submitted to FAA.

#### **Disposition:**

Retained as permanent Aircraft record

Date         Time         Tool Control Number of Description (3)         Signature (4)         Date         Time         Signature (7)         Remarks (8)           Image: Image			OUT		5		IN	
Image: series of the series		1	Tool Control Number or Description 3	Signature (4)	Date	Time	Signature (7)	Remarks (8)
Image: section of the section of th								
Image: section of the section of th								
Image: section of the section of th								
Image: section of the section of th					ļ			
Image: section of the section of th					· · · · ·			
Image: section of the section of th								
Image: section of the section of th								
Image: series of the series								
Image: series of the series								
Image: series of the series								
Image: series of the series								
Image: series of the series								
Image: series of the series								
Image: series of the series	-							
Image: series of the series								
Image: series of the series			· · · · · · · · · · · · · · · · · · ·			 		
Image: selection of the				· · · ·				
Image: series of the series			-					
Image: selection of the								
Image: series of the series				· · · · · · · · · · · · · · · · · · ·				
Image: selection of the								· · · · · · · · · · · · · · · · · · ·
Image: state in the state								
Image: state in the state								
Image: state in the state								
Image: Sector								
Image: Sector of the sector								
	i							

# **Sundance Helicopters Tool Control Log Sheet**

SDTL-001 Revision; Original

#### TOOL CONTROL LOG SHEET

#### **Form Number:** SDTL-001 (Single Sheet)

Initiated by: Mechanic / Logistic Representative

#### **Instructions:**

- 1. Enter date tool or equipment is being issued.
- 2. Enter time of day tool or equipment was issued.
- 3. Enter tool control number or description.
- 4. Enter signature of individual receiving tool or equipment.
- 5. Enter date tool or equipment is being issued.
- 6. Enter date tool or equipment is being returned.
- 7. Enter signature of Logistics representative reviving item back in inventory.
- 8. Enter any appropriate remarks concerning tool or equipment. (dropped, needs Cal. parts unserviceable, inoperative, etc.).

#### **Disposition:**

Retained for 12 months by Logistics Department.

Abbreviations & Acronyms The following abbreviations and acronyms are used in the general aviation industry and some are specifically noted in this manual. Abbreviations having very limited usage are explained in the chapter where they are used. — A — ASE . . . Automatic Slat Extension ASP . . . . . . Audio Selector Panel ASR Airport Surveillance Radar or Air Safety Report ASYM.....Asymmetrical A/S....Airspeed AT(S), A/T..Autothrottle (System) ATC ..... Air Traffic Control ATCRBS......ATC Radar Beacon System ATSU.. Air Traffic Services Unit ATT. ..... Attitude **ATTCS** Automated Takeoff Thrust **Control System** AUG .....Augmentation AUT/AUTO. . . . . . . . . . Automatic AUTOLND .....Autoland AUX ......Auxiliary AVM .. Airborne Vibration Monitor AWM.....Alternate Weather Minimums AZFW. Adjusted Zero Fuel Weight AA&PM .....Airport Analysis & Performance Manual AC .....Alternating Current A/C . .. Air Conditioning or Aircraft ACCEL.....Acceleration or Accelerate(d) ACM.....Air Cycle Machine ACT.... Active ADC..... Air Data Computer ADF. . . Automatic Direction Finder ADI . ... Attitude Director Indicator

Revision: Original JUNE 01, 2010 ADP...... Air Driven Pump or Air Driven Demand Hydraulic Pump AEB. . ... Additional Enroute Burn AED. . .....Automatic External Defibrillator AFC(S) ...... Automatic Flight Control (System) AFD(S) . ..... . Automatic Flight Director (System) AFE.....Above Field Elevation AFM.... Airplane Flight Manual AFPACS. .....Automated Flight Planning and clearance System AF(S). . . . . . Auto Flight (System) AGL.... Above Ground Level AGNIS ......Aircraft Guidance for **Nose-In Stands** AH.....Alert Height AID(S) ...... Aircraft Integrated Data (System) AIL....Aileron AIM . . . Aeronautical Information Manual ALPA. .Air Line Pilots Association ALTN ......Alternate AM..... Amplitude Modulation AMB..... Ambient AMP.....Amperes AND..... Airplane Nose Down ANT....Antenna ANU. . . . . . . . . . . Airplane Nose Up AOA. ... Angle of Attack or Airport **Operating** Area AOG.....Aircraft On Ground A/P.....Autopilot APD. . . Approach Progress Display APL ..... Airplane APP, APPR ..... Approach APU..... Auxiliary Power Unit

ARINC Aerona	utical Radio, Inc.
ARR	Arrival
ASA. Autoland St	tatus Annunicator
ASDAccelerat	ted Stop Distance

— B —

BAROBarometric
BAT, BATTBattery
B/CRS, BC BackCourse
BFOBeat Frequency Oscillator
BIT Built in Test
BITE Built in Test Equipment
BKS Brakes
BKSP Back Space
BLD Bleed
BRG Bearing
BRTBright
BTBBus Tie Breaker
BTLBottle
BUG Airspeed, Altitude, and
EPR Reference Markers

— C —

C Center, Captain, Cool
<sup>o</sup> CDegrees Centigrade
CAA Civil Aviation Authority (UK)
CAB Cabin
CADCCentral Air Data Computer
CAP Capture
CAPT, C/O, CCaptain
CAS Calibrated Airspeed
CAT Category; Clear Air
Turbulence
CAWS Central Aura Warning
System
CB, C/B Circuit Breaker
CBS Crew Broadcast System
CDA Continuous Descent Arrival
CDLConfiguration Deviation List

eneral Maintenance Manual
Revision: Original JUNE 01, 2010
CDUControl Display Unit
CFP Continue Flight Plan
CFIT. Controlled Flight into Terrain
CG Center of Gravity
CHAN Channel
CHGR Charger
CHKDChecked
CHR Chronograph
CI(S) Cabin Interphone (System)
CL Close
CLB Climb
CLP Central Load Planning
CLMPClamp
CLR Clear
CLSD Closed
CMDCommand
CMPTRComputer
CNSCommunication Navigation
Surveillance
CNXCancelled
COLL Collector
COMM Communication
COMP Compass
COMPT Compartment
CON Configuration
CONTContinuous
CONT'DContinued
CPAClosest Point of Approach
CPFT Computer Flight Plan Time
CPS Cycles per Second
CQT Continuing Qualification
Training
CRAF Civil Reserve Air Fleet
CRMCrew Resource Management
CRSČourse
CRZ
CSD Constant Speed Drive
CTR Center or Contour
CTNGCYContingency
CU Control Unit
CWS Control Wheel Steering
C S Condor Wheel Steering

## — D —

DADecision Altitude or Drift
Angle
DC Direct Current
D/D Driftdown
DEC, DECR
DECSDispatch Environmental
Control System
•
DEG Degree DEP, DEPT Departure
DESDescent
DEST Destination
DEST Desunation DET Detector
DEV Deviation
DFDR. Digital Flight Data Recorder
e e
DFGC Digital Flight Guidance
Computer
DFG(S)Digital Flight Guidance
(System)
DHDecision Height
DIFFDifferential
DIRDirect
DIS, DISTDistant
DISCDisconnect
DISCH Discharge
DKDeck
DMEDistance Measuring
Equipment
DNDown
DNTKFX Down Track Fix
DRDead Reckoning
DSPL, DSPYDisplay
DTGDistance to Go

— E —

EADI ..Electronic Attitude Director Indicator ECAP. Enhanced Crew Awareness Procedures

Revision: Original JUNE 01, 2010 EC(S).... Environmental Control (System) E/D . . . . . . . . . End of Descent EDP.....Engine Driven Pump or Engine Primary Hydraulic Pump E/E . . . . . . . . . . Electrical/Electronic EEC ....Electronic Engine Control EFI . . Electronic Flight Instruments EFI(S) Electronic Flight Instrument (System) EGPWS......Enhanced Ground **Proximity Warning System** EGT . . . . Exhaust Gas Temperature EICA(S)..Engine Indication & Crew Alerting (System) ELEC ..... Electrical ELEV . . . . . . . . Elevator or Elevation ELlb . . . . . . Electronic Library ELT..... Emergency Locator Transmitter ELV.... Elevation EMER, EMERG ..... Emergency ENG ......Engine ENT ..... Enter or Entry EPC . .... Electrical Power Center or **External Power Contactor** EPR. . . . . . . Engine Pressure Ratio EQPT, EQUIP. ..... Equipment ET ..... Elapsed Time® ETA . . . . Estimated Time of Arrival **ETOPS** Extended Range Operations EVAC. ..... Evacuation EXT. . . . . . . . . . . . . . . . External EXTIN .Extinguish or Extinguished EXTING..... Extinguishing

— F —

Revision: Original JUNE 01, 2010 — G —

° F Degrees Fahrenheit
F/A
FAAFederal Aviation
Administration
FADECFull Authority Digital
Engine Control
FAF Final Approach Fix
FAR. Federal Aviation Regulation
FCC Flight Control Computer
FCUFuel Control Unit
FDAU Flight Data Acquisition
Unit
FDEP Flight Data Entry Panel
FDR Flight Data Recorder
F/F Fuel Flow
FIM Fault Isolation Manual
FI(S)Flight Interphone (System)
FL
FLCH Flight Level Change
FLT
FLT DIR
FLUOR
FMAFlight Mode Annunciator
FMC(S)Flight Management
Computer (System)
FM(S) Flight Management (System)
F/O, FOFirst Officer
FOBFuel on Board
FOM Flight Operations Manual
FPM Feet per Minute
FREQ Frequency
FRM Fault Reporting Manual
F/SFast/Slow
FSEU Flaps/Slats Electronic
Unit
FTFeet
FWDForward

GA Go-Around
GALGallon(s) GBGenerator Breaker GENGenerator Breaker GMMGeneral Maintenance Manual GMTGreenwich Mean Time GNDGround GNSSGlobal Navigation Satellite
System GPMGallons per Minute GPUGround Power Unit GPSGlobal Positioning System GPWS . Ground Proximity Warning System
GR

-H-

HDGHeading
HDG SEL Heading Select
HF High Frequency (3-30MHz)
HG Mercury
HIHigh
HORHorizontal
HORZ Horizon
HOT Hold Over Time
HP . High Pressure or High Pressure
Compressor

hPAHectopascals HPSOVHigh PressureShutoff
Valve
HSIHorizontal Situation
Indicator
HTR Heater
HYD Hydraulic
HZHertz (Cycles per second)

— I —

IAF.....Initial Approach Fix IAP.....Instrument Approach Procedure IAS.....Indicated Airspeed IATA . . International Air Transport Association IATA Dangerous Goods Regulations IAW ..... In Accordance With ICA .. Instructions for continued Airworthiness ICU. . .. Instrument Comparator Unit IDENT ..... Identification IDG.... Integrated Drive Generator IDU. ... . . . . Interactive Display Unit IED. .. Improvised Explosive Device IFR. . . . . . Instrument Flight Rules IGN.....Ignition ILLUM . .Illuminate or Illuminated ILS . . ..Instrument Landing System IMC.....Instrument Meteorological Conditions IN.... Inch(es) INBD .....Inboard INCR .....Increase IND. ..... Indicator INIT ..... Initial INS. . . . Inertial Navigation System INST(S), INSTR. ... Instrument(s)

NT. . . . . . . . . . . . . . Interphone

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INTCIntercept
INT'L
INV Static Inverter
IOEInitial Operating Experience
IR(S) Inertial Reference (System)
IRU Inertial Reference Unit
IRO International Relief Officer
ISAInternational Standard
Atmosphere
ISCIn-flight Security Coordinator
ISDUInertial System Display Unit
ISLN Isolation
IVSI . Instantaneous Vertical Speed
Indicator

— J —

— K —
KKnot(s)
KCASKnots Calibrated Airspeed
KEASKnots Equivalent Airspeed
KG
KHZ Kilohertz (Kilocycles)
KIASKnots Indicated Airspeed

KT, KTS .	Knot(s)
KTAS	Knots True Airspeed
KVA	Kilovolt - Ampere
KW	Kilowatt(s)

#### — L —

L Left or Local Time
LAASLocal Area Augmentation
System
LAVLavatory
LB Pound
LCD Liquid Crystal Display
L/D
LDALocalizer Type Directional

#### — M —

MACMean Aerodynamic Chord
MAG Magnetic
MAINT Maintenance
MALF
MAN
MAXMaximum
MB Millibars
MC Magnetic Course
MCP Mode Control Panel
MCTMaximum Continuous
Thrust
MDAMinimum Descent Altitude
MEAMinimum Enroute IFR
Altitude

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]	MEC Main Engine Control
I	MED Medium
I	MELMinimum Equipment List
I	METAR Aviation Routine Weather
]	Report
I	MHZ
	MI Mile(s)
	MIC Microphone
	MIN
I	MISC Miscellaneous
I	MKR Marker
I	MLW Maximum Landing Weight
I	MM Middle Marker
I	M <sub>MO</sub> . Maximum Operating Speed in
I	Mach
I	MMRMulti-Mode Receiver
I	MOManeuvers Observation
	MOCMaintenance Operation
	Check
]	MOD Modification or Modified
]	MON
I	MPH Miles per Hour
	MSA Minimum Safe Altitude
I	MSG
I	MSL Mean Sea Level
I	MSP
I	M-SPD Manual Speed
]	MSU Mode Selector Unit
I	MTOWMaximum Takeoff Weight
l	MTCMaintenance Department
I	MTW Maximum Taxi Weight
l	MU
	MZFW Maximum Zero Fuel Weight

# — N —

ND Navigation Display NDB Nondirectional Beacon NEUT Neutral
NEGNegative
NGSNonTechnical Ground School
NLG NoseLanding Gear
NO
NORM Normal
NMNautical Mile
NTZ No Transition Zone NWS National Weather Service

-0-

OATOutside Air Temperature
OBS Observer
OCA Obstacle Clearance Altitude
OCCOperations Control Center
OEW Operating Empty Weight
OM Outer Marker
OP Open
OP Open OUTBD Outboard
-
OUTBD Outboard
OUTBD Outboard OVHD Overhead

— P —

PA. .Passenger Address or Pressure Altitude PASS ..... Passenger PAX ..... Passenger PBE ..... Protective Breathing Equipment PCA ..... Power Control Actuator PED .... Portable Electronic Device PERF. .... Performance PH .... Pilot's Handbook PIC. ..... Pilot In Command PIO. .... Pilot In Coscillation

Revision: Original JUNE 01, 2010 PLI . . . . . . . . . . . . . Pitch Limit Indicator PMC.. Power Management Control POS . . . . . . . . . Position or Positive PPH . . . . . . . . . . . . Pounds per Hour PPI.... Present Position Indicator PPOS. . . . . . . . . . . . Present Position PRES ..... Pressure PRM.. . . Precision Runway Monitor PROG..... Progress PROX..... Proximity P/RST..... Push to Reset PRV . . . . Pressure Regulating Valve P/S.... Pitot/Static PSI.... Pounds per Square Inch PSIG.....Pounds per Square Inch Gauge PSS . . Passenger Service Supervisor PSU ..... Passenger Service Unit PTT . . . . . . . . . . . . . . . . . Push To Talk PTU ..... Power Transfer Unit PWR.....Power PWS..Predictive Windshear Weather Radar System

# — Q —

QAR..... Quick Access Recorder QFE....Height Above Airport Based on Local Station Pressure QNE.....Altimeter Setting of 29.92• Hour 1013.2 Mb QNH .... Altitude Above Sea Level Based on Local Station Pressure QTY .....Quantity

— R —

Revision: Original JUNE 01, 2010 SAI . . . . . Standby Attitude Indicator SEI . . . . . Standby Engine Indicator SEL..... Select or Selector SELCAL ......Selective Cal SENS..... Sensitivity SERV ...... Service SG ..... Symbol Generator SID ...Standard Instrument Departure SI(S). . .Service Interphone (System) SITA ..... société Internationale de Télécommunications Aéronautiques S.L.. .....Sea Level SM . . . . . . . . . . . . . . . Statute Miles SMGCS . . . . Surface Movement Guidance System S/N ......Serial Number SP, SPD ..... Speed SPECI.....NONRoutine(Special) **Aviation Weather Report** SPDBRK.....Speed brake SRA .. Surveillance Radar Approach SSB ......Single Side Band SSLW.... Second Segment Limited Weight STAB. ..... Stabilizer STAR. . . Standard Terminal Arrival Route STBY .....Standby STC . . . . . Sensitivity Time Control STRG ..... Steering SYNC .......Synchronous SYS, (S) ..... System

— T —

ΤΑ	Traffic Advisory
TACAN	Tactical Air Navigation
ТАСН	Tachometer
TAF	Aerodrome Forecast

TAI	Thermal Anti-Ice
	True Airspeed
TAT .	Total Air Temperature
	Traffic Alert and Collision
	ince System
	Top of Descent
	Trailing Edge
	Temperature
Tech P	ubs/TPubsTechnical
Publica	
TFR	Transfer
	Technical Ground School
TGT .	Turbine Gas Temperature
THR H	OLD Throttle Hold
THRO	T
TIP .Te	erminal Identification Position
TC T	hrust Management Computer
	Thrust Management
(Syster	
	Thrust Mode Select Panel
	O., T/O Takeoff
	X
	Top of Climb
	, TOG Takeoff/Go-Around
	Takeoffs & Landings
	Takeoff Performance System
	Transformer Rectifier
TRI	Thrust Rating Indicator
	S Transition
	Track
	Transportation Security
	istration
	Engine Inlet Temperature
	Top Temperature Control
	TURBLTurbulence
or Turt	
TVOR	Terminal VOR

— U — Č
UAS Universal Access System
UNLKDUnlocked
UNSCHDUnscheduled
UPRUpper
UTCCoordinated Universal Time

— V —

VVolt(s)
$V_1 \dots \dots$ Takeoff Decision Speed
V1M, V <sub>1</sub> , MIN Minimum Go/No
Go Action Speed
$V_2$ . Scheduled Target Speed (T.O.)
VALValve
VCNTY Vicinity
VDPVisual Descent Point
VERT Vertical
V <sub>F</sub> Design Flap Speed
<sup>v</sup> FE Max Flap Extended Speed
<sup>v</sup> FTOFinal Segment Climb Speed
VGVertical Gyro
VHF Very High Frequency
(30 - 300 MHz)
VIB Vibration V <sub>1.F</sub> Max Landing Gear Extended
Speed
VFR; Visual Flight Rules
VLO Maximum Landing Gear
Operating Speed
V <sub>LOF</sub> Lift-Off Speed
VLV
VMCVisual Meteorological
Conditions
VMCMinimum Control Speed With
Critical Engine Inop.
V <sub>MCG</sub> Ground Minimum Control Speed
V <sub>MO</sub> Maximum Operating Limit Speed
VNAV, V NAVVertical Navigation
VOLVolume

Revision: Original JUNE 01, 2010

VOR VHF Omni-Directional Range VORTAC. .VOR and TACAN Co-located VOX ...... Voice VOR LOC, VOR/LOC... VOR Localizer

— W —

W.....Warm WAAS.. Wide Area Augmentation System WAGS......Windshear Alerting & Guidance System WARN .....Warning WB.....Weight & Balance WGT.....Weight & Balance WGT.....Weight WND.....Wind WPT....Wind WPT....Windshear WT....Weight W/W....Wheel Well WX, WXR....Weather

— X —	
XFER	Transfer
XMIT	Transmit
XMTR	Transmitter
XTK	Crosstrack
XPDR	Transponder

# — Y —

Y/D.....Yaw Damper

-Z-

Z.... Coordinated Universal Time

ZFW....Zero Fuel Weight